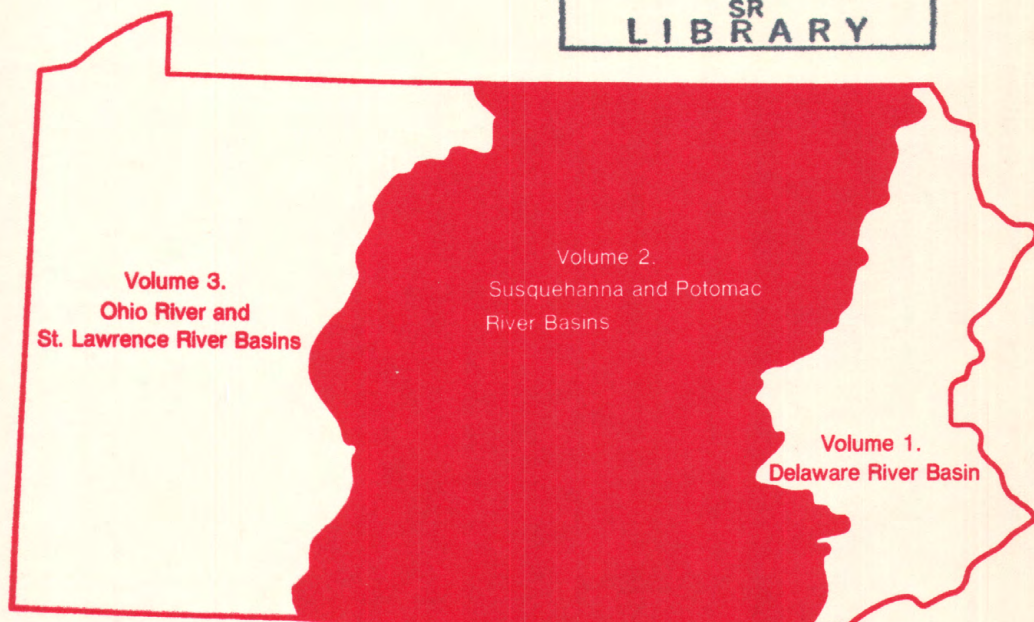
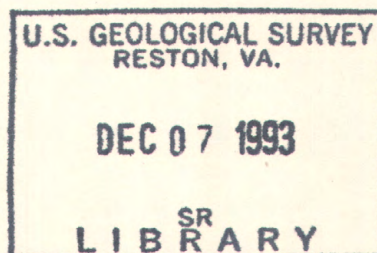


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Water Resources Data Pennsylvania Water Year 1992

Volume 2. Susquehanna and Potomac River Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-92-2
Prepared in cooperation with the Pennsylvania Department
of Environmental Resources, the U.S. Army Corps of
Engineers, Baltimore District, the Susquehanna
River Basin Commission, and with other State,
municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1992

1991

OCTOBER

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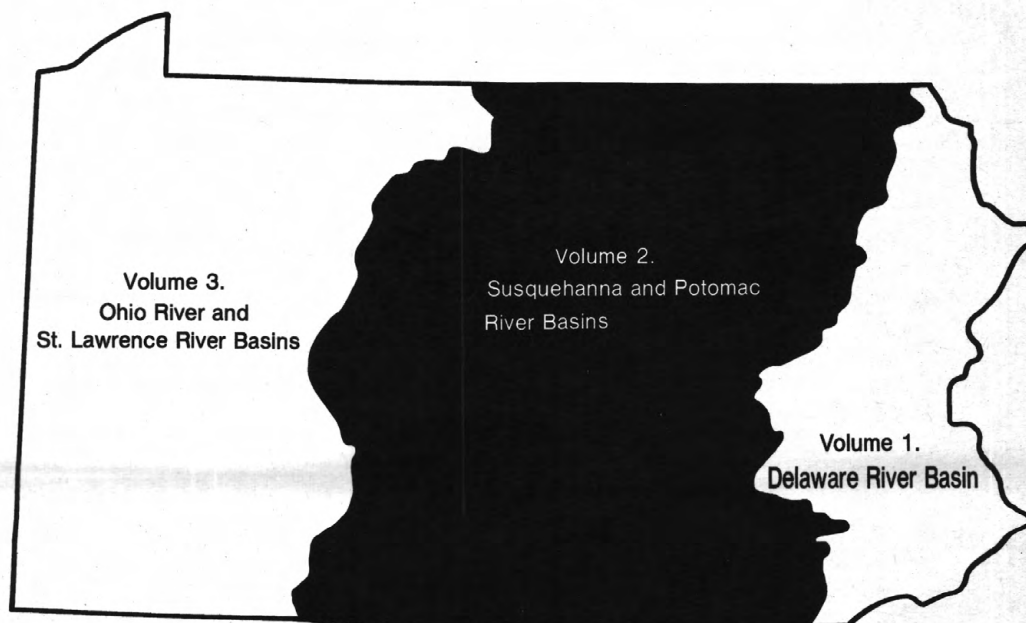
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27	28	29	30			



Water Resources Data Pennsylvania Water Year 1992

Volume 2. Susquehanna and Potomac River Basins

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-92-2

Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the U.S. Army Corps of Engineers, Baltimore District, the Susquehanna River Basin Commission, and with other State, municipal, and Federal agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

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

1993

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

J. K. Bender	J. D. Hollenbach	J. M. Nantz
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C. A. Cravotta	D. G. Kelley	L. A. Reed
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9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 840 Market Street Lemoyne, PA. 17043		10. Project/Task/Work Unit No.	
		11. Contract(C) or Grant(G) No. (C) (G)	
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 840 Market Street Lemoyne, PA 17043		13. Type of Report & Period Covered Annual Oct. 1, 1991 to Sept. 30, 1992	
		14.	
15. Supplementary Notes Prepared in cooperation with the Commonwealth of Pennsylvania and other agencies.			
16. Abstract (Limit: 200 words) Water resources data for the 1992 water year for Pennsylvania consist of records of discharge and water quality of streams; contents and elevations of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, Volume 2, includes records from the Susquehanna and Potomac River basins. Specifically, it contains (1) discharge records for 85 continuous-record streamflow-gaging stations and 38 partial-record stations; (2) elevation and contents records for 13 lakes and reservoirs; (3) water-quality records for 12 streamflow-gaging stations and 48 ungaged streamsites; and (4) water-level records for 25 observation wells. The location of these sites is shown in figures 7-9. Additional water data collected at various sites not involved in the systematic data-collection program are also presented. These data together with the data in Volumes 1 and 3, represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.			
17. Document Analysis a. Descriptors *Pennsylvania, *Hydrologic data, *Ground water, *Surface water, *Water quality, Gaging stations, Streamflow, Flow Rates, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Water analysis, Water levels, Water wells, Data collection sites. b. Identifiers/Open-Ended Terms c. COSATI Field/Group			
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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, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents, (r) radiochemical.]

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(Letter after local well number designates type of data: (l) water level, (c) chemical)

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WATER RESOURCES DATA - PENNSYLVANIA, 1992

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (listed by river basin 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 partial-record stations. Discontinued stations with less than 3 years of record have not been included. 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)
SUSQUEHANNA RIVER BASIN			
Anna S mine discharge #1 near Antrim	01548416	mine discharge	1978-81
Antes Creek near Jersey Shore	01549755	53.3	1974-77
Applemans Run above Light Street	01539200	1.72	1972-74
Applemans Run below Light Street	01539210	1.99	1972-74
Aughwick Creek near Orbisonia	01564000	174	1930-38
Bald Eagle Creek near Fawn Grove	01577400	.43	1986-89
Beck Creek near Cleona	01573086*	7.87	1963-81
Blockhouse Creek at Buttonwood	01549300	22.3	1973-77
Blockhouse Creek tributary at Liberty	01549100	1.08	1973-77
Bowery Run near Quarryville	01578400*	5.98	1963-81
Bradley Run near Ashville	01541308	6.77	1968-80
Brush Creek at Gapsville	01561000*	36.8	1930-58
Brush Run, Site 2, near McSherrystown	01573810	.38	1985-91
Butler Creek at Gibson	01533800*	7.38	1974-79
Cocolamus Creek near Millerstown	01566500	57.2	1931-58
Codorus Creek at Pleasureville	01575585	267	1985-90
Conodoguinet Creek tributary No. 1 near Enola	01570100	.77	1969-76
Conodoguinet Creek tributary No. 2 near Enola	01570200	.76	1969-76
Conodoguinet Creek tributary No. 2A near Enola	01570230	.70	1969-76
Conodoguinet Creek tributary No. 2B near Enola	01570260	.65	1969-76
Conodoguinet Creek tributary No. 3 near Enola	01570300	.38	1969-76
Crooked Creek at Tioga	01518500	122	1954-74
Dunning Creek at Yount	01560500	191	1930-39
East Branch Chillisquaque Creek near Washingtonville	01553600	9.48	1960-78
East Branch Codorus Creek tributary near Winterstown	01574800*	5.17	1969-75
Elk Run near Mainesburg	01517000	10.2	1955-78
Fishing Creek at Bloomsburg	01540000*	355	1914-28
Grafius Run at Williamsport	01551000	3.14	1940-53
Great Trough Creek near Marklesburg	01562500	84.6	1930-57
Hunter Drift discharge near Antrim	01548418	mine discharge	1978-81
Kishacoquillas Creek at Reedsville	01565000*	164	1940-70, 1984-85
Lackawanna River at Moosic	01535500	264	1914-28
Larrys Creek at Cogan House	01549780	6.80	1961-78

WATER RESOURCES DATA - PENNSYLVANIA, 1992
 DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
SUSQUEHANNA RIVER BASIN--Continued			
Little Conestoga Creek, Site 3A, near Morgantown	0157608335	1.42	1984-91
Little Fishing Creek at Evers Grove	01539500*	56.5	1941-58
Little Juniata River at Tipton	01556500	93.7	1946-62
Little Juniata River near Tyrone	01557000	101	1940-45
Little Lost Creek at Oakland Mills	01565700*	6.52	1964-81
Little Nescopeck Creek tributary near Freeland	01538510	mine discharge	1974-79
Lower Little Swatara Creek at Pine Grove	01572000*	34.3	1920-32, 1981-84
Manada Creek at Manada Gap	01573500	13.5	1938-58
Middle Br. Wyalusing Creek trib. near Birchardsville	01532850*	5.67	1965-79
Mitchell Mine discharge #2 near Antrim	01548413	mine discharge	1978-81
Muddy Creek at Castle Fin	01577500*	133	1929-38, 1968-71
Nescopeck Creek near St. Johns	01538500*	49.0	1920-26
North Bald Eagle Creek at Milesburg	01546000	119	1911-28, 1934
North Branch Mehoopany Creek near Lovelton	01533500*	35.2	1941-58
N. Branch Sugar Creek trib. near Columbia Crossroads	01531250	8.83	1963-68
North Fork Beech Creek near Snow Shoe	01547770	20.8	1969-70
Paxton Creek near Penbrook	01571000*	11.2	1940-50, 1985-89
Pequea Creek at Martic Forge	01576787*	148	1977-81
Pequea Creek tributary near Mt. Nebo	01576788	0.20	1979-86
Pine Creek near Waterville	01549000	750	1909-20
Raystown Branch Juniata River near Huntingdon	01563000	957	1947-71
Sand Spring Run near White Deer	01553130*	4.93	1968-81
Schell Run at Tyrone	01557100	1.68	1958-62
Shaver Creek near Petersburg	01558500*	46.4	1930-38
Solomon Creek at Wilkes-Barre	01537500	15.7	1940-90
South Branch Tunkhannock Creek near Montdale	01533950*	12.6	1961-78
South Fork Beech Creek near Snow Shoe	01547800*	12.2	1969-81
Spring Creek near Bellefonte	01547000	136	1911-19
Standing Stone Creek near Huntingdon	01559500*	128	1930-58
Steam Valley Run at Buttonwood	01549350	5.34	1973-77
Stony Creek above Pump-storage Reservoir near Dauphin	01568700	11.5	1974-80
Stony Creek at Water Tank Trail near Dauphin	01568750*	21.9	1974-76, 1985-86
Stony Creek near Dauphin	01569000	33.2	1938-45, 1967-74
Sulphur Springs Creek near Manns Choice	01559700*	5.28	1962-78
Susquehanna River near McCall's Ferry	01577000	26800	1904-11
Swarr Run near Landisville	01576697	8.67	1985-89

WATER RESOURCES DATA - PENNSYLVANIA, 1992
DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
SUSQUEHANNA RIVER BASIN--Continued			
Swatara Creek above highway bridge 895 at Pine Grove	01571919	72.6	1982-84
Swatara Creek below Ravine	01571827	46.3	1985-87
Swatara Creek near Suedberg	01572030	124	1985-87
Trexler Run near Ringtown	01540200*	1.77	1963-81
Tuscarora Creek near Port Royal	01566000*	214	1911-58
White Deer Creek above Sand Spring Run near White Deer	01553120	17.8	1968-73
White Deer Creek near White Deer	01553140	40.0	1968-73
Wilson Creek above Sand Run near Antrim	01548408	12.6	1978-82
POTOMAC RIVER BASIN			
Conococheague Creek near Fayetteville	01614090*	5.05	1961-81
Evitts Creek near Centerville	01603500	30.2	1933-82
Licking Creek near Sylvan	01613500*	158	1930-41
Wills Creek below Hyndman	01601000*	146	1951-67

WATER RESOURCES DATA - PENNSYLVANIA, 1992

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 shown for each constituent. Discontinued stations with less than 3 years of record, or stations with data collection less than daily, have not been included. If a station had one constituent with 3 or more years of record, all constituents having daily values will be listed for that station regardless of the length of record. Stations with an asterisk (*) after the station number are currently operated as partial-record stations. Information regarding these stations may be obtained from the District Office at the address given on the back of the title page of this report.

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

Discontinued continuous-record water-quality stations

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
SUSQUEHANNA RIVER BASIN				
Applemans Run above Light Street	01539200	1.72	Turb, Sed	1972-74
Applemans Run below Light Street	01539210	1.99	Turb, Sed	1972-74
Bald Eagle Creek at Blanchard	01547500	339	Temp ^c Temp ^a Temp ^a Sed	1957 1967-81 1982-85 1956-58
Bald Eagle Creek below Spring Creek at Milesburg	01547200	265	Temp ^c Temp ^c Sed	1956-58 1967-68 1956-58
Bald Eagle Creek near Milesburg	01547400	296	Temp ^a	1967-90
Basswood Run near Antrim	01548417	.57	Sed	1978-80
Beech Creek at Monument	01547950	152	SC ^a pH ^a Temp ^a DO ^a	1969-80 1976-78
Bixler Run near Loysville	01567500	15.0	Temp ^c Temp ^c Sed	1957-62 1963-65 1954-71
Blockhouse Creek at Buttonwood	01549300	22.3	Temp ^a Turb, Sed	1973-77 1973-77
Blockhouse Creek near English Center	01549500	37.7	Temp ^a Turb, Sed	1973-77 1973-77
Blockhouse Creek tributary at Liberty	01549100	1.08	Temp ^a Turb, Sed	1973-77 1973-77
Conestoga River at Lancaster	01576500	324	SC Temp Sed	1948-50, 1964-70, 1974-75 1948-50, 1959-70, 1974-75 1974-75
Conodoguinet Creek tributary No. 1 near Enola	01570100	.77	Turb Sed	1972-75 1969-76
Conodoguinet Creek tributary No. 2 near Enola	01570200	.76	Turb Sed	1973-75 1973-76
Conodoguinet Creek tributary No. 2A near Enola	01570230	.70	Turb Sed	1973-75 1973-76
Conodoguinet Creek tributary No. 2B near Enola	01570260	.65	Turb Sed	1973-75 1973-76
Conodoguinet Creek tributary No. 3 near Enola	01570300	.38	Turb Sed	1972-75 1969-76
Corey Creek near Mainesburg	01516500	12.2	Temp ^c Temp Sed	1960-61 1959, 1962 1954-67 ^b

^a Max, Min, Mean values.

^b Most years.

^c Max, Min values.

WATER RESOURCES DATA - PENNSYLVANIA, 1992

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Discontinued continuous-record water-quality stations--Continued

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
SUSQUEHANNA RIVER BASIN				
Cowanesque River near Lawrenceville	01520000	298	Temp ^a	1972-86
Elk Run near Mainesburg	01517000	10.2	Temp ^c Temp Sed	1958-59 1957, 1960-62 1955-67
Fishing Creek near Bloomsburg	01539000	274	Sed	1967-69
Juniata River at Huntingdon	01559000	816	Temp	1948-51 1981-86 ^b
Lackawanna River at Old Forge	01536000	332	Temp	1949-51
Lower Little Swatara Creek at Pine Grove	01572000	34.3	SC Temp, Sed	1981, 1983-84 1981-84
Marsh Creek at Blanchard	01547700	44.1	Temp Sed	1957 1956-58
R. Br. Juniata R. below Rays. Dam near Huntingdon	01563200	960	Temp ^a	1978-86 ^b
Raystown Branch Juniata River near Huntingdon	01563000	957	Temp	1947-50
Shamokin Creek near Shamokin	01554500	54.2	Temp	1959-61
Sherman Creek at Shermans Dale	01568000	200	Temp ^c	1954-56
Steam Valley Run at Buttonwood	01549350	5.34	Temp ^a Turb, Sed	1973-77 1973-77
Stony Creek at Water Tank Trail near Dauphin	01568750	21.9	Temp ^c	1974-76
Susquehanna River at Danville	01540500*	11220	SC Temp Sed	1946-52, 1963-76, 1948-53, ^b 1957-70, 1975-76 1974-76
Susquehanna River at Falls	01534090	9440	SC Temp	1945-51 1947-53
Susquehanna River at Harrisburg	01570500*	24100	SC, ^a pH, ^a Temp, ^a DO ^a Sed	1974-79 1964-81 ^b
Susquehanna River at Towanda	01531500*	7797	Sed	1951-54
Swatara Creek above Hwy bridge 895 at Pine Grove	01571919	72.6	SC Temp Sed	1983-84 1982-84 1982-84
Swatara Creek at Harper Tavern	01573000	337	SC Temp Sed	1977-79 1959-61, 1977-79 1959-60, 1977-79
Tioga River at Tioga Junction	01518700	446	SC, ^a pH, ^a Temp, ^a DO ^a	1977-88
Tioga River near Mansfield	01516350	153	SC, ^a pH, ^a Temp, ^a DO ^a	1977-88 ^b 1977-78

^a Max, Min, Mean values.^b Most years.^c Max, Min values.

WATER RESOURCES DATA - PENNSYLVANIA, 1992

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Discontinued continuous-record water-quality stations--Continued

Station name	Station number	Drainage area (mi ²)	Type of Record	Period of record (water years)
SUSQUEHANNA RIVER BASIN				
West Branch Susquehanna River at Bower	01541000	315	Sed	1964-67
West Branch Susquehanna River at Lewisburg	01553500*	6847	SC, Temp	1944-53, ^b 1957-58, 1975-76
			Sed	1975-76
West Branch Susquehanna River at Lock Haven	01545800	3337	SC	1946-51, 1959, 1964-72
			pH Temp	1963-72 1946-51, 1958-72
West Branch Susquehanna River at Renovo	01545500	2975	SC, ^a pH, ^a Temp ^a DO ^a	1967-88 ^b 1975-78
West Branch Susquehanna River at Williamsport	01551500	5682	SC, ^a pH, ^a Temp ^a	1980-88 ^b
Wilson Creek above Sand Run near Antrim	01548408	12.6	Sed	1978-82

^a Max, Min, Mean values.^b Most years.

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, municipal, and Federal agencies, collects a large amount of data pertaining to the water resources of Pennsylvania each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Pennsylvania, Volumes 1, 2, and 3." Volume 1 contains data for the Delaware River Basin; Volume 2, the Susquehanna and Potomac River Basins; and Volume 3, the Ohio River and St. Lawrence River Basins.

This report, Volume 2, specifically contains: (1) discharge records for 85 continuous-record streamflow-gaging stations, 16 partial-record stations, and 22 special study and miscellaneous streamflow sites; (2) elevation and contents records for 13 lakes and reservoirs; (3) water-quality records for 12 stream-gaging stations, and 53 ungaged stream sites; and (4) water-level records for 25 ground-water observation wells. Additional water data collected at various sites not involved in the systematic data-collection program are also 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-92-2." 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. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. 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.

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, and 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 annually 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 Scientific Publications and 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. Mauer, Director;
- Bureau of Water Quality Management, Daniel B. Drawbaugh, Director;
- Bureau of Land and Water Conservation, Victor C. Funk, Director (Acting);
- Office of Mineral Resources Management, Terry R. Fabian, Deputy Secretary;
- Bureau of Mining and Reclamation, Ernest F. Giovannitti, Director.
- Office of Parks and Forestry, James R. Grace, Deputy Secretary;
- Bureau of Topographic and Geologic Survey, Donald M. Hoskins, Director;
- Office of Management and Technical Services, Peter J. Adams, Deputy Secretary;
- Bureau of Laboratories, Floyd D. Kefford, Director.

Susquehanna River Basin Commission, Paul O. Swartz, Executive Director.

University Area Joint Authority, David A. Allison, Chairman.

Letort Regional Authority, Kenwood E. Giffhorn, Executive Director.

City of Harrisburg, Stephen R. Reed, Mayor.

Federal Energy Regulatory Commission Licensees:
Susquehanna Electric Co.,
Safe Harbor Water Power Corp.

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

Corps of Engineers, U.S. Army, Baltimore District, in collecting records for 25 streamflow-gaging stations, 11 reservoir stations, and 4 crest-stage gages;

National Weather Service, NOAA, U.S. Department of Commerce;

The following organizations aided in collecting records: City of Lancaster, City of Lebanon, Hershey Chocolate U.S.A., Mechanicsburg Water Co., P.H. Glatfelter Co., Pennsylvania American Water Co., Pennsylvania Gas and Water Co., and York Water Co.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The Susquehanna River flows generally southward from southern New York to the Chesapeake Bay in Maryland. At the point where the river enters Maryland, it drains 27,215 mi² (square miles). Most of this area, 20,962 mi², is in central Pennsylvania. Streams in the basin are located in the Appalachian Plateau, Valley and Ridge, and Piedmont major physiographic provinces. The underlying geology includes rocks of Precambrian to Triassic age.

Precipitation and Streamflow

Annual precipitation for the Susquehanna River Basin in central Pennsylvania was about 95 percent of normal, although it varied from below normal in the central to above normal in the northern and southwestern parts of the basin. Precipitation was below normal in the National Oceanic and Atmospheric Administration's (NOAA) Climatological Divisions 4, 5, and 8; precipitation in Divisions 6 and 7 was above normal. (See figs. 1 and 2 for map showing location of NOAA Divisions and graphs showing departures from normal precipitation, respectively.) NOAA Division 8 had the greatest precipitation deficiency at 86 percent of normal; NOAA Division 6 had the greatest surplus at 104 percent of normal. All of the basin received below-normal precipitation for 5 months of the year; October, January, February, April, and June. Of the below-normal months, the greatest monthly deficiencies were in October and June when precipitation averaged 1.14 and 1.58 inches below normal, respectively. The largest single monthly deficiency was 1.93 inches (48 percent) less than normal in Division 7 in June. The deficiencies were offset by above-normal precipitation in all five Divisions during the months of December, March, July, and September. July was the wettest month when precipitation averaged 2.67 inches above normal for the five Divisions.

Figure 1, in addition to showing NOAA Divisions, shows locations of selected streamflow-gaging stations and a graphical comparison of the October 1991 and July 1992 precipitation with the normal for those two months. The precipitation data of figure 2 are from NOAA (U.S. Department of Commerce, 1991-92) and National Weather Service records.

Five U.S. Geological Survey (USGS) streamflow-gaging stations in NOAA Divisions 4-8 were selected as indicators of streamflow conditions basinwide. Monthly mean streamflows during the first quarter of the water year continued to show the effects of the drought that began during the summer of 1991. Streamflows were at or below the 25th percentile in four of the five NOAA Divisions during the month of October (fig. 3). New historical minimum mean monthly discharges were recorded at numerous stations for the months of October and November. All of the new minimums were at streamflow-gaging stations with 27 years or less of record. This indicates the drought of 1991-92 was the worst since the previous drought of 1961-67, but did not exceed it in magnitude.

Streamflows in general remained below normal until spring. Above-normal precipitation basinwide during March allowed for streamflows to recover to normal and remain near normal through June. Above normal precipitation basinwide during July caused streamflows to exceed the 75th percentile in all but the Juniata River Basin (fig. 3). The July mean monthly discharge for the West Branch Susquehanna River at Lewisburg was the fifth highest recorded in 55 years of record. New historical monthly maximums were recorded for the months of July and August at a number of stations in the central part of the West Branch Susquehanna River Basin. This area, which encompasses NOAA Division 7, had precipitation amounts that exceeded 5 inches above normal during July (fig. 2).

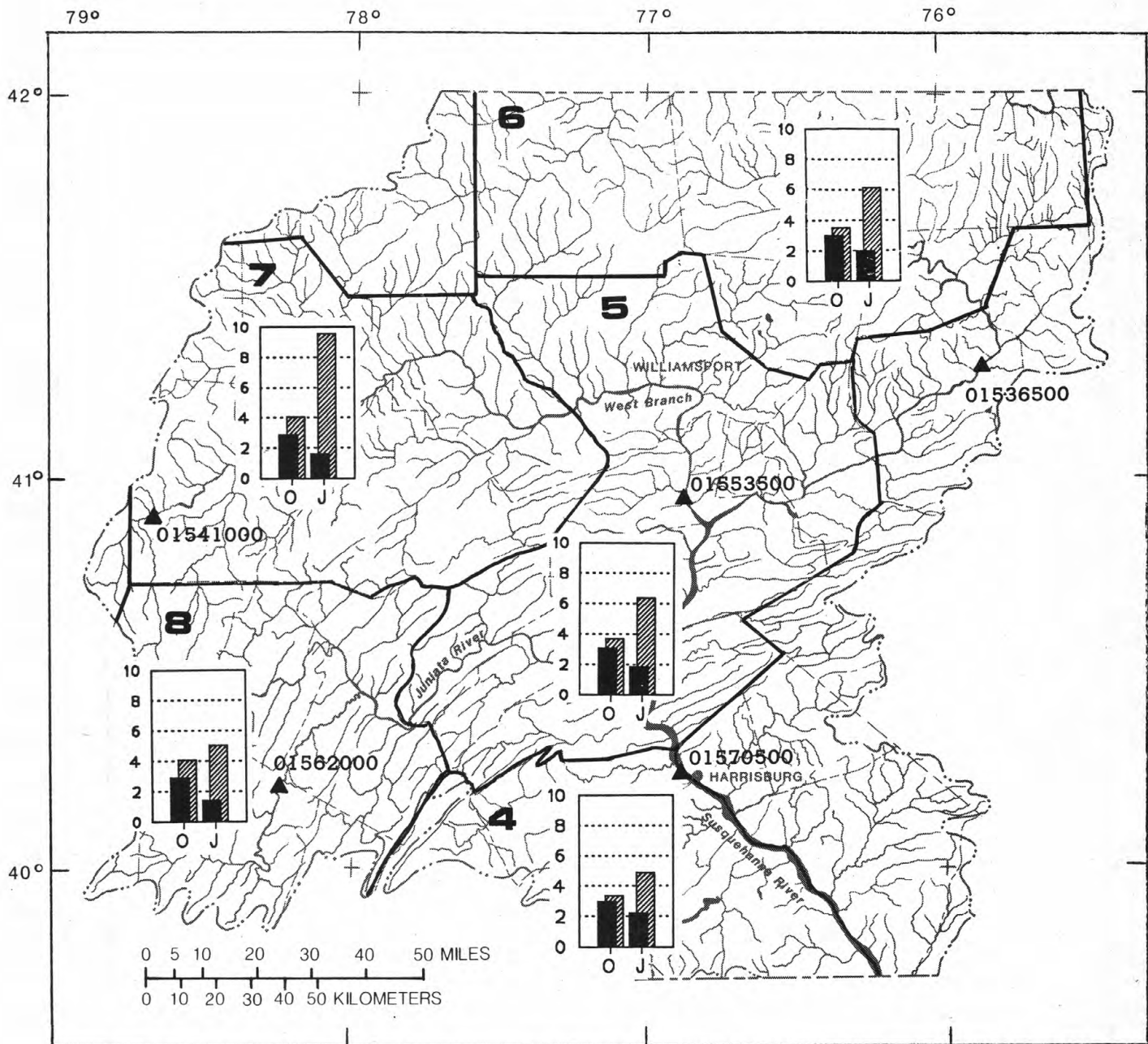
The water year ended with above normal precipitation basinwide during September. This provided good recharge to the surface-water and ground-water systems. Flows in general were much above normal for the month of September reducing concern of the drought continuing into the following water year.

Surface-Water Quality

Surface-water-quality data collected at four selected network stations in the 1992 water year were compared to data collected at these stations during the period 1975-91. Selected trace-element data also were evaluated and included in the comparison.

For the purpose of this analysis, constituent concentrations analyzed as less than the detection limit were set to one-half the detection limit. Mean concentrations for the water-quality samples collected during the 1992 water year were then compared with the interquartile values for the period 1975-91. For the 1992 water year, mean concentrations for dissolved iron were below the long-term medians at three of the four stations. For the Susquehanna River at Harrisburg, the mean concentration of dissolved aluminum was below the 25th percentile, and the mean pH was near the 25th percentile. Mean concentrations of dissolved calcium were above the long-term median at three of the four stations (fig. 4).

SUSQUEHANNA RIVER BASIN



EXPLANATION

- NORMAL PRECIPITATION, IN INCHES
- ▨ MONTHLY PRECIPITATION, IN INCHES
- O OCTOBER 1991
- J JULY 1992
- NOAA CLIMATOLOGICAL DIVISION BOUNDARY
- BASIN BOUNDARY
- 01536500 ▲ STREAMFLOW STATION AND NUMBER

Figure 1.--Comparison of October 1991 and July 1992 precipitation with normal October and July precipitation near five streamflow stations in NOAA Climatological Divisions 4-8.

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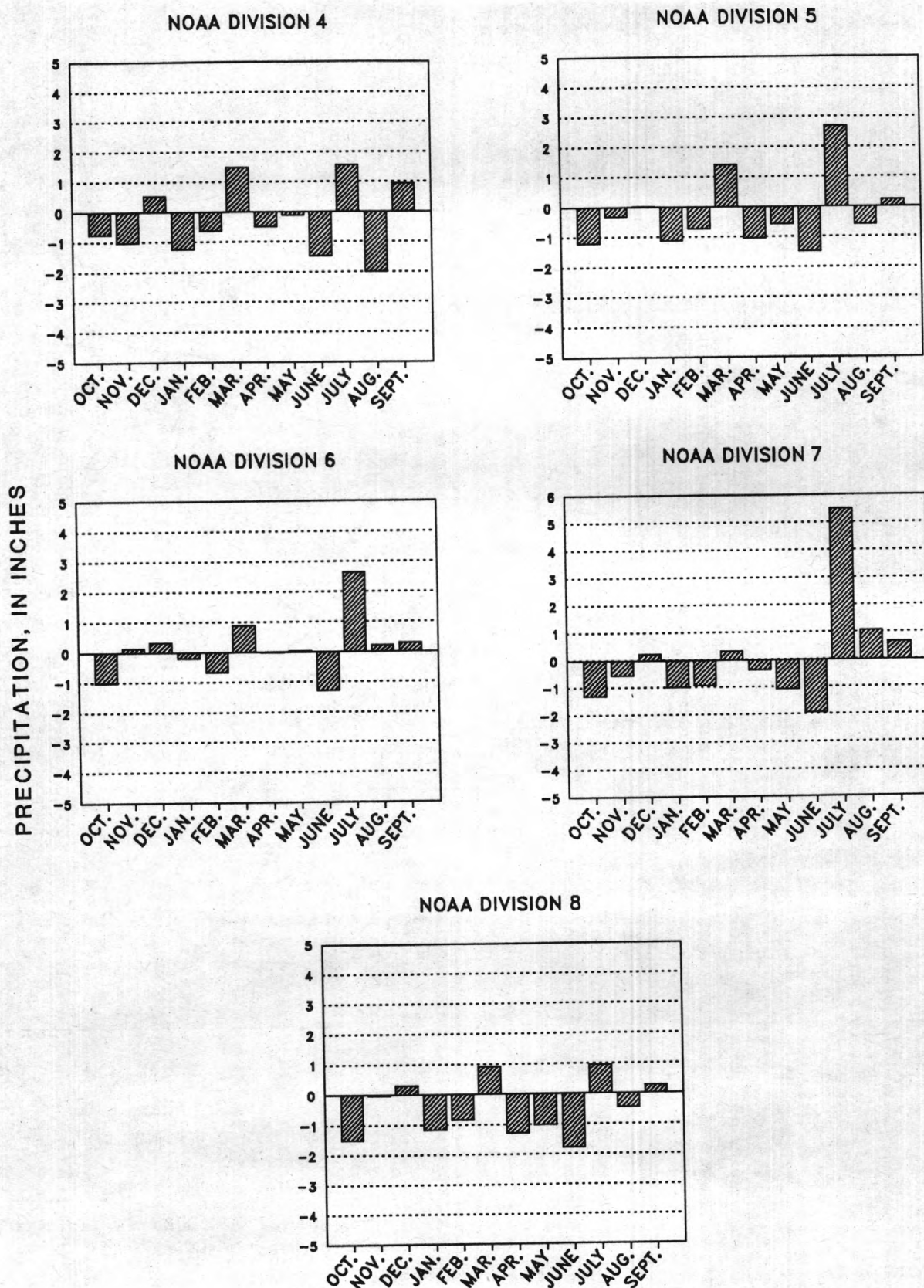
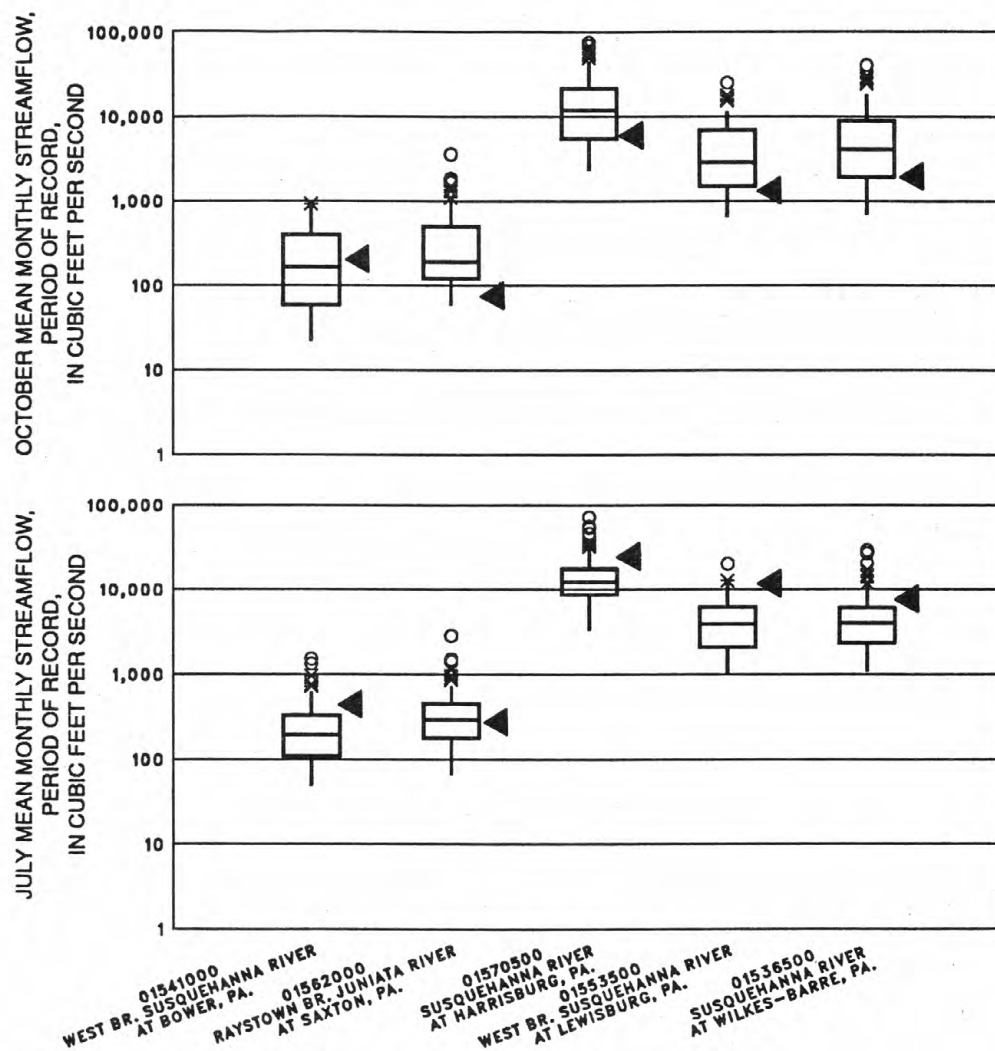


Figure 2.--Departures from normal precipitation by NOAA Divisions in the Susquehanna River Basin for the 1992 water year.



EXPLANATION

- FAR OUTSIDE VALUE
- ◄ 1992 MEAN DISCHARGE
- ✱ OUTSIDE VALUE
- └ 95th PERCENTILE
- ▤ 75th PERCENTILE
- ▬ MEDIAN
- ▤ 25th PERCENTILE
- └ 5th PERCENTILE

Figure 3.--Range of discharge for the period of record for the months of October and July compared to the October 1991 and July 1992 mean discharges at five selected streamflow stations.

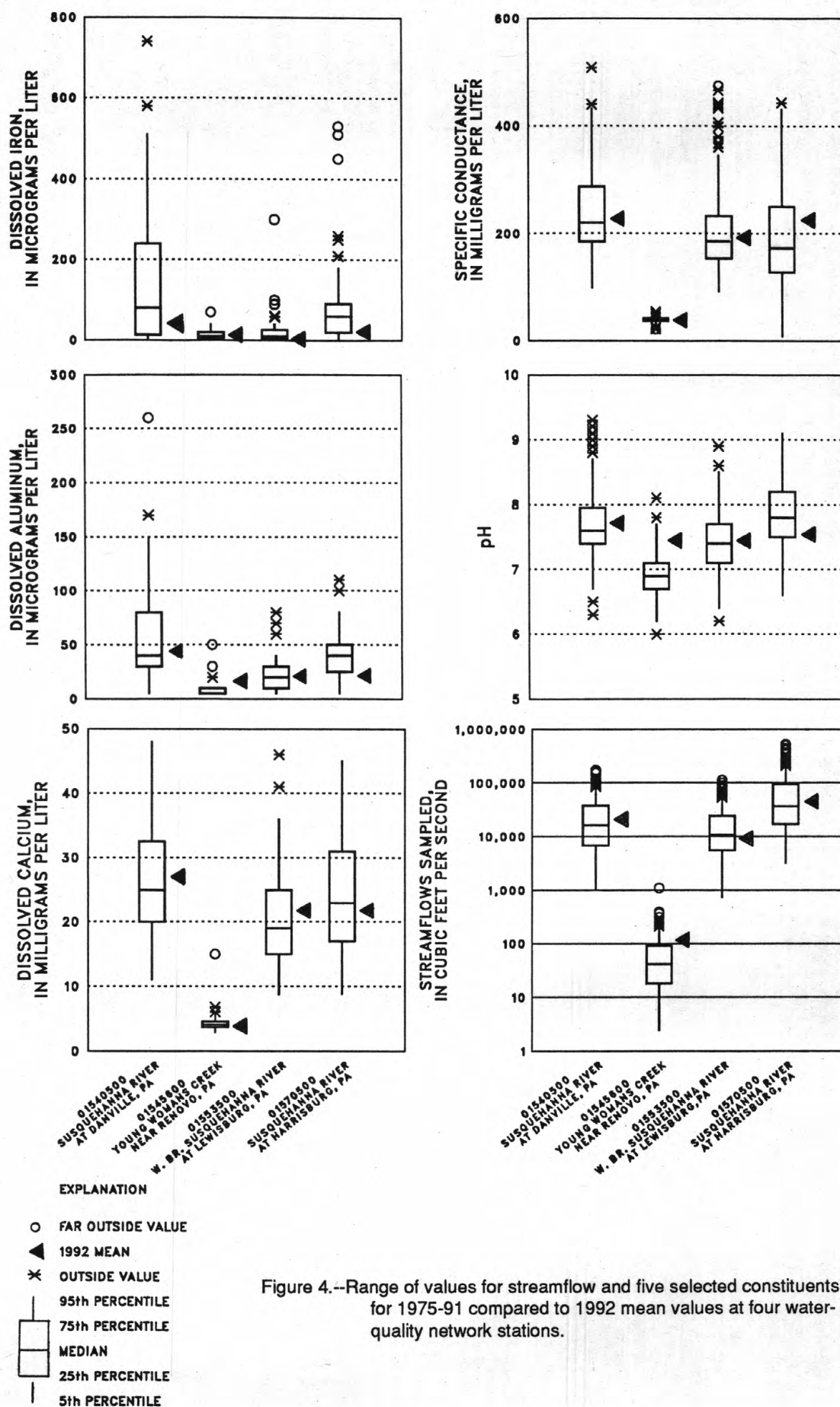


Figure 4.—Range of values for streamflow and five selected constituents for 1975-91 compared to 1992 mean values at four water-quality network stations.

Ground Water

Conditions

The table below presents ground-water-level data for seven wells in the Susquehanna River Basin. At each well, the daily maximum water-level depth below land surface was recorded. The table shows the least, greatest, and average daily maximum depth below land surface for the period of record, as well as the 1992 water year average daily maximum depth below land surface and departure from the long-term average.

Well	County	Years of Record	Maximum depth below land surface				Departure* 1992 WY
			Least	Greatest	Average	Average (1992 WY)	
			------(feet)-----				
BR-92	Bradford	26	1.33	11.99	8.52	9.39	-0.87
CM-13	Cameron	25	18.53	25.98	23.38	23.19	+ .19
DA-350	Dauphin	28	1.15	6.95	4.93	5.05	- .12
FR-332	Franklin	17	12.30	36.68	28.45	28.47	- .02
HU-301	Huntingdon	23	48.82	55.96	53.84	54.20	- .36
LU-243	Luzerne	37	36.08	64.76	53.43	53.45	- .02
UN-51	Union	25	25.26	42.24	38.22	38.90	- .68

* Departure of 1992 WY levels from long-term average.

As indicated by the table, departures from the long-term average levels show a negative departure throughout most of the basin during the year. The continuing effect of the extreme drought conditions from the previous summer season, as well as below normal precipitation for October and November, caused the 1992 average water levels to be below the long-term average. Much above normal precipitation for the month of July in NOAA Division 7 was the cause for the Cameron County (CM-13) well average to be above the long-term average.

Figure 5 shows the relation between the 1992 water year seasonal mean ground-water levels and long-term seasonal mean ground-water levels. Ground-water levels during the water year reflect closely the seasonal precipitation variations. As previously shown, precipitation was above normal during December, March, July, and September in the entire basin. Precipitation was below normal throughout most of the basin for the remainder of the year. During the fall and into the winter season, ground-water levels were below normal at 17 of 25 observation wells within the basin. Of the below normal levels, 11 were much below normal for the fall season. Spring and summer water levels began to show a recovery from the below normal conditions. During the spring season, 17 of 25 observation wells within the basin were at normal or above normal levels. The summer season records indicate that 21 of 25 observation wells were at normal or above normal levels. Of these 21 wells, 8 were above or much above normal. New historical minimum water levels were recorded at the Luzerne (LU-243) and the Lycoming (LY-112) wells. No new historical maximums were recorded.

Quality

The geologic environment in which ground-water occurs controls the availability of the water and its natural quality. The Susquehanna River Basin is underlain predominantly by shale, sandstone, and limestone, and its aquifers are varied in composition and water-yielding properties. Within the basin, adjacent aquifers have poor hydraulic continuity. For this reason, changes in ground-water quantity or quality generally are related only to factors that affect that particular aquifer. Additionally, hydrologic conditions in some aquifers depend on conditions in the overlying soils.

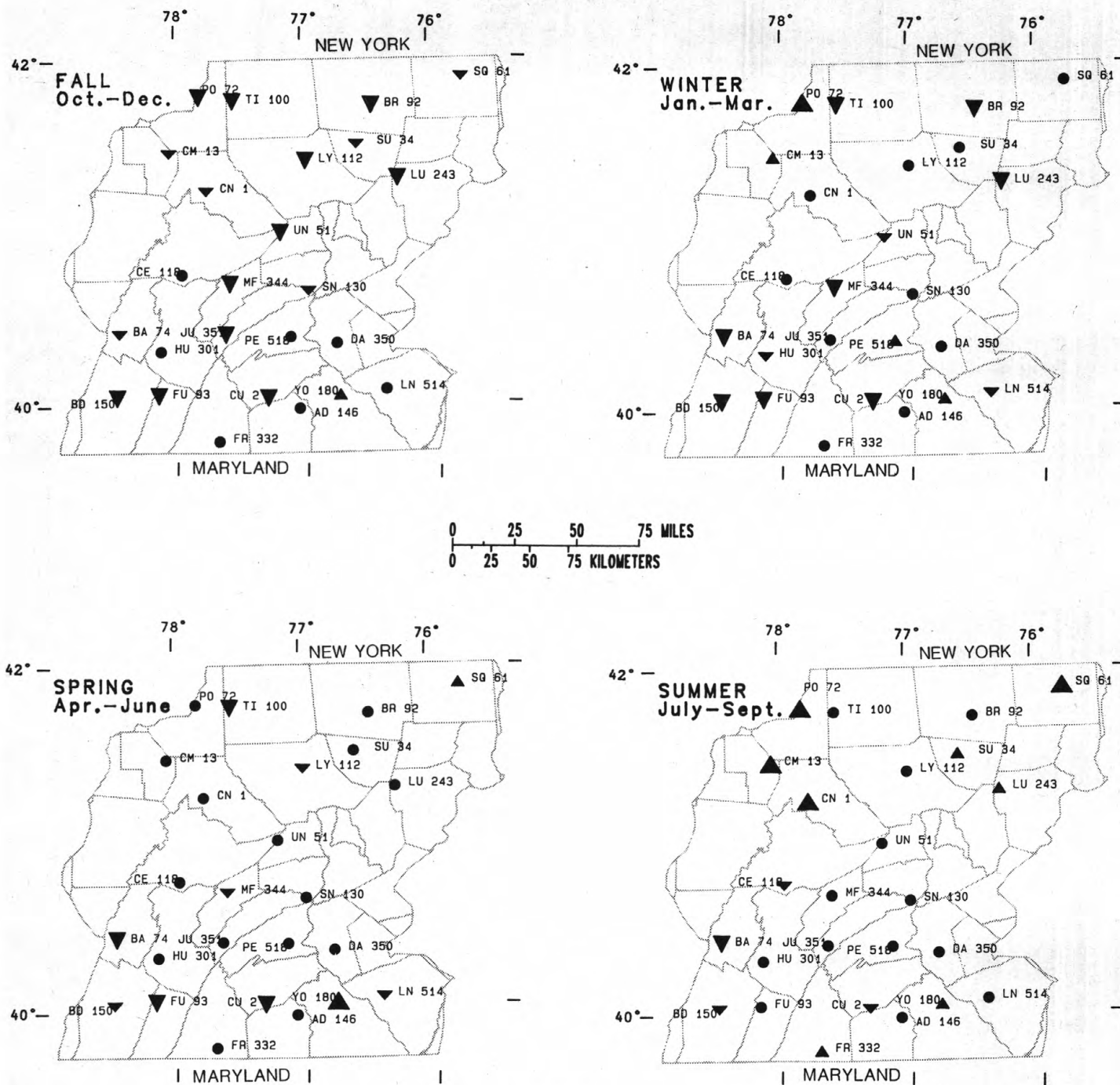
Barker (1987) stated that natural ground-water quality in Pennsylvania is extremely diverse because of the large number of rock formations and their lithologic and chemical differences. Because of Pennsylvania's complex geologic history, ground-water basins are limited in areal extent and bedrock aquifers are regionally less significant. Four principal types of aquifers exist in Pennsylvania: (1) Unconsolidated sand-and-gravel aquifers; (2) sandstone and shale aquifers; (3) carbonate aquifers; and (4) crystalline aquifers. Ground water in the principal aquifers is generally acceptable for drinking with little or no treatment. Excess iron, sulfate, and dissolved-solids concentrations near mining and gas production activities in western Pennsylvania contribute to quality problems. Hardness and nitrate problems are generally limited to the carbonate aquifers in the central and southeastern part of the State. Ground-water contamination is a serious problem in some urban and agricultural areas, and important coastal-plain aquifers in the extreme southeastern part of Pennsylvania have been severely contaminated by industrial waste. Major water-quality concerns are related to contamination from malfunctioning septic systems, landfills, illegal dumping of waste, overfertilization with nutrients, organic chemicals, and road salts (Barker, 1987).

References

- Barker, J.L., 1987, Pennsylvania Ground-Water Quality, U.S. Geological Survey Open File Report 87-0748, 8 p.
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SUSQUEHANNA RIVER BASIN



EXPLANATION

GROUND-WATER LEVELS

- ▲ MUCH ABOVE NORMAL--More than one standard deviation above long-term water level
- ▲ ABOVE NORMAL--One-half to one standard deviation above long-term water level
- NORMAL--Within one-half standard deviation of long-term water level
- ▼ BELOW NORMAL--One-half to one standard deviation below long-term water level
- ▼ MUCH BELOW NORMAL--More than one standard deviation below long-term water level

Figure 5.--Relation between mean 1992 seasonal water levels and long-term mean water levels.

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. The station operated as part of this program in the Susquehanna River Basin in Pennsylvania is found on page 84 of this report. There are no stations in the Potomac 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 Susquehanna River Basin in Pennsylvania are found on pages 60, 104, 125, and 149 of this report. There are no stations in the Potomac River Basin in Pennsylvania participating in this program.

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 Susquehanna or Potomac River Basins 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. Stations operated as part of this program in the Susquehanna River Basin in Pennsylvania are found on pages 84 and 149 of this report. There are no stations in the Potomac River Basin in Pennsylvania participating in this program.

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. The station operated as part of this program in the Susquehanna River Basin in Pennsylvania is found on page 149 of this report. There are no stations in the Potomac 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 1992 water year that began October 1, 1991, and ended September 30, 1992. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The location of these stations and wells are shown in figures 7-9. 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.

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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 6 below.

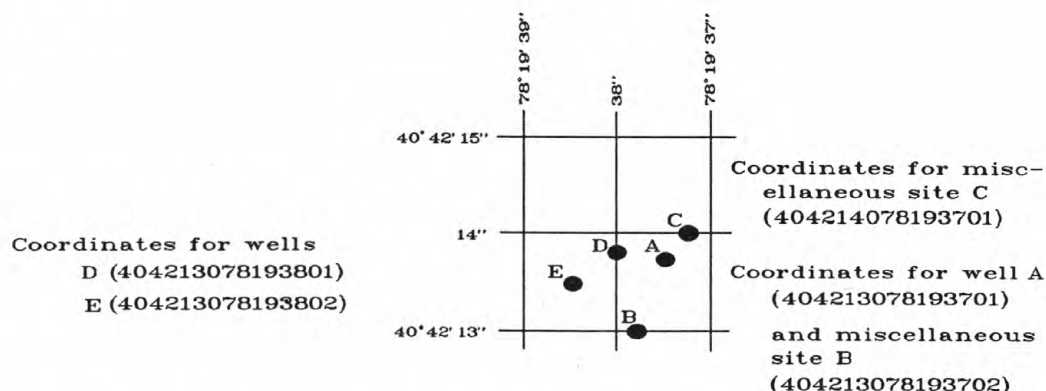


Figure 6.--System for numbering wells and miscellaneous sites (latitude and longitude).

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, for reservoirs end-of-day contents, 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 7-9.

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-back-water 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 National Geodetic Vertical Datum of 1929 (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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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.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

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

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

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

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

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

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

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

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

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

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

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.

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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. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 7, 8, and 10.

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.

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.

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.

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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	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 7 and 9. Ground-water data are grouped by counties, arranged in alphabetical order, and are listed on page ix. 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.

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

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

Data Presentation

Each well record consists of three parts; (1) the station description, (2) the data table of water levels observed during the current water year, and (3) a graph of the water levels for the last 3 years. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments that follow clarify information presented under the various headings of the 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) National Geodetic Vertical Datum of 1929 (NGVD of 1929); 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 ix, 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.

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.

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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.

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 $[(\text{ft}^3/\text{s})/\text{mi}^2]^1$ 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 $(\text{ft}^3/\text{s})^1$ 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 μm 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 "CFM" will appear on some computer-generated table headings and summaries.

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

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

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

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

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 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams of carbon per area 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)

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 ($Q_7,10$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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

Surface area of a lake is that area 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.....	<u>Hexagenia</u>
Species	<u>Hexagenia limbata</u>

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.

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."

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS—TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS—TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS—TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS—TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. McCary: USGS—TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. Scott Keys: USGS—TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS—TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS—TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS—TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS—TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS—TWRI Book 3, Chapter A4. 1967. 44 pages.
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- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS—TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS—TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W. P. Somers: USGS—TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS—TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G.F. Smoot and C.E. Novak: USGS—TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS—TWRI Book 3, Chapter A12. 1986. 41 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS—TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS—TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS—TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS—TWRI Book 3, Chapter A17. 1985. 38 pages.
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- 3-A19. *Levels of streamflow gaging stations*, by E.J. Kennedy: USGS—TWRI Book 3, Chapter A19. 1990. 27 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS—TWRI Book 3, Chapter B1. 1971. 26 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Neff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
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- 4-A2. *Frequency curves*, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
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- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
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- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

WATER RESOURCES DATA - PENNSYLVANIA, 1992

SUSQUEHANNA RIVER BASIN



EXPLANATION

- ▲ 5485 STREAMFLOW STATION AND NUMBER
- ▼ 5474 WATER-QUALITY STATION AND NUMBER
- ◆ 5705 STREAMFLOW AND WATER-QUALITY STATION AND NUMBER
- FU 93 OBSERVATION WELL AND NUMBER
- △ 57439 LAKE AND NUMBER

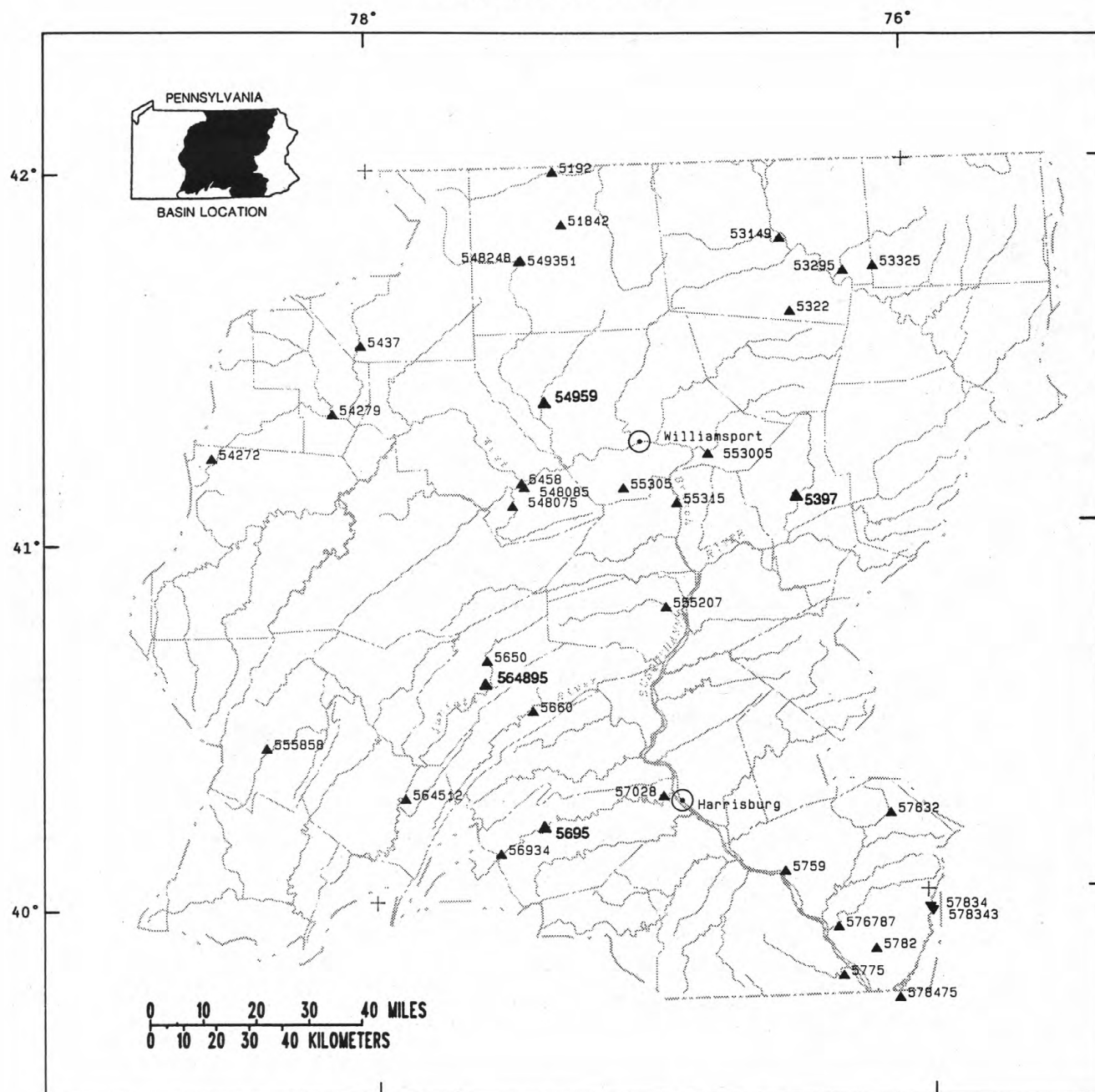
NOTE- Downstream station numbers abbreviated; First two digits (part number), and last two digits (if zeros) are omitted.

Example-Station number 01573160 is shown as 57316, station number 01553500 is shown as 5535.

Figure 7.--Location of continuous data-collection stations and network observation wells.

WATER RESOURCES DATA - PENNSYLVANIA, 1992

SUSQUEHANNA RIVER BASIN



EXPLANATION

- ▲ 53325 STREAMFLOW STATION AND NUMBER
▼ 57834 WATER-QUALITY STATION AND NUMBER

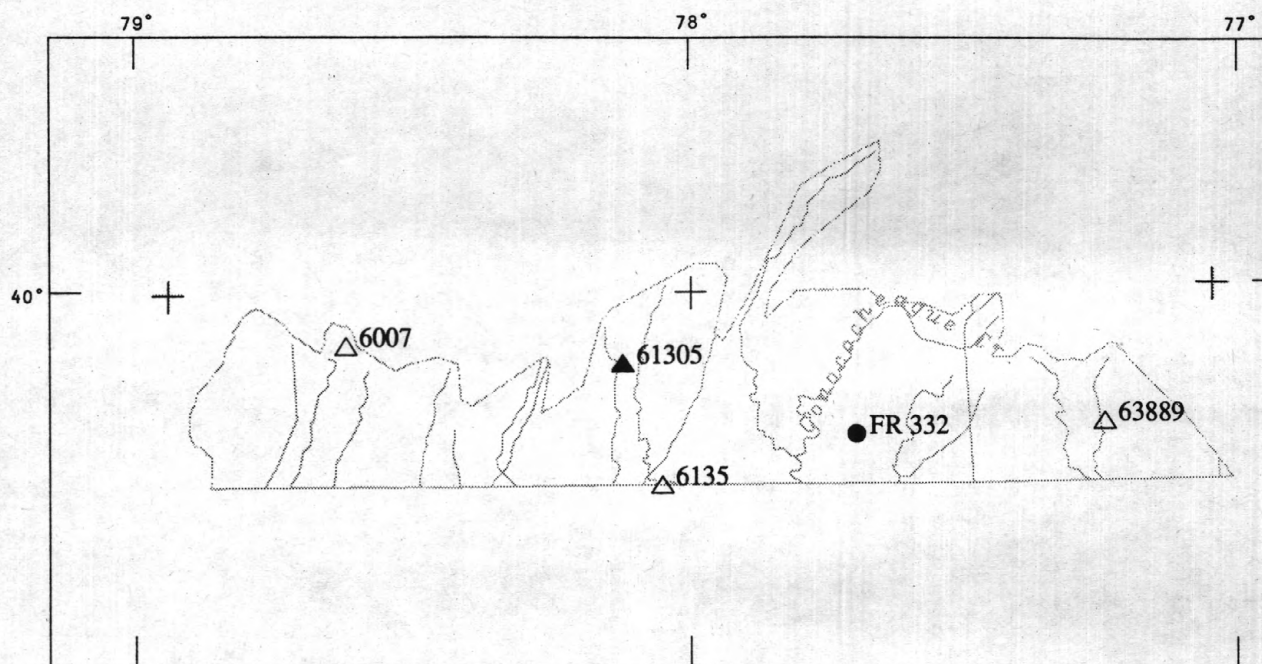
NOTE- Downstream station numbers abbreviated;
First two digits (part number), and last two digits
(if zeros) are omitted.

Example-Station number 01570280 is shown as 57028,
station number 01577500 is shown as 5775.

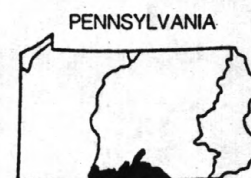
Figure 8.--Location of partial-record data-collection stations.

WATER RESOURCES DATA - PENNSYLVANIA, 1992

POTOMAC RIVER BASIN



0 10 20 30 40 MILES
0 10 20 30 40 KILOMETERS



EXPLANATION

- ▲ 61305 CONTINUOUS-RECORD STREAMFLOW STATION AND NUMBER
- △ 6007 PARTIAL-RECORD STREAMFLOW STATION AND NUMBER
- FR 332 OBSERVATION WELL AND LOCAL NUMBER

BASIN LOCATION

NOTE -Downstream station numbers abbreviated.
First two digits (part number), and last two digits (if omitted).

EXAMPLE - Station number 01613050 is shown as 61305,
station number 01613500 is shown as 6135.

Figure 9.--Location of continuous- and partial-record data-collection stations, Potomac River Basin.

WATER RESOURCES DATA - PENNSYLVANIA, 1992
CONTINUOUS WATER-DISCHARGE AND WATER-QUALITY STATION RECORDS

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

NOTE.--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.

CONTINUOUS WATER-DISCHARGE AND WATER-QUALITY STATION RECORDS

NORTH ATLANTIC SLOPE BASINS

SUSQUEHANNA RIVER BASIN

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA

LOCATION--Lat 41°47'34", long 77°04'44", Tioga County, Hydrologic Unit 02050104, on left bank on Township Route 754, 0.6 mi downstream from Slate Creek, and 1.0 mi south of Mansfield.

DRAINAGE AREA--153 mi².

PERIOD OF RECORD--July 1976 to current year.

REVISED RECORDS--WDR PA-84-2: 1980-83 (P).

GAGE--Water-stage recorder. Datum of gage is 1,121.28 ft above National Geodetic Vertical Datum of 1929.

REMARKS--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD--Flood in September 1975 reached an approximate stage of 20.13 ft, from flood-marks, approximate discharge, 18,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	68	e110	e94	142	575	235	409	35	312	58
2	13	16	62	e130	e90	150	477	212	286	32	184	51
3	13	16	307	e150	e84	143	404	219	204	32	142	51
4	13	15	298	420	e80	138	349	190	161	35	118	61
5	13	14	194	537	e74	142	313	166	177	33	110	53
6	18	14	166	347	e66	171	296	153	631	46	90	46
7	17	15	143	275	e64	242	344	142	357	38	82	46
8	16	15	150	225	e66	365	521	129	281	31	79	47
9	14	14	149	206	e56	307	499	153	225	39	1230	47
10	15	15	127	199	e42	330	432	141	185	34	192	58
11	14	27	111	178	e47	716	419	122	150	29	125	95
12	14	30	99	158	e45	464	812	110	128	27	99	64
13	14	27	105	154	e50	355	472	101	109	27	81	52
14	15	26	333	680	e58	292	388	94	95	36	116	46
15	16	29	256	453	81	250	322	90	90	159	106	42
16	43	32	e180	280	188	208	298	88	77	221	90	40
17	32	29	e150	e230	e110	202	605	85	67	106	80	37
18	24	25	e130	e170	e90	189	764	85	62	260	72	35
19	21	23	e115	e130	115	196	729	82	83	149	68	36
20	19	22	e120	e120	148	174	538	71	115	112	58	35
21	17	27	e130	e110	113	163	464	65	83	224	52	33
22	16	229	114	e140	101	140	538	62	70	152	47	53
23	16	649	108	e210	98	143	396	57	62	115	45	101
24	16	244	116	344	112	126	533	58	58	103	41	60
25	15	184	97	187	131	161	815	66	55	96	40	49
26	15	133	e76	154	128	545	545	61	50	95	40	355
27	15	106	e72	e130	119	3500	429	65	51	120	40	229
28	15	92	e65	e120	127	1120	350	58	46	90	78	178
29	15	84	e110	e110	198	668	295	53	46	79	280	128
30	15	75	276	e100	---	571	257	52	40	67	107	106
31	15	---	e150	e96	---	525	---	418	---	711	73	---
TOTAL	527	2242	4577	6853	2775	12838	14179	3683	4453	3333	4277	2292
MEAN	17.0	74.7	148	221	95.7	414	473	119	148	108	138	76.4
MAX	43	649	333	680	198	3500	815	418	631	711	1230	355
MIN	13	14	62	96	42	126	257	52	40	27	40	33
CFSM	.11	.49	.97	1.44	.63	2.71	3.09	.78	.97	.70	.90	.50
IN.	.13	.55	1.11	1.67	.67	3.12	3.45	.90	1.08	.81	1.04	.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	132	178	214	178	243	410	439	261	183	75.2	54.8	46.1					
MAX	653	620	514	600	650	832	1070	630	550	177	155	116					
(WY)	1991	1978	1991	1979	1984	1978	1984	1978	1989	1990	1976	1977					
MIN	13.3	26.9	50.5	36.2	57.2	148	156	84.4	25.1	20.6	17.0	12.6					
(WY)	1983	1983	1989	1981	1987	1981	1988	1987	1991	1991	1991	1980					

SUMMARY STATISTICS

	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1976 - 1992
ANNUAL TOTAL	51868.1	62029	
ANNUAL MEAN	142	169	200
HIGHEST ANNUAL MEAN			388
LOWEST ANNUAL MEAN			131
HIGHEST DAILY MEAN	3060	Mar 4	5450
LOWEST DAILY MEAN	9.3	Sep 13, 16	9.3
ANNUAL SEVEN-DAY MINIMUM	9.9	Sep 10	9.9
INSTANTANEOUS PEAK FLOW		8520	Aug 9
INSTANTANEOUS PEAK STAGE		14.21	Aug 9
ANNUAL RUNOFF (CFSM)	.93	1.11	1.31
ANNUAL RUNOFF (INCHES)	12.61	15.08	17.77
10 PERCENT EXCEEDS	332	405	451
50 PERCENT EXCEEDS	59	106	93
90 PERCENT EXCEEDS	14	19	22

a From rating curve extended above 6,000 ft³/s.

e Estimated.

LOCATION.--Lat 41°47'27", long 77°00'54", Tioga County, Hydrologic Unit 02050104, on right bank 30 ft upstream from bridge on Township Route 818, 500 ft upstream from small left-bank tributary, 1.1 mi west of Mainesburg, 3.5 mi east of Mansfield, and 4.2 mi upstream from mouth.

PERIOD OF RECORD.--May 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,337.50 ft above National Geodetic Vertical Datum of 1929. Prior to June 28, 1954, nonrecording gage at site 30 ft downstream at same datum.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.36	3.2	e5.4	e3.8	e14	35	14	17	.88	14	2.0
2	.28	.35	3.1	e6.8	e3.7	7.0	30	13	12	.78	8.7	1.7
3	.30	.36	18	8.5	e3.5	7.1	26	17	8.4	.82	6.7	2.0
4	.34	.33	12	39	e3.2	7.0	23	12	6.8	1.1	5.8	2.0
5	.37	.31	8.3	32	e2.9	7.8	19	10	10	.92	5.1	1.6
6	1.0	.40	7.3	21	e2.6	9.5	16	9.2	26	.84	4.0	1.5
7	.80	.42	6.8	17	e2.5	16	19	8.1	15	.66	3.3	1.5
8	.53	.46	7.0	13	e2.2	25	24	7.5	14	.64	3.2	1.6
9	.45	.42	6.3	12	e2.0	20	25	8.8	11	1.4	118	1.4
10	.39	.50	5.5	12	e1.8	22	24	7.6	7.9	.79	19	2.7
11	.43	2.8	5.0	10	e2.0	46	25	6.3	6.2	.67	12	3.5
12	.49	1.9	4.5	9.3	e1.9	e30	52	5.4	4.9	.61	8.1	2.0
13	.51	1.5	7.0	9.4	e2.1	e24	28	5.0	4.0	.60	6.8	1.6
14	.52	1.3	23	48	e2.5	e19	24	4.7	3.3	1.2	9.5	1.4
15	1.1	.96	14	e26	e11	e16	20	4.3	3.4	20	6.9	1.2
16	4.7	.85	e9.6	e15	e23	e13	21	4.2	2.5	10	5.8	1.1
17	1.2	.69	e8.4	e12	e9.0	e12	49	3.9	2.1	5.2	5.1	.95
18	.78	.63	e7.4	e10	e5.4	e12	51	4.4	1.9	7.2	4.1	.89
19	.57	.58	e6.2	e7.0	7.2	e11	44	3.5	6.8	6.4	3.4	1.0
20	.54	.56	e5.8	e6.6	6.6	e10	33	3.0	6.4	4.0	3.0	.89
21	.43	2.6	e5.4	e6.0	5.2	e9.4	29	2.5	3.6	5.2	2.6	.84
22	.38	20	e5.0	e5.8	4.7	e8.4	28	2.3	3.0	4.2	2.2	3.3
23	.36	21	e5.4	e11	4.8	e9.0	22	1.9	2.4	3.6	1.8	3.6
24	.36	9.7	e5.0	e16	5.9	e8.0	30	2.7	2.2	3.4	1.6	1.8
25	.39	7.3	e4.7	e10	7.1	e13	38	2.6	2.0	3.3	1.6	1.5
26	.36	5.7	e4.3	e6.6	7.3	51	29	2.2	1.7	3.9	1.6	24
27	.39	4.8	e3.9	e5.4	6.4	253	24	2.7	2.6	4.2	1.4	9.0
28	.43	4.2	e3.5	e5.0	7.2	73	20	2.2	1.6	3.1	5.4	6.2
29	.30	3.9	e5.4	e4.7	e11	46	17	1.8	1.3	2.8	11	4.4
30	.29	3.5	e10	e4.5	---	39	15	2.0	1.1	2.2	3.4	3.7
31	.33	---	e6.0	e4.0	---	37	---	21	---	43	2.5	---
TOTAL	19.62	98.38	227.0	399.0	158.5	875.2	840	195.8	191.1	143.61	287.6	90.87
MEAN	.63	3.28	7.32	12.9	5.47	28.2	28.0	6.32	6.37	4.63	9.28	3.03
MAX	4.7	21	23	48	23	253	52	21	26	43	118	24
MIN	.28	.31	3.1	4.0	1.8	7.0	15	1.8	1.1	.60	1.4	.84
CFSM	.05	.27	.60	1.05	.45	2.31	2.30	.52	.52	.38	.76	.25
IN.	.06	.30	.69	1.22	.48	2.67	2.56	.60	.58	.44	.88	.22

MEAN	6.14	10.0	14.2	11.0	17.3	29.0	26.9	14.7	10.2	2.96	2.00	2.64
MAX	51.0	45.4	42.7	48.6	52.4	60.4	78.9	42.7	114	18.7	10.4	44.4
(WY)	1956	1978	1974	1979	1984	1964	1958	1989	1972	1990	1955	1975
MIN	.15	.48	.84	.75	1.71	4.88	8.19	4.08	.69	.10	.074	.000
(WY)	1964	1965	1965	1961	1963	1965	1955	1985	1991	1966	1964	1964

ANNUAL TOTAL	3217.69		3526.68				
ANNUAL MEAN	8.82		9.64		12.2		
HIGHEST ANNUAL MEAN					24.9		1978
LOWEST ANNUAL MEAN					4.82		1965
HIGHEST DAILY MEAN	129	Mar 4	253	Mar 27	1910		Jun 22 1972
LOWEST DAILY MEAN	.04	Aug 8	.28	Oct 2	.00		Many days
ANNUAL SEVEN-DAY MINIMUM	.08	Aug 28	.33	Oct 29	.00		Aug 17 1959
INSTANTANEOUS PEAK FLOW			715	Aug 9	5580		Jun 23 1972
INSTANTANEOUS PEAK STAGE			5.43	Aug 9	10.44		Jun 23 1972
ANNUAL RUNOFF (CFSM)	.72		.79		1.00		
ANNUAL RUNOFF (INCHES)	9.81		10.75		13.64		
10 PERCENT EXCEEDS	23		24		28		
50 PERCENT EXCEEDS	3.1		5.0		4.1		
90 PERCENT EXCEEDS	.20		.58		.46		

a From rating curve extended above 490 ft³/s on basis of slope-area measurement at gage height 7.88 ft and at peak flow.

b From floodmark.

e Estimated.

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA

LOCATION.--Lat 41°54'30", long 77°07'47", Tioga County, Hydrologic Unit 02050104, on left bank 130 ft upstream from highway bridge on Township Route 667 at Tioga, 0.8 mi upstream from Crooked Creek, and 0.9 mi downstream from Tioga Dam.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--June 1938 current year. Prior to October 1938 monthly discharge only, published in WSP 1302.

REVISIONS.--WSP 871: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,021.07 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1953, at site 20 ft upstream at datum 2.11 ft higher. Sept. 9, 1953, to Aug. 10, 1954, at site 130 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharges include flow diverted from Crooked Creek into Tioga River since Oct. 1, 1977. Flow regulated since November 1979 by Tioga Dam (station 01517900). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	34	138	249	238	314	1270	554	1300	e61	1510	130
2	28	32	136	214	210	300	1270	545	983	e56	671	89
3	28	32	180	321	189	309	987	532	761	e53	513	79
4	28	32	213	613	183	309	859	506	467	53	305	79
5	29	32	228	1350	180	302	708	423	393	53	239	88
6	31	32	244	1060	163	366	608	330	1020	54	190	106
7	32	32	237	906	140	449	613	294	1080	55	165	112
8	34	32	235	624	137	809	839	259	607	55	158	109
9	34	32	240	516	124	908	1010	274	448	55	2600	110
10	34	32	221	471	106	877	984	308	360	56	1020	117
11	34	40	191	408	105	1510	827	299	281	56	445	173
12	34	55	174	373	105	1190	1780	232	225	56	241	226
13	34	72	197	359	105	868	1500	205	185	56	185	175
14	34	64	469	1080	105	676	956	178	137	56	278	98
15	34	55	513	1070	132	624	736	179	139	340	363	93
16	34	58	341	629	250	494	769	176	139	1380	320	93
17	39	60	278	407	258	464	1110	169	120	395	238	89
18	54	60	269	373	207	458	2030	160	105	554	207	80
19	56	57	239	336	202	438	2010	160	108	669	184	75
20	45	49	200	306	261	426	1480	156	197	491	126	62
21	41	53	215	311	289	402	1330	131	233	726	97	70
22	44	187	240	311	258	376	1170	121	140	475	96	119
23	43	621	228	443	230	364	863	112	114	284	96	193
24	40	466	230	690	234	333	793	105	114	256	96	183
25	37	329	230	504	264	303	1250	108	107	233	96	159
26	37	226	178	380	280	879	1530	116	88	192	97	1210
27	37	181	151	385	282	4980	1100	116	88	182	114	896
28	38	144	148	370	281	4610	793	112	88	172	166	473
29	39	143	172	356	312	2120	663	103	84	138	e1800	242
30	37	142	348	339	---	1760	571	90	e70	124	e620	191
31	36	---	347	285	---	1390	---	812	---	2770	e310	---
TOTAL	1133	3384	7430	16039	5830	29608	32409	7865	10181	10156	13546	5919
MEAN	36.5	113	240	517	201	955	1080	254	339	328	437	197
MAX	56	621	513	1350	312	4980	2030	812	1300	2770	2600	1210
MIN	28	32	136	214	105	300	571	90	70	53	96	62

e Estimated.

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated. The data in the first set of statistics (1978-92) represent flow past the gage including streamflow diverted into Tioga River from the adjacent Crooked Creek basin since October 1977, and are not equivalent to natural streamflow conditions prior to this date.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY) (SINCE REGULATION AND DIVERSION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	259	369	471	398	572	946	928	549	420	155	110	96.1
MAX	1454	1684	1176	1303	1715	2161	2160	1433	1404	354	437	320
(WY)	1991	1978	1978	1979	1981	1979	1984	1989	1989	1990	1992	1990
MIN	36.5	31.2	48.3	22.7	111	238	323	140	41.5	32.5	28.4	20.8
(WY)	1992	1981	1983	1981	1989	1981	1988	1985	1991	1991	1980	1980

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1978 - 1992

ANNUAL TOTAL	111729	143500	
ANNUAL MEAN	306	392	438
HIGHEST ANNUAL MEAN			862
LOWEST ANNUAL MEAN			256
HIGHEST DAILY MEAN	4210	Mar 4	8360
LOWEST DAILY MEAN	26	Aug 26-Sep 3a	16
ANNUAL SEVEN-DAY MINIMUM	26	Aug 26	16
INSTANTANEOUS PEAK FLOW		5690	14300
INSTANTANEOUS PEAK STAGE		6.50	8.84
INSTANTANEOUS LOW FLOW			b.00
10 PERCENT EXCEEDS	728	985	1010
50 PERCENT EXCEEDS	78	225	171
90 PERCENT EXCEEDS	29	41	40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1977, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	145	291	350	271	346	790	753	516	254	93.4	77.0	89.9
MAX	1084	1061	978	787	814	1694	2124	1534	2397	471	380	1083
(WY)	1956	1971	1974	1952	1976	1964	1958	1946	1972	1972	1947	1975
MIN	9.26	12.8	22.0	37.9	59.2	169	132	87.6	44.3	16.5	12.2	6.68
(WY)	1964	1965	1965	1961	1963	1969	1946	1941	1962	1955	1966	1964

SUMMARY STATISTICS

WATER YEARS 1939 - 1977

ANNUAL MEAN	331	
HIGHEST ANNUAL MEAN	583	1972
LOWEST ANNUAL MEAN	138	1965
HIGHEST DAILY MEAN	26900	Jun 23 1972
LOWEST DAILY MEAN	5.0	Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 8 1964
INSTANTANEOUS PEAK FLOW	d59000	Jun 22 1972
INSTANTANEOUS PEAK STAGE	f19.70	Jun 22 1972
INSTANTANEOUS LOW FLOW	4.5	Aug 10, 11 1955
ANNUAL RUNOFF (CFSM)	1.17	
ANNUAL RUNOFF (INCHES)	15.95	
10 PERCENT EXCEEDS	780	
50 PERCENT EXCEEDS	130	
90 PERCENT EXCEEDS	23	

a Also Sept. 13-15.

b Result of shutoff at Tioga Dam.

c Also Aug. 29, 1980.

d From rating curve extended above 8,000 ft³/s on basis of slope-area and contracted-opening measurement at gage height 15.47 ft, and slope-area measurement of peak flow.

f From floodmark.

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA

LOCATION.--Lat 41°57'09", long 77°06'56", Tioga County, Hydrologic Unit 02050104, on left bank 0.3 mi upstream from bridge on Township Route 722 at Tioga Junction, 3.3 mi downstream from Crooked Creek, and 5.0 mi downstream from Tioga and Hammond Dams.

DRAINAGE AREA.--446 mi².

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1979 by Tioga Dam (station 01517900) and Hammond Dam (station 01518498). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--16 years, 498 ft³/s, 15.16 in/yr, adjusted for storage since November 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1975 reached a stage of about 22.1 ft, from floodmarks, discharge, about 48,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	39	136	e260	250	338	1490	612	1480	81	1640	162
2	30	32	130	e220	223	317	1490	597	1060	76	683	114
3	30	31	254	325	195	332	1160	621	786	72	541	101
4	31	31	266	641	191	327	984	567	499	72	347	100
5	31	32	254	1470	191	315	832	477	415	71	288	105
6	34	32	256	1100	e170	380	703	370	942	71	232	123
7	33	33	239	973	148	489	706	323	1080	69	186	129
8	39	32	239	696	144	852	930	280	612	70	180	121
9	37	32	245	567	e130	965	1120	306	452	71	2200	120
10	37	32	231	515	e110	940	1110	331	366	69	1010	128
11	37	44	191	440	111	1650	937	321	293	69	445	179
12	37	61	175	401	e110	1320	2010	244	231	69	255	232
13	37	81	190	386	e110	999	1750	221	202	69	208	187
14	37	74	448	1100	110	749	1100	188	151	70	374	110
15	39	62	531	1200	130	688	857	183	151	278	405	101
16	43	63	357	694	266	550	858	182	147	1360	357	99
17	44	67	283	454	271	513	1320	173	130	450	264	97
18	62	67	275	e400	214	503	2300	177	108	540	221	88
19	66	65	243	e370	211	486	2280	172	127	681	201	86
20	54	57	196	e340	273	470	1720	164	216	495	144	76
21	48	57	210	332	302	444	1460	142	263	727	111	81
22	52	173	245	334	271	413	1360	127	163	512	108	124
23	51	707	231	462	231	402	973	120	127	322	108	214
24	49	497	232	753	240	369	904	115	128	293	106	194
25	40	351	227	555	280	343	1420	116	126	267	112	162
26	40	227	184	408	302	928	1720	124	104	223	121	1140
27	41	183	148	407	298	6130	1250	125	102	210	124	952
28	43	143	148	384	293	5380	894	121	99	197	259	510
29	47	143	163	370	343	2470	732	114	97	157	1620	285
30	45	140	349	359	---	1990	634	100	84	137	577	215
31	39	---	358	305	---	1660	---	769	---	2760	291	---
TOTAL	1283	3588	7634	17221	6118	33712	37004	8482	10741	10608	13718	6335
MEAN	41.4	120	246	556	211	1087	1233	274	358	342	443	211
MAX	66	707	531	1470	343	6130	2300	769	1480	2760	2200	1140
MIN	30	31	130	220	110	315	634	100	84	69	106	76
MEAN‡	33.8	142	294	530	197	1107	1235	272	352	343	429	217
CFSM‡	.08	.32	.66	1.19	.44	2.48	2.77	.61	.79	.77	.96	.49
IN.‡	.09	.36	.76	1.37	.47	2.86	3.09	.70	.88	.89	1.11	.55

‡ Adjusted for change in contents in Tioga and Hammond Lakes.

e Estimated.

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	259	315	487	307	706	892	1078	617	503	186	123	101
MAX	1515	809	1221	749	1837	1522	2698	1723	1619	385	443	295
(WY)	1991	1980	1991	1991	1981	1980	1984	1989	1989	1984	1992	1990
MIN	41.4	49.0	76.6	29.5	127	259	352	164	51.4	38.4	29.6	26.3
(WY)	1992	1981	1981	1981	1989	1981	1988	1985	1980	1991	1980	1980

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1980 - 1992

ANNUAL TOTAL	120044		156444									
ANNUAL MEAN	329	‡328	427	‡429					462			
HIGHEST ANNUAL MEAN									786			1984
LOWEST ANNUAL MEAN									310			1985
HIGHEST DAILY MEAN	4880	Mar 4	6130	Mar 27					6820		Jun 8	1982
LOWEST DAILY MEAN	25	Aug 28, 30, 31	30	Oct 1-3					16		Aug 26-28	1980
ANNUAL SEVEN-DAY MINIMUM	25	Aug 28	31	Oct 1					21		Jan 23	1981
INSTANTANEOUS PEAK FLOW			7230	Mar 27					a7670		Apr 11	1984
INSTANTANEOUS PEAK STAGE			13.86	Mar 27					13.97		Jun 23	1989
ANNUAL RUNOFF (CFSM)	.74	‡.74	.96	‡.96					1.04			
ANNUAL RUNOFF (INCHES)	10.01	‡9.97	13.05	‡13.13					14.08			
10 PERCENT EXCEEDS	762		1070						1090			
50 PERCENT EXCEEDS	110		231						182			
90 PERCENT EXCEEDS	31		49						53			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	581	746	635	963	453	1993	1010	663	210	123	177	160
MAX	838	1764	1324	1484	597	2355	1404	1365	318	181	288	278
(WY)	1978	1978	1978	1979	1977	1979	1978	1978	1978	1976	1976	1977
MIN	198	181	229	97.2	380	1478	807	311	153	78.3	65.2	80.3
(WY)	1979	1979	1977	1977	1978	1977	1979	1979	1977	1979	1979	1976

SUMMARY STATISTICS

WATER YEARS 1976 - 1979

ANNUAL MEAN	643											
HIGHEST ANNUAL MEAN	955				1978							
LOWEST ANNUAL MEAN	429				1977							
HIGHEST DAILY MEAN	8510			Jan 9	1978							
LOWEST DAILY MEAN	28			Sep 11	1977							
ANNUAL SEVEN-DAY MINIMUM	32			Sep 7	1977							
INSTANTANEOUS PEAK FLOW	bc17900			Feb 25	1977							
INSTANTANEOUS PEAK STAGE	d17.20			Jan 26	1978							
INSTANTANEOUS LOW FLOW	26			Feb 13, Sep 12, 1977; Feb 3, 1979.								
ANNUAL RUNOFF (CFSM)	1.44											
ANNUAL RUNOFF (INCHES)	19.59											
10 PERCENT EXCEEDS	1520											
50 PERCENT EXCEEDS	232											
90 PERCENT EXCEEDS	69											

‡ Adjusted for change in contents in Tioga and Hammond Lakes.

a From rating curve extended above 6,000 ft³/s.b From rating curve extended above 4,000 ft³/s.

c Gage height 16.70 ft.

d Backwater from ice.

CHEMUNG RIVER BASIN

01518862 CONANESQUE RIVER AT WESTFIELD, PA

LOCATION.--Lat 41°55'23", long 77°31'56", Tioga County, Hydrologic Unit 02050104, on left bank at Westfield, 800 ft downstream from Mill Creek, and 0.5 mi upstream from bridge on State Highway 49.

DRAINAGE AREA.--90.6 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,337.58 ft above National Geodetic Vertical Datum of 1929.

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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.3	10	e60	53	116	365	150	36	5.7	233	53
2	2.0	3.4	10	e50	e52	108	293	126	28	5.3	138	41
3	1.9	3.5	181	e60	e49	98	239	136	23	5.1	98	69
4	2.1	3.1	116	e90	e48	92	203	107	20	7.7	81	52
5	2.9	2.3	62	141	e45	101	180	91	23	6.7	67	37
6	4.9	2.8	48	100	e42	118	166	80	44	7.5	46	40
7	4.6	3.1	46	85	e39	159	205	68	31	6.1	35	43
8	3.9	3.6	84	72	e33	194	273	63	24	5.7	32	45
9	3.2	3.2	74	68	e33	177	262	74	20	13	39	48
10	2.6	3.2	58	72	e28	225	243	67	17	9.4	28	82
11	2.7	8.4	47	62	e30	322	323	59	15	7.0	33	76
12	2.9	9.6	40	57	e28	250	553	51	13	5.8	26	45
13	3.0	9.1	43	62	e32	222	334	46	12	7.0	25	37
14	2.8	10	87	232	e37	182	273	43	18	11	32	31
15	6.4	12	71	121	e45	149	214	38	21	115	25	28
16	16	12	58	e94	e170	125	217	37	13	68	63	26
17	9.2	9.0	e70	e70	e110	111	470	33	11	152	37	24
18	6.9	6.8	e54	e50	e70	98	515	73	9.7	156	27	30
19	5.8	6.6	e45	e45	e90	97	444	51	14	93	22	53
20	6.1	5.7	e39	e42	e110	90	357	39	16	69	18	45
21	5.4	23	e47	e50	e78	79	332	34	13	76	15	38
22	4.5	43	e39	e76	e74	68	355	29	11	50	13	879
23	4.0	79	36	156	e86	74	243	27	9.4	40	11	364
24	3.9	37	e41	368	e96	69	306	28	9.8	39	9.7	199
25	3.7	25	35	196	105	71	486	28	13	32	9.2	138
26	3.8	18	e33	e120	104	176	363	24	9.9	31	9.1	218
27	3.8	13	e26	e90	88	742	303	28	11	34	14	237
28	3.8	13	e24	76	109	409	242	24	8.9	25	337	151
29	3.3	12	e36	e70	155	326	192	22	7.3	22	323	107
30	3.3	10	e110	e66	---	303	169	20	6.7	21	106	86
31	3.3	---	e70	60	---	336	---	51	---	584	77	---
TOTAL	135.1	393.7	1740	2961	2039	5687	9120	1747	508.7	1710.0	2029.0	3322
MEAN	4.36	13.1	56.1	95.5	70.3	183	304	56.4	17.0	55.2	65.5	111
MAX	16	79	181	368	170	742	553	150	44	584	337	879
MIN	1.9	2.3	10	42	28	68	166	20	6.7	5.1	9.1	24
CFSM	.05	.14	.62	1.05	.78	2.02	3.36	.62	.19	.61	.72	1.22
IN.	.06	.16	.71	1.22	.84	2.34	3.74	.72	.21	.70	.83	1.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

	MEAN	51.6	60.1	116	76.1	140	175	200	116	70.2	46.4	37.0	27.2
MAX	323	110	278	128	281	269	401	328	361	153	238	111	
(WY)	1991	1991	1991	1991	1984	1991	1984	1989	1989	1984	1984	1992	
MIN	4.36	13.1	13.1	13.6	21.4	91.2	91.3	17.3	7.11	4.11	4.30	2.39	
(WY)	1992	1992	1989	1989	1987	1990	1988	1985	1991	1991	1991	1991	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1983 - 1992

ANNUAL TOTAL	25928.45	31392.5	93.2
ANNUAL MEAN	71.0	85.8	154
HIGHEST ANNUAL MEAN			1984
LOWEST ANNUAL MEAN			1985
HIGHEST DAILY MEAN	2050	Mar 4	2260
LOWEST DAILY MEAN	.53	Sep 16	.53
ANNUAL SEVEN-DAY MINIMUM	.78	Sep 10	.78
INSTANTANEOUS PEAK FLOW		2490	a/050
INSTANTANEOUS PEAK STAGE		4.34	b8.47
ANNUAL RUNOFF (CFSM)	.78	.95	1.03
ANNUAL RUNOFF (INCHES)	10.65	12.89	13.97
10 PERCENT EXCEEDS	172	234	230
50 PERCENT EXCEEDS	17	45	39
90 PERCENT EXCEEDS	1.8	5.4	4.8

a From rating curve extended above 1000 ft³/s.

b From floodmark.

e Estimated.

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA

LOCATION.--Lat 41°59'48", long 77°08'25", Tioga County, Hydrologic Unit 02050104, on left bank on SR 4022, 0.5 mi downstream from Cowanesque Dam, 0.8 mi upstream from highway bridge on U.S. Route 15 in Lawrenceville, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--298 mi².

PERIOD OF RECORD.--June 1951 to current year. Prior to October 1951 monthly discharge only, published in WSP 1722.

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

GAGE.--Water-stage recorder. Datum of gage is 983.96 ft above National Geodetic Vertical Datum of 1929. Prior to July 1976 at site 1.1 mi upstream at datum 14.07 ft higher.

REMARKS.--No estimated daily discharges. Records good except those below 20 ft³/s, which are fair. Flow regulated since December 1979 by Cowanesque Dam (station 01519995). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--41 years, 291 ft³/s, 13.26 in/yr, adjusted for storage since December 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	13	63	110	262	1500	450	350	24	1000	97
2	14	15	13	73	97	315	958	381	156	22	364	110
3	14	15	186	120	66	271	812	420	93	21	228	180
4	14	15	328	363	60	186	615	505	85	21	199	410
5	15	15	127	572	50	197	609	356	71	21	173	138
6	14	15	82	392	47	343	440	263	176	21	105	106
7	14	15	88	252	47	422	433	199	182	21	66	129
8	14	14	129	190	37	610	800	222	89	22	70	121
9	14	14	199	190	25	514	660	250	90	25	148	96
10	14	14	176	198	25	592	570	212	59	24	107	237
11	14	14	118	174	25	1040	742	163	48	31	60	237
12	13	14	63	137	26	698	2150	165	49	31	69	135
13	13	14	90	150	26	516	880	167	37	31	151	106
14	13	14	134	353	18	472	713	137	28	31	240	82
15	13	13	161	467	29	388	597	114	25	173	76	57
16	14	14	164	245	37	254	563	110	25	322	181	63
17	14	14	93	185	40	334	1510	94	25	170	214	78
18	14	14	75	110	115	348	1530	141	28	680	126	67
19	14	14	81	91	167	236	1870	230	56	451	78	42
20	14	14	45	78	362	239	1170	163	130	156	61	62
21	14	15	51	78	196	200	865	84	52	112	56	97
22	14	16	88	93	132	199	1050	65	38	163	34	1370
23	15	17	76	242	197	161	713	57	29	106	25	1350
24	15	14	70	459	213	203	678	57	25	88	25	400
25	15	14	72	292	229	231	1650	57	25	85	26	289
26	15	14	54	156	254	671	1170	70	25	81	62	1410
27	15	13	44	166	231	2880	891	90	25	81	80	746
28	15	13	44	144	196	2600	669	69	25	81	432	633
29	15	13	78	134	283	1310	554	58	25	82	2560	311
30	15	13	447	118	---	1220	482	58	25	70	432	280
31	15	---	216	102	---	855	---	298	---	2320	219	---
TOTAL	440	428	3605	6387	3340	18767	27844	5705	2096	5567	7667	9439
MEAN	14.2	14.3	116	206	115	605	928	184	69.9	180	247	315
MAX	15	17	447	572	362	2880	2150	505	350	2320	2560	1410
MIN	13	13	13	63	18	161	433	57	25	21	25	42
MEAN‡	12.9	47.4	136	208	121	605	924	185	70.4	178	243	318
CFSM‡	.04	.16	.46	.70	.41	2.03	3.10	.62	.24	.60	.82	1.07
IN.‡	.05	.18	.53	.81	.44	2.34	3.46	.71	.27	.69	.95	1.19

‡ Adjusted for change in contents in Cowanesque Lake.

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	166	174	315	176	427	580	621	375	271	113	81.5	78.8
MAX	1122	427	864	404	1027	975	1431	1080	1222	462	518	315
(WY)	1991	1980	1991	1991	1981	1982	1984	1989	1989	1984	1984	1992
MIN	13.9	14.3	35.9	23.3	57.6	158	286	48.9	17.4	14.1	11.9	5.09
(WY)	1989	1992	1990	1981	1980	1981	1988	1985	1991	1991	1983	1980

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1980 - 1992

ANNUAL TOTAL	73238		91285									
ANNUAL MEAN	201	‡199	249	‡254						280		
HIGHEST ANNUAL MEAN										498		1984
LOWEST ANNUAL MEAN										194		1985
HIGHEST DAILY MEAN	3650	Mar 5	2880	Mar 27					4430		Jun 8	1982
LOWEST DAILY MEAN	11	Jun 7	a13	Oct 12-15					3.4		Sep 13	1980
ANNUAL SEVEN-DAY MINIMUM	12	Jun 6	13	Nov 26					3.9		Sep 10	1980
INSTANTANEOUS PEAK FLOW			4010	Mar 27					4730		Aug 13	1984
INSTANTANEOUS PEAK STAGE			11.09	Mar 27					11.49		Aug 13	1984
ANNUAL RUNOFF (CFSM)	.67	‡.67	.84	‡.85					.94			
ANNUAL RUNOFF (INCHES)	9.14	‡9.06	11.40	‡11.62					12.79			
10 PERCENT EXCEEDS	497		663						699			
50 PERCENT EXCEEDS	46		100						96			
90 PERCENT EXCEEDS	13		14						15			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	121	203	297	288	345	808	707	359	220	61.0	39.1	87.9
MAX	809	826	860	886	1173	1909	1934	797	1366	223	125	1054
(WY)	1956	1978	1973	1952	1976	1964	1958	1960	1972	1977	1977	1975
MIN	3.33	7.95	12.2	13.9	45.6	230	167	55.5	13.8	7.00	3.11	2.52
(WY)	1965	1965	1961	1961	1963	1965	1955	1955	1955	1966	1954	1964

SUMMARY STATISTICS WATER YEARS 1952 - 1979

ANNUAL MEAN	294											
HIGHEST ANNUAL MEAN	514				1978							
LOWEST ANNUAL MEAN	135				1965							
HIGHEST DAILY MEAN	21500			Jun 23	1972							
LOWEST DAILY MEAN	.00			Aug 22	1978							
ANNUAL SEVEN-DAY MINIMUM	1.5			Sep 22	1964							
INSTANTANEOUS PEAK FLOW	b43700			Sep 26	1975							
INSTANTANEOUS PEAK STAGE	c18.13			Sep 26	1975							
INSTANTANEOUS LOW FLOW	d0.8			Aug 31, Sep 1, 27,	1964							
ANNUAL RUNOFF (CFSM)	.99											
ANNUAL RUNOFF (INCHES)	13.41											
10 PERCENT EXCEEDS	694											
50 PERCENT EXCEEDS	95											
90 PERCENT EXCEEDS	10											

‡ Adjusted for change in contents in Cowanesque Lake.

a Also Nov. 15, 27-30, Dec 1, 2.

b From rating curve extended above 6,000 ft³/s, on basis of slope-area measurement of peak flow.

c From floodmark; site and datum then in use.

d No flow Aug. 22, 1978, during dam construction.

CHEMUNG RIVER BASIN
RESERVOIRS IN CHEMUNG RIVER BASIN

01517900 TIOGA LAKE.--Lat 41°53'57", long 77°08'21", Tioga County, Hydrologic Unit 02050104, at Tioga Dam on Tioga River, 0.8 mi south of Tioga, and 1.7 mi upstream from Crooked Creek. DRAINAGE AREA, 280 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam. Flood flows are routed to Hammond Lake through a connecting channel with weir at elevation 1,101.0 ft and to Hammond Dam spillway with crest at elevation 1,131.0 ft. Storage began in November 1979. Capacity at elevation 1,131.0 ft is 62,000 acre-ft. Recreation lake elevation is 1,081.0 ft, capacity 9,500 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite and landline telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,560 acre-ft, Feb. 16, 1984, elevation, 1,109.34 ft; minimum, 2,210 acre-ft, Oct. 25, 1980, elevation, 1,060.05 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,570 acre-ft, Mar. 27, elevation, 1,085.12 ft; minimum, 8,700 acre-ft, Nov. 21, elevation, 1,079.22 ft.

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3.0 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi². PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,131.0 ft. Storage began in November 1979. Capacity at elevation 1,131.0 ft is 63,000 acre-ft. Recreation lake elevation is 1,086.0 ft, capacity 8,850 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two gates through a connecting channel that discharges into Tioga Lake, and a low-flow outlet to Crooked Creek. U.S. Army Corps of Engineers satellite and landline telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 30,620 acre-ft, Feb. 16, 1984, elevation, 1,109.34 ft; minimum, 2,430 acre-ft, Oct. 24, 1980, elevation, 1,074.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,100 acre-ft, Mar. 28, elevation, 1,089.27 ft; minimum, 7,550 acre-ft, Nov. 10, elevation, 1,084.14 ft.

01519995 COWANESQUE LAKE.--Lat 41°59'05", long 77°09'05", Tioga County, Hydrologic Unit 02050104, at Cowanesque Dam on Cowanesque River, 1.8 mi southwest of Lawrenceville, and 2.5 mi upstream from mouth. DRAINAGE AREA, 298 mi². PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,117.0 ft. Storage began in December 1979. Capacity at elevation 1,117.0 ft is 89,110 acre-ft. Recreation lake elevation is 1,080.0 ft since May 1990, capacity 32,600 acre-ft. Reservoir is used for flood control, recreation, and water supply. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite and landline telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 45,300 acre-ft, Oct. 24, 1990, elevation, 1,090.77 ft; minimum, 65 acre-ft, June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 35,090 acre-ft, Mar. 28, elevation, 1,082.26 ft; minimum, 29,350 acre-ft, Nov. 10, elevation, 1,076.95 ft.

CHEMUNG RIVER BASIN

Reservoirs in Chemung River basin--Continued

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)
01517900 Tioga Lake				01518498 Hammond Lake		
Sept. 30.....	1,079.68	8,910	--	1,084.94	8,060	--
Oct. 31.....	1,079.54	8,840	- 1.1	1,084.32	7,660	- 6.5
Nov. 30.....	1,081.22	9,610	+12.9	1,085.13	8,200	+ 9.1
Dec. 31.....	1,083.14	10,570	+15.6	1,087.95	10,160	+31.9
CAL YR 1991.....	--	--	- 1.2	--	--	0
Jan. 31.....	1,082.02	10,000	- 9.3	1,086.42	9,110	-17.1
Feb. 29.....	1,080.73	9,380	-10.8	1,086.12	8,920	- 3.3
Mar. 31.....	1,082.15	10,070	+11.2	1,086.96	9,440	+ 8.5
Apr. 30.....	1,082.14	10,060	- 0.2	1,087.17	9,590	+ 2.5
May 31.....	1,082.34	10,160	+ 1.6	1,086.87	9,380	- 3.4
June 30.....	1,081.68	9,830	- 5.5	1,086.84	9,360	- 0.3
July 31.....	1,081.65	9,820	- 0.2	1,086.95	9,430	+ 1.1
Aug. 31.....	1,080.96	9,480	- 5.5	1,086.12	8,920	- 8.3
Sept. 30.....	1,081.45	9,720	+ 4.0	1,086.32	9,040	+ 2.0
WTR YR 1992.....	--	--	+ 1.1	--	--	+ 1.3
01519995 Cowanesque Lake						
Sept. 30.....	1,077.19	29,590	--			
Oct. 31.....	1,077.11	29,510	- 1.3			
Nov. 30.....	1,078.98	31,480	+33.1			
Dec. 31.....	1,080.14	32,740	+20.5			
CAL YR 1991.....	--	--	- 1.7			
Jan. 31.....	1,080.27	32,870	+ 2.1			
Feb. 29.....	1,080.61	33,210	+ 5.9			
Mar. 31.....	1,080.62	33,220	+ 0.2			
Apr. 30.....	1,080.41	33,010	- 3.5			
May 31.....	1,080.46	33,060	+ 0.8			
June 30.....	1,080.49	33,090	+ 0.5			
July 31.....	1,080.37	32,970	- 2.0			
Aug. 31.....	1,080.14	32,740	- 3.7			
Sept. 30.....	1,080.32	32,920	+ 3.0			
WTR YR 1992.....	--	--	+ 4.6			

SUSQUEHANNA RIVER BASIN

01531500 SUSQUEHANNA RIVER AT TOWANDA, PA

LOCATION.--Lat 41°45'55", long 76°26'28". Bradford County, Hydrologic Unit 02050106, on right bank at Bridge Street in Towanda, and 1.8 mi upstream from Towanda Creek.

DRAINAGE AREA.--7,797 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Gage-height records collected at same site since October 1892 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1922, 1929.

GAUGE.--Water-stage recorder. Datum of gage is 694.38 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 18, 1938, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by 7 flood-control reservoirs which have a combined capacity of 356,800 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter and National Weather Service landline telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1500	6640	9340	6650	12000	26300	13700	27000	2150	32500	7330
2	1210	1640	6600	7160	6190	10600	25400	12800	34800	1990	24900	5600
3	1110	1590	7620	6830	5360	9510	21800	19300	25500	1860	18600	4650
4	1040	1520	16500	7720	4990	9030	18600	25400	17700	1800	13400	7690
5	1010	1450	17900	13800	4770	8500	16200	25000	13300	1760	10500	7180
6	1230	1420	13700	16500	4400	9320	14500	20600	11700	1830	9040	5840
7	1380	1260	10900	14300	4350	11400	13200	19900	12200	1960	7690	5010
8	1260	1170	9680	12100	4390	15700	13300	18100	10900	2280	6610	4400
9	1280	1170	9600	10300	3980	19800	15300	17700	9350	2550	6430	5910
10	1300	1110	10700	9480	3130	20400	14800	17200	8020	2650	8180	5300
11	1420	1130	11800	9300	3700	25100	13700	14700	6720	2510	6930	7490
12	1360	1460	10900	8980	2880	36700	20500	12700	5680	2520	5900	8690
13	1350	1850	9450	8210	2850	32300	27200	11000	4990	2380	5650	7520
14	1370	2060	9410	8720	3010	23600	21800	10000	4480	2370	5880	6560
15	1380	2350	11700	17400	3030	18400	17000	9610	4060	2750	7240	5330
16	1450	2500	12900	18200	3640	15300	14500	8760	3730	6820	7480	4130
17	1530	2550	11700	13600	6160	13200	17700	8300	3390	9090	7430	3680
18	1520	2620	9560	10200	7780	12000	31700	7910	3070	9120	7400	3400
19	1750	2610	8070	7560	8330	11500	42800	7690	2870	11200	6830	3150
20	2020	2490	7260	7160	11600	10800	36200	7160	2940	9210	6860	3070
21	1970	2400	6940	7370	14000	10000	27700	6400	3260	6870	6730	3360
22	1830	2720	7120	7950	12200	9160	23800	5700	3900	6220	5940	3450
23	1780	9900	7060	8170	10400	8390	22100	5120	4010	5500	5070	9090
24	2010	17900	6820	9860	10600	7850	18900	4760	3360	5430	4510	9990
25	1980	17500	6690	12500	11300	7560	21700	4570	2980	9010	4070	7250
26	1850	13400	6080	11300	11100	8690	28100	4370	2760	9950	3730	7740
27	1650	10900	5410	9020	10600	50600	26200	4260	2670	13400	3600	16400
28	1490	8660	5050	7780	9800	73700	22300	4260	2600	12100	3700	13400
29	1510	7190	5020	7290	11100	48500	18200	4090	2500	8630	10200	10400
30	1500	6670	7310	7070	---	34800	15400	3870	2340	8030	14600	8020
31	1450	---	10900	6940	---	28600	---	6920	---	12200	9410	---
TOTAL	46310	132690	286990	312110	202290	613010	646900	341850	242780	176140	277010	201030
MEAN	1494	4423	9258	10070	6976	19770	21560	11030	8093	5682	8936	6701
MAX	2020	17900	17900	18200	14000	73700	42800	25400	34800	13400	32500	16400
MIN	1010	1110	5020	6830	2850	7560	13200	3870	2340	1760	3600	3070
CFSM	.19	.57	1.19	1.29	.89	2.54	2.77	1.41	1.04	.73	1.15	.86
IN.	.22	.63	1.37	1.49	.97	2.92	3.09	1.63	1.16	.84	1.32	.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

	MEAN	5424	9288	10950	10150	11790	23770	24680	13210	7131	4072	2957	3328
MAX	31270	28940	29680	25610	35700	60780	66750	34770	41150	23840	16210	23200	
(WY)	1978	1928	1973	1937	1976	1936	1940	1943	1972	1915	1915	1977	
MIN	507	495	1459	1273	1821	8417	4975	3297	1615	783	571	432	
(WY)	1965	1965	1931	1931	1920	1981	1946	1985	1939	1962	1964	1964	

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1914 - 1992
ANNUAL TOTAL	3067066	3479110	
ANNUAL MEAN	8403	9506	10550
HIGHEST ANNUAL MEAN			16610
LOWEST ANNUAL MEAN			5104
HIGHEST DAILY MEAN	74400	Mar 5	283000
LOWEST DAILY MEAN	485	Mar 11	340
ANNUAL SEVEN-DAY MINIMUM	526	Sep 7	348
INSTANTANEOUS PEAK FLOW		80700	Mar 28
INSTANTANEOUS PEAK STAGE		14.18	Mar 28
INSTANTANEOUS LOW FLOW		1000	Oct 5
ANNUAL RUNOFF (CFSM)	1.08	1.22	1.35
ANNUAL RUNOFF (INCHES)	14.63	16.60	18.38
10 PERCENT EXCEEDS	20000	19400	25800
50 PERCENT EXCEEDS	4870	7480	5430
90 PERCENT EXCEEDS	900	1760	1260

a From rating curve extended above 180,000 ft³/s.

b From floodmark.

SUSQUEHANNA RIVER BASIN

01531500 SUSQUEHANNA RIVER AT TOWANDA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1935, 1967-68, 1973, 1976, 1989 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE.--January 1951 to July 1954.

REMARKS.--Samples collected from bridge on U.S. Highway 6.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission (SRBC) and analyzed by the Pennsylvania Department of Environmental Resources. Suspended-sediment samples analyzed by the SRBC.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT											
10...	0915	1380	320	8.3	14.0	0.620	0.590	0.020	0.020	0.33	--
NOV											
04...	1615	1670	282	8.4	8.5	0.550	0.620	0.020	0.020	0.23	--
DEC											
12...	1300	10800	204	7.6	5.0	0.840	0.840	0.060	0.060	0.16	--
FEB											
04...	1350	5210	--	--	--	1.14	1.14	0.090	0.090	--	--
MAR											
16...	1600	16000	178	7.5	1.0	0.950	0.950	0.100	0.100	0.13	--
26...	1250	8390	--	7.9	--	1.12	1.12	0.070	0.070	0.25	0.20
27...	1000	48500	159	--	6.5	1.08	1.06	0.270	0.260	1.6	0.72
28...	1000	78800	150	7.1	3.5	0.810	0.810	0.260	0.260	1.0	0.64
30...	1545	33200	170	7.2	4.0	1.10	1.10	0.060	0.050	0.62	0.63
APR											
01...	1300	26100	171	7.4	4.0	0.970	0.970	0.060	0.050	0.19	--
06...	1230	15100	217	7.7	5.0	1.12	1.12	0.040	0.040	--	--
MAY											
19...	0930	7690	230	8.0	16.0	0.750	0.750	0.040	0.020	0.41	0.33
JUN											
19...	1245	2830	287	8.5	22.0	0.590	0.590	0.020	<0.020	0.55	--
JUL											
28...	1600	11200	235	7.2	20.0	0.680	0.680	0.030	0.030	0.49	0.24
AUG											
19...	1145	6950	243	7.5	19.0	0.570	0.570	0.030	0.030	0.34	0.27
SEP											
14...	1600	6560	255	7.8	19.0	0.550	0.550	0.030	0.030	0.73	0.73

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT										
10...	0.35	<0.20	0.97	--	0.090	0.040	0.020	3.2	2	7.5
NOV										
04...	0.25	<0.20	0.80	--	0.060	0.050	0.020	3.4	1	4.5
DEC										
12...	0.22	<0.20	1.1	--	0.040	0.020	0.010	2.7	17	494
FEB										
04...	<0.20	<0.20	--	--	0.040	0.030	--	4.0	3	42
MAR										
16...	0.23	<0.20	1.2	--	0.050	0.030	0.010	2.4	12	518
26...	0.32	0.27	1.4	1.4	0.040	0.020	0.010	2.1	7	159
27...	1.9	0.98	3.0	2.0	0.700	0.040	0.020	4.5	889	116000
28...	1.3	0.90	2.1	1.7	0.260	0.040	0.020	4.2	247	52600
30...	0.68	0.68	1.8	1.8	0.080	0.020	0.010	1.6	75	6720
APR										
01...	0.25	<0.20	1.2	--	0.050	0.030	0.010	2.8	25	1760
06...	<0.20	<0.20	--	--	0.040	0.020	0.010	2.7	12	489
MAY										
19...	0.45	0.35	1.2	1.1	0.040	0.020	0.010	2.8	9	187
JUN										
19...	0.57	0.26	1.2	0.85	0.090	0.020	--	3.9	10	76
JUL										
28...	0.52	0.27	1.2	0.95	0.100	0.040	0.020	4.5	28	847
AUG										
19...	0.37	0.30	0.94	0.87	0.050	--	<0.020	3.6	10	188
SEP										
14...	0.76	0.76	1.3	1.3	0.060	0.030	0.010	3.8	18	319

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01533400 SUSQUEHANNA RIVER AT MESHOPPEN, PA

LOCATION.--Lat 41°36'26", long 76°03'02", Wyoming County, Hydrologic Unit 02050106, on right bank 0.3 mi south of Meshoppen, 0.3 mi downstream from Meshoppen Creek, 2.3 mi upstream from bridge on State Highway 87, and 2.4 mi upstream from Mehoopany Creek.

DRAINAGE AREA.--8,720 mi².

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 7 flood-control reservoirs which have a combined capacity of 356,800 acre-ft. National Weather Service satellite and landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 43.51 ft, from floodmark information by local resident, discharge, about 331,000 ft³/s, from rating curve extended above 220,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	1660	7060	12000	e7200	13700	29500	15700	22400	2330	26100	8500
2	1470	1710	7070	9120	e6600	12500	28300	14500	37000	2170	28700	6530
3	1340	1820	9780	7740	e6200	11200	25500	17500	30500	2040	20800	5370
4	1230	1780	16500	8490	e5700	10500	21700	26100	21300	1980	15600	5960
5	1140	1710	20300	13200	e5000	9870	18900	27100	16000	1920	11900	7920
6	1170	1650	17000	18400	e4500	9930	16800	23300	14000	1920	9990	6580
7	1360	1610	13000	17000	e3800	12000	15100	21600	13500	1930	8440	5600
8	1500	1440	11100	14500	e3700	16100	14500	20400	13100	2140	7300	4950
9	1380	1360	10600	12300	e3400	20700	16200	20600	11000	2470	6800	5140
10	1410	1350	11000	11100	e3200	22200	16700	20800	9570	2710	7760	5900
11	1480	1390	12400	10700	e3000	27000	15600	17500	7980	2670	8280	6510
12	1610	1450	12200	10300	e2800	37900	18900	15100	6740	2580	6480	8750
13	1550	1820	10700	9610	e2600	36500	28900	13000	5850	2540	6110	8350
14	1540	2120	10000	9400	e2800	28500	25500	11700	5220	2490	5700	7220
15	1540	2300	11800	16600	e3000	21700	20000	11100	4760	2540	6930	6210
16	1650	2570	13600	20500	e3800	17900	16900	10300	4300	4670	7780	4980
17	1710	2610	13200	17200	e4700	15400	17600	9560	3890	8750	7520	4180
18	1940	2690	11200	12900	e6000	13700	30700	9010	3500	9450	7830	3770
19	1860	2720	9140	10500	e8900	13100	45200	8580	3180	11100	7340	3540
20	2050	2700	8360	e9000	11100	12400	42600	8190	3030	11000	7050	3250
21	2210	2590	e7200	e8200	15000	11500	32500	7360	3240	8340	6920	3270
22	2130	2960	e6200	e7800	13800	10600	27600	6530	3680	6830	6410	3580
23	2010	8220	e6400	e8600	11900	9820	25600	5850	4270	6340	5610	5680
24	2000	18200	e6800	e10000	11200	8970	22200	5390	4050	5580	4940	11900
25	2180	19500	e7100	e13000	12100	8620	23900	5110	3390	7180	4470	8530
26	2140	15800	e6200	e12400	12500	9680	30000	4920	3080	9860	4090	7820
27	2020	12600	e5800	e9800	12100	41600	29300	4750	2840	11400	3790	15600
28	1820	10200	e5400	e9000	11300	76800	25800	4660	2770	14000	3760	15700
29	1700	8290	5590	e8100	11900	61700	21300	4570	2670	10000	6000	12700
30	1700	7360	6850	e7600	---	41800	18000	4330	2520	8450	16700	9600
31	1690	---	10700	e7400	---	33300	---	6140	---	9670	11200	---
TOTAL	52100	144180	310250	352460	209800	677190	721300	381250	269330	177050	288300	213590
MEAN	1681	4806	10010	11370	7234	21840	24040	12300	8978	5711	9300	7120
MAX	2210	19500	20300	20500	15000	76800	45200	27100	37000	14000	28700	15700
MIN	1140	1350	5400	7400	2600	8620	14500	4330	2520	1920	3760	3250
CFSM	.19	.55	1.15	1.30	.83	2.51	2.76	1.41	1.03	.65	1.07	.82
IN.	.22	.62	1.32	1.50	.90	2.89	3.08	1.63	1.15	.76	1.23	.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	8717	10750	13560	10480	14780	24940	24960	14080	7402	3720	3111	4127
MAX	35100	25260	29260	29920	36100	48830	44910	31730	21470	8142	9300	24900
(WY)	1978	1978	1978	1979	1981	1979	1984	1989	1989	1984	1992	1977
MIN	1045	2858	4440	2168	2702	9955	9638	4027	2298	1100	1153	967
(WY)	1983	1983	1990	1981	1980	1981	1981	1985	1991	1991	1991	1980

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1977 - 1992

ANNUAL TOTAL	3355282	3796800	11700	1978
ANNUAL MEAN	9193	10370	7230	1985
HIGHEST ANNUAL MEAN			185000	Mar 6 1979
LOWEST ANNUAL MEAN			629	Sep 12 1991
HIGHEST DAILY MEAN	83200	Mar 5	1300	Sep 9 1991
LOWEST DAILY MEAN	629	Sep 12	1140	Oct 5
ANNUAL SEVEN-DAY MINIMUM	652	Sep 9	1100	Oct 3
INSTANTANEOUS PEAK FLOW		79600	Mar 28	Mar 6 1979
INSTANTANEOUS PEAK STAGE		23.24	Mar 28	Mar 6 1979
INSTANTANEOUS LOW FLOW		1100	Oct 5,6	Sep 11-13 1991
ANNUAL RUNOFF (CFSM)	1.05	1.19	1.34	
ANNUAL RUNOFF (INCHES)	14.31	16.20	18.22	
10 PERCENT EXCEEDS	20800	21600	28200	
50 PERCENT EXCEEDS	4900	8190	6170	
90 PERCENT EXCEEDS	997	1920	1480	

e Estimated.

TUNKHANNOCK CREEK BASIN

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA

LOCATION.--Lat 41°33'30", long 75°53'42", Wyoming County, Hydrologic Unit 02050106, on left bank 300 ft upstream from bridge on U.S. Highway 6 at Dixon, 3.0 mi northeast of Tunkhannock, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--383 mi².

PERIOD OF RECORD.--February 1914 to current year. Prior to October 1965, published as "at Dixon".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1921(M), 1932, 1934-35(M), 1936, 1938(M), 1939-40, 1942-44, 1945(M). WSP 1302: 1922, 1923(M), 1924-25, 1927-28. WSP 1432: 1919(M), 1920, 1933, 1934(P). WDR PA-85-2: 1954(P), 1955(M), 1956(P), 1957(M), 1958-64(P), 1967-71(P), 1977(M), 1978(P), 1981(M), 1982-84(P).

GAGE.--Water-stage recorder. Datum of gage is 610.50 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation bench mark). Prior to Aug. 10, 1938, 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. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	115	194	282	e200	606	1070	756	2170	73	644	117
2	45	52	177	e270	e180	599	961	719	1810	65	351	94
3	56	42	1830	e255	e175	607	836	961	1110	62	244	85
4	e50	40	1600	380	e170	530	739	771	803	65	207	96
5	e45	42	966	726	e160	530	650	660	666	70	207	98
6	e52	43	743	557	e155	556	562	646	828	72	167	81
7	e40	55	611	478	e150	726	503	566	660	67	136	78
8	e33	54	552	419	e140	999	488	606	549	60	119	77
9	28	52	561	386	e135	878	460	1910	497	86	434	72
10	30	53	485	442	e130	804	475	1270	399	95	386	71
11	37	88	411	412	e125	3520	488	980	329	72	254	203
12	71	105	368	357	e120	2360	1060	802	282	62	194	163
13	91	100	351	338	e115	1500	844	688	246	63	163	115
14	65	81	493	513	e110	1100	686	598	217	74	152	91
15	53	71	608	781	153	888	611	517	192	81	176	76
16	91	71	479	488	776	692	561	607	169	184	150	69
17	119	66	387	377	722	614	1030	551	155	147	135	63
18	186	59	e330	e300	387	548	1860	478	143	218	147	59
19	157	55	e290	e280	386	537	2520	409	137	242	167	83
20	115	52	e270	e270	478	488	1690	348	135	169	138	102
21	96	54	e260	e260	378	453	1330	301	135	142	117	77
22	e104	183	e250	e250	341	401	2140	268	127	133	98	73
23	e92	1970	e270	333	323	410	1870	242	118	130	85	228
24	e78	817	301	740	332	359	1500	231	115	166	75	173
25	e68	552	266	540	358	365	2840	270	121	137	67	125
26	e58	408	e215	408	488	724	2040	235	110	124	159	181
27	e52	324	e205	e320	483	3080	1560	231	109	332	110	259
28	e49	270	201	e270	467	2160	1200	221	108	231	91	226
29	e47	235	234	e250	937	1400	979	190	92	162	340	183
30	e59	213	427	e230	---	1150	831	174	78	223	235	149
31	183	---	323	e210	---	1230	---	1090	---	484	156	---
TOTAL	2289	6322	14658	12122	9074	30814	34384	18296	12610	4291	6104	3567
MEAN	73.8	211	473	391	313	994	1146	590	420	138	197	119
MAX	186	1970	1830	781	937	3520	2840	1910	2170	484	644	259
MIN	28	40	177	210	110	359	460	174	78	60	67	59
CFSM	.19	.55	1.23	1.02	.82	2.60	2.99	1.54	1.10	.36	.51	.31
IN.	.22	.61	1.42	1.18	.88	2.99	3.34	1.78	1.22	.42	.59	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

	MEAN	316	528	606	536	657	1165	1087	640	350	213	170	199
MAX	1772	1934	1621	1978	1682	2910	3092	1806	1939	1007	830	1130	
(WY)	1956	1973	1984	1979	1925	1936	1983	1989	1972	1947	1933	1975	
MIN	21.4	25.9	51.6	59.0	76.3	288	235	122	48.4	23.9	19.0	12.4	
(WY)	1965	1965	1923	1981	1980	1915	1946	1941	1962	1962	1930	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1914 - 1992

ANNUAL TOTAL	132145	154531	
ANNUAL MEAN	362	422	537
HIGHEST ANNUAL MEAN			897
LOWEST ANNUAL MEAN			220
HIGHEST DAILY MEAN	2970	Mar 4	22700
LOWEST DAILY MEAN	17	Sep 3, 12	6.9
ANNUAL SEVEN-DAY MINIMUM	18	Sep 9	7.9
INSTANTANEOUS PEAK FLOW			5850
INSTANTANEOUS PEAK STAGE			7.28
INSTANTANEOUS LOW FLOW			28
ANNUAL RUNOFF (CFSM)	.95	1.10	1.40
ANNUAL RUNOFF (INCHES)	12.83	15.01	19.04
10 PERCENT EXCEEDS	816	962	1230
50 PERCENT EXCEEDS	194	242	256
90 PERCENT EXCEEDS	26	64	50

a Gage height, 13.96 ft, from rating curve extended above 14,000 ft³/s on basis of contracted-opening measurement of peak flow.

b Discharge, 30,600 ft³/s.

c Estimated.

LACKAWANNA RIVER BASIN

01534180 STILLWATER LAKE NEAR FOREST CITY, PA

LOCATION.--Lat 41°41'46", long 75°29'10", Susquehanna County, Hydrologic Unit 02050107, at Stillwater Dam on Lackawanna River, 0.3 mi downstream from confluence of East and West Branches, 1.4 mi south of Union Dale, and 3.5 mi north of Forest City.

DRAINAGE AREA.--37.1 mi².

PERIOD OF RECORD.--December 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earthfill dam, rock faced, with ungated concrete spillway at elevation 1,621.00 ft. Storage began in December 1959. Capacity at elevation 1,621.00 ft is 12,000 acre-ft. Reservoir is used for flood control and municipal water supply. Figures given herein represent total contents. Flood storage is regulated by power-operated slide gate; water supply storage is regulated by a weir formed by stop logs. U.S. Army Corps of Engineers satellite and landline telemeters at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,470 acre-ft, Mar. 16, 1986, elevation, 1,605.61 ft; minimum, 242 acre-ft, Sept. 10, 1960, elevation, 1,568.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,830 acre-ft, June 1, elevation, 1,584.06 ft; minimum, 365 acre-ft, Sept. 5, elevation, 1,572.24 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
Sept. 30	1,572.45	384	--
Oct. 31	1,572.45	384	0
Nov. 30	1,573.20	452	+ 1.1
Dec. 31	1,573.67	498	+ 0.75
CAL YR 1991	--	--	- 1.73
Jan. 31	1,573.34	466	- 0.52
Feb. 29	1,574.12	542	+ 1.3
Mar. 31	1,574.94	628	+ 1.4
Apr. 30	1,577.98	981	+ 5.9
May 31	1,578.15	1,000	+ 0.31
June 30	1,572.77	412	- 9.9
July 31	1,574.37	568	+ 2.5
Aug. 31	1,573.37	469	- 1.6
Sept. 30	1,573.81	512	+ 0.72
WTR YR 1992	--	--	+ 0.18

LACKAWANNA RIVER BASIN

01534300 LACKAWANNA RIVER NEAR FOREST CITY, PA

LOCATION.--Lat 41°40'47", long 75°28'20", Susquehanna County, Hydrologic Unit 02050107, on left bank 1,600 ft upstream from bridge on State Highway 171, 1.3 mi downstream from Stillwater Dam, 1.6 mi downstream from confluence of East and West Branches, and 2.2 mi north of Forest City.

DRAINAGE AREA.--38.8 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,551.28 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1959 by Stillwater Dam (station 01534180). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--34 years, 71.4 ft³/s, 24.99 in/yr, adjusted for storage since December 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.2	29	e43	e32	e70	149	75	211	11	96	30
2	3.1	3.2	27	e41	e31	e66	136	67	438	9.0	82	23
3	3.0	3.2	46	43	e29	63	113	109	410	7.9	59	18
4	2.9	3.2	108	55	e27	56	92	121	287	8.5	47	17
5	3.0	3.1	119	124	e23	70	79	100	166	9.8	47	14
6	3.2	3.1	88	152	e22	85	70	99	161	11	39	13
7	3.1	3.1	69	124	e21	93	65	98	161	10	31	11
8	3.1	3.1	61	85	e20	107	63	83	124	8.8	26	11
9	3.0	3.1	80	72	e15	113	62	109	91	12	44	10
10	2.9	3.1	90	67	e13	115	61	123	73	13	75	11
11	3.2	3.7	81	63	e12	144	64	89	61	11	67	25
12	4.1	6.0	69	57	e9.0	239	98	73	51	9.0	50	33
13	5.0	7.2	62	53	e8.0	288	117	73	44	9.4	38	28
14	4.8	7.1	72	e60	e7.5	255	118	69	39	8.6	32	21
15	4.4	6.6	86	e100	e7.0	207	111	52	34	8.9	29	16
16	5.6	6.9	e80	e90	e25	127	103	64	30	14	27	13
17	5.9	6.3	e60	e70	49	83	113	78	27	17	24	11
18	8.1	7.4	e52	e60	51	69	141	72	24	22	28	9.5
19	9.6	7.9	e40	e50	47	65	171	57	22	25	29	10
20	8.6	6.3	e38	e45	68	57	242	36	21	19	26	13
21	7.3	5.4	e40	e43	69	53	342	35	20	15	21	14
22	6.4	12	e41	e42	58	46	249	37	19	13	17	16
23	5.5	140	42	e45	52	e44	207	41	17	12	11	33
24	4.9	186	41	e66	48	e42	167	39	17	13	10	41
25	4.4	129	40	e86	49	e41	194	34	18	12	9.8	34
26	4.2	74	33	e56	50	54	280	34	17	13	9.2	36
27	3.6	53	32	e47	50	138	218	34	16	30	8.8	55
28	3.5	42	30	e43	48	272	136	33	15	34	10	63
29	3.5	37	32	e40	e68	338	111	33	15	29	28	53
30	3.5	32	49	e37	---	248	101	182	13	39	43	42
31	3.4	---	e47	e34	---	165	---	136	---	64	38	---
TOTAL	140.0	807.2	1784	1993	1008.5	3813	4173	2285	2642	518.9	1101.8	724.5
MEAN	4.52	26.9	57.5	64.3	34.8	123	139	73.7	88.1	16.7	35.5	24.1
MAX	9.6	186	119	152	69	338	342	182	438	64	96	63
MIN	2.9	3.1	27	34	7.0	41	61	33	13	7.9	8.8	9.5
MEAN‡	4.5	28.0	58.2	63.8	36.1	124	145	74.0	78.2	19.2	33.9	24.8
CFSM‡	.12	.72	1.50	1.64	.93	3.20	3.74	1.91	2.02	.49	.87	.64
IN.‡	.14	.80	1.73	1.89	1.00	3.69	4.17	2.20	2.25	.56	1.00	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

	MEAN	46.7	72.4	84.2	65.4	79.6	133	159	86.4	56.2	27.6	18.2	29.9
MAX	239	264	234	208	245	261	305	232	205	123	59.7	221	
(WY)	1978	1973	1974	1979	1981	1979	1970	1989	1989	1973	1986	1977	
MIN	2.45	2.48	25.3	9.64	13.2	48.4	58.8	31.5	11.1	4.67	2.92	1.17	
(WY)	1965	1965	1990	1981	1980	1960	1968	1982	1980	1991	1980	1980	

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1959 - 1992
ANNUAL TOTAL	17983.8	20990.9	
ANNUAL MEAN	49.3	57.4	71.4
HIGHEST ANNUAL MEAN		57.4	112
LOWEST ANNUAL MEAN			36.3
HIGHEST DAILY MEAN	395	Mar 5	1060
LOWEST DAILY MEAN	1.6	Sep 3	a.00
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 2	.43
INSTANTANEOUS PEAK FLOW		464	bc1390
INSTANTANEOUS PEAK STAGE		3.80	Jun 1
INSTANTANEOUS LOW FLOW		2.5	Oct 4,5,10
ANNUAL RUNOFF (CFSM)	1.27	\$1.22	a.00
ANNUAL RUNOFF (INCHES)	17.24	\$16.64	1.84
10 PERCENT EXCEEDS	121	128	170
50 PERCENT EXCEEDS	24	40	39
90 PERCENT EXCEEDS	3.1	5.6	7.2

‡ Adjusted for change in contents in Stillwater Lake.

a Result of shutoff at Stillwater Dam.

b From rating curve extended above 930 ft³/s.

c Instantaneous peak since regulation, 1,020 ft³/s, Feb. 26, 1975, gage height, 4.85 ft.

e Estimated.

LACKAWANNA RIVER BASIN

01534500 LACKAWANNA RIVER AT ARCHBALD, PA

LOCATION.--Lat 41°30'16", long 75°32'33", Lackawanna County, Hydrologic Unit 02050107, on right bank along SR 1012 in Archbald, and 0.5 mi upstream from White Oak Run and Gilmartin Street bridge.

DRAINAGE AREA.--108 mi².

PERIOD OF RECORD.--October 1939 to current year. Prior to February 1940 monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 889.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation at low flow by mine pumps upstream from station. Flow regulated since December 1959 by Stillwater Dam (station 01534180) about 17 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--53 years, 201 ft³/s, 25.27 in/yr, adjusted for storage since December 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	26	94	e105	e90	194	366	256	909	59	175	72
2	25	25	87	e100	e83	195	339	226	864	53	148	64
3	25	25	218	e110	e80	185	301	269	688	51	115	60
4	24	25	281	150	e78	171	264	283	515	53	133	59
5	25	24	256	230	e70	193	238	264	373	51	110	54
6	27	25	217	247	e68	214	214	258	529	58	97	52
7	24	24	182	222	e66	233	198	234	397	51	81	52
8	24	24	169	183	e64	265	191	235	350	49	72	50
9	24	24	183	165	e57	261	184	380	286	67	123	48
10	24	24	188	162	e50	261	183	339	232	54	135	49
11	32	32	175	151	e45	612	195	284	196	51	122	67
12	34	32	156	137	e40	527	322	244	170	47	100	70
13	30	33	151	129	e37	516	293	227	150	49	86	65
14	30	33	247	180	e34	441	278	209	134	58	79	58
15	29	33	246	225	e30	368	262	184	121	58	74	53
16	38	34	e210	e200	e120	277	254	203	109	67	67	49
17	39	33	e180	e160	121	219	455	210	101	61	64	47
18	47	32	e150	e130	113	191	599	192	95	71	90	46
19	41	36	e130	e110	117	184	605	174	92	67	101	46
20	39	35	e120	e100	144	167	550	136	87	60	91	46
21	36	35	e115	e90	140	154	591	127	82	60	73	48
22	35	173	e120	e100	126	140	609	121	77	53	50	53
23	33	548	123	e125	119	138	482	121	75	72	44	68
24	31	393	e115	175	118	128	489	127	84	68	40	76
25	30	288	e105	155	120	126	624	119	78	56	39	70
26	29	203	e95	e130	139	192	614	111	72	80	38	93
27	28	156	e88	e110	130	646	503	110	73	113	40	107
28	27	131	e83	e100	127	562	373	105	69	88	49	112
29	26	115	e100	e98	226	593	317	100	64	78	95	97
30	26	104	131	e96	---	483	296	209	62	78	89	83
31	26	---	e130	e95	---	409	---	607	---	143	84	---
TOTAL	933	2725	4845	4470	2752	9245	11189	6664	7134	2024	2704	1914
MEAN	30.1	90.8	156	144	94.9	298	373	215	238	65.3	87.2	63.8
MAX	47	548	281	247	226	646	624	607	909	143	175	112
MIN	24	24	83	90	30	126	183	100	62	47	38	46
MEAN‡	30.1	91.9	157	143	96.2	299	379	215	228	67.8	85.6	64.5
CFSM‡	.28	.85	1.45	1.32	.89	2.77	3.51	1.99	2.11	.63	.79	.60
IN.‡	.32	.95	1.67	1.52	.96	3.19	3.92	2.29	2.35	.73	.91	.67

‡ Adjusted for change in contents in Stillwater Lake.

e Estimated..

LACKAWANNA RIVER BASIN

01534500 LACKAWANNA RIVER AT ARCHBALD, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	125	191	224	176	223	367	406	267	173	94.1	68.7	86.5
MAX	578	661	581	535	598	741	829	610	605	278	173	377
(WY)	1978	1973	1974	1979	1981	1977	1970	1989	1972	1984	1969	1987
MIN	15.8	17.4	77.9	38.2	40.4	143	174	101	47.9	25.6	25.0	18.4
(WY)	1965	1965	1965	1981	1980	1981	1988	1982	1962	1965	1966	1964

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1960 - 1992

ANNUAL TOTAL	48310		56599									
ANNUAL MEAN	132	‡130	155	‡155								
HIGHEST ANNUAL MEAN										200		
LOWEST ANNUAL MEAN										313		1973
HIGHEST DAILY MEAN	698			Apr 22		909		Jun 1		3250		Mar 15 1986
LOWEST DAILY MEAN	17			Sep 11		24		Oct 4 ^a		13		Nov 1 1964
ANNUAL SEVEN-DAY MINIMUM	18			Sep 10		24		Nov 4		14		Oct 26 1964
INSTANTANEOUS PEAK FLOW						1360		May 31		‡5390		Mar 15 1986
INSTANTANEOUS PEAK STAGE						4.70		May 31		8.22		Mar 15 1986
ANNUAL RUNOFF (CFSM)	1.23	‡1.20				1.43		‡1.44		1.85		
ANNUAL RUNOFF (INCHES)	16.64	‡16.43				19.50		‡19.48		25.12		
10 PERCENT EXCEEDS	278					339				459		
50 PERCENT EXCEEDS	94					110				120		
90 PERCENT EXCEEDS	24					33				35		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	113	209	222	203	181	377	455	279	145	112	92.3	78.9
MAX	657	430	420	380	371	691	1113	553	284	373	443	187
(WY)	1956	1946	1951	1949	1951	1945	1940	1947	1946	1947	1955	1945
MIN	27.2	50.1	53.3	56.8	65.2	188	121	85.6	63.4	38.4	31.8	28.8
(WY)	1942	1942	1947	1948	1940	1941	1946	1941	1955	1955	1953	1953

SUMMARY STATISTICS WATER YEARS 1940 - 1959

ANNUAL MEAN	203											
HIGHEST ANNUAL MEAN	266				1956							
LOWEST ANNUAL MEAN	153				1957							
HIGHEST DAILY MEAN	4840			May 23 1942								
LOWEST DAILY MEAN	17			Oct 12 1941								
ANNUAL SEVEN-DAY MINIMUM	20			Oct 18 1953								
INSTANTANEOUS PEAK FLOW	‡9510			May 22 1942								
INSTANTANEOUS PEAK STAGE	10.58			May 22 1942								
INSTANTANEOUS LOW FLOW	3.0			Oct 9, 11 1943								
ANNUAL RUNOFF (CFSM)	1.88											
ANNUAL RUNOFF (INCHES)	25.54											
10 PERCENT EXCEEDS	439											
50 PERCENT EXCEEDS	123											
90 PERCENT EXCEEDS	42											

‡ Adjusted for change in contents in Stillwater Lake.

^a Also Oct. 7-10, Nov. 5, 7-10.^b From rating curve extended above 1,900 ft³/s on basis of slope-area measurement of peak flow.

LACKAWANNA RIVER BASIN

01536000 LACKAWANNA RIVER AT OLD FORGE, PA

LOCATION.--Lat 41°21'33", long 75°44'41", Lackawanna County, Hydrologic Unit 02050107, on right bank 100 ft downstream from bridge on SR 3017, 150 ft upstream from Delaware, Lackawanna, and Western Railroad bridge in Old Forge, and 0.5 mi upstream from St. Johns Creek.

DRAINAGE AREA.--332 mi².

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1432: 1939(M), 1940, 1945. WDR PA-90-2: 1985(M).

GAGE.--Water-stage recorder. Datum of gage is 595.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1974, water-stage recorder at same site and datum. Oct. 1, 1974, to Aug. 17, 1975, nonrecording gage at site 150 ft upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1959 by Stillwater Dam (station 01534180) about 33 mi upstream. Several measurements of water temperature were made during the year. National Weather Service satellite and landline telemeters at station.

AVERAGE DISCHARGE.--54 years, 487 ft³/s, 19.92 in/yr, adjusted for storage since December 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	62	183	200	e180	508	968	513	2650	101	243	112
2	51	50	175	e190	e168	488	868	467	2390	90	207	99
3	46	47	968	e200	172	461	750	579	1720	81	165	92
4	45	48	717	261	162	416	628	580	1250	89	358	92
5	43	47	552	389	e145	412	556	491	908	94	197	82
6	75	47	457	411	142	430	488	477	1500	123	157	76
7	48	48	382	381	148	445	448	443	1110	88	133	75
8	46	47	343	336	146	509	432	586	832	80	114	76
9	45	46	338	310	e120	496	410	1650	663	170	202	73
10	45	44	340	303	107	484	409	1180	511	100	212	111
11	99	139	314	281	131	1820	446	913	420	84	248	169
12	97	73	282	255	e110	1500	643	711	362	78	202	101
13	62	62	283	241	e98	1240	566	597	311	84	177	92
14	54	57	399	382	124	965	508	530	269	173	189	87
15	54	57	436	459	135	765	475	471	227	234	158	78
16	130	53	e370	e380	259	568	457	552	193	218	137	70
17	151	49	e320	e320	225	471	704	538	169	120	134	65
18	191	50	e280	e280	206	420	1190	474	154	117	244	60
19	102	51	e245	e220	201	411	1260	428	156	98	216	67
20	83	54	235	258	244	375	1060	356	249	92	176	57
21	71	90	233	257	245	340	1060	313	172	109	157	58
22	67	849	224	253	222	305	1420	284	141	84	117	173
23	64	1830	228	270	206	307	1150	264	128	144	102	200
24	59	862	237	369	214	275	974	297	208	143	93	116
25	57	569	208	294	230	261	1340	291	194	98	87	104
26	54	418	179	e255	346	393	1270	253	148	188	77	170
27	50	323	177	241	325	2030	1060	247	248	276	71	163
28	51	267	163	240	303	1600	787	228	171	161	126	162
29	51	233	200	225	658	1420	623	208	134	133	236	150
30	51	209	261	215	---	1160	567	272	113	114	140	121
31	54	---	253	208	---	1120	---	1510	---	200	130	---
TOTAL	2147	6781	9982	8884	5972	22395	23517	16703	17701	3964	5205	3151
MEAN	69.3	226	322	287	206	722	784	539	590	128	168	105
MAX	191	1830	968	459	658	2030	1420	1650	2650	276	358	200
MIN	43	44	163	190	98	261	409	208	113	78	71	57
MEAN [‡]	69.3	227	323	286	207	723	790	539	580	130	166	106
CFSM [‡]	.21	.68	.97	.86	.62	2.18	2.38	1.62	1.75	.39	.50	.32
IN. [‡]	.24	.76	1.12	.99	.67	2.51	2.66	1.87	1.95	.45	.58	.36

[‡] Adjusted for change in contents in Stillwater Lake.

e Estimated.

LACKAWANNA RIVER BASIN

01536000 LACKAWANNA RIVER AT OLD FORGE, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	263	390	472	388	517	806	882	631	378	197	145	184
MAX	1276	1223	1312	1282	1198	1767	2047	1658	1488	566	333	978
(WY)	1978	1973	1974	1979	1981	1977	1983	1989	1972	1984	1986	1987
MIN	37.3	45.2	125	61.4	88.7	291	353	199	69.8	46.4	49.5	37.8
(WY)	1965	1965	1965	1981	1980	1981	1985	1962	1962	1965	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1960 - 1992

ANNUAL TOTAL	120150		126402									
ANNUAL MEAN	329	‡327	345	‡346						437		
HIGHEST ANNUAL MEAN										712		1960
LOWEST ANNUAL MEAN										194		1965
HIGHEST DAILY MEAN	2740	Apr 22	2650	Jun 1					9580		Sep 27	1985
LOWEST DAILY MEAN	36	Sep 2	43	Oct 5					26		Jul 16	1962
ANNUAL SEVEN-DAY MINIMUM	40	Sep 11	47	Nov 4					29		Sep 16	1964
INSTANTANEOUS PEAK FLOW			3960	Nov 22					a24000		Sep 27	1985
INSTANTANEOUS PEAK STAGE			6.16	Nov 22					b16.49		Sep 27	1985
INSTANTANEOUS LOW FLOW			37	Oct 5					20		Sep 21	1964
ANNUAL RUNOFF (CFSM)	.99	‡.98	1.04	‡1.04						1.32		
ANNUAL RUNOFF (INCHES)	13.46	‡13.39	14.16	‡14.17						17.88		
10 PERCENT EXCEEDS	846		837						1060			
50 PERCENT EXCEEDS	201		219						240			
90 PERCENT EXCEEDS	47		59						66			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	305	503	600	512	531	986	1195	814	454	360	303	229
MAX	1618	1199	1260	1047	1263	1652	2614	1750	866	1375	1448	778
(WY)	1956	1956	1939	1949	1939	1945	1958	1947	1946	1947	1955	1945
MIN	106	122	169	166	160	526	368	262	188	125	130	116
(WY)	1942	1942	1942	1944	1940	1941	1946	1941	1955	1955	1954	1943

SUMMARY STATISTICS

WATER YEARS 1939 - 1959

ANNUAL MEAN	566											
HIGHEST ANNUAL MEAN	781					1956						
LOWEST ANNUAL MEAN	401					1944						
HIGHEST DAILY MEAN	14000				Aug 19	1955						
LOWEST DAILY MEAN	73				Sep 26	1943						
ANNUAL SEVEN-DAY MINIMUM	87				Oct 8	1943						
INSTANTANEOUS PEAK FLOW	a31000				Aug 19	1955						
INSTANTANEOUS PEAK STAGE	b20.05				Aug 19	1955						
INSTANTANEOUS LOW FLOW	54				Sep 1, 2	1957						
ANNUAL RUNOFF (CFSM)	1.70											
ANNUAL RUNOFF (INCHES)	23.16											
10 PERCENT EXCEEDS	1200											
50 PERCENT EXCEEDS	340											
90 PERCENT EXCEEDS	138											

‡ Adjusted for change in contents in Stillwater Lake.

a From rating curve extended above 3,800 ft³/s on basis of slope-area measurements at gage heights 15.30 ft, 16.49 ft, and at peak flow.

b From floodmark.

SUSQUEHANNA RIVER BASIN

01536500 SUSQUEHANNA RIVER AT WILKES-BARRE, PA

LOCATION.--Lat 41°15'03", long 75°52'52", Luzerne County, Hydrologic Unit 02050107, on left bank at foot of West Union Street, 800 ft downstream from North Street bridge in Wilkes-Barre, and 1.6 mi upstream from Toby Creek.

DRAINAGE AREA.--9,960 mi².

PERIOD OF RECORD.--April 1899 to current year. Gage-height records collected at same site since November 1890, contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 109: 1900-1905. WSP 351: Drainage area. WSP 781: 1902(M). WSP 1302: 1916. WSP 1432: 1901-5, 1907, 1909, 1913, 1937(M). WDR PA-86-2: 1960(M), 1964(M), 1975(M), 1979(M). WDR PA-89-2: 1964(P). WDR PA-90-2: 1988(M) 1989(P).

GAGE.--Water-stage recorder. Datum of gage is 512.07 ft above National Geodetic Vertical Datum of 1929. See WSP 1722 for history of changes prior to Mar. 23, 1949.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 8 flood-control reservoirs, which have a combined capacity of 368,800 acre-ft. U.S. Army Corps of Engineers satellite telemeter and National Weather Service landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1899, 33.1 ft, Mar. 18, 1865, from floodmarks, discharge, about 232,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1900	7850	e11000	e8400	14800	33900	18400	18800	2980	18000	10400
2	1690	1880	7660	e10000	e7800	14700	31400	16700	38700	2710	31900	8350
3	1700	1850	10700	9030	e7300	13300	29400	17100	37800	2510	23600	6580
4	1660	1850	17700	8690	e6600	12200	25100	25800	27200	2410	18600	5560
5	1560	1840	21900	11900	e6300	11500	21800	28300	20100	2380	14100	7690
6	1510	1830	20500	18100	e6000	11100	19200	26900	17900	2360	11500	7940
7	1500	1790	16000	19100	e5600	12300	17200	23500	16600	2320	9920	6620
8	1490	1750	13200	16500	e5400	16200	15900	22900	15900	2290	8570	5760
9	1490	1620	12000	14200	e5000	20700	16400	25900	14100	2800	8110	5110
10	1490	1530	11800	12600	e4300	23600	18100	25400	12000	3000	8610	6220
11	1510	1570	12600	11800	e3800	29300	17500	21900	10200	3180	9590	6450
12	1580	1610	13300	11400	e3400	40700	18000	18700	8700	2980	8280	8320
13	1640	1610	12300	10900	e3100	42200	28000	16100	7460	2970	6970	9440
14	1640	1860	11300	e10000	e2900	34800	29200	14100	6570	3080	6700	8300
15	1640	2210	12000	14000	e3500	26300	23400	13100	5880	3160	6620	7310
16	1780	2460	13900	21000	e4600	21200	19500	12600	5310	3700	8020	6180
17	1940	2730	14400	e19000	5950	18100	18200	11800	4830	7160	8380	4940
18	2360	2780	13100	e15000	e7800	15800	27500	11000	4430	10600	8570	4330
19	2470	2860	e10000	e12000	e10000	14800	44000	10300	4120	11100	8570	4060
20	2430	2880	e9000	e10200	e11000	14100	48500	9740	3940	12400	7820	3840
21	2410	2920	e8700	e9600	15000	13100	38900	8950	3820	10300	7630	3640
22	2430	3550	8480	e9200	17000	12200	34100	8040	3990	8180	7390	3850
23	2430	9380	8520	e9800	13700	11400	31400	7210	4400	7370	6610	4450
24	2370	15800	8570	e12000	12100	10400	27200	6560	4910	6880	5750	9560
25	2320	20800	e8200	e14000	12500	9820	27600	6250	4390	6310	5120	10700
26	2320	19000	e7700	e15000	13700	10200	31800	5950	3870	9520	4720	8680
27	2320	14800	e7200	e12000	13700	29000	33800	5720	3790	11200	4430	11400
28	2280	12200	e6400	e10500	12900	84400	30000	5530	3500	14500	4230	18200
29	2060	10000	e6200	e9800	13300	76600	25200	5400	3340	12600	5440	14900
30	1910	8520	e6600	e9200	---	50400	21100	5190	3190	9570	12700	11700
31	1900	---	e9100	e8800	---	39000	---	7200	---	9770	14900	---
TOTAL	59490	157380	346880	386320	242650	754220	803300	442240	319740	192290	311350	230480
MEAN	1919	5246	11190	12460	8367	24330	26780	14270	10660	6203	10040	7683
MAX	2470	20800	21900	21000	17000	84400	48500	28300	38700	14500	31900	18200
MIN	1490	1530	6200	8690	2900	9820	15900	5190	3190	2290	4230	3640
CFSM	.19	.53	1.12	1.25	.84	2.44	2.69	1.43	1.07	.62	1.01	.77
IN.	.22	.59	1.30	1.44	.91	2.82	3.00	1.65	1.19	.72	1.16	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1992, BY WATER YEAR (WY)

	MEAN	6944	10930	13680	13420	14770	30430	30440	16450	9028	5356	3913	4314
MAX	39860	32130	36630	36070	43030	80560	85900	39590	54330	29010	18630	28680	
(WY)	1878	1928	1973	1913	1976	1936	1940	1943	1972	1902	1915	1975	
MIN	705	724	1357	1386	2710	10250	6918	3388	2428	1086	853	637	
(WY)	1965	1965	1909	1931	1920	1965	1946	1903	1921	1962	1964	1964	

SUMMARY STATISTICS

	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1899 - 1992
ANNUAL TOTAL	3794100	4246340	
ANNUAL MEAN	10390	11600	13310
HIGHEST ANNUAL MEAN			21990
LOWEST ANNUAL MEAN			6186
HIGHEST DAILY MEAN	88800	Mar 5	329000
LOWEST DAILY MEAN	795	Sep 14	532
ANNUAL SEVEN-DAY MINIMUM	828	Sep 11	546
INSTANTANEOUS PEAK FLOW			92000
INSTANTANEOUS PEAK STAGE			18.46
INSTANTANEOUS LOW FLOW			1490
ANNUAL RUNOFF (CFSM)	1.04	1.16	1.34
ANNUAL RUNOFF (INCHES)	14.17	15.86	18.16
10 PERCENT EXCEEDS	23000	25100	32100
50 PERCENT EXCEEDS	5640	9150	7010
90 PERCENT EXCEEDS	1230	2290	1650

a From slope-area measurement of peak flow near West Pittston and adjusted for flow from intervening area.

b From floodmark.

e Estimated.

TOBY CREEK BASIN

01537000 TOBY CREEK AT LUZERNE, PA

LOCATION.--Lat 41°16'57", long 75°53'46", Luzerne County, Hydrologic Unit 02050107, on left bank at Luzerne, 150 ft upstream from bridge on State Highway 309, 0.5 mi upstream from inlet works of flood basin, and 2.5 mi upstream from mouth.²

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--August 1941 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 574.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight regulation by Huntsville Reservoir 5.9 mi upstream, usable capacity 5,900 acre-ft. Diversion from reservoir for municipal supply. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 45.5 ft³/s, 19.07 in/yr, adjusted for diversion.

COOPERATION.--Records of diversion provided by Pennsylvania Gas and Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	4.8	14	e17	e19	38	83	44	89	17	13	10
2	11	5.3	15	e16	19	36	78	41	56	11	12	13
3	11	5.3	182	e18	19	33	69	47	39	11	11	13
4	12	4.9	76	24	e17	30	60	38	31	14	18	13
5	10	5.1	40	25	e17	29	53	37	36	14	13	12
6	12	4.6	31	22	19	29	43	43	46	14	11	12
7	10	4.6	26	20	18	53	41	35	33	11	10	13
8	9.2	6.2	24	19	e17	46	41	97	28	11	11	12
9	8.7	7.3	23	19	e16	37	37	172	24	21	19	12
10	11	6.9	23	21	e16	36	36	113	20	12	12	13
11	15	13	20	20	e15	214	49	86	17	9.5	19	15
12	14	8.0	20	19	e15	122	60	71	15	11	17	13
13	11	7.8	25	18	e14	83	44	61	15	10	17	12
14	8.7	6.8	35	37	e14	64	37	53	14	16	15	12
15	8.2	6.6	30	28	e22	52	34	47	14	42	14	9.6
16	18	7.2	24	e21	33	40	30	63	11	28	13	7.7
17	24	6.5	e21	e20	19	37	33	49	12	15	13	8.0
18	30	5.1	e17	e19	17	33	35	48	12	15	22	7.7
19	14	5.7	e16	e18	22	35	37	40	13	12	16	10
20	10	5.7	e15	e18	21	32	33	33	13	10	13	9.7
21	8.2	9.6	e14	e17	18	30	43	27	13	13	12	7.8
22	7.2	109	e16	e17	18	28	169	23	12	10	12	13
23	6.6	115	19	33	18	28	128	21	11	19	11	13
24	6.2	33	19	38	21	27	99	24	17	18	10	8.9
25	6.2	23	17	24	23	27	95	24	12	14	9.9	8.5
26	5.6	18	15	e20	43	65	80	21	11	21	14	27
27	5.5	18	14	e19	33	228	70	24	18	22	11	17
28	6.0	16	14	e19	36	118	58	19	12	15	12	13
29	6.0	14	30	e20	66	85	51	16	11	13	26	11
30	6.6	14	28	21	---	72	47	21	12	12	14	9.6
31	5.0	---	21	20	---	98	---	157	---	15	12	---
TOTAL	327.9	497.0	884	667	645	1885	1773	1595	667	476.5	432.9	356.5
MEAN	10.6	16.6	28.5	21.5	22.2	60.8	59.1	51.5	22.2	15.4	14.0	11.9
MAX	30	115	182	38	66	228	169	172	89	42	26	27
MIN	5.0	4.6	14	16	14	27	30	16	11	9.5	9.9	7.7
(†)	6.35	7.47	7.42	6.03	3.70	3.71	3.73	4.10	4.46	4.50	4.49	3.93
MEAN‡	17.0	24.1	35.9	27.5	25.9	64.5	62.8	55.6	26.7	19.9	18.5	15.8
CFSM‡	.52	.74	1.11	.85	.80	1.99	1.94	1.72	.82	.61	.57	.49
IN.‡	.60	.83	1.28	.98	.86	2.29	2.16	1.98	.92	.70	.66	.55

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

‡ Adjusted for diversion.

e Estimated.

TOBY CREEK BASIN

01537000 TOBY CREEK AT LUZERNE, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.8	31.4	42.5	41.0	50.6	81.4	79.8	57.6	31.1	22.0	14.8	18.7
MAX	124	88.4	134	122	119	175	222	161	222	123	62.3	143
(WY)	1977	1944	1973	1978	1951	1950	1983	1989	1972	1945	1945	1973
MIN	3.76	3.21	6.36	4.61	11.9	14.0	22.9	11.9	5.54	3.32	3.70	3.00
(WY)	1942	1965	1947	1981	1969	1965	1946	1962	1965	1949	1953	1951

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1942 - 1992		
ANNUAL TOTAL	12434.0			10206.8					
ANNUAL MEAN	34.1			27.9			40.9		
HIGHEST ANNUAL MEAN	38.4			32.9			67.5		
LOWEST ANNUAL MEAN							11.7		
HIGHEST DAILY MEAN	202	Mar	4	228	Mar	27	1700	Dec	30 1942
LOWEST DAILY MEAN	4.6	Nov	6	4.6	Nov	6,7	.50	Sep	20 1946
ANNUAL SEVEN-DAY MINIMUM	4.9	Nov	1	4.9	Nov	1	.90	Sep	14 1946
INSTANTANEOUS PEAK FLOW				448	Nov	22	a3390	Jun	22 1972
INSTANTANEOUS PEAK STAGE				2.25	Nov	22	b6.07	Jun	22 1972
INSTANTANEOUS LOW FLOW				2.6	Nov	4-7, 18	.10	Sep	12 1944
ANNUAL RUNOFF (CFSM)	1.05		1.19	.86		1.02	1.26		
ANNUAL RUNOFF (INCHES)	14.28		16.10	11.72		13.82	17.15		
10 PERCENT EXCEEDS	86			57			93		
50 PERCENT EXCEEDS	17			18			20		
90 PERCENT EXCEEDS	6.7			8.6			5.6		

‡ Adjusted for diversion.

a From rating curve extended above 1,200 ft³/s on basis of slope-area measurement of peak flow.

b In gage, 7.59 ft from outside floodmark.

WAPWALLOPEN CREEK BASIN

01538000 WAPWALLOPEN CREEK NEAR WAPWALLOPEN, PA

LOCATION.--Lat 41°03'33", long 76°05'38", Luzerne County, Hydrologic Unit 02050107, on left bank 100 ft upstream from Harts Bridge on SR 3012, 2.2 mi southeast of Wapwallopen, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--43.8 mi².

PERIOD OF RECORD.--October 1919 to current year.

REVISED RECORDS.--WSP 1302: 1926(M), 1929(M), 1938(M). WSP 1432: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 752.41 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad bench mark). Prior to Mar. 15, 1930, 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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	8.9	29	e37	e48	83	134	81	151	24	35	17
2	5.8	9.0	27	e33	e45	76	118	75	101	24	29	16
3	5.5	9.0	188	e35	e43	70	106	71	80	22	27	17
4	5.9	8.7	119	61	e41	66	97	65	68	25	27	23
5	7.1	8.6	78	66	e39	62	88	61	79	25	27	18
6	8.8	8.5	66	54	e37	59	80	58	124	37	24	17
7	9.5	8.5	58	49	e35	64	76	53	97	24	22	19
8	7.7	8.6	52	44	e33	66	73	122	76	22	20	18
9	6.6	8.5	49	45	e32	61	68	263	90	69	27	17
10	6.9	8.3	53	48	e31	57	67	140	67	35	28	16
11	9.6	13	44	43	e30	230	89	116	58	26	22	27
12	18	16	39	40	e29	157	76	101	52	24	21	19
13	8.9	12	72	38	e28	122	65	91	47	28	19	15
14	7.1	11	101	87	59	105	60	84	41	46	19	15
15	7.1	10	e80	91	54	92	56	76	38	52	29	14
16	18	9.4	e62	76	81	84	54	120	35	93	22	14
17	16	9.0	e54	e65	63	76	68	92	33	48	21	13
18	49	8.7	e47	e58	44	71	94	85	30	43	86	12
19	20	8.7	e43	e50	40	74	83	81	37	33	52	12
20	14	8.4	e40	e45	40	68	71	68	36	28	31	12
21	12	11	e37	e42	36	64	71	61	31	37	25	11
22	11	137	e35	e40	33	59	154	56	29	30	22	13
23	9.7	310	e37	113	32	57	151	52	27	31	20	45
24	9.2	89	e34	180	36	53	121	50	42	72	19	21
25	9.1	60	e32	123	47	56	175	52	36	76	18	15
26	8.9	47	e31	e100	96	101	130	48	28	58	23	58
27	9.0	39	31	e84	79	508	116	48	88	69	19	38
28	8.9	35	32	e75	70	250	102	44	45	52	20	27
29	9.1	32	42	e65	109	179	92	39	32	44	39	21
30	8.7	29	54	e59	---	152	86	39	27	39	23	18
31	8.7	---	45	e53	---	168	---	189	---	39	19	---
TOTAL	341.4	981.8	1711	1999	1390	3390	2821	2581	1725	1275	835	598
MEAN	11.0	32.7	55.2	64.5	47.9	109	94.0	83.3	57.5	41.1	26.9	19.9
MAX	49	310	188	180	109	508	175	263	151	93	86	58
MIN	5.5	8.3	27	33	28	53	54	39	27	22	18	11
CFSM	.25	.75	1.26	1.47	1.09	2.50	2.15	1.90	1.31	.94	.61	.46
IN.	.29	.83	1.45	1.70	1.18	2.88	2.40	2.19	1.47	1.08	.71	.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1992, BY WATER YEAR (WY)

	38.2	59.5	73.4	68.2	83.4	116	112	88.2	50.2	35.7	24.8	27.1
MEAN	38.2	59.5	73.4	68.2	83.4	116	112	88.2	50.2	35.7	24.8	27.1
MAX	202	203	192	284	283	327	340	243	248	172	149	160
(WY)	1956	1927	1974	1979	1981	1936	1983	1947	1972	1947	1933	1987
MIN	4.95	5.35	5.90	6.39	14.9	48.7	47.0	25.8	10.9	5.21	4.46	3.37
(WY)	1964	1931	1931	1931	1940	1981	1955	1955	1962	1955	1953	1936

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1920 - 1992

ANNUAL TOTAL	15787.0	19648.2	
ANNUAL MEAN	43.3	53.7	64.6
HIGHEST ANNUAL MEAN			108
LOWEST ANNUAL MEAN			30.9
HIGHEST DAILY MEAN	310	Nov 23	2070
LOWEST DAILY MEAN	5.0	Sep 3	1.5
ANNUAL SEVEN-DAY MINIMUM	5.9	Sep 28	1.8
INSTANTANEOUS PEAK FLOW			826
INSTANTANEOUS PEAK STAGE			4.79
INSTANTANEOUS LOW FLOW			5.1
ANNUAL RUNOFF (CFSM)	.99		1.23
ANNUAL RUNOFF (INCHES)	13.41		16.69
10 PERCENT EXCEEDS	93		101
50 PERCENT EXCEEDS	33		42
90 PERCENT EXCEEDS	6.9		9.6

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

e Estimated.

FISHING CREEK BASIN

01539000 FISHING CREEK NEAR BLOOMSBURG, PA

LOCATION.--Lat 41°04'41", long 76°25'53", Columbia County, Hydrologic Unit 02050107, on left bank 10 ft downstream from Bowmans Mill bridge on SR 4034, 0.8 mi downstream from Green Creek, 0.9 mi west of Orangeville, and 5.5 mi north of Bloomsburg.

DRAINAGE AREA.--274 mi².

PERIOD OF RECORD.--June 1938 to current year.

REVISED RECORDS.--WSP 1202: 1939-42, 1948(P), 1950.

GAGE.--Water-stage recorder. Datum of gage is 543.84 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e57	e94	263	e310	e200	712	1130	467	1470	e110	997	167
2	e55	e90	244	e280	e190	679	1010	432	1030	e100	663	150
3	e52	e86	1710	e290	e180	624	879	421	753	e90	531	142
4	e47	e83	1570	372	e170	550	767	401	611	e100	486	148
5	e43	e80	960	457	e170	483	679	381	572	e95	464	e130
6	e50	e78	724	418	e160	449	611	469	910	e110	361	e125
7	e52	e78	604	401	e150	771	560	411	682	e98	298	e125
8	e45	e76	504	377	e150	1050	529	396	577	e85	259	e125
9	e44	e74	456	367	e140	889	475	700	531	432	423	e120
10	e43	e72	433	389	e120	785	452	619	423	288	397	e115
11	e55	e80	402	358	e115	2280	549	528	389	213	305	200
12	e80	e94	372	326	e110	2110	588	451	346	167	270	166
13	e77	e88	401	315	e110	1460	539	427	306	167	235	e130
14	e70	e84	731	383	e105	1110	465	526	279	277	225	e120
15	e66	e80	820	494	e120	894	434	431	250	392	211	e110
16	e90	e78	e680	e400	e350	707	419	571	219	1150	194	e100
17	e125	e76	e570	e350	340	638	429	493	200	615	196	e98
18	306	e74	e480	e320	271	570	454	445	187	1560	283	e95
19	233	e73	e370	e260	320	531	446	431	184	1010	261	e100
20	180	e72	e330	e240	379	465	423	405	201	664	195	e110
21	160	e80	e290	e230	332	436	418	379	185	700	163	e105
22	149	e56	e320	e230	309	414	1250	351	167	554	e140	e100
23	140	1810	e330	e220	295	407	1200	317	154	528	e125	e120
24	131	904	e320	e390	345	368	1020	294	168	1500	e115	e115
25	e122	608	e280	e330	432	373	993	295	167	1020	e115	e105
26	e116	444	e260	e270	697	640	825	271	150	749	e120	380
27	e110	390	e240	e230	692	3940	757	277	267	1110	e115	486
28	e105	342	e220	e210	622	2580	656	263	199	796	e130	404
29	e100	308	e290	e200	888	1720	593	234	155	628	577	322
30	e98	279	473	e190	---	1340	525	221	e130	517	306	269
31	e96	---	360	e190	---	1310	---	1560	---	929	213	---
TOTAL	3097	7431	16007	9797	8462	31285	20075	13867	11862	16754	9373	4982
MEAN	99.9	248	516	316	292	1009	669	447	395	540	302	166
MAX	306	1810	1710	494	888	3940	1250	1560	1470	1560	997	486
MIN	43	72	220	190	105	368	418	221	130	85	115	95
CFSM	.36	.90	1.88	1.15	1.06	3.68	2.44	1.63	1.44	1.97	1.10	.61
IN.	.42	1.01	2.17	1.33	1.15	4.25	2.73	1.88	1.61	2.27	1.27	.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

	MEAN	295	456	598	478	573	892	873	633	349	208	159	215
MAX	1589	995	1530	1509	1456	1680	2069	1712	2230	835	514	1286	
(WY)	1977	1946	1973	1979	1981	1977	1940	1989	1972	1947	1890	1975	
MIN	12.5	16.4	112	53.5	128	293	221	127	74.3	30.3	15.5	9.96	
(WY)	1965	1965	1965	1981	1940	1981	1946	1941	1939	1964	1964	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1938 - 1992

ANNUAL TOTAL	130007	152992	
ANNUAL MEAN	356	418	477
HIGHEST ANNUAL MEAN			739
LOWEST ANNUAL MEAN			229
HIGHEST DAILY MEAN	2440	Mar 4	3940
LOWEST DAILY MEAN	e25	Sep 17	e43
ANNUAL SEVEN-DAY MINIMUM	a30	Sep 12	a46
INSTANTANEOUS PEAK FLOW			5070
INSTANTANEOUS PEAK STAGE			6.93
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (CFSM)	1.30	1.53	
ANNUAL RUNOFF (INCHES)	17.65	20.77	23.63
10 PERCENT EXCEEDS	817	882	1080
50 PERCENT EXCEEDS	210	320	272
90 PERCENT EXCEEDS	45	90	54

a Computed using estimated daily discharges

b From rating curve extended above 9,500 ft³/s on basis of contracted-opening measurement at gage height 12.08 ft.

c From floodmark in gage.

e Estimated.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°57'29", long 76°37'10", Montour County, Hydrologic Unit 02050107, on right bank 200 ft upstream from Mill Street bridge on State Highway 54 at Danville and 0.8 mi upstream from Mahoning Creek.
DRAINAGE AREA.--11,220 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Prior to April 1905 monthly discharge only, published in WSP 1302.
REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1904, 1914-17, 1923. WSP 1432: 1900-03, 1905-06, 1908-10, 1912-13, 1933.

GAGE.--Water-stage recorder. Datum of gage is 431.29 ft above National Geodetic Vertical Datum of 1929. Prior to June 29, 1939, nonrecording gage at or near Mill Street bridge at same datum. Since Oct. 1, 1971, water-stage recorder for Susquehanna River at Sunbury (station 01553990), used as an auxiliary gage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 8 flood-control reservoirs which have a combined capacity of 368,800 acre-ft. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--93 years, 15,264 ft³/s, 18.47 in/yr, (includes period of monthly discharges).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1865, reached a stage of 28 ft, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	2160	9340	11400	e10000	16900	40800	22800	14100	3800	12800	14000
2	1840	2230	8710	13000	e9000	18100	36700	20200	31900	3580	27700	10600
3	1900	2170	12200	11300	e8500	16900	34800	18800	42600	3250	30500	8610
4	1820	2110	19900	10300	e7600	15300	31100	22000	35000	3170	23400	7210
5	1730	2190	23300	11200	e7000	14200	27100	29800	26400	3050	18800	6190
6	1680	2180	24900	15800	e6700	13500	23700	30800	22300	3170	14700	8540
7	1650	2090	21300	21200	e6400	13700	21200	27200	20600	3040	12200	8320
8	1580	2050	16900	19900	e6000	16900	19300	25300	18800	2870	10500	7080
9	1550	2000	14700	17400	e5800	21100	18300	28200	18300	3580	9470	6280
10	1740	1930	13800	15300	e5600	25200	19600	29900	15600	4070	9380	5670
11	1760	1890	13700	13900	e5000	34100	20400	27500	13400	3610	9530	7140
12	1910	2030	14600	13100	e4400	45700	19700	23300	11400	3850	10600	7370
13	2040	2050	14900	12600	e4100	48400	23900	20200	9710	3740	8750	9340
14	2020	2000	14400	12200	e3800	43200	32400	18000	8430	4290	7650	9900
15	1980	2140	14400	13100	e3600	34600	28800	16000	7480	4380	7390	8680
16	2140	2690	15300	18800	e4500	27600	23500	15700	6660	5810	7530	7700
17	2350	2810	16700	22500	e5800	23100	20600	15000	6020	5580	8810	6560
18	2760	3050	16300	21100	7000	20100	22800	13800	5490	9930	9210	5400
19	3190	3140	14200	16800	9390	18100	37700	13000	5140	12900	9920	4810
20	3060	3220	11800	11300	12100	17100	50200	12000	4920	13000	9280	4530
21	2770	3310	10700	e9600	13100	16100	45200	11300	4650	14000	8430	4270
22	2710	4570	10200	e9200	17800	15000	40700	10200	4450	11300	8170	4110
23	2730	11100	9760	e9800	16800	14000	38600	9220	4580	9300	7820	4660
24	2740	15400	9910	e11000	14400	12900	34600	8340	5150	10800	6990	5100
25	2590	21800	9690	e13000	13800	12000	31800	7740	5680	10900	6150	11300
26	2540	22500	9250	e13200	15900	12300	33900	7320	5010	9340	5650	12300
27	2690	18800	8720	e13100	17200	29200	37900	7060	5130	13000	5260	11200
28	2640	15300	7990	e12500	16300	71800	35600	6700	5030	14300	5040	16400
29	2470	12800	7530	e11500	16200	86400	31100	6400	4270	16900	5800	18700
30	2320	10700	8110	e10900	---	64600	26300	6260	3970	13500	6790	15500
31	2200	---	8420	e10500	---	48700	---	7980	---	11300	16200	---
TOTAL	68830	182410	411630	426500	273790	866800	908300	518020	372170	235310	340420	257470
MEAN	2220	6080	13280	13760	9441	27960	30280	16710	12410	7591	10980	8582
MAX	3190	22500	24900	22500	17800	86400	50200	30800	42600	16900	30500	18700
MIN	1550	1890	7530	9200	3600	12000	18300	6260	3970	2870	5040	4110
CFSM	.20	.54	1.18	1.23	.84	2.49	2.70	1.49	1.11	.68	.98	.76
IN.	.23	.60	1.36	1.41	.91	2.87	3.01	1.72	1.23	.78	1.13	.85

e Estimated.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7789	12650	15680	15550	16870	32800	34230	19440	10680	6276	4538	5165
MAX	43890	38540	42700	43230	46420	91900	97110	44980	62370	28490	23110	30900
(WY)	1978	1927	1973	1913	1976	1936	1940	1943	1972	1915	1915	1975
MIN	868	852	1602	1853	2841	11740	7664	5643	2803	1308	1091	740
(WY)	1965	1965	1909	1931	1920	1965	1946	1941	1939	1965	1964	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1905 - 1992	
ANNUAL TOTAL	4409495		4861650		15130	
ANNUAL MEAN	12080		13280		24670	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	88500	Mar 6	86400	Mar 29	335000	Jun 25 1972
LOWEST DAILY MEAN	982	Sep 16	1550	Oct 9	558	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	1030	Sep 12	1670	Oct 5	579	Sep 21 1964
INSTANTANEOUS PEAK FLOW			89200	Mar 29	a363000	Jun 25 1972
INSTANTANEOUS PEAK STAGE			15.37	Mar 29	b32.32	Jun 24 1972
INSTANTANEOUS LOW FLOW			1530	Oct 8,9	508	Sep 27 1964
ANNUAL RUNOFF (CFSM)	1.08		1.18		1.35	
ANNUAL RUNOFF (INCHES)	14.62		16.12		18.32	
10 PERCENT EXCEEDS	28300		27600		36100	
50 PERCENT EXCEEDS	7130		10600		8320	
90 PERCENT EXCEEDS	1550		2570		2090	

a From rating curve extended above 250,000 ft³/s.

b Backwater from West Branch Susquehanna River.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1957 to current year.

REMARKS.--Agency collection codes: 42011 - Susquehanna River Basin Commission, 1028 - U.S. Geological Survey, Agency analyzing codes: 9813 - Pennsylvania Department of Environmental Resources, 80020 - U.S. Geological Survey. Suspended-sediment samples analyzed by collecting agency.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
OCT										
10...	1230	42011	9813	1770	425	8.5	15.0	--	--	--
NOV										
05...	1430	42011	9813	2150	345	8.1	7.5	--	--	--
07...	0745	1028	80020	2110	--	7.9	6.0	--	--	<0.010
07...	0755	1028	9813	2110	394	--	6.0	--	--	--
DEC										
12...	1045	42011	9813	14600	224	7.5	4.0	--	--	--
FEB										
04...	1030	42011	9813	8050	--	--	--	--	--	--
MAR										
18...	1200	42011	9813	20100	172	7.1	2.0	--	--	--
26...	1600	42011	9813	12500	225	8.2	6.5	--	--	--
27...	1400	42011	9813	33800	164	7.6	6.0	--	--	--
28...	1350	42011	9813	81900	158	7.3	5.5	--	--	--
30...	1415	1028	80020	61800	--	6.6	3.0	0.980	--	0.020
30...	1420	1028	9813	61800	144	--	--	--	--	--
APR										
01...	1000	42011	9813	41100	160	6.6	5.0	--	--	--
06...	1000	42011	9813	23900	154	7.0	8.0	--	--	--
MAY										
20...	1450	1028	80020	11900	--	9.0	18.5	0.400	0.380	0.010
20...	1455	42011	9813	11900	218	9.0	19.0	--	--	--
JUN										
19...	1015	42011	9813	5150	290	8.5	23.0	--	--	--
JUL										
17...	1150	42011	9813	5360	315	8.1	24.0	--	--	--
18...	1415	42011	9813	11700	308	8.0	25.0	--	--	--
19...	1230	42011	9813	13100	306	8.0	25.0	--	--	--
30...	1415	42011	9813	13200	224	7.4	23.0	--	--	--
AUG										
17...	0915	1028	80020	8630	--	8.1	20.5	--	--	<0.010
17...	0920	42011	9813	8630	277	8.1	21.0	--	--	--
SEP										
16...	1215	42011	9813	7690	236	8.0	21.0	--	--	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
OCT										
10...	--	0.790	0.770	0.020	0.020	0.58	0.22	0.60	0.24	1.4
NOV										
05...	--	0.660	0.660	0.020	0.020	0.41	--	0.43	<0.20	1.1
07...	<0.010	0.610	0.610	<0.010	<0.010	--	--	0.30	--	0.91
07...	--	0.640	0.640	0.080	0.040	0.17	--	0.25	<0.20	0.89
DEC										
12...	--	1.06	1.03	0.090	0.090	0.28	--	0.37	<0.20	1.4
FEB										
04...	--	1.12	1.12	0.180	0.180	0.16	0.16	0.34	0.34	1.5
MAR										
18...	--	1.06	1.06	0.130	0.130	0.15	0.15	0.28	0.28	1.3
26...	--	1.12	1.12	0.090	0.090	0.31	0.20	0.40	0.29	1.5
27...	--	1.14	1.14	0.270	0.270	1.2	0.81	1.5	1.1	2.6
28...	--	0.990	0.970	0.250	0.250	1.7	0.73	2.0	0.98	3.0
30...	<0.010	1.00	1.00	0.060	0.060	0.24	--	0.30	--	1.3
30...	--	0.970	0.970	0.060	0.040	0.48	0.16	0.54	0.20	1.5
APR										
01...	--	1.01	1.01	0.090	0.090	0.33	0.33	0.42	0.42	1.4
06...	--	1.08	1.08	0.070	0.070	0.25	0.21	0.32	0.28	1.4
MAY										
20...	0.010	0.410	0.390	0.020	0.020	0.58	--	0.60	--	1.0
20...	--	0.440	0.410	0.020	0.020	0.51	--	0.53	<0.20	0.97
JUN										
19...	--	0.200	0.200	0.050	0.020	0.60	--	0.65	<0.20	0.85
JUL										
17...	--	0.810	0.810	<0.020	<0.020	--	--	1.1	0.50	1.9
18...	--	0.810	0.790	0.020	<0.020	0.80	--	0.82	0.55	1.6
19...	--	0.860	0.860	0.040	0.040	0.77	0.59	0.81	0.63	1.7
30...	--	0.790	0.790	0.020	0.020	0.44	0.27	0.46	0.29	1.2
AUG										
17...	<0.010	0.710	0.710	0.020	<0.010	--	--	<0.20	--	--
17...	--	0.730	0.730	0.030	0.020	0.36	0.19	0.39	0.21	1.1
SEP										
16...	--	0.660	0.660	0.020	0.020	0.63	0.33	0.65	0.35	1.3

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT									
10...	1.0	0.110	0.030	--	0.010	3.9	5	24	--
NOV									
05...	--	0.070	0.030	--	--	3.7	1	5.8	--
07...	--	0.040	<0.010	0.020	0.010	--	5	28	84
07...	--	0.050	0.020	--	0.007	3.4	--	--	--
DEC									
12...	--	0.050	0.030	--	0.010	2.9	3	118	--
FEB									
04...	1.5	0.050	0.030	--	0.010	5.3	10	217	--
MAR									
18...	1.3	0.050	0.030	--	0.010	2.5	11	597	--
26...	1.4	0.050	0.020	--	0.010	2.1	10	338	--
27...	2.2	0.280	0.030	--	0.020	3.2	314	28700	--
28...	2.0	0.370	0.020	--	0.010	3.2	325	71900	--
30...	--	0.090	<0.010	0.020	<0.010	--	270	45100	98
30...	1.2	0.130	0.030	--	0.007	3.5	--	--	--
APR									
01...	1.4	0.100	0.060	--	0.030	3.1	37	4110	--
06...	1.4	0.050	0.020	--	0.010	2.4	17	1100	--
MAY									
20...	--	0.050	0.020	<0.010	<0.010	--	--	--	--
20...	--	0.050	<0.020	--	--	3.3	15	482	--
JUN									
19...	--	0.110	0.020	--	--	4.0	16	222	--
JUL									
17...	1.3	0.080	0.030	--	--	3.3	26	376	--
18...	1.3	0.110	0.030	--	--	2.9	52	1640	--
19...	1.5	0.110	0.030	--	--	3.4	35	1240	--
30...	1.1	0.080	0.040	--	0.010	3.3	17	606	--
AUG									
17...	--	0.020	<0.010	<0.010	<0.010	--	--	--	--
17...	0.94	0.050	0.002	--	<0.002	3.1	--	--	--
SEP									
16...	1.0	0.080	0.030	--	0.010	4.0	12	249	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µM-MF (COLS./100 ML) (31625)
NOV 07...	0745	1028	80020	2110	394	7.9	6.0	2.0	759	12.1	98	180
MAR 30...	1415	1028	80020	61800	144	6.6	3.0	33	750	12.6	95	430
MAY 20...	1450	1028	80020	11900	218	9.0	18.5	4.0	767	13.6	144	K 7
AUG 17...	0915	1028	80020	8630	277	8.1	20.5	4.0	755	8.0	90	61
DATE		STREP-TOCOCCHI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)
NOV 07...	300	150	67	41	11	20	22	0.7	2.4	99	--	85
MAR 30...	1600	48	25	14	3.2	7.6	25	0.5	1.4	28	--	25
MAY 20...	K 33	83	29	24	5.5	9.0	19	0.4	1.2	59	4	56
AUG 17...	170	100	38	31	6.6	10	17	0.4	1.9	81	--	68
DATE		ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	ALUM-INUM, DIS-SOLVED (µG/L AS AL) (01106)
NOV 07...		81	82	82	32	0.10	0.80	232	241	0.32	1320	40
MAR 30...		23	24	19	14	<0.10	4.0	92	82	0.13	15400	20
MAY 20...		54	50	30	14	<0.10	0.96	120	119	0.16	3860	80
AUG 17...		66	71	36	19	0.10	2.6	155	150	0.21	3610	20
DATE		BARIUM, DIS-SOLVED (µG/L AS BA) (01005)	COBALT, DIS-SOLVED (µG/L AS CO) (01035)	IRON, DIS-SOLVED (µG/L AS FE) (01046)	LITHIUM DIS-SOLVED (µG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (µG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (µG/L AS MO) (01060)	NICKEL, DIS-SOLVED (µG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (µG/L AS SE) (01145)	SILVER, DIS-SOLVED (µG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (µG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (µG/L AS V) (01085)
NOV 07...		26	<3	14	11	47	<10	5	<1	<1.0	190	<6
MAR 30...		20	<3	48	<4	60	<10	2	<1	<1.0	44	<6
MAY 20...		22	<3	55	6	26	<10	2	<1	<1.0	88	<6
AUG 17...		30	<3	43	6	5	<10	3	<1	<1.0	110	<6

< Actual value is known to be less than the value shown.
 K Results based on non-ideal colony count.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (000009)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV								
07...	0705	240	--	--	--	--	--	--
07...	0710	270	390	7.8	4.5	12.0	6	64
07...	0715	295	386	7.9	4.5	--	5	86
07...	0720	460	380	7.9	5.0	12.0	4	94
07...	0725	500	380	8.0	5.5	12.1	3	92
07...	0730	650	396	7.9	5.5	--	4	85
07...	0735	710	400	7.9	6.0	12.3	5	89
07...	0740	840	400	7.9	6.5	--	5	95
07...	0750	910	402	7.9	6.5	12.1	5	87
07...	0800	1020	401	7.9	6.0	12.0	4	94
07...	0810	1080	375	8.0	6.0	--	4	71
07...	0815	1220	370	7.9	6.0	12.0	4	71
07...	0820	1250	357	7.9	5.5	12.0	3	73
07...	0825	1290	--	--	--	--	--	--
MAY								
20...	1428	45	--	--	--	--	--	--
20...	1430	75	212	8.3	18.0	12.1	17	--
20...	1435	135	211	8.6	18.5	12.6	13	--
20...	1440	255	216	8.8	18.5	12.9	14	--
20...	1445	315	223	8.9	18.5	13.0	14	95
20...	1447	435	223	8.9	18.5	13.1	9	--
20...	1449	505	230	9.0	18.5	13.3	13	--
20...	1456	625	225	9.1	18.5	13.3	13	--
20...	1457	705	231	9.1	18.5	13.6	14	100
20...	1500	825	231	9.1	18.5	13.6	14	--
20...	1502	905	229	9.2	19.0	13.6	12	--
20...	1506	1020	228	9.2	18.5	13.6	13	--
20...	1510	1090	216	9.2	18.5	13.6	11	100
20...	1515	1210	211	9.2	18.5	13.5	11	--
20...	1520	1280	203	9.1	19.0	13.5	20	--
20...	1522	1320	--	--	--	--	--	--
AUG								
17...	0848	1290	--	--	--	--	--	--
17...	0850	1240	255	8.0	20.5	8.2	13	--
17...	0855	1100	261	8.1	20.5	8.7	9	94
17...	0900	1040	275	8.0	20.5	8.1	8	--
17...	0905	920	275	8.1	20.5	8.0	10	--
17...	0910	830	282	8.1	20.5	8.0	9	--
17...	0914	720	282	8.0	20.5	8.0	10	83
17...	0919	640	282	8.0	20.5	8.0	9	--
17...	0925	520	282	8.0	20.5	8.0	12	--
17...	0930	440	282	8.0	20.5	8.1	13	--
17...	0935	310	280	8.0	20.5	8.1	11	--
17...	0940	240	280	8.0	20.5	8.1	12	87
17...	0945	140	267	8.0	20.0	8.4	13	--
17...	0947	0	--	--	--	--	--	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541000 WEST BRANCH SUSQUEHANNA RIVER AT BOWER, PA

LOCATION.--Lat 40°53'49", long 78°40'38", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge on Township Route 418 at Bower, and 4.6 mi downstream from Chest Creek and Mahaffey.

DRAINAGE AREA.--315 mi².

PERIOD OF RECORD.--October 1913 to current year.

REVISED RECORDS.--WSP 726: Drainage area: WSP 1302: 1914-17, 1918(M), 1922-23, 1924(M), 1925-29, 1930-31(M), 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 1,207.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1929, 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. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1913, about 18.5 ft, May 13, 1889, discharge, about 27,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	51	99	e310	359	1000	3100	410	198	73	1060	315
2	48	52	94	e310	e270	842	2290	372	164	69	663	258
3	49	52	2140	300	e250	698	1670	382	138	95	487	234
4	50	50	1260	280	e230	599	1310	345	125	249	408	251
5	53	43	582	281	e210	523	1140	310	164	132	344	223
6	55	43	407	261	e190	468	1050	286	259	101	273	207
7	59	49	321	227	e160	522	1070	264	187	86	226	234
8	54	49	286	204	e160	662	1200	243	152	77	451	211
9	49	51	251	199	e150	566	1050	282	136	84	1170	549
10	49	47	229	248	e120	570	881	298	123	78	558	356
11	53	65	201	250	e110	1070	887	258	111	150	545	308
12	53	80	179	218	e110	971	826	232	103	182	462	252
13	55	75	184	207	e100	856	697	215	97	358	352	210
14	51	64	482	409	e120	770	602	219	93	2640	317	188
15	57	59	572	684	e150	673	546	194	90	789	537	172
16	142	58	378	443	e500	575	501	187	85	578	442	158
17	102	59	302	e300	e600	558	741	185	81	470	354	149
18	75	56	276	e290	511	538	907	175	79	840	309	143
19	67	54	e160	e250	557	567	770	168	83	517	256	208
20	62	59	e170	e250	932	627	679	152	115	375	220	177
21	55	62	e160	e300	781	572	635	141	98	444	191	157
22	55	156	e150	e300	688	553	714	135	88	362	170	356
23	52	876	e140	e350	649	543	598	129	81	329	154	677
24	49	358	e180	1420	830	477	566	127	88	589	142	369
25	49	204	e170	834	997	501	725	132	93	569	138	275
26	51	144	e160	653	846	781	614	130	87	459	130	244
27	51	105	e160	535	763	1770	573	125	92	757	133	318
28	48	105	e150	498	694	1840	512	124	87	517	523	423
29	49	104	e400	416	1460	1480	457	120	77	393	1630	293
30	49	104	e600	390	---	1610	428	128	71	355	596	241
31	49	---	443	387	---	2800	---	198	---	1380	404	---
TOTAL	1788	3334	11286	12004	13497	26582	27739	6666	3445	14097	13645	8156
MEAN	57.7	111	364	387	465	857	925	215	115	455	440	272
MAX	142	876	2140	1420	1460	2800	3100	410	259	2640	1630	677
MIN	48	43	94	199	100	468	428	120	71	69	130	143
CFSM	.18	.35	1.16	1.23	1.48	2.72	2.94	.68	.36	1.44	1.40	.86
IN.	.21	.39	1.33	1.42	1.59	3.14	3.28	.79	.41	1.66	1.61	.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

	MEAN	255	420	621	705	821	1209	933	655	406	276	205	185
MAX	915	1579	1958	2136	1924	3369	2079	1480	2446	1522	850	1349	
(WY)	1928	1922	1924	1937	1918	1936	1940	1919	1972	1977	1956	1926	
MIN	22.5	27.2	51.0	32.9	120	271	202	116	82.0	49.7	25.7	24.1	
(WY)	1931	1931	1931	1931	1934	1969	1925	1926	1949	1965	1930	1939	

SUMMARY STATISTICS

	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1914 - 1992
ANNUAL TOTAL	156489	142239	
ANNUAL MEAN	429	389	556
HIGHEST ANNUAL MEAN			955
LOWEST ANNUAL MEAN			294
HIGHEST DAILY MEAN	4010	Mar 4	3100
LOWEST DAILY MEAN	43	Nov 5	43
ANNUAL SEVEN-DAY MINIMUM	47	Nov 4	47
INSTANTANEOUS PEAK FLOW			5920
INSTANTANEOUS PEAK STAGE			10.86
INSTANTANEOUS LOW FLOW			37
ANNUAL RUNOFF (CFSM)	1.36		1.23
ANNUAL RUNOFF (INCHES)	18.48		16.80
10 PERCENT EXCEEDS	1060		836
50 PERCENT EXCEEDS	164		250
90 PERCENT EXCEEDS	53		57

a Also Aug. 31 to Sept. 2, 1939.

b From rating curve extended above 7,200 ft³/s on basis of slope-area measurement of peak flow.

c From floodmark in gage.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541200 WEST BRANCH SUSQUEHANNA RIVER AT CURWENSVILLE, PA

LOCATION.--Lat 40°57'41", long 78°31'10", Clearfield County, Hydrologic Unit 02050201, on left bank 30 ft downstream from bridge on State Highway 453, 0.8 mi downstream from Curwensville Dam, 1.1 mi south of Curwensville, and 1.8 mi upstream from Anderson Creek.

DRAINAGE AREA.--367 mi².

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,124.52 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 24, 1956, nonrecording gage and crest-stage gage 30 ft upstream at same datum.

REMARKS.--Records fair. Flow regulated since November 1965 by Curwensville Dam (station 01541180). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--37 years, 652 ft³/s, 24.13 in/yr, adjusted for storage since November 1965.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	128	250	602	438	1460	3010	327	192	e75	1570	292
2	66	128	243	369	402	1200	3200	310	213	e75	468	306
3	67	128	1260	369	343	917	2350	281	210	e75	593	317
4	66	128	2270	374	327	765	1660	251	209	e230	471	268
5	67	128	1390	380	327	630	1410	251	205	e220	354	221
6	e68	128	599	380	318	568	1230	251	224	e155	261	217
7	e68	128	375	294	263	559	1100	253	254	e140	240	232
8	e68	128	347	249	242	635	1340	272	220	e120	251	269
9	e68	122	347	254	232	696	1420	317	177	e130	1680	463
10	e68	120	261	260	164	679	1060	367	135	e120	1010	528
11	e68	120	221	256	118	1000	989	386	139	e120	626	380
12	e68	120	221	288	166	1220	1020	347	133	e140	626	325
13	e68	120	290	327	189	1050	929	308	115	e380	470	272
14	e68	120	314	328	189	975	714	285	e105	1550	318	199
15	e68	120	481	502	225	821	667	283	e90	1960	514	165
16	e68	120	568	589	328	612	561	283	e80	887	559	151
17	e68	120	553	586	620	587	632	281	e80	463	412	151
18	124	120	529	443	724	659	917	278	e77	590	319	162
19	144	118	284	327	568	649	1020	231	e75	667	261	191
20	140	117	158	327	809	692	844	214	e72	489	229	209
21	138	117	151	327	1110	683	708	197	e70	332	205	209
22	138	120	224	331	882	628	724	185	e56	332	193	303
23	138	132	301	372	776	626	653	185	e72	355	193	609
24	129	151	283	954	841	600	551	185	e72	558	193	626
25	132	336	283	1470	1170	520	520	180	e72	718	194	405
26	138	514	246	1120	1050	663	543	178	e75	519	197	303
27	138	368	200	594	937	1380	551	178	e100	671	161	292
28	138	274	159	540	823	2080	498	162	e125	693	236	364
29	129	256	253	540	1250	1960	420	148	e90	519	e1800	403
30	127	251	605	470	---	1620	374	148	e75	419	e1000	328
31	128	---	773	438	---	2170	---	148	---	1300	e450	---
TOTAL	3029	4980	14439	14660	15831	29304	31615	7670	3812	15002	16054	9160
MEAN	97.7	166	466	473	546	945	1054	247	127	484	518	305
MAX	144	514	2270	1470	1250	2170	3200	386	254	1960	1800	626
MIN	66	117	151	249	118	520	374	148	56	75	161	151
MEAN‡	70.5	137	441	468	566	963	1067	279	128	481	515	305
CFSM‡	.19	.37	1.20	1.28	1.54	2.62	2.91	.76	.35	1.31	1.40	.83
IN.‡	.22	.41	1.38	1.48	1.66	3.02	3.25	.88	.39	1.51	1.61	.93

‡ Adjusted for change in contents in Curwensville Lake.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541200 WEST BRANCH SUSQUEHANNA RIVER AT CURWENSVILLE, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	369	621	865	695	980	1312	1086	758	525	431	257	282
MAX	950	1516	1865	1640	1847	2532	2053	1593	2074	1650	765	1091
(WY)	1980	1986	1973	1974	1986	1979	1970	1966	1972	1977	1977	1975
MIN	77.4	166	214	209	305	154	437	182	123	54.7	63.8	57.8
(WY)	1986	1992	1990	1977	1980	1969	1976	1986	1991	1966	1966	1968

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1966 - 1992

ANNUAL TOTAL	193503		165556									
ANNUAL MEAN	530	‡513	452	‡451						680		
HIGHEST ANNUAL MEAN										905		1972
LOWEST ANNUAL MEAN										452		1992
HIGHEST DAILY MEAN	3630	Jan 1	3200	Apr 2						8420	Jun 26	1972
LOWEST DAILY MEAN	62	Sep 22	e56	Jun 22						19	Aug 16,17	1966
ANNUAL SEVEN-DAY MINIMUM	64	Sep 18	67	Oct 1						36	Aug 11	1966
INSTANTANEOUS PEAK FLOW			3370	Apr 1						8590	Jun 25	1972
INSTANTANEOUS PEAK STAGE			6.61	Apr 1						11.40	Jun 25	1972
ANNUAL RUNOFF (CFSM)	1.44	‡1.40	1.23	‡1.23						1.85		
ANNUAL RUNOFF (INCHES)	19.61	‡18.97	16.78	‡16.74						25.18		
10 PERCENT EXCEEDS	1320		1010							1610		
50 PERCENT EXCEEDS	243		293							398		
90 PERCENT EXCEEDS	68		112							105		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1965, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	158	329	501	685	889	1446	1323	783	310	321	265	137
MAX	363	610	1152	1210	1792	2661	1968	1521	656	1487	1068	322
(WY)	1956	1956	1957	1965	1956	1964	1957	1956	1956	1956	1956	1956
MIN	29.5	80.1	83.6	126	188	690	625	351	89.4	48.9	49.0	33.2
(WY)	1965	1958	1961	1956	1963	1957	1963	1965	1965	1965	1965	1964

SUMMARY STATISTICS WATER YEARS 1956 - 1965

ANNUAL MEAN	594											
HIGHEST ANNUAL MEAN	938					1956						
LOWEST ANNUAL MEAN	454					1965						
HIGHEST DAILY MEAN	14000				Mar 10	1964						
LOWEST DAILY MEAN	21				Nov 13,15,16	1964						
ANNUAL SEVEN-DAY MINIMUM	22				Nov 10	1964						
INSTANTANEOUS PEAK FLOW	15700				Mar 10	1964						
INSTANTANEOUS PEAK STAGE	14.19				Mar 10	1964						
ANNUAL RUNOFF (CFSM)	1.62											
ANNUAL RUNOFF (INCHES)	22.00											
10 PERCENT EXCEEDS	1450											
50 PERCENT EXCEEDS	270											
90 PERCENT EXCEEDS	56											

‡ Adjusted for change in contents in Curwensville Lake.
e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541303 WEST BRANCH SUSQUEHANNA RIVER AT HYDE, PA

LOCATION.--Lat 41°00'16", long 78°27'25", Clearfield County, Hydrologic Unit 02050201, on right bank 60 ft downstream from bridge at intersection of SR 1001 and State Highway 879 at Hyde.

DRAINAGE AREA.--474 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,093.90 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1965 by Curwensville Dam (station 01541180) located about 5 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--14 years, 863 ft³/s, 24.72 in/yr, adjusted for storage.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 10, 1964, reached a stage of 18.1 ft, from floodmarks, discharge, about 19,400 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	144	243	797	543	1870	3710	505	254	89	2590	423
2	72	144	239	452	e500	1570	3890	445	272	87	1050	415
3	75	139	1290	433	407	1240	3040	433	263	100	1070	432
4	75	136	2570	441	363	1060	2200	365	257	190	860	388
5	75	136	1700	455	368	895	1800	353	262	274	666	303
6	76	134	748	440	391	782	1650	359	273	192	483	308
7	75	132	423	364	359	833	1500	352	299	177	396	312
8	75	135	359	298	285	915	1790	358	275	142	467	348
9	75	133	367	298	e270	996	1900	435	237	157	2450	542
10	75	132	311	300	e210	949	1560	510	179	141	1510	692
11	75	144	253	305	e170	1410	1430	542	175	141	951	552
12	75	144	253	314	e180	1630	1470	467	170	158	895	439
13	75	138	288	352	e220	1440	1330	430	160	468	724	365
14	75	136	428	472	e250	1310	1080	457	132	1780	468	268
15	99	133	579	659	e350	1160	990	399	125	2350	648	242
16	109	132	690	766	618	919	858	382	99	1310	822	217
17	92	132	653	e740	766	823	1040	365	95	714	557	210
18	104	132	611	e600	893	909	1410	399	97	916	459	218
19	156	132	e520	e450	740	906	1490	352	105	1120	348	276
20	156	132	e220	e410	945	915	1300	293	102	815	288	284
21	152	134	e200	e400	1330	918	1120	274	99	607	270	287
22	148	186	271	e400	1150	840	1180	255	93	561	248	466
23	148	229	324	e450	999	829	1060	247	93	554	242	977
24	146	209	323	1500	1180	783	934	249	110	765	239	901
25	144	283	316	1930	1620	693	871	250	102	1060	234	618
26	144	507	e290	1500	1510	872	872	243	99	945	229	427
27	147	394	248	876	1310	1670	878	241	128	1210	216	460
28	148	259	e210	718	1190	2490	772	225	161	1120	392	527
29	146	255	309	699	1680	2480	653	202	139	836	2680	570
30	144	250	705	618	---	2080	551	212	92	759	1500	467
31	144	---	960	551	---	2750	---	240	---	2030	543	---
TOTAL	3373	5426	16901	18988	20797	38937	44329	10839	4947	21768	24495	12934
MEAN	109	181	545	613	717	1256	1478	350	165	702	790	431
MAX	156	507	2570	1930	1680	2750	3890	542	299	2350	2680	977
MIN	72	132	200	298	170	693	551	202	92	87	216	210
MEAN‡	81.8	152	520	608	737	1274	1491	382	166	699	787	431
CFSM‡	.17	.32	1.10	1.28	1.55	2.69	3.15	.81	.35	1.47	1.66	.91
IN.‡	.20	.36	1.27	1.48	1.67	3.10	3.51	.93	.39	1.69	1.91	1.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

	MEAN	418	827	1022	845	1312	1606	1427	930	771	590	362	280
MAX	1264	2008	1944	1829	2302	3377	2149	1831	1663	1406	1084	637	
(WY)	1980	1987	1991	1979	1986	1979	1980	1989	1989	1990	1984	1979	
MIN	97.0	181	262	302	392	647	663	307	160	131	98.7	82.3	
(WY)	1983	1992	1990	1981	1980	1990	1988	1986	1991	1988	1988	1991	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1979 - 1992

ANNUAL TOTAL	244670		223734									
ANNUAL MEAN	670	‡653	611	‡610						863		
HIGHEST ANNUAL MEAN										1071		1984
LOWEST ANNUAL MEAN										611		1992
HIGHEST DAILY MEAN	4640	Jan 1	3890	Apr 2						6850	Mar 8	1979
LOWEST DAILY MEAN	64	Sep 7	72	Oct 2						46	Sep 14	1982
ANNUAL SEVEN-DAY MINIMUM	71	Sep 3	74	Oct 1						53	Oct 6	1983
INSTANTANEOUS PEAK FLOW			4050	Apr 1						a7360	Feb 13	1984
INSTANTANEOUS PEAK STAGE			8.16	Apr 1						b11.45	Feb 18	1981
ANNUAL RUNOFF (CFSM)	1.41	‡1.38	1.29	‡1.29						1.82		
ANNUAL RUNOFF (INCHES)	19.20	‡18.72	17.56	‡17.53						24.73		
10 PERCENT EXCEEDS	1600		1450							2020		
50 PERCENT EXCEEDS	255		395							530		
90 PERCENT EXCEEDS	87		132							130		

‡ Adjusted for change in contents in Curwensville Lake.

a From rating curve extended above 6,000 ft³/s; gage height 10.82 ft.

b Backwater from ice.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541500 CLEARFIELD CREEK AT DIMELING, PA

LOCATION.--Lat 40°58'18", long 78°24'22", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge on SR 2024 at Dimeling, 600 ft downstream from Little Clearfield Creek, and 4.0 mi southeast of Clearfield.

DRAINAGE AREA.--371 mi².

PERIOD OF RECORD.--October 1913 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 891: 1936-39. WSP 1302: 1915-17, 1918-19(M). WSP 1502: 1939. WDR PA-87-2: 1986(M).

GAGE.--Water-stage recorder. Datum of gage is 1,146.08 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1928, nonrecording gage, and Oct. 17, 1928, to Oct. 25, 1967, water-stage recorder at site 200 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1960 by Glendale Dam (station 01541340) about 25 mi upstream. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--79 years, 579 ft³/s, 21.19 in/yr, adjusted for storage since December 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	57	130	e380	412	1120	3340	529	279	89	667	444
2	47	59	124	e370	e320	930	2640	487	232	88	423	361
3	47	56	1880	e360	e300	810	2040	479	186	93	323	320
4	47	58	1690	337	e270	696	1640	431	175	160	286	321
5	47	58	767	359	e250	613	1390	391	202	153	252	293
6	53	58	551	347	e210	552	1200	390	326	128	213	267
7	56	56	445	308	e200	630	1110	371	297	105	190	280
8	56	58	398	280	e190	771	1150	338	229	94	281	287
9	52	57	368	270	e170	674	1070	380	198	107	1590	318
10	49	58	332	302	e140	646	943	461	189	95	632	309
11	47	70	301	313	e130	1010	916	396	166	101	436	302
12	47	91	266	286	e120	1120	888	350	152	175	356	283
13	47	94	257	269	e120	949	750	337	140	281	309	238
14	47	87	378	495	e150	862	645	447	134	1310	290	209
15	67	79	614	795	e190	773	583	369	126	646	541	196
16	180	72	430	612	e500	660	533	337	118	394	479	184
17	167	69	361	e380	e800	638	698	324	111	359	365	172
18	113	69	334	e360	e500	611	889	310	108	473	309	164
19	90	69	e250	e320	e360	638	819	304	110	342	264	197
20	79	69	e270	e300	e600	646	753	269	145	256	230	183
21	72	71	e230	e330	e560	600	703	244	136	281	202	162
22	68	251	e210	e370	e520	581	954	225	118	261	181	259
23	66	1360	e190	e450	e500	569	863	210	107	248	163	464
24	65	534	e260	e1500	e620	501	741	206	111	438	154	319
25	64	292	e230	e1000	e900	516	873	207	114	472	145	234
26	64	209	e200	e800	e820	800	811	195	113	382	136	206
27	64	166	e190	e640	e740	1890	759	190	141	478	159	288
28	64	146	e190	e600	e700	2210	664	180	123	414	799	391
29	60	144	e450	506	1370	1840	596	169	106	313	2810	304
30	60	135	e520	455	---	1930	553	176	95	281	988	245
31	58	---	e440	439	---	3080	---	284	---	719	593	---
TOTAL	2091	4652	13256	14533	12662	29866	31514	9986	4797	9736	14766	8200
MEAN	67.5	155	428	469	437	963	1050	322	160	314	476	273
MAX	180	1360	1880	1500	1370	3080	3340	529	326	1310	2810	464
MIN	47	56	124	269	120	501	533	169	95	88	136	162
MEAN‡	66.5	166	434	471	445	975	1030	316	158	317	475	272
CFSM‡	.18	.45	1.17	1.27	1.20	2.63	2.78	.85	.43	.85	1.28	.73
IN.‡	.21	.50	1.35	1.46	1.29	3.03	3.10	.98	.48	.98	1.48	.81

‡ Adjusted for change in contents in Glendale Lake.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541500 CLEARFIELD CREEK AT DIMELING, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	268	434	617	595	848	1279	1030	741	466	310	204	223
MAX	1024	1132	1693	1490	1708	2578	2042	1800	2522	1189	635	1003
(WY)	1980	1986	1973	1978	1976	1979	1970	1978	1972	1977	1984	1975
MIN	41.1	73.3	68.4	139	154	318	378	248	90.3	46.1	55.3	43.4
(WY)	1964	1965	1961	1961	1963	1969	1968	1976	1965	1965	1965	1964

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1961 - 1992

ANNUAL TOTAL	165322		156059									
ANNUAL MEAN	453	‡451	426	‡427						583		
HIGHEST ANNUAL MEAN										866		1978
LOWEST ANNUAL MEAN										350		1969
HIGHEST DAILY MEAN			4420	Mar 4		3340	Apr 1			21100	Jun 23	1972
LOWEST DAILY MEAN			34	Sep 3		47	Oct 2-5, 11-14			30	Aug 17	1988
ANNUAL SEVEN-DAY MINIMUM			38	Sep 2		49	Oct 1			37	Aug 12	1988
INSTANTANEOUS PEAK FLOW						4050	Aug 29			22400	Jun 23	1972
INSTANTANEOUS PEAK STAGE						a8.14	Jan 24			17.56	Jun 23	1972
ANNUAL RUNOFF (CFSM)			1.22	‡1.22		1.15	‡1.15			1.57		
ANNUAL RUNOFF (INCHES)			16.58	‡16.52		15.65	‡15.67			21.36		
10 PERCENT EXCEEDS			1150			866				1310		
50 PERCENT EXCEEDS			190			300				328		
90 PERCENT EXCEEDS			50			69				82		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	253	386	557	764	789	1284	1059	781	457	241	194	152
MAX	876	1355	1533	2152	1996	4153	2470	1656	1931	1233	901	1370
(WY)	1928	1922	1924	1937	1915	1936	1940	1960	1946	1956	1956	1926
MIN	16.9	26.0	55.1	34.3	103	390	245	121	102	68.7	24.9	22.3
(WY)	1931	1931	1931	1931	1934	1915	1925	1926	1949	1936	1930	1932

SUMMARY STATISTICS WATER YEARS 1914 - 1960

ANNUAL MEAN	576											
HIGHEST ANNUAL MEAN	921				1928							
LOWEST ANNUAL MEAN	309				1931							
HIGHEST DAILY MEAN	27100			Mar 18	1936							
LOWEST DAILY MEAN	7.1			Oct 1	1925							
ANNUAL SEVEN-DAY MINIMUM	13			Oct 4	1925							
INSTANTANEOUS PEAK FLOW	b30600			Mar 18	1936							
INSTANTANEOUS PEAK STAGE	c18.49			Mar 18	1936							
INSTANTANEOUS LOW FLOW	6.0			Oct 1, 9	1925							
ANNUAL RUNOFF (CFSM)	1.55											
ANNUAL RUNOFF (INCHES)	21.08											
10 PERCENT EXCEEDS	1380											
50 PERCENT EXCEEDS	278											
90 PERCENT EXCEEDS	54											

‡ Adjusted for change in contents in Glendale Lake.

a Backwater from ice.

b From rating curve extended above 15,000 ft³/s.

c From floodmark in gage.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542000 MOSHANNON CREEK AT OSCEOLA MILLS, PA

LOCATION.--Lat 40°50'58", long 78°16'05", Clearfield County, Hydrologic Unit 02050201, on left bank 10 ft upstream from Penn Central Railroad bridge at Osceola Mills, and 0.1 mi downstream from Trout Run.

DRAINAGE AREA.--68.8 mi².

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

REVISED RECORDS.--WSP 1232: 1941-46, 1948, 1950-51, Drainage area. WDR PA-91-2: 1980 (m), 1981 (monthly and yearly summaries).

GAGE.--Water-stage recorder. Datum of gage is 1,446.98 ft above National Geodetic Vertical Datum of 1929.

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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	32	e47	72	135	384	158	70	30	66	137
2	14	16	34	e45	64	134	348	144	62	28	52	117
3	14	16	311	51	61	128	302	141	56	35	50	113
4	15	15	133	56	60	118	262	124	55	41	53	102
5	15	15	89	58	59	110	226	120	75	35	50	89
6	21	15	80	53	54	103	196	152	73	38	48	90
7	17	16	75	49	52	121	183	117	60	30	49	84
8	16	16	71	47	51	115	184	114	57	30	89	92
9	15	15	66	53	e44	102	190	145	56	34	271	83
10	15	15	60	56	e43	118	189	128	54	30	94	90
11	16	23	54	53	e43	165	185	121	52	35	74	98
12	16	23	51	48	e42	138	175	119	49	31	65	77
13	16	21	61	49	e41	128	149	123	48	68	59	73
14	16	19	87	85	40	126	134	149	48	150	63	71
15	37	17	69	76	45	120	123	121	47	54	99	70
16	56	17	59	e62	69	110	116	116	45	45	121	68
17	29	16	55	e60	55	110	158	109	44	49	80	65
18	23	15	54	e56	53	107	140	111	44	76	71	63
19	21	16	e45	e48	57	113	123	99	60	44	63	71
20	20	17	e47	e50	64	102	115	92	61	39	59	60
21	19	19	50	e54	60	98	136	86	41	54	54	70
22	18	144	48	e56	59	96	186	84	37	43	52	101
23	18	181	51	118	62	89	164	82	34	52	50	104
24	18	64	53	159	96	83	190	82	39	74	48	66
25	18	49	46	107	105	93	192	78	36	67	46	58
26	17	41	42	91	111	160	211	75	34	63	45	61
27	17	36	40	83	110	238	218	71	47	84	83	92
28	17	37	38	79	117	218	186	67	34	58	250	77
29	17	35	66	75	186	215	174	63	31	52	444	61
30	16	33	71	75	---	269	169	71	29	54	211	57
31	17	---	51	79	---	385	---	91	---	72	166	---
TOTAL	598	979	2089	2078	1975	4347	5708	3353	1478	1595	3025	2460
MEAN	19.3	32.6	67.4	67.0	68.1	140	190	108	49.3	51.5	97.6	82.0
MAX	56	181	311	159	186	385	384	158	75	150	444	137
MIN	14	15	32	45	40	83	115	63	29	28	45	57
CFSM	.28	.47	.98	.97	.99	2.04	2.77	1.57	.72	.75	1.42	1.19
IN.	.32	.53	1.13	1.12	1.07	2.35	3.09	1.81	.80	.86	1.64	1.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

	MEAN	47.7	68.2	104	108	137	229	215	172	108	57.0	43.5	35.7
MAX	206	282	329	299	322	540	415	427	580	224	199	159	
(WY)	1980	1951	1951	1952	1981	1945	1957	1960	1972	1956	1956	1975	
MIN	12.2	14.5	13.5	15.6	28.6	71.0	66.1	45.0	31.1	15.6	12.5	10.8	
(WY)	1969	1954	1961	1981	1963	1969	1946	1941	1965	1965	1962	1943	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1941 - 1992

ANNUAL TOTAL	32285	29685	
ANNUAL MEAN	88.5	81.1	110
HIGHEST ANNUAL MEAN			176
LOWEST ANNUAL MEAN			70.0
HIGHEST DAILY MEAN	943	Mar 4	444
LOWEST DAILY MEAN	14	Sep 30	14
ANNUAL SEVEN-DAY MINIMUM	14	Sep 28	15
INSTANTANEOUS PEAK FLOW			855
INSTANTANEOUS PEAK STAGE			4.15
INSTANTANEOUS LOW FLOW			13
ANNUAL RUNOFF (CFSM)	1.29	1.18	1.60
ANNUAL RUNOFF (INCHES)	17.46	16.05	21.77
10 PERCENT EXCEEDS	203	159	239
50 PERCENT EXCEEDS	51	61	67
90 PERCENT EXCEEDS	16	18	17

a From rating curve extended above 1,800 ft³/s on basis of contracted-opening measurements at gage heights 7.58 ft, 9.00 ft, and 14.25 ft.

b Result of freezeup.

c Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA

LOCATION.--Lat 41°07'03", long 78°06'33", Clearfield County, Hydrologic Unit 02050201, on left bank 900 ft upstream from bridge on State Highway 879 at Karthaus, 1,000 ft upstream from Mosquito Creek, and 3.3 mi downstream from Moshannon Creek. Records include flow of Mosquito Creek.

DRAINAGE AREA.--1,462 mi², includes that of Mosquito Creek.

PERIOD OF RECORD.--February 1940 to current year. October 1918 to September 1920 (gage heights only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder. Datum of gage is 830.59 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1920, nonrecording gage at site 900 ft downstream at datum 20.88 ft lower. Feb. 21 to Sept. 30, 1940, nonrecording gage at site 900 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1960 by Glendale Dam (station 01541340) about 70 mi upstream and since November 1965 by Curwensville Dam (station 01541180) about 50 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter and National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--52 years, 2,487 ft³/s, 23.10 in/yr, adjusted for storage since December 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 24.5 ft, Mar. 18, 1936, from floodmarks at highway bridge, discharge, about 135,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	283	672	1870	1840	4680	9040	2610	1260	404	5560	2040
2	232	283	635	1520	1610	4060	9150	2410	1130	370	3500	1750
3	224	280	2020	1390	1500	3610	7870	2330	1040	358	2570	1630
4	219	273	6220	1450	1420	3180	6210	2130	942	444	2310	1630
5	218	262	4620	1500	1310	2860	5050	1910	995	587	1990	1380
6	234	260	2760	1510	1190	2520	4580	1810	1280	797	1680	1330
7	245	262	1960	1420	1130	2660	4140	1850	1270	611	1380	1400
8	242	267	1650	1230	1080	3110	4190	1710	1210	513	1320	1350
9	231	267	1530	1150	992	3120	4510	1890	1050	569	3760	1490
10	227	267	1390	1160	679	3020	4280	2080	910	566	4340	1780
11	223	289	1240	1180	786	3770	3850	2060	801	475	2650	1940
12	216	354	1100	1180	685	4400	3890	1940	741	492	2180	1710
13	216	370	1070	1140	666	4180	3620	1820	635	807	1980	1510
14	216	363	1400	1370	770	3740	3190	1840	652	2720	1730	1350
15	242	347	1830	2210	844	3530	2830	1880	620	4690	1520	1190
16	462	328	1990	2310	1180	3080	2610	1710	574	3280	2240	1100
17	582	310	1790	1790	1590	2740	2830	e1600	527	1980	2030	891
18	459	296	1690	1870	1920	2660	3590	e1500	497	2260	1650	935
19	375	292	1400	1480	1910	2680	3770	e1800	520	2570	1400	1000
20	361	293	1020	1250	1910	2630	3620	e1400	604	2140	1210	1110
21	352	305	937	1420	2800	2580	3290	e1200	569	2010	1060	1030
22	334	514	1040	1500	2670	2430	3820	1150	534	1820	959	1280
23	331	2330	1070	1590	2420	2390	3860	1130	494	1700	879	2230
24	325	2290	1150	2970	2610	2230	3540	1060	483	1770	820	2290
25	321	1290	1120	4080	3780	2130	3470	1070	491	2200	786	1880
26	338	1090	1030	3680	4000	2340	3530	1030	482	2200	756	1550
27	257	1150	893	2900	3600	4060	3560	987	496	2380	791	1570
28	296	941	802	2360	3420	6210	3290	941	529	2580	1120	1940
29	290	751	852	2210	3940	6370	3020	879	536	2090	5860	1870
30	283	678	1560	2130	---	5770	2770	867	484	2040	5290	1740
31	283	---	2110	1940	---	6960	---	1180	---	2850	2710	---
TOTAL	9074	17285	50551	56760	54252	109700	126970	49774	22356	50273	68031	45896
MEAN	293	576	1631	1831	1871	3539	4232	1606	745	1622	2195	1530
MAX	582	2330	6220	4080	4000	6960	9150	2610	1280	4690	5860	2290
MIN	216	260	635	1140	666	2130	2610	867	482	358	756	891
MEAN‡	265	558	1612	1828	1900	3569	4224	1632	744	1622	2190	1529
CFSM‡	.18	.38	1.10	1.25	1.30	2.44	2.89	1.12	.51	1.11	1.50	1.05
IN.‡	.21	.42	1.27	1.44	1.40	2.81	3.22	1.29	.57	1.28	1.73	1.17

‡ Adjusted for change in contents in Curwensville and Glendale Lakes.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1203	1917	2683	2315	3393	5258	4436	3116	2239	1387	919	930
MAX	4107	5126	6771	5478	6878	10900	8706	6951	10810	4448	3537	4101
(WY)	1980	1987	1973	1974	1981	1964	1970	1978	1972	1977	1984	1975
MIN	162	259	281	474	706	1217	1882	1093	549	237	245	154
(WY)	1964	1965	1961	1961	1963	1969	1976	1976	1991	1965	1965	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1961 - 1992

ANNUAL TOTAL	709472						660922					
ANNUAL MEAN	1944	‡1925					1806	‡1806		2477		
HIGHEST ANNUAL MEAN										3585		1972
LOWEST ANNUAL MEAN										1731		1969
HIGHEST DAILY MEAN				13600	Mar 5		9150	Apr 2		79200	Jun 23	1972
LOWEST DAILY MEAN				190	Sep 9		216	Oct 12-14		120	Nov 11	1964
ANNUAL SEVEN-DAY MINIMUM				218	Sep 3		224	Oct 8		134	Sep 13	1964
INSTANTANEOUS PEAK FLOW							9500	Apr 1		a84300	Jun 23	1972
INSTANTANEOUS PEAK STAGE							6.73	Apr 1		18.57	Jun 23	1972
INSTANTANEOUS LOW FLOW							216	Oct 4,5,11-15		100	Sep 26,27	1964
ANNUAL RUNOFF (CFSM)		1.33	‡1.32				1.24	‡1.24		1.69		
ANNUAL RUNOFF (INCHES)		18.05	‡17.87				16.82	‡16.81		23.02		
10 PERCENT EXCEEDS				4640			3760			5700		
50 PERCENT EXCEEDS				941			1480			1500		
90 PERCENT EXCEEDS				245			318			387		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	914	1593	2537	3364	3263	5145	5170	3754	2091	1063	816	559
MAX	2557	6463	5334	7957	6540	12120	11460	6528	6192	4565	4394	1891
(WY)	1951	1951	1951	1952	1951	1945	1940	1960	1946	1956	1956	1945
MIN	184	231	437	602	925	2418	1337	691	637	322	239	157
(WY)	1952	1954	1944	1956	1958	1947	1946	1941	1949	1952	1957	1943

SUMMARY STATISTICS

WATER YEARS 1940 - 1960

ANNUAL MEAN	2499											
HIGHEST ANNUAL MEAN	3809											
LOWEST ANNUAL MEAN	1656											
HIGHEST DAILY MEAN	44600			Mar 31	1940							
LOWEST DAILY MEAN	111			Sep 30	1943							
ANNUAL SEVEN-DAY MINIMUM	116			Sep 24	1943							
INSTANTANEOUS PEAK FLOW	50900			Apr 01	1940							
INSTANTANEOUS PEAK STAGE	13.90			Apr 01	1940							
INSTANTANEOUS LOW FLOW	109			Sep 30	1943							
ANNUAL RUNOFF (CFSM)	1.71											
ANNUAL RUNOFF (INCHES)	23.22											
10 PERCENT EXCEEDS	5960											
50 PERCENT EXCEEDS	1400											
90 PERCENT EXCEEDS	263											

‡ Adjusted for change in contents in Curwensville and Glendale Lakes.

a From rating curve extended above 50,000 ft³/s.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542810 WALDY RUN NEAR EMPORIUM, PA

LOCATION.--Lat 41°34'44", long 78°17'34", Cameron County, Hydrologic Unit 02050202, on left bank 15 ft downstream from highway bridge on Township Route 318 at North Creek Chapel, 0.1 mi upstream from mouth, and 5.5 mi north-west of Emporium.

DRAINAGE AREA.--5.24 mi².

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1963-64. September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,263.62 ft above National Geodetic Vertical Datum of 1929. July 25, 1963, to Aug. 27, 1964, crest-stage 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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.22	.51	e7.8	3.8	14	30	6.5	2.0	.31	.39	6.2
2	.16	.23	.62	5.3	3.3	12	30	6.7	1.7	.28	20	4.8
3	.20	.22	12	4.7	3.1	12	22	8.5	1.5	1.1	12	4.1
4	.22	.20	8.1	4.5	2.8	11	15	9.5	1.4	1.5	9.5	3.3
5	.27	.18	4.4	4.9	e2.7	9.8	12	9.3	1.9	.55	6.3	2.6
6	.51	.19	3.0	4.9	e2.6	8.6	10	7.9	2.0	.51	4.5	2.6
7	.39	.24	2.2	4.9	e2.5	10	13	6.2	1.5	.40	3.6	2.3
8	.34	.24	3.3	4.3	e2.2	13	22	5.7	1.4	.61	5.9	3.7
9	.29	.20	6.9	4.3	e2.0	13	19	5.9	1.2	2.0	6.6	4.1
10	.27	.18	5.9	4.2	e1.9	18	14	5.0	1.1	.55	7.0	5.1
11	.27	.43	4.3	3.8	e1.7	34	14	4.5	.98	.46	6.3	4.9
12	.27	.43	3.3	3.4	e1.7	28	20	4.2	.83	.47	4.5	4.2
13	.25	.41	3.9	3.4	e1.8	18	23	4.7	.74	.98	3.5	3.6
14	.24	.41	8.1	8.0	e2.0	14	18	4.5	.70	8.7	2.9	3.0
15	1.5	.42	8.4	13	e3.0	10	13	4.3	.59	30	2.7	2.6
16	1.5	.37	6.6	e11	e8.0	e8.4	11	4.2	.49	37	3.3	2.3
17	.52	.31	5.1	e7.6	7.5	7.2	44	3.7	.48	17	2.4	2.0
18	.41	.25	3.9	e6.4	7.6	6.2	63	6.4	.49	13	2.2	2.0
19	.40	.24	e3.2	e4.0	10	6.0	43	7.5	.57	12	2.0	2.9
20	.38	.25	e2.8	e3.5	24	5.2	31	7.9	.51	17	1.8	1.8
21	.33	.64	e2.5	e3.0	23	4.6	22	6.7	.47	49	1.6	3.5
22	.30	1.8	e2.0	e3.4	18	e4.2	36	5.4	.48	27	1.4	131
23	.28	2.6	e1.8	e7.0	16	e4.2	31	4.4	.43	15	1.2	86
24	.29	1.3	e1.6	17	29	e4.4	22	3.9	.53	9.4	1.1	32
25	.27	.79	e1.4	13	42	4.1	17	3.1	.46	6.4	1.2	16
26	.25	.53	e1.2	9.7	30	8.1	15	2.7	.43	5.4	1.0	11
27	.25	.42	e1.1	7.4	20	16	12	2.3	.43	4.2	1.2	9.6
28	.24	.42	e1.0	6.3	15	20	10	2.0	.37	3.3	8.5	7.4
29	.23	.41	e2.1	5.4	14	18	8.7	1.7	.34	3.4	19	6.4
30	.22	.44	e5.0	4.9	---	18	8.1	2.0	.31	3.3	14	5.5
31	.22	---	e7.4	4.6	---	19	---	2.7	---	35	9.3	---
TOTAL	11.43	14.97	123.63	195.6	301.2	379.0	648.8	160.0	26.33	305.82	205.5	376.5
MEAN	.37	.50	3.99	6.31	10.4	12.2	21.6	5.16	.88	9.87	6.63	12.5
MAX	1.5	2.6	12	17	42	34	63	9.5	2.0	49	39	131
MIN	.16	.18	.51	3.0	1.7	4.1	8.1	1.7	.31	.28	1.0	1.8
CFSM	.07	.10	.76	1.20	1.98	2.33	4.13	.98	.17	1.88	1.27	2.40
IN.	.08	.11	.88	1.39	2.14	2.69	4.61	1.14	.19	2.17	1.46	2.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	MEAN	4.65	8.35	11.1	7.56	11.3	17.4	16.7	11.2	6.84	2.97	2.10	3.71
MAX	22.1	29.3	27.8	17.9	30.7	33.0	48.3	25.0	30.9	9.87	17.9	15.7	
(WY)	1982	1986	1973	1974	1976	1979	1970	1984	1972	1992	1984	1987	
MIN	.10	.31	2.02	.83	.98	4.25	5.34	1.98	.75	.26	.19	.080	
(WY)	1965	1965	1990	1981	1980	1981	1976	1985	1991	1966	1991	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1964 - 1992

ANNUAL TOTAL	1953.67	2748.78	8.64	
ANNUAL MEAN	5.35	7.51	12.5	1984
HIGHEST ANNUAL MEAN			5.11	1965
LOWEST ANNUAL MEAN			275	Jun 23 1972
HIGHEST DAILY MEAN	133	Mar 4	.16	Oct 1, 2
LOWEST DAILY MEAN	.02	Sep 2	.20	Nov 4
ANNUAL SEVEN-DAY MINIMUM	.05	Aug 28	.01	Sep 13 1964
INSTANTANEOUS PEAK FLOW			166	Sep 22
INSTANTANEOUS PEAK STAGE			4.69	Sep 22
INSTANTANEOUS LOW FLOW			.14	Oct 2
ANNUAL RUNOFF (CFSM)	1.02		1.43	
ANNUAL RUNOFF (INCHES)	13.87		19.51	
10 PERCENT EXCEEDS	14		18	
50 PERCENT EXCEEDS	1.4		3.8	
90 PERCENT EXCEEDS	.16		.31	

a From rating curve extended above 80 ft³/s on basis of slope-area measurements at gage heights 5.09 ft, 5.86 ft, and at peak flow.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA

LOCATION.--Lat 41°24'48", long 78°11'50", Cameron County, Hydrologic Unit 02050202, on left bank at downstream side of highway bridge on SR 3002 at village of Sterling Run, and 300 ft upstream from Sterling Run.

DRAINAGE AREA.--272 mi².

PERIOD OF RECORD.--October 1913 to current year.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1502: 1933(M), 1934-38, 1939(M).

GAGE.--Water-stage recorder. Datum of gage is 894.84 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1913, to Sept. 30, 1931, nonrecording gage, Oct. 1, 1931, to Sept. 30, 1932, and Oct. 1, 1942, to Oct. 3, 1991, water-stage recorder at site 50 feet upstream on steel-truss bridge at same datum.

REMARKS.--Records good. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	45	e340	267	706	1240	448	164	23	2440	357
2	15	17	49	e310	e200	655	1230	389	132	20	1500	280
3	14	17	779	291	e190	578	1020	477	113	31	877	248
4	16	17	604	273	e170	511	808	420	101	272	656	221
5	16	16	285	284	e160	478	646	400	110	121	482	176
6	19	15	205	269	e140	445	538	372	156	96	337	184
7	26	17	144	262	e130	526	534	329	125	70	266	182
8	23	17	179	237	e120	694	741	303	110	56	378	187
9	19	18	266	234	e110	691	845	326	99	199	593	196
10	17	17	267	255	e100	806	730	306	88	127	446	192
11	16	29	216	227	e94	1380	720	266	79	138	394	233
12	15	49	173	193	e110	1270	806	243	71	100	313	192
13	15	45	164	181	e130	1010	766	247	65	152	258	168
14	15	42	517	399	e150	791	721	340	59	888	262	150
15	19	38	436	560	e180	630	619	307	56	4020	217	136
16	125	36	341	488	e350	504	533	276	52	5130	298	122
17	58	32	302	e380	305	445	1420	246	46	2550	255	110
18	37	27	e250	e280	286	385	2450	335	42	2340	231	100
19	30	24	e170	e210	328	371	2130	348	55	1850	201	131
20	28	24	e160	e270	799	329	1660	319	59	1280	174	108
21	26	28	e160	e310	864	301	1290	280	51	2260	146	104
22	24	62	e150	e280	807	278	1370	243	47	1520	124	3330
23	22	223	e140	e450	772	e260	1220	216	41	979	110	3710
24	22	107	139	e1200	1040	e230	1100	200	41	677	98	2010
25	22	69	117	855	1450	231	1030	182	44	498	92	1110
26	20	53	e110	615	1250	360	892	159	39	409	107	743
27	20	41	e110	e430	984	861	776	148	39	395	101	687
28	20	41	e100	347	779	1060	649	130	35	289	265	564
29	19	37	148	318	881	962	550	114	29	246	1470	443
30	18	36	e410	298	---	968	497	112	26	312	699	374
31	18	---	e360	289	---	956	---	194	---	2490	506	---
TOTAL	771	1211	7496	11335	13146	19672	29531	8675	2174	29538	14296	16748
MEAN	24.9	40.4	242	366	453	635	984	280	72.5	953	461	558
MAX	125	223	779	1200	1450	1380	2450	477	164	5130	2440	3710
MIN	14	15	45	181	94	230	497	112	26	20	92	100
CFSM	.09	.15	.89	1.34	1.67	2.33	3.62	1.03	.27	3.50	1.70	2.05
IN.	.11	.17	1.03	1.55	1.80	2.69	4.04	1.19	.30	4.04	1.96	2.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

	187	383	484	496	552	1011	916	653	344	183	117	127
MEAN	187	383	484	496	552	1011	916	653	344	183	117	127
MAX	838	1917	1394	2027	2047	3366	2310	1758	1783	1381	898	743
(WY)	1918	1951	1928	1937	1918	1936	1940	1953	1972	1974	1917	1987
MIN	10.0	21.2	24.5	33.2	76.0	250	199	104	38.8	16.9	9.20	5.16
(WY)	1965	1965	1961	1961	1963	1981	1946	1941	1991	1966	1957	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1914 - 1992

ANNUAL TOTAL	101387.2	154593	454
ANNUAL MEAN	278	422	1027
HIGHEST ANNUAL MEAN			1974
LOWEST ANNUAL MEAN			235
HIGHEST DAILY MEAN	6520	Mar 4	5130
LOWEST DAILY MEAN	4.6	Sep 4	14
ANNUAL SEVEN-DAY MINIMUM	7.4	Aug 30	17
INSTANTANEOUS PEAK FLOW			11200
INSTANTANEOUS PEAK STAGE			7.21
INSTANTANEOUS LOW FLOW			14
ANNUAL RUNOFF (CFSM)	1.02		1.55
ANNUAL RUNOFF (INCHES)	13.87		21.14
10 PERCENT EXCEEDS	702		992
50 PERCENT EXCEEDS	87		243
90 PERCENT EXCEEDS	14		24

a From rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmarks.

c Also Sept. 13, 14, 1930.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA

LOCATION.--Lat 41°19'02", long 78°06'12", Cameron County, Hydrologic Unit 02050202, on left bank 0.2 mi upstream from Grove Run, and 0.7 mi upstream from Penn Central Railroad bridge at Sinnemahoning.

DRAINAGE AREA.--685 mi².

PERIOD OF RECORD.--July 1938 current year. Prior to October 1938 monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 769.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter and National Weather Service landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 21.94 ft, Mar. 18, 1936, from floodmark, discharge, 61,200 ft³/s, from rating curve extended above 31,000 ft³/s on basis of slope-area measurement at gage height 21.58 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	45	126	e640	756	2060	3150	1340	518	82	6240	1320
2	45	45	137	e620	e560	1900	3110	1150	408	74	3710	1010
3	42	43	1350	e640	e550	1670	2620	1260	342	84	2420	894
4	42	42	1470	627	e480	1450	2160	1100	302	656	1850	836
5	48	39	778	687	e440	1280	1820	1030	330	513	1500	665
6	58	38	560	628	e390	1150	1560	956	432	657	1090	637
7	61	40	457	580	e360	1250	1510	859	377	426	857	697
8	63	42	457	534	e330	1750	1800	788	322	286	946	623
9	56	42	545	515	e280	1760	1940	863	287	705	3270	783
10	50	40	555	561	e270	1890	1770	820	249	584	2020	725
11	47	55	471	523	e250	3420	1780	728	223	663	1570	1120
12	45	107	412	469	e280	3170	2070	665	201	510	1200	852
13	44	123	387	441	e310	2590	1930	644	184	673	953	718
14	43	110	899	680	e370	2120	1830	820	171	1850	865	617
15	53	99	1080	1110	e410	1780	1650	742	179	6110	757	543
16	280	90	870	e880	e900	1450	1460	680	158	10900	958	485
17	233	84	731	e800	e1300	1320	2410	637	138	5010	814	434
18	139	74	655	e700	1020	1130	4410	833	128	5410	706	395
19	106	67	e420	e520	997	1080	4340	856	203	4370	610	450
20	89	65	e390	e630	1500	958	3520	752	264	3040	536	431
21	80	69	e360	e700	1610	881	2850	678	188	3660	465	354
22	72	120	e390	e660	1570	818	2950	605	161	2730	406	3560
23	65	517	391	e850	1580	786	2550	549	143	2020	364	5320
24	62	377	383	e2400	1950	670	2340	534	138	1620	326	2980
25	60	245	336	1800	2980	696	2350	511	146	1320	306	1990
26	57	187	e280	1500	2870	960	2160	454	131	1120	306	1570
27	56	147	e270	1300	2380	2020	2030	426	136	1140	357	1480
28	55	136	e240	1090	1980	2460	1790	381	131	874	944	1440
29	51	129	e310	959	2510	2320	1590	337	108	789	4740	1110
30	48	124	908	880	---	2390	1450	320	92	1340	2460	942
31	47	---	e760	829	---	2450	---	531	---	6940	1810	---
TOTAL	2246	3341	17378	25753	31183	51629	68900	22849	6790	66156	45356	34981
MEAN	72.5	111	561	831	1075	1665	2297	737	226	2134	1463	1166
MAX	280	517	1470	2400	2980	3420	4410	1340	518	10900	6240	5320
MIN	42	38	126	441	250	670	1450	320	92	74	306	354
CFSM	.11	.16	.82	1.21	1.57	2.43	3.35	1.08	.33	3.12	2.14	1.70
IN.	.12	.18	.94	1.40	1.69	2.80	3.74	1.24	.37	3.59	2.46	1.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

	460	905	1266	1211	1473	2472	2303	1636	861	448	283	324
MEAN	460	905	1266	1211	1473	2472	2303	1636	861	448	283	324
MAX	2186	4836	2883	4349	3732	5608	5500	3771	4066	2134	1822	1706
(WY)	1991	1951	1973	1952	1976	1945	1940	1953	1972	1992	1956	1975
MIN	31.5	52.0	64.1	91.8	257	771	556	313	121	37.9	28.7	29.6
(WY)	1965	1965	1961	1961	1963	1981	1946	1941	1991	1966	1957	1939

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1939 - 1992

ANNUAL TOTAL	271776	376562	
ANNUAL MEAN	745	1029	1135
HIGHEST ANNUAL MEAN			1798
LOWEST ANNUAL MEAN			710
HIGHEST DAILY MEAN	13900	Mar 4	44000
LOWEST DAILY MEAN	23	Aug 8	1.4
ANNUAL SEVEN-DAY MINIMUM	26	Aug 29	4.2
INSTANTANEOUS PEAK FLOW		19300	Jul 15
INSTANTANEOUS PEAK STAGE		11.12	Jul 15
INSTANTANEOUS LOW FLOW		34	Nov 5
ANNUAL RUNOFF (CFSM)	1.09	1.50	1.66
ANNUAL RUNOFF (INCHES)	14.76	20.45	22.51
10 PERCENT EXCEEDS	1810	2400	2780
50 PERCENT EXCEEDS	280	661	556
90 PERCENT EXCEEDS	41	66	71

a From rating curve extended above 31,000 ft³/s on basis of slope-area measurement at gage height 21.58 ft.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA

LOCATION.--Lat 41°24'06", long 78°01'28", Cameron County, Hydrologic Unit 02050202, on right bank on Township Route 357, 350 ft downstream from Woodrock Run, 1,500 ft upstream from Roaring Run, 0.8 mi downstream from George B. Stevenson Dam (First Fork Sinnemahoning Creek Reservoir), and 7.5 mi northeast of Sinnemahoning.

DRAINAGE AREA.--245 mi².

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.71 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Jan. 31, 1956 by George B. Stevenson Dam (station 01543900). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--39 years, 392 ft³/s, 21.73 in/yr, adjusted for storage since January 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 80,000 ft³/s, July 18, 1942, by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	17	41	430	235	644	1070	502	188	38	3030	440
2	16	17	45	332	195	592	1190	416	160	27	1770	370
3	20	17	243	307	171	572	1060	423	130	28	1060	301
4	19	17	381	283	171	479	775	397	134	187	786	272
5	21	17	218	271	171	463	641	367	143	82	565	209
6	22	17	175	260	146	476	500	361	193	71	356	196
7	19	17	154	274	118	515	471	339	178	68	302	265
8	19	17	138	277	142	656	695	300	154	60	306	214
9	19	17	182	257	148	825	1050	304	142	176	514	203
10	19	18	229	259	93	851	1070	286	142	143	394	196
11	19	21	237	240	83	1260	878	246	124	101	398	571
12	19	25	204	200	83	1260	879	231	109	97	327	432
13	19	25	171	179	83	1100	966	222	100	102	272	351
14	29	25	286	205	90	859	967	441	95	420	346	283
15	49	25	327	471	142	657	784	333	86	674	319	241
16	65	24	335	600	226	522	631	320	85	1930	337	217
17	77	24	312	505	201	428	845	235	69	3690	337	183
18	79	21	229	469	217	367	1780	235	57	3470	330	164
19	68	17	167	339	218	367	1970	331	80	2680	303	184
20	65	17	87	201	287	324	1640	320	98	1400	253	150
21	55	16	148	206	519	285	1260	281	73	1630	202	130
22	54	17	189	269	600	264	1260	242	53	1330	171	786
23	51	19	141	279	516	246	1140	226	52	920	167	1910
24	48	30	118	583	566	214	1100	217	62	820	149	1450
25	47	71	115	548	818	198	1080	193	63	659	130	970
26	27	76	83	448	961	250	965	168	50	511	128	701
27	20	59	75	366	898	1020	892	160	50	505	127	658
28	20	58	76	338	667	1430	762	154	60	421	421	746
29	17	55	100	290	651	1210	647	134	45	349	1840	746
30	17	46	325	271	---	1080	577	118	40	338	1150	597
31	17	---	547	257	---	958	---	164	---	2130	701	---
TOTAL	1048	842	6078	10214	9416	20372	29545	8666	3015	25057	17491	14136
MEAN	33.8	28.1	196	329	325	657	985	280	100	808	564	471
MAX	79	76	547	600	961	1430	1970	502	193	3690	3030	1910
MIN	12	16	41	179	83	198	471	118	40	27	127	130
MEAN‡	21.1	40.9	196	328	326	656	985	281	99	814	558	472
CFSM‡	.09	.17	.80	1.34	1.33	2.68	4.02	1.15	.40	3.32	2.28	1.93
IN.‡	.10	.19	.92	1.54	1.43	3.09	4.49	1.33	.45	3.83	2.63	2.15

‡ Adjusted for change in contents in First Fork Sinnemahoning Creek Reservoir.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	211	355	457	338	472	832	858	523	275	178	110	139
MAX	1033	1162	1051	965	1452	1820	1538	1037	1334	808	564	837
(WY)	1991	1986	1991	1979	1981	1964	1970	1984	1989	1992	1992	1975
MIN	9.76	17.6	21.3	16.6	77.9	171	320	103	40.5	14.5	14.2	5.31
(WY)	1964	1965	1961	1961	1963	1960	1976	1985	1991	1966	1962	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1956 - 1992

ANNUAL TOTAL	92532.1	145880	
ANNUAL MEAN	254	399	395
HIGHEST ANNUAL MEAN			537
LOWEST ANNUAL MEAN			260
HIGHEST DAILY MEAN	4500	Mar 5	3690
LOWEST DAILY MEAN	7.5	Aug 7	12
ANNUAL SEVEN-DAY MINIMUM	9.9	Aug 2	17
INSTANTANEOUS PEAK FLOW			4160
INSTANTANEOUS PEAK STAGE			3.61
ANNUAL RUNOFF (CFSM)	1.03	\$1.04	1.63
ANNUAL RUNOFF (INCHES)	14.05	\$14.04	22.15
10 PERCENT EXCEEDS	614		968
50 PERCENT EXCEEDS	76		236
90 PERCENT EXCEEDS	13		24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1955, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.2	101	374	394	467	1277	699	391	177	30.6	44.6	20.4
MAX	96.7	132	509	503	631	1672	936	626	260	38.9	74.4	23.4
(WY)	1955	1955	1955	1955	1954	1955	1954	1954	1954	1954	1955	1955
MIN	13.7	70.0	239	285	304	883	462	156	93.4	22.3	14.9	17.4
(WY)	1954	1954	1954	1954	1955	1954	1955	1955	1955	1955	1954	1954

SUMMARY STATISTICS

WATER YEARS 1954 - 1955

ANNUAL MEAN	336	
HIGHEST ANNUAL MEAN	339	1955
LOWEST ANNUAL MEAN	332	1954
HIGHEST DAILY MEAN	5020	Mar 2 1954
LOWEST DAILY MEAN	5.6	Sep 22 1955
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 6 1954
INSTANTANEOUS PEAK FLOW	7000	Mar 1 1954
INSTANTANEOUS PEAK STAGE	5.64	Mar 1 1954
ANNUAL RUNOFF (CFSM)	1.37	
ANNUAL RUNOFF (INCHES)	18.63	
10 PERCENT EXCEEDS	980	
50 PERCENT EXCEEDS	103	
90 PERCENT EXCEEDS	14	

‡ Adjusted for change in contents in First Fork Sinnemahoning Creek Reservoir.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544500 KETTLE CREEK AT CROSS FORK, PA

LOCATION.--Lat 41°28'33", long 77°49'34", Clinton County, Hydrologic Unit 02050203, on right bank just upstream from abutment of former highway bridge on Township Route 318, 0.2 mi downstream from Potter-Clinton County line, and 0.7 mi southeast of Cross Fork.

DRAINAGE AREA.--136 mi²

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

GAGE.--Water-stage recorder. Datum of gage is 1,027.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 14.0 ft, Mar. 18, 1936, from information by local residents, discharge, about 20,000 ft³/s, from rating curve extended above 9,200 ft³/s on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.5	e8.0	25	e220	125	298	519	248	103	30	1740	378
2	e7.0	e8.0	24	215	100	302	520	226	98	29	993	291
3	e7.6	e8.0	144	195	e90	282	474	229	94	38	627	269
4	e7.8	e8.0	157	187	e86	261	412	195	90	75	461	228
5	e10	e8.5	122	188	e78	249	352	184	106	44	343	183
6	25	e8.5	105	181	72	242	304	173	136	42	259	188
7	e15	e8.5	85	185	e66	299	294	160	122	35	206	179
8	e11	e9.0	89	179	e58	373	356	152	125	41	211	167
9	e9.5	e9.0	106	174	e54	414	451	172	119	100	255	162
10	e9.0	e8.0	108	168	e50	462	450	152	108	54	223	168
11	e8.5	e15	105	149	e46	601	422	141	97	54	215	182
12	e8.5	32	96	130	e54	624	443	135	87	44	192	170
13	e8.5	e19	96	120	e64	539	457	136	79	49	171	160
14	e8.0	e14	157	189	e72	449	458	134	72	162	200	149
15	e15	e13	175	227	e90	375	413	122	66	645	177	136
16	57	e12	184	250	e130	310	363	116	59	999	220	122
17	e22	e11	178	e240	116	269	419	109	55	1080	220	110
18	e13	e10	157	e190	101	231	540	126	51	2250	222	102
19	e11	e10	108	e150	94	216	694	110	68	1120	205	105
20	e10	e11	e100	e160	119	188	711	102	68	685	178	87
21	e9.0	e13	e120	e190	134	170	663	97	54	718	150	85
22	e9.0	78	100	174	149	163	834	93	49	624	128	156
23	e9.0	152	84	208	166	155	884	90	44	513	110	172
24	e8.5	70	74	286	204	134	749	90	45	413	97	161
25	e8.5	49	63	234	245	130	590	85	42	330	93	163
26	e8.0	39	58	210	274	173	486	80	41	295	90	210
27	e8.0	32	e56	185	277	516	412	78	49	267	101	266
28	e8.0	29	e54	166	267	650	355	71	38	217	277	372
29	e7.5	27	89	156	300	578	310	66	35	191	966	410
30	e7.5	25	227	147	---	531	281	66	32	173	709	367
31	e7.5	---	e200	143	---	492	---	129	---	2210	509	---
TOTAL	361.4	744.5	3446	5796	3681	10676	14616	4067	2232	13527	10548	5898
MEAN	11.7	24.8	111	187	127	344	487	131	74.4	436	340	197
MAX	57	152	227	286	300	650	884	248	136	2250	1740	410
MIN	7.0	8.0	24	120	46	130	281	66	32	29	90	85
CFSM	.09	.18	.82	1.37	.93	2.53	3.58	.96	.55	3.21	2.50	1.45
IN.	.10	.20	.94	1.59	1.01	2.92	4.00	1.11	.61	3.70	2.89	1.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992. BY WATER YEAR (WY)

MEAN	107	194	244	209	258	489	497	328	170	88.1	52.3	61.7
MAX	700	868	552	663	800	1055	935	721	797	436	340	699
(WY)	1991	1951	1973	1952	1981	1945	1958	1946	1972	1992	1992	1975
MIN	6.23	9.53	18.8	18.4	52.1	132	112	63.8	22.1	12.8	7.07	6.32
(WY)	1965	1965	1961	1961	1963	1981	1946	1941	1991	1962	1971	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR**WATER YEARS 1941 - 1992**

ANNUAL TOTAL	47756.6		75592.9				
ANNUAL MEAN	131		207		224		
HIGHEST ANNUAL MEAN					351		195
LOWEST ANNUAL MEAN					125		1941
HIGHEST DAILY MEAN	2460	Mar 4	2250	Jul 18	10500	Jun 23	1972
LOWEST DAILY MEAN	4.2	Aug 8	7.0	Oct 2	1.2	Sep 2-4	1971
ANNUAL SEVEN-DAY MINIMUM	5.4	Aug 2	7.8	Oct 26	1.4	Sep 1	1971
INSTANTANEOUS PEAK FLOW			3240	Jul 17	14300	Jun 23	1972
INSTANTANEOUS PEAK STAGE			5.76	Jul 17	11.76	Jun 23	1972
ANNUAL RUNOFF (CFSM)	.96		1.52		1.65		
ANNUAL RUNOFF (INCHES)	13.06		20.68		22.43		
10 PERCENT EXCEEDS	299		466		536		
50 PERCENT EXCEEDS	46		138		107		
90 PERCENT EXCEEDS	7.3		11		17		

a Computed using estimated daily discharges.

b From rating curve extended above 9,200 ft³/s on basis of slope-area measurement of peak flow.

c From floodmark in gage.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA

LOCATION.--Lat 41°19'10", long 77°52'27", Clinton County, Hydrologic Unit 02050203, on left bank on SR 4001, 0.4 mi upstream from Short Bond Run, 3.5 mi upstream from mouth and Westport, and 5.0 mi downstream from Alvin R. Bush Dam (Kettle Creek Lake).

DRAINAGE AREA.--233 mi².

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 728.24 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1956, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since February 1962 by Alvin R. Bush Dam (station 01544800). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--38 years, 367 ft³/s, 21.39 in/yr, adjusted for storage since February 1962.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	39	e330	e190	483	876	428	185	37	3250	594
2	13	11	35	326	e170	511	940	376	157	31	1860	463
3	13	11	115	303	154	469	854	387	144	39	1060	417
4	14	11	238	258	152	434	708	348	140	122	750	370
5	15	11	166	251	e140	398	585	311	157	99	569	281
6	15	9.9	152	233	e120	367	469	296	202	68	421	303
7	14	9.9	138	216	e110	485	422	266	179	68	341	285
8	13	9.9	118	217	e100	651	501	242	162	62	308	273
9	14	10	137	209	e80	762	661	283	171	189	427	361
10	14	10	149	211	e80	815	687	259	165	172	352	325
11	14	14	146	194	e90	1050	635	227	153	113	326	325
12	14	19	134	178	e120	1110	669	216	135	91	323	284
13	14	27	130	163	e140	972	693	203	110	110	249	263
14	14	27	169	203	176	785	709	212	110	392	265	259
15	17	24	201	319	149	611	666	212	107	829	265	225
16	18	24	223	352	133	507	595	197	96	2340	330	209
17	70	21	214	e300	141	428	590	185	88	1430	330	184
18	55	16	206	e310	126	377	777	192	72	3280	327	177
19	26	16	e140	e310	135	359	1160	207	94	1960	308	176
20	9.4	16	e130	e330	179	308	1210	176	126	1190	271	150
21	9.9	16	155	e350	224	269	1110	166	89	1100	243	141
22	12	47	162	e240	246	254	1340	160	62	954	198	220
23	13	189	116	247	268	236	1500	144	62	767	170	293
24	13	139	113	470	329	191	1260	160	65	662	174	253
25	13	84	103	e380	437	190	1030	145	73	529	155	255
26	14	67	e80	e330	519	232	807	129	62	473	149	271
27	14	54	69	e300	532	773	719	134	63	478	151	344
28	14	52	e74	285	473	1170	604	128	65	383	271	500
29	13	46	88	267	505	1020	517	112	68	327	1710	557
30	11	37	291	248	---	944	481	105	58	296	1210	552
31	11	---	395	230	---	850	---	160	---	1980	884	---
TOTAL	527.3	1045.7	4626	8560	6218	18011	23775	6766	3420	20571	17647	9310
MEAN	17.0	34.9	149	276	214	581	792	218	114	664	569	310
MAX	70	189	395	470	532	1170	1500	428	202	3280	3250	594
MIN	9.4	9.9	35	163	80	190	422	105	58	31	149	141
MEAN‡	17.5	34.4	149	275	214	581	792	218	113	685	548	311
CFSM‡	.08	.15	.64	1.18	.92	2.49	3.40	.94	.48	2.94	2.35	1.33
IN.‡	.09	.17	.74	1.36	.99	2.87	3.79	1.08	.54	3.39	2.71	1.48

‡ Adjusted for change in contents in Kettle Creek Lake.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN
01545000 KETTLE CREEK NEAR WESTPORT, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	195	327	415	314	462	754	769	488	296	164	90.0	126
MAX	1096	1060	954	857	1330	1739	1469	850	1278	677	569	1058
(WY)	1991	1971	1973	1979	1981	1979	1970	1984	1972	1972	1992	1975
MIN	13.5	5.37	61.3	63.8	78.8	167	309	142	42.0	8.06	7.69	13.0
(WY)	1965	1965	1965	1981	1963	1968	1976	1985	1991	1962	1962	1991

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1962 - 1992

ANNUAL TOTAL	81641.0	120477.0	
ANNUAL MEAN	224 $\frac{1}{2}$ 224	329 $\frac{1}{2}$ 329	366
HIGHEST ANNUAL MEAN			530
LOWEST ANNUAL MEAN			240
HIGHEST DAILY MEAN	3720	Mar 5	7200
LOWEST DAILY MEAN	9.4	Oct 20	4.4
ANNUAL SEVEN-DAY MINIMUM	10	Nov 4	4.6
INSTANTANEOUS PEAK FLOW			3870
INSTANTANEOUS PEAK STAGE			7.42
INSTANTANEOUS LOW FLOW			1.41
ANNUAL RUNOFF (CFSM)	.96	$\frac{1}{2}$.96	$\frac{1}{2}$ 1.41
ANNUAL RUNOFF (INCHES)	13.03	$\frac{1}{2}$ 13.05	19.23
10 PERCENT EXCEEDS	547	774	865
50 PERCENT EXCEEDS	74	206	180
90 PERCENT EXCEEDS	13	16	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1961, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	192	247	373	297	387	837	1066	541	204	131	120	72.8
MAX	709	647	708	564	713	1373	1496	1103	631	318	276	177
(WY)	1956	1960	1957	1959	1961	1955	1958	1960	1960	1958	1956	1958
MIN	23.7	41.3	27.0	27.6	127	394	411	151	63.9	25.1	16.9	24.3
(WY)	1958	1961	1961	1961	1958	1960	1955	1955	1955	1955	1957	1957

SUMMARY STATISTICS

WATER YEARS 1955 - 1961

ANNUAL MEAN	372	
HIGHEST ANNUAL MEAN	492	1956
LOWEST ANNUAL MEAN	266	1955
HIGHEST DAILY MEAN	5970	Mar 8 1956
LOWEST DAILY MEAN	8.9	Sep 10 1957
ANNUAL SEVEN-DAY MINIMUM	10	Sep 24 1959
INSTANTANEOUS PEAK FLOW	a7970	Mar 8 1956
INSTANTANEOUS PEAK STAGE	b13.31	Jan 22 1959
INSTANTANEOUS LOW FLOW	8.9	Sep 9,10 1957
ANNUAL RUNOFF (CFSM)	1.60	
ANNUAL RUNOFF (INCHES)	21.69	
10 PERCENT EXCEEDS	942	
50 PERCENT EXCEEDS	160	
90 PERCENT EXCEEDS	26	

$\frac{1}{2}$ Adjusted for change in contents in Kettle Creek Lake.

a Gage height 10.48 ft.

b Backwater from ice.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOV, PA
(Hydrologic bench-mark station and radiochemical program)

LOCATION.--Lat 41°23'22", long 77°41'28", Clinton County, Hydrologic Unit 02050203, on left bank on SR 4005, 0.3 mi downstream from Laureley Fork, 1.5 mi upstream from Left Branch Young Womans Creek, 3.7 mi upstream from mouth, and 5.0 mi northeast of Renovo.
DRAINAGE AREA.--46.2 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 780.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.1	10	e68	40	84	166	89	54	13	281	21
2	2.8	3.1	9.9	65	e33	86	165	82	53	12	215	19
3	2.7	2.9	46	61	e32	83	158	83	51	17	165	21
4	2.8	2.9	48	65	31	77	142	71	48	32	131	22
5	2.9	2.7	36	70	29	71	124	65	59	22	103	18
6	8.1	2.7	32	67	e28	68	108	60	70	20	82	22
7	5.7	2.7	28	66	e27	83	102	55	61	16	66	23
8	4.6	2.7	30	63	e24	98	105	54	58	15	62	29
9	3.9	2.7	32	62	e19	103	107	60	54	106	61	33
10	3.6	2.7	30	60	e18	116	103	53	49	62	49	29
11	3.7	4.4	29	55	e17	165	104	49	43	57	42	28
12	3.5	5.6	28	49	e19	179	137	45	38	49	36	25
13	3.5	5.1	29	46	e21	169	132	44	34	49	34	23
14	3.3	4.5	46	62	e25	153	133	44	30	144	35	22
15	5.1	4.3	48	62	33	131	125	40	28	333	29	20
16	13	4.3	47	64	32	111	114	39	24	663	30	19
17	7.3	3.8	46	e70	22	99	126	37	22	475	27	18
18	5.4	3.3	43	e62	20	86	146	45	20	674	24	17
19	4.7	3.2	e35	e58	23	79	178	39	52	474	21	19
20	4.2	3.4	e30	e61	29	69	184	35	44	331	19	16
21	3.9	4.3	e40	e66	29	62	178	34	34	255	18	18
22	3.5	43	31	e61	31	58	202	32	29	188	16	45
23	3.3	88	30	e64	36	53	199	32	25	148	15	50
24	3.2	33	28	e72	49	47	200	35	25	121	14	36
25	3.2	22	25	e60	63	45	193	32	22	102	14	34
26	3.2	17	e22	55	70	64	176	30	19	99	15	46
27	3.2	14	20	e50	75	184	155	28	26	95	13	62
28	3.2	13	19	49	75	207	131	26	18	76	38	70
29	3.2	11	30	47	89	193	112	24	16	66	58	71
30	3.1	11	79	44	---	181	101	26	14	61	28	68
31	3.1	---	70	43	---	169	---	64	---	240	24	---
TOTAL	129.8	326.4	1076.9	1847	1039	3373	4306	1452	1120	5015	1765	944
MEAN	4.19	10.9	34.7	59.6	35.8	109	144	46.8	37.3	162	56.9	31.5
MAX	13	88	79	72	89	207	202	89	70	674	281	71
MIN	2.7	2.7	9.9	43	17	45	101	24	14	12	13	16
CFSM	.09	.24	.75	1.29	.78	2.36	3.11	1.01	.81	3.50	1.23	.68
IN.	.10	.26	.87	1.49	.84	2.72	3.47	1.17	.90	4.04	1.42	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

	MEAN	39.5	69.2	81.3	57.6	91.0	134	150	98.6	66.9	37.3	17.8	23.7
MAX	181	199	194	155	250	349	341	175	303	162	56.9	211	
(WY)	1991	1971	1973	1979	1984	1979	1970	1978	1972	1992	1992	1975	
MIN	4.05	10.9	9.59	8.25	19.6	44.7	60.9	31.9	9.09	4.64	3.21	3.36	
(WY)	1983	1992	1965	1981	1987	1969	1988	1985	1991	1966	1966	1980	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1965 - 1992

ANNUAL TOTAL	16322.8	22394.1	72.9
ANNUAL MEAN	44.7	61.2	108
HIGHEST ANNUAL MEAN			1978
LOWEST ANNUAL MEAN			1966
HIGHEST DAILY MEAN	473 Mar 4	674 Jul 18	3310 Jun 23 1972
LOWEST DAILY MEAN	1.7 Aug 8	2.7 Oct 3, Nov 5-10	1.1 Aug 22 1988
ANNUAL SEVEN-DAY MINIMUM	2.2 Aug 2	2.7 Nov 4	1.4 Aug 16 1988
INSTANTANEOUS PEAK FLOW		890 Jul 15	a5370 Jun 23 1972
INSTANTANEOUS PEAK STAGE		3.85 Jul 15	7.98 Jun 23 1972
INSTANTANEOUS LOW FLOW			1.0 Aug 22, 23 1988
ANNUAL RUNOFF (CFSM)	.97	1.32	1.58
ANNUAL RUNOFF (INCHES)	13.14	18.03	21.44
10 PERCENT EXCEEDS	115	143	166
50 PERCENT EXCEEDS	18	39	41
90 PERCENT EXCEEDS	2.8	4.1	6.6

a From rating curve extended above 1,000 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN
01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µM-MF (COLS./100 ML) (31625)	STREP-TOCOC CI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 08...	0930	4.3	53	7.5	8.5	0.60	763	11.6	99	K 8	K 3	19
JAN 07...	0945	72	40	7.4	3.5	0.60	758	12.9	97	35	K 16	16
APR 01...	1030	165	36	7.3	4.5	0.40	733	12.6	102	2	2	13
JUL 14...	1000	184	40	7.6	14.5	4.1	737	10.2	104	530	2900	15

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKA-LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY (MG/L AS CACO3) (90410)
OCT 08...	9	5.5	1.3	1.7	15	0.2	0.90	12	--	10	14
JAN 07...	9	4.6	1.1	1.1	12	0.1	0.60	8	7	7	7.5
APR 01...	10	3.8	0.95	0.70	10	0.1	0.60	4	3	4	5.0
JUL 14...	10	4.4	1.0	0.70	9	0.1	0.90	7	6	7	7.5

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 08...	7.3	2.2	0.10	3.9	29	30	0.04	0.34	<0.010	<0.010	0.093
JAN 07...	7.6	1.1	<0.10	4.0	24	24	0.03	4.67	--	--	--
APR 01...	8.7	1.1	0.20	3.6	26	23	0.03	11.6	<0.010	<0.010	0.400
JUL 14...	8.4	0.90	<0.10	4.2	30	24	0.04	14.9	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 08...	0.100	0.010	<0.010	<0.20	<0.010	<0.010	<0.010	<0.010	1	0.01	100
JAN 07...	--	--	--	--	--	--	--	--	3	0.58	80
APR 01...	0.400	0.020	0.020	<0.20	<0.010	<0.010	<0.010	<0.010	8	3.6	57
JUL 14...	--	--	--	--	--	--	--	--	23	11	64

< Actual value is known to be less than value shown.

K Results based on non-ideal colony count.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALUM- INUM, DIS- SOLVED (μ G/L AS AL) (01106)	BARIUM, DIS- SOLVED (μ G/L AS BA) (01005)	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)
OCT 08...	0930	4.3	<10	37	<3	27	<4
JAN 07...	0945	72	<10	30	<3	18	<4
APR 01...	1030	165	10	31	<3	5	<4
JUL 14...	1000	184	30	37	<3	37	<4

DATE	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)
OCT 08...	7	<10	<1	<1	<1.0	36	<6
JAN 07...	2	<10	6	<1	<1.0	30	<6
APR 01...	1	<10	<1	<1	<1.0	24	<6
JUL 14...	10	<10	2	<1	<1.0	29	<6

RADIOCHEMICAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	GROSS ALPHA, DIS- SOLVED (μ G/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (μ G/L AS U-NAT) (80040)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (μ G/L) (75986)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)
OCT 08...	0930	4.3	0.90	<0.6	<0.6	0.30	<0.60	1.3	<0.6	1.2
APR 01...	1030	165	0.60	<0.6	<0.6	0.30	<0.60	0.9	<0.6	0.9

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (µG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (µG/L) (75990)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)
OCT 08...	<0.6	0.50	0.50	0.05	0.010	<0.01	<1.0	0.10	0.60
APR 01...	<0.6	0.40	0.50	0.04	0.010	<0.01	<1.0	0.20	0.50

< Actual value is known to be less than the value shown.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01546400 SPRING CREEK AT HOUSERVILLE, PA

LOCATION.--Lat 40°50'01", long 77°49'40", Centre County, Hydrologic Unit 02050204, on right bank 15 ft upstream from bridge on Township Route 365, 0.7 mi north of Houserville, 1.3 mi downstream from Slab Cabin Run, and 3.3 mi northeast of State College.

DRAINAGE AREA.--58.5 mi².

PERIOD OF RECORD.--November 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 926.63 ft above National Geodetic Vertical Datum of 1929.

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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	28	29	34	46	134	92	51	38	30	23
2	19	17	34	29	32	45	123	86	45	32	28	22
3	19	17	146	29	32	44	112	83	43	39	27	29
4	19	17	73	34	31	43	103	80	42	34	28	23
5	27	16	58	32	31	41	94	76	62	32	26	22
6	29	16	53	32	30	41	87	72	60	31	25	30
7	23	16	48	31	30	60	83	68	48	32	24	23
8	21	16	43	31	29	56	79	71	45	31	44	29
9	20	16	42	33	27	51	74	84	43	33	66	23
10	20	16	42	32	27	63	73	69	42	30	34	25
11	20	20	39	31	27	83	86	64	41	29	32	23
12	19	19	38	31	26	74	73	61	40	36	30	21
13	19	18	35	31	26	72	68	62	40	41	29	21
14	19	16	42	48	27	70	66	63	38	53	28	20
15	31	16	37	38	31	66	63	59	38	38	28	20
16	26	16	35	35	33	60	63	58	37	36	31	20
17	22	16	35	34	29	60	73	55	36	35	28	21
18	21	16	34	34	29	61	71	60	36	33	27	19
19	20	16	32	32	31	64	65	53	48	31	26	19
20	19	16	32	33	30	57	61	50	39	32	25	19
21	19	23	32	32	30	55	70	48	36	33	25	24
22	19	98	32	32	30	55	118	47	35	30	24	28
23	19	85	32	55	29	53	90	45	34	38	24	22
24	18	49	31	45	34	50	108	46	38	31	23	20
25	18	40	30	37	34	52	104	45	34	29	21	19
26	18	37	29	36	46	116	114	44	34	34	23	28
27	18	33	29	36	42	232	115	43	50	31	22	26
28	18	32	28	36	43	177	108	41	35	29	49	23
29	17	30	36	35	53	145	102	40	34	29	33	21
30	18	30	33	35	---	138	98	52	37	29	26	20
31	17	---	32	36	---	148	---	76	---	36	24	---
TOTAL	631	791	1270	1074	933	2378	2678	1893	1241	1045	910	683
MEAN	20.4	26.4	41.0	34.6	32.2	76.7	89.3	61.1	41.4	33.7	29.4	22.8
MAX	31	98	146	55	53	232	134	92	62	53	66	30
MIN	17	16	28	29	26	41	61	40	34	29	21	19
CFSM	.35	.45	.70	.59	.55	1.31	1.53	1.04	.71	.58	.50	.39
IN.	.40	.50	.81	.68	.59	1.51	1.70	1.20	.79	.66	.58	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

	MEAN	36.5	49.4	63.3	54.7	70.0	90.3	92.0	75.9	60.7	45.6	33.7	29.2
MAX	107	82.3	138	117	114	152	150	126	142	94.1	48.7	40.2	
(WY)	1991	1991	1991	1991	1986	1986	1987	1989	1989	1989	1989	1990	
MIN	20.0	26.4	29.1	34.6	32.2	54.0	52.5	57.0	35.1	26.9	23.2	22.8	
(WY)	1986	1992	1989	1992	1992	1990	1988	1986	1991	1988	1991	1992	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1985 - 1992

ANNUAL TOTAL	21015	15527	
ANNUAL MEAN	57.6	42.4	58.4
HIGHEST ANNUAL MEAN			77.7
LOWEST ANNUAL MEAN			42.4
HIGHEST DAILY MEAN	219	Jan 1	596
LOWEST DAILY MEAN	16	Nov 5 ^a	16
ANNUAL SEVEN-DAY MINIMUM	16	Nov 14	16
INSTANTANEOUS PEAK FLOW		269	687
INSTANTANEOUS PEAK STAGE		4.55	6.79
INSTANTANEOUS LOW FLOW		15	15
ANNUAL RUNOFF (CFSM)	.98	.73	1.00
ANNUAL RUNOFF (INCHES)	13.36	9.87	13.55
10 PERCENT EXCEEDS	117	74	107
50 PERCENT EXCEEDS	38	33	45
90 PERCENT EXCEEDS	19	19	23

^a Also Nov. 6-10, 14-20, 1991.

WEST BRANCH SUSQUEHANNA RIVER BASIN
01546500 SPRING CREEK NEAR AXEMANN, PA

LOCATION.--Lat 40°53'23", long 77°47'40", Centre County, Hydrologic Unit 02050204, on right bank at upstream side of bridge on SR 3001, 1.6 mi west of Axemann, 1.8 mi southwest of Bellefonte, and 2.5 mi upstream from Logan Branch.

DRAINAGE AREA.--87.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 788.81 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 8.6 ft, from information by local residents, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	39	49	50	53	75	176	131	78	80	61	46
2	45	39	50	50	50	76	168	122	69	68	58	46
3	45	39	174	50	52	74	157	117	66	76	57	51
4	45	38	103	54	50	68	150	112	66	74	56	50
5	46	39	84	55	49	65	140	108	78	65	55	45
6	62	38	78	52	49	64	129	103	99	63	52	54
7	48	39	73	51	49	80	122	97	75	64	51	48
8	47	38	69	51	48	79	115	96	71	64	70	50
9	45	38	67	51	46	74	109	120	70	67	124	53
10	44	38	67	51	47	82	106	100	66	63	66	46
11	44	41	63	50	48	106	122	92	67	63	61	50
12	44	43	61	50	45	99	110	89	66	68	58	45
13	43	40	59	50	46	98	100	88	66	82	55	44
14	43	39	65	69	45	96	97	94	65	99	55	45
15	46	39	63	63	48	92	96	87	66	68	54	44
16	59	39	60	58	58	86	93	85	67	74	57	44
17	46	38	58	55	50	84	108	82	66	68	54	47
18	44	38	57	56	46	85	107	88	65	69	51	44
19	43	38	54	53	50	90	100	80	77	62	50	44
20	42	38	55	56	50	83	92	75	83	60	49	42
21	42	39	55	54	48	80	94	73	70	66	48	43
22	43	100	54	53	48	81	156	72	67	60	48	50
23	41	138	53	74	49	79	125	71	67	69	48	52
24	41	74	53	75	56	75	139	72	73	63	48	42
25	40	62	50	60	55	76	145	69	69	59	47	41
26	40	58	50	59	66	112	147	67	68	60	48	50
27	41	55	50	57	65	252	158	65	88	67	48	49
28	41	52	48	57	65	215	149	64	69	59	58	43
29	40	51	59	56	84	186	142	63	68	57	87	43
30	40	50	55	54	---	178	139	73	67	59	52	41
31	39	---	54	56	---	187	---	109	---	68	48	---
TOTAL	1375	1457	1990	1730	1515	3177	3791	2764	2132	2084	1774	1392
MEAN	44.4	48.6	64.2	55.8	52.2	102	126	89.2	71.1	67.2	57.2	46.4
MAX	62	138	174	75	84	252	176	131	99	99	124	54
MIN	39	38	48	50	45	64	92	63	65	57	47	41
CFSM	.51	.56	.74	.64	.60	1.18	1.45	1.02	.81	.77	.66	.53
IN.	.59	.62	.85	.74	.65	1.36	1.62	1.18	.91	.89	.76	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

	MEAN	58.0	66.3	80.7	87.3	108	146	148	120	99.1	71.0	59.5	54.6
MAX	184	206	228	219	257	294	253	257	369	216	137	163	
(WY)	1980	1978	1951	1978	1984	1979	1957	1978	1972	1972	1984	1979	
MIN	26.1	26.0	22.8	23.3	38.1	36.5	49.6	50.5	41.1	28.0	24.4	24.9	
(WY)	1964	1966	1966	1966	1963	1969	1969	1969	1965	1965	1966	1965	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1941 - 1992

ANNUAL TOTAL	32003	25181	
ANNUAL MEAN	87.7	68.8	91.5
HIGHEST ANNUAL MEAN			161
LOWEST ANNUAL MEAN			43.5
HIGHEST DAILY MEAN	251	252	2910
LOWEST DAILY MEAN	38	38	20
ANNUAL SEVEN-DAY MINIMUM	38	38	21
INSTANTANEOUS PEAK FLOW		303	5410
INSTANTANEOUS PEAK STAGE		3.23	7.47
INSTANTANEOUS LOW FLOW			9.6
ANNUAL RUNOFF (CFSM)	1.01	.79	1.05
ANNUAL RUNOFF (INCHES)	13.65	10.74	14.26
10 PERCENT EXCEEDS	156	108	162
50 PERCENT EXCEEDS	64	59	71
90 PERCENT EXCEEDS	43	43	40

a Also Jan 28, 29, 31, 1966.

b From rating curve extended above 1,400 ft³/s on basis of contracted-opening measurement of peak flow.

c In gage, 8.75 ft from outside floodmark.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547100 SPRING CREEK AT MILESBERG, PA

LOCATION.--Lat 40°55'54", long 77°47'13", Centre County, Hydrologic Unit 02050204, on left bank 60 ft downstream from privately-owned bridge, 400 ft west of State Highway 144, and 0.8 mi upstream from mouth and Milesburg.

DRAINAGE AREA.--142 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 696.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	116	128	134	144	179	374	277	185	153	146	130
2	120	116	134	135	140	182	356	265	173	140	138	128
3	119	115	351	134	141	180	335	253	168	147	136	137
4	120	116	233	141	138	175	310	244	166	155	136	137
5	126	115	195	146	136	172	288	234	180	140	136	126
6	144	116	184	140	134	169	269	225	211	138	131	138
7	123	115	175	137	133	193	258	215	179	135	127	133
8	122	115	168	135	134	195	246	215	174	139	163	133
9	120	114	163	139	128	190	235	244	171	146	285	135
10	118	115	160	139	127	204	228	219	165	139	182	136
11	117	125	154	137	130	251	240	206	163	138	166	135
12	118	122	150	134	125	244	224	201	159	145	157	125
13	117	116	149	135	128	243	216	201	158	177	153	122
14	117	115	164	166	128	238	208	205	154	227	152	122
15	127	115	157	161	130	230	205	197	153	160	148	121
16	144	113	149	150	149	220	203	195	152	160	152	118
17	124	113	149	148	136	214	217	191	150	155	147	121
18	119	112	148	146	132	212	214	198	147	159	142	118
19	118	109	142	141	135	219	210	187	164	145	140	119
20	117	111	144	146	137	207	199	182	173	141	137	115
21	118	115	145	144	132	201	204	177	151	146	135	121
22	117	202	143	143	131	199	283	176	148	139	134	131
23	116	267	142	168	131	197	252	174	146	150	132	132
24	115	177	140	182	140	190	269	175	153	147	131	117
25	114	155	136	158	146	192	282	174	146	139	130	116
26	114	145	132	155	163	255	296	172	144	142	128	139
27	115	142	136	151	164	551	324	168	169	150	128	134
28	115	137	132	148	165	495	308	165	146	139	149	128
29	115	134	150	146	190	422	294	160	142	136	185	124
30	114	131	143	145	---	394	289	176	140	137	140	121
31	117	---	138	148	---	408	---	222	---	160	134	---
TOTAL	3722	3909	4934	4532	4047	7621	7836	6293	4830	4624	4600	3812
MEAN	120	130	159	146	140	246	261	203	161	149	148	127
MAX	144	267	351	182	190	551	374	277	211	227	285	139
MIN	114	109	128	134	125	169	199	160	140	135	127	115
CFSM	.85	.92	1.12	1.03	.98	1.73	1.84	1.43	1.13	1.05	1.04	.89
IN.	.98	1.02	1.29	1.19	1.06	2.00	2.05	1.65	1.27	1.21	1.21	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	173	188	220	215	272	321	320	262	249	195	168	156
MAX	375	421	414	443	500	615	496	507	729	434	357	348
(WY)	1980	1978	1978	1978	1984	1979	1980	1978	1972	1972	1984	1979
MIN	102	117	131	122	127	104	149	147	123	118	110	108
(WY)	1970	1972	1983	1981	1969	1969	1969	1969	1969	1969	1968	1969

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1967 - 1992

ANNUAL TOTAL	75313	60760	229	
ANNUAL MEAN	206	166	350	1978
HIGHEST ANNUAL MEAN			128	1969
LOWEST ANNUAL MEAN			6000	Jun 23 1972
HIGHEST DAILY MEAN	607	Jan 1	551	Mar 27
LOWEST DAILY MEAN	109	Nov 19	109	Nov 19
ANNUAL SEVEN-DAY MINIMUM	113	Nov 14	113	Nov 14
INSTANTANEOUS PEAK FLOW			586	Mar 27
INSTANTANEOUS PEAK STAGE			4.45	Mar 27
INSTANTANEOUS LOW FLOW			106	Oct 29
ANNUAL RUNOFF (CFSM)	1.45	1.17	1.61	
ANNUAL RUNOFF (INCHES)	19.73	15.92	21.87	
10 PERCENT EXCEEDS	344	236	363	
50 PERCENT EXCEEDS	159	146	188	
90 PERCENT EXCEEDS	118	118	128	

a From rating curve extended above 900 ft³/s on basis of computation of peak discharge at dam.

b From peak-stage indicator.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547200 BALD EAGLE CREEK BELOW SPRING CREEK AT MILESBERG, PA

LOCATION.--Lat 40°56'35", long 77°47'12", Centre County, Hydrologic Unit 02050204, on right bank 130 ft downstream from bridge on State Highway 144 at Milesburg, and 250 ft downstream from Spring Creek.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--October 1955 to current year. Prior to October 1967, published as North Bald Eagle Creek below Spring Creek at Milesburg.

GAGE.--Water-stage recorder. Datum of gage is 682.49 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1956, nonrecording gage at site 130 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good except those below 130 ft³/s, which are fair. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	124	170	186	247	595	993	522	277	171	307	159
2	129	123	172	212	209	526	842	471	234	159	254	156
3	128	122	1690	231	231	452	716	451	215	163	227	167
4	129	122	734	233	215	397	623	407	208	187	223	174
5	133	122	437	249	209	359	547	379	278	169	203	157
6	186	122	352	227	190	336	481	378	523	159	185	181
7	157	122	311	215	198	538	448	345	341	153	172	207
8	142	122	287	204	204	575	429	335	296	154	222	190
9	136	122	268	208	160	513	407	523	269	171	856	196
10	133	122	251	218	167	550	392	445	245	157	398	208
11	131	138	231	214	177	828	411	406	231	153	307	242
12	131	145	219	203	169	726	387	385	217	164	264	211
13	129	145	218	200	166	634	351	370	209	249	237	196
14	129	145	320	414	173	554	329	376	201	518	228	186
15	137	143	301	426	182	494	317	340	194	283	217	178
16	177	140	258	335	266	427	309	324	187	247	228	171
17	157	138	246	277	242	404	367	307	184	248	215	168
18	142	134	233	270	224	393	385	311	179	292	201	162
19	136	132	184	207	242	411	372	287	211	225	188	167
20	132	132	198	218	304	380	349	265	240	202	178	155
21	131	132	225	240	273	362	424	251	193	201	171	164
22	129	484	213	238	265	370	1320	242	182	187	166	201
23	128	893	207	294	270	355	920	236	174	201	163	220
24	127	353	205	502	397	328	766	237	181	205	159	175
25	126	273	191	327	597	362	699	237	175	191	157	164
26	126	228	175	306	650	895	710	227	170	191	152	222
27	126	205	181	277	560	1940	818	223	207	240	154	256
28	125	192	166	271	503	1420	702	211	176	204	196	276
29	124	185	228	257	772	1050	621	201	165	188	299	233
30	123	178	288	246	---	938	571	228	162	188	190	210
31	122	---	221	261	---	1110	---	378	---	341	170	---
TOTAL	4193	5738	9380	8166	8462	19222	17006	10298	6724	6561	7287	5752
MEAN	135	191	303	263	292	620	567	332	224	212	235	192
MAX	186	893	1690	502	772	1940	1320	523	523	518	856	276
MIN	122	122	166	186	160	328	309	201	162	153	152	155
CFSM	.51	.72	1.14	.99	1.10	2.34	2.14	1.25	.85	.80	.89	.72
IN.	.59	.81	1.32	1.15	1.19	2.70	2.39	1.45	.94	.92	1.02	.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

	MEAN	257	314	391	355	535	748	674	499	370	255	216	200
MAX	950	811	956	812	1227	1467	1245	1162	1689	804	643	708	
(WY)	1977	1978	1973	1978	1984	1979	1957	1978	1972	1972	1956	1979	
MIN	89.8	94.3	103	141	147	255	276	257	131	102	101	84.3	
(WY)	1964	1965	1966	1981	1963	1969	1968	1965	1965	1965	1965	1965	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1956 - 1992

ANNUAL TOTAL	127639	108789	
ANNUAL MEAN	350	297	400
HIGHEST ANNUAL MEAN			638
LOWEST ANNUAL MEAN			213
HIGHEST DAILY MEAN	3690	Mar 4	15000
LOWEST DAILY MEAN	122	Oct 31, Nov 3-10	79
ANNUAL SEVEN-DAY MINIMUM	122	Nov 3	80
INSTANTANEOUS PEAK FLOW		2790	21300
INSTANTANEOUS PEAK STAGE		3.85	11.67
INSTANTANEOUS LOW FLOW		118	50
ANNUAL RUNOFF (CFSM)	1.32	1.12	1.51
ANNUAL RUNOFF (INCHES)	17.92	15.27	20.51
10 PERCENT EXCEEDS	721	530	784
50 PERCENT EXCEEDS	207	222	258
90 PERCENT EXCEEDS	131	135	131

a From rating curve extended above 9,000 ft³/s.

b From floodmark in gage.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547500 BALD EAGLE CREEK AT BLANCHARD, PA

LOCATION.--Lat 41°03'06", long 77°36'17", Centre County, Hydrologic Unit 02050204, on left bank 0.4 mi downstream from Foster Joseph Sayers Dam, 0.7 mi upstream from Marsh Creek, and 0.9 mi south of Blanchard.

DRAINAGE AREA.--339 mi².

PERIOD OF RECORD.--May 1954 to current year. Prior to October 1967, published as North Bald Eagle Creek at Blanchard.

REVISED RECORDS.--WSP 1903: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 579.79 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since March 1971 by Foster Joseph Sayers Dam (station 01547480). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--38 years, 458 ft³/s, 18.35 in/yr, adjusted for storage since March 1971.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863	142	357	256	266	752	1600	547	435	191	409	196
2	919	142	302	242	266	652	1060	498	304	191	298	184
3	935	142	1040	242	266	533	738	477	214	191	238	178
4	982	142	1790	303	252	417	691	446	191	191	236	178
5	954	142	820	315	234	318	571	398	262	191	234	178
6	999	142	382	262	221	283	468	398	426	191	234	178
7	517	142	382	234	200	283	437	396	456	191	205	178
8	196	142	304	234	198	348	414	398	379	191	184	196
9	161	142	246	234	198	389	403	466	276	191	715	219
10	142	142	246	234	198	398	383	509	234	191	868	249
11	142	142	246	234	198	520	367	476	234	191	399	337
12	142	142	246	234	198	477	364	442	208	191	294	283
13	142	142	246	234	198	414	357	424	191	191	258	250
14	142	142	283	318	198	414	332	398	191	533	208	234
15	142	142	351	580	198	414	283	398	191	544	187	234
16	142	142	372	526	218	414	283	373	191	286	187	241
17	308	142	350	308	253	414	283	343	191	235	187	246
18	342	142	294	272	266	404	283	325	191	238	187	246
19	271	142	232	257	266	398	283	300	249	238	187	240
20	254	142	212	226	330	398	283	300	347	238	187	227
21	183	142	212	268	345	398	285	300	320	238	187	212
22	142	211	212	337	309	374	359	273	223	238	187	212
23	142	1390	219	337	309	341	452	254	191	238	187	212
24	142	658	234	485	339	267	496	254	191	238	187	264
25	142	419	234	419	579	234	490	254	191	238	187	367
26	142	372	234	342	699	333	477	252	191	235	187	367
27	142	372	226	330	709	461	531	250	191	234	166	420
28	142	372	194	309	524	473	594	230	191	234	163	1120
29	142	367	221	290	650	621	626	194	191	235	250	1580
30	142	362	269	268	---	926	588	270	191	238	226	1640
31	142	---	270	266	---	1340	---	408	---	324	198	---
TOTAL	10298	7505	11226	9396	9085	14408	14781	11253	7432	7485	8027	10866
MEAN	332	250	362	303	313	465	493	363	248	241	259	362
MAX	999	1390	1790	580	709	1340	1600	547	456	544	868	1640
MIN	142	142	194	226	198	234	283	194	191	191	163	178
MEAN [‡]	151	216	351	302	320	704	619	368	241	254	253	225
CFSM [‡]	.45	.64	1.04	.89	.94	2.08	1.83	1.09	.71	.75	.75	.66
IN. [‡]	.52	.71	1.20	1.03	1.01	2.40	2.04	1.26	.79	.86	.86	.74

[‡] Adjusted for change in contents in Foster Joseph Sayers Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	436	581	573	493	623	738	603	561	488	364	277	316
MAX	1012	1291	995	948	1450	1664	1044	1328	1184	1580	867	809
(WY)	1980	1978	1973	1978	1984	1979	1980	1978	1972	1972	1984	1979
MIN	165	188	204	133	277	238	208	213	195	162	148	167
(WY)	1983	1988	1990	1981	1980	1990	1976	1976	1991	1991	1991	1980

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1971 - 1992

ANNUAL TOTAL	145748		121762									
ANNUAL MEAN	399	‡393	333	‡334					504			
HIGHEST ANNUAL MEAN									764			1978
LOWEST ANNUAL MEAN									333			1992
HIGHEST DAILY MEAN	2290	Mar 8	1790	Dec 4					4730		Jun 29	1972
LOWEST DAILY MEAN	118	Aug 14	142	Oct 10 ^a					23		Mar 15	1986
ANNUAL SEVEN-DAY MINIMUM	125	Aug 12	142	Oct 10					71		Apr 20	1971
INSTANTANEOUS PEAK FLOW			2010	Mar 31					b4890		Jun 28	1972
INSTANTANEOUS PEAK STAGE			5.85	Mar 31					9.37		Jun 28	1972
INSTANTANEOUS LOW FLOW									c.00			
ANNUAL RUNOFF (CFSM)	1.18	‡1.16	.98	‡0.99					1.49			
ANNUAL RUNOFF (INCHES)	15.99	‡15.75	13.36	‡13.42					20.18			
10 PERCENT EXCEEDS	849		536						1040			
50 PERCENT EXCEEDS	254		254						340			
90 PERCENT EXCEEDS	142		142						167			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1970, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	224	287	330	318	506	855	797	547	289	212	201	178
MAX	534	557	686	547	909	1376	1392	1053	561	478	623	437
(WY)	1956	1960	1957	1960	1956	1964	1957	1960	1968	1956	1956	1956
MIN	105	102	109	161	158	304	318	289	137	105	100	99.8
(WY)	1965	1965	1966	1966	1963	1969	1968	1955	1965	1965	1966	1965

SUMMARY STATISTICS WATER YEARS 1954 - 1970

ANNUAL MEAN	395											
HIGHEST ANNUAL MEAN	555				1956							
LOWEST ANNUAL MEAN	247				1965							
HIGHEST DAILY MEAN	7010			Mar 10	1964							
LOWEST DAILY MEAN	90			Sep 11, 13	1966							
ANNUAL SEVEN-DAY MINIMUM	93			Sep 7	1966							
INSTANTANEOUS PEAK FLOW	b10100			Mar 10	1964							
INSTANTANEOUS PEAK STAGE	11.59			Mar 10	1964							
ANNUAL RUNOFF (CFSM)	1.16											
ANNUAL RUNOFF (INCHES)	15.82											
10 PERCENT EXCEEDS	834											
50 PERCENT EXCEEDS	235											
90 PERCENT EXCEEDS	124											

‡ Adjusted for change in contents in Foster Joseph Sayers Lake.

^a Also Oct. 11-16, Oct 22-Nov. 21.^b From rating curve extended above 4,100 ft³/s.^c No flow parts of June 16, Nov. 10, 1970, due to construction of dam; May 12, 18, 19, 1976; Mar. 6, 1979, result of shutoff at dam.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547700 MARSH CREEK AT BLANCHARD, PA

LOCATION.--Lat 41°03'34", long 77°36'22", Centre County, Hydrologic Unit 02050204, on right bank 20 ft downstream from highway bridge on SR 1002, 0.5 mi southwest of Blanchard, 0.6 mi downstream from bridge on State Highway 150, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--44.1 mi².

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WDR PA-72-1: 1971 (runoff in CFSM and inches).

GAGE.--Water-stage recorder. Datum of gage is 586.16 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1956, nonrecording gage at site 20 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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.7	8.9	11	28	103	188	101	23	7.1	110	11
2	2.6	2.7	8.6	16	24	97	170	87	18	6.3	96	10
3	2.4	2.6	241	20	22	83	142	74	16	6.7	76	11
4	2.4	2.4	121	21	21	72	118	62	15	14	64	11
5	2.6	2.3	72	22	18	62	96	55	21	10	47	9.6
6	7.2	2.4	52	20	16	55	77	50	34	11	37	11
7	5.1	2.4	39	18	18	106	66	42	28	7.6	30	13
8	3.6	2.4	33	17	e15	130	60	40	28	7.4	38	14
9	3.1	2.3	28	19	e9.6	130	55	51	26	23	58	14
10	2.9	2.4	24	21	e9.4	136	51	42	24	11	39	77
11	2.9	3.8	20	20	e13	189	53	37	22	9.2	33	108
12	3.0	6.4	18	18	e10	180	56	35	19	9.6	27	87
13	3.0	4.9	18	18	e9.6	151	47	34	17	15	23	67
14	2.8	4.0	31	67	13	122	44	34	16	91	21	52
15	4.5	3.5	26	75	15	97	43	31	14	72	19	42
16	10	3.3	21	65	34	78	44	30	13	61	19	34
17	6.0	2.9	e20	57	21	70	69	28	12	73	17	29
18	4.5	2.6	e17	e40	18	61	84	28	11	95	16	26
19	3.9	2.7	e10	e32	21	62	89	25	29	59	13	26
20	3.5	2.7	16	e27	24	54	90	22	40	42	12	21
21	3.3	3.0	20	e28	23	51	94	21	19	37	11	22
22	3.3	64	17	e29	22	50	162	19	15	30	10	33
23	3.4	105	17	e40	24	47	160	19	13	38	9.5	38
24	3.3	40	15	57	44	43	154	19	13	31	8.8	25
25	3.2	26	14	38	70	51	143	19	12	26	8.4	23
26	3.0	18	11	36	89	160	174	17	10	25	8.0	40
27	3.0	14	11	32	90	532	176	17	12	30	7.8	46
28	2.9	12	e9.2	32	89	367	162	15	9.4	25	18	46
29	2.7	11	20	30	121	242	139	13	8.3	33	36	44
30	2.6	9.7	22	30	---	196	121	17	7.6	40	15	42
31	2.6	---	14	31	---	199	---	40	---	108	12	---
TOTAL	112.0	364.1	994.7	987	931.6	3976	3127	1124	545.3	1053.9	939.5	1032.6
MEAN	3.61	12.1	32.1	31.8	32.1	128	104	36.3	18.2	34.0	30.3	34.4
MAX	10	105	241	75	121	532	188	101	40	108	110	108
MIN	2.4	2.3	8.6	11	9.4	43	43	13	7.6	6.3	7.8	9.6
CFSM	.08	.28	.73	.72	.73	2.91	2.36	.82	.41	.77	.69	.78
IN.	.09	.31	.84	.83	.79	3.35	2.64	.95	.46	.89	.79	.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

	MEAN	28.0	47.3	65.6	50.4	88.3	131	109	73.7	50.8	24.1	16.6	16.7
MAX	154	151	252	134	267	257	234	171	344	170	77.5	91.2	
(WY)	1991	1978	1973	1979	1984	1964	1957	1978	1972	1972	1984	1975	
MIN	1.08	1.94	4.72	4.01	14.0	32.5	29.9	20.1	5.37	1.18	.61	.25	
(WY)	1965	1965	1966	1981	1963	1969	1968	1977	1991	1965	1966	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1956 - 1992

ANNUAL TOTAL	15433.73	15187.7	58.2
ANNUAL MEAN	42.3	41.5	102
HIGHEST ANNUAL MEAN			28.6
LOWEST ANNUAL MEAN			1965
HIGHEST DAILY MEAN	825	Mar 4	3800
LOWEST DAILY MEAN	.88	Aug 8	.00
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 2	.07
INSTANTANEOUS PEAK FLOW			a6900
INSTANTANEOUS PEAK STAGE			7.85
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (CFSM)	.96	.94	1.32
ANNUAL RUNOFF (INCHES)	13.02	12.81	17.94
10 PERCENT EXCEEDS	120	98	141
50 PERCENT EXCEEDS	11	23	26
90 PERCENT EXCEEDS	1.7	3.3	3.9

a From rating curve extended above 4,900 ft³/s.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA

LOCATION.--Lat 41°06'42", Long 77°42'09", Centre County, Hydrologic Unit 02050204, on right bank 800 ft downstream from bridge at Monument, 850 ft downstream from Monument Run, 0.6 mi upstream from Twin Run, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 741.60 ft above National Geodetic Vertical Datum of 1929.

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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	41	e74	136	297	827	347	154	60	291	151
2	17	18	40	98	124	298	793	312	134	57	272	136
3	17	17	265	118	117	287	684	292	124	59	254	129
4	17	17	251	104	112	266	582	260	120	85	245	123
5	18	14	171	116	108	246	497	237	154	67	223	110
6	30	17	146	109	100	232	423	238	291	75	187	117
7	27	17	127	104	105	310	380	208	233	60	165	123
8	23	17	120	100	97	357	352	197	227	56	183	133
9	20	13	116	103	e74	353	322	241	211	111	339	146
10	19	16	105	110	e60	395	298	221	191	73	293	143
11	19	23	93	106	e80	539	299	204	172	73	265	232
12	19	29	86	99	e66	522	328	196	155	73	233	203
13	19	27	87	97	e68	495	285	194	140	95	203	192
14	19	25	127	145	99	452	270	193	128	363	184	178
15	24	22	130	174	91	402	263	181	117	237	165	163
16	50	22	119	150	120	346	254	175	106	233	161	150
17	36	20	117	e140	98	312	320	164	98	200	147	137
18	27	18	113	e130	90	284	345	166	92	218	133	128
19	24	17	e76	e110	92	281	335	154	127	194	120	132
20	23	17	e85	e130	109	244	341	141	221	169	111	116
21	22	18	114	e140	105	223	357	132	124	170	101	116
22	21	90	97	e140	105	213	529	126	106	152	94	225
23	20	274	91	170	109	198	525	122	94	153	88	372
24	20	120	89	235	143	179	548	123	102	169	83	263
25	20	85	80	181	210	175	531	122	92	148	79	242
26	19	68	69	170	222	255	515	115	82	141	78	257
27	19	55	70	160	238	624	470	112	88	174	94	309
28	18	52	e60	153	246	708	437	105	78	139	160	319
29	18	47	86	146	331	710	405	98	69	138	316	297
30	17	44	110	142	---	717	381	108	65	188	192	282
31	16	---	e82	143	---	788	---	187	---	288	168	---
TOTAL	676	1236	3363	4097	3655	11708	12896	5671	4095	4418	5627	5624
MEAN	21.8	41.2	108	132	126	378	430	183	136	143	182	187
MAX	50	274	265	235	331	788	827	347	291	363	339	372
MIN	16	13	40	74	60	175	254	98	65	56	78	110
CFSM	.14	.27	.71	.87	.83	2.48	2.83	1.20	.90	.94	1.19	1.23
IN.	.17	.30	.82	1.00	.89	2.87	3.16	1.39	1.00	1.08	1.38	1.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

	MEAN	153	244	301	229	344	477	467	336	285	184	93.9	107
MAX	620	673	621	585	809	949	973	709	895	621	225	509	
(WY)	1991	1971	1973	1979	1981	1979	1970	1978	1972	1972	1990	1975	
MIN	21.8	41.2	71.6	54.9	73.8	167	213	112	48.0	27.8	17.8	20.9	
(WY)	1992	1992	1990	1981	1980	1969	1988	1976	1991	1991	1991	1991	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1969 - 1992

ANNUAL TOTAL	66193.6	63066	268
ANNUAL MEAN	181	172	385
HIGHEST ANNUAL MEAN			1978
LOWEST ANNUAL MEAN			1972
HIGHEST DAILY MEAN	1960 Mar 4	827 Apr 1	7490 Jun 23 1972
LOWEST DAILY MEAN	8.3 Sep 9	13 Nov 9	8.3 Sep 9 1991
ANNUAL SEVEN-DAY MINIMUM	9.9 Aug 29	16 Nov 4	9.9 Aug 29 1991
INSTANTANEOUS PEAK FLOW		839 Apr 1	a9740 Jun 23 1972
INSTANTANEOUS PEAK STAGE		7.52 Apr 1	15.22 Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.19	1.13	1.76
ANNUAL RUNOFF (INCHES)	16.20	15.43	23.95
10 PERCENT EXCEEDS	455	342	579
50 PERCENT EXCEEDS	75	132	170
90 PERCENT EXCEEDS	16	22	44

a From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548005 BALD EAGLE CREEK NEAR BEECH CREEK STATION, PA

LOCATION.--Lat 41°04'51", long 77°32'59", Clinton County, Hydrologic Unit 02050204, on right bank at abandoned railroad bridge, 1.5 mi downstream from Beech Creek Station, 1.5 mi downstream from Beech Creek, and 4.2 mi downstream from Foster Joseph Sayers Dam.

DRAINAGE AREA.--562 mi².

PERIOD OF RECORD.--July 1910 to current year. Prior to October 1967, published as North Bald Eagle Creek at Beech Creek Station.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1111: 1936(M). WSP 1302: 1911(M), 1912-15, 1918, 1922, 1923-25(M), 1931. WSP 1502: 1919, 1920(M).

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1984 at site 1.2 mi upstream at datum 11.74 ft higher. July 1910, to Jan. 10, 1930, nonrecording gage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since March 1971 by Foster Joseph Sayers Dam (station 01547480). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeter at station.

AVERAGE DISCHARGE.--82 years, 812 ft³/s, 19.62 in/yr, adjusted for storage since March 1971.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	968	159	401	344	461	1320	2870	1100	676	271	928	390
2	1040	163	355	346	434	1210	2280	987	496	267	749	362
3	1050	163	1590	398	432	1030	1780	914	375	266	615	340
4	1100	159	2320	447	404	843	1580	829	339	297	589	337
5	1080	154	1230	500	375	690	1330	705	427	285	565	323
6	1110	153	622	428	344	626	1080	698	793	285	509	315
7	655	153	581	387	326	753	971	660	790	275	446	340
8	231	153	488	379	332	928	909	635	678	260	417	355
9	192	153	403	378	296	985	836	766	554	336	1170	423
10	170	153	386	392	262	1030	779	811	483	295	1420	499
11	170	160	370	395	301	1460	743	735	450	278	799	757
12	170	168	366	381	284	1400	784	683	402	277	617	625
13	170	170	366	379	273	1240	e740	662	355	307	535	556
14	163	170	455	561	301	1150	e670	624	344	1050	457	506
15	165	170	544	929	315	1070	e620	599	327	1030	402	481
16	192	170	553	856	382	977	599	569	316	648	396	458
17	352	170	515	552	394	925	678	529	309	553	384	453
18	413	170	464	489	394	850	759	515	300	607	368	443
19	320	170	334	426	397	824	740	468	374	521	349	436
20	289	170	316	390	483	780	752	448	666	484	338	398
21	228	173	363	446	508	749	765	436	504	472	324	372
22	170	320	345	516	453	705	1160	412	394	444	319	429
23	170	1890	342	564	454	652	1260	383	313	454	309	715
24	170	926	358	856	540	542	1340	376	313	468	300	600
25	170	558	349	698	953	508	1290	383	309	444	294	714
26	170	463	330	576	1140	847	1380	372	298	435	294	769
27	167	438	323	546	1210	1850	1370	374	302	475	278	864
28	166	426	264	513	959	1830	1370	354	288	439	358	1620
29	166	415	331	496	1240	1830	1340	309	277	431	679	2090
30	160	407	427	470	---	2080	1230	393	275	512	494	2130
31	156	---	392	471	---	2560	---	682	---	763	414	---
TOTAL	11893	9267	16483	15509	14647	34344	34005	18411	12727	13929	16116	19100
MEAN	384	309	532	500	505	1108	1133	594	424	449	520	637
MAX	1110	1890	2320	929	1240	2560	2870	1100	793	1050	1420	2130
MIN	156	153	264	344	262	508	599	309	275	260	278	315
MEAN‡	203	275	521	499	512	1347	1259	599	417	462	514	500
CFSM‡	.36	.49	.93	.89	.91	2.40	2.24	1.07	.74	.82	.91	.89
IN.‡	.42	.55	1.07	1.03	.98	2.77	2.50	1.23	.83	.95	1.05	.99

‡ Adjusted for change in contents in Foster Joseph Sayers Lake.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548005 BALD EAGLE CREEK NEAR BEECH CREEK STATION, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	671	957	1061	868	1208	1542	1277	1041	948	623	403	482
MAX	1907	2374	2158	1896	2926	3396	2166	2540	3076	2633	1239	1443
(WY)	1980	1978	1973	1979	1984	1979	1980	1978	1972	1972	1984	1975
MIN	212	309	339	207	398	492	495	387	271	204	174	203
(WY)	1981	1992	1990	1981	1980	1990	1976	1976	1991	1991	1991	1980

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1971 - 1992

ANNUAL TOTAL	245072		216431									
ANNUAL MEAN	671	‡665	591	‡592								
HIGHEST ANNUAL MEAN									921			
LOWEST ANNUAL MEAN									1396			1978
HIGHEST DAILY MEAN	3520	Mar 7	2870	Apr 1	16600	Jun 23	1972					
LOWEST DAILY MEAN	137	Aug 15	153	Nov 6-10	124	Aug 20	1971					
ANNUAL SEVEN-DAY MINIMUM	144	Aug 12	154	Nov 4	134	Sep 1	1971					
INSTANTANEOUS PEAK FLOW			2970	Apr 1	a19400	Jun 23	1972					
INSTANTANEOUS PEAK STAGE			9.82	Apr 1	b12.29	Jun 23	1972					
ANNUAL RUNOFF (CFSM)	1.19	‡1.18	1.05	‡1.05	1.64							
ANNUAL RUNOFF (INCHES)	16.22	‡16.06	14.33	‡14.37	22.27							
10 PERCENT EXCEEDS	1450		1140		1980							
50 PERCENT EXCEEDS	382		449		571							
90 PERCENT EXCEEDS	164		172		242							

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1970, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	376	589	667	799	911	1664	1521	1187	644	354	283	283
MAX	1941	2026	1806	2131	2499	4958	3142	2585	3966	1268	997	1723
(WY)	1912	1951	1928	1949	1915	1936	1940	1919	1916	1928	1956	1911
MIN	113	107	121	108	218	500	458	291	220	132	126	117
(WY)	1931	1931	1931	1931	1931	1931	1925	1941	1965	1965	1966	1932

SUMMARY STATISTICS

WATER YEARS 1910 - 1970

ANNUAL MEAN	772											
HIGHEST ANNUAL MEAN	1236					1928						
LOWEST ANNUAL MEAN	447					1965						
HIGHEST DAILY MEAN	18600				Jun 17	1916						
LOWEST DAILY MEAN	80			Jan 16, 24, 25	1931							
ANNUAL SEVEN-DAY MINIMUM	89			Jan 21	1931							
INSTANTANEOUS PEAK FLOW	a25600			Mar 18	1936							
INSTANTANEOUS PEAK STAGE	b14.42			Mar 18	1936							
INSTANTANEOUS LOW FLOW	29			Aug 22	1930							
ANNUAL RUNOFF (CFSM)	1.37											
ANNUAL RUNOFF (INCHES)	18.66											
10 PERCENT EXCEEDS	1690											
50 PERCENT EXCEEDS	429											
90 PERCENT EXCEEDS	161											

‡ Adjusted for change in contents in Foster Joseph Sayers Lake.

a From rating curve extended above 12,000 ft³/s.

b Site and datum then in use.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548500 PINE CREEK AT CEDAR RUN, PA

LOCATION.--Lat 41°31'18", long 77°26'52", Lycoming County, Hydrologic Unit 02050205, on left bank at upstream side of highway bridge on Township Route 762 at village of Cedar Run, 2,000 ft downstream from Cedar Run, and 1.2 mi upstream from Gamble Run.

DRAINAGE AREA.--604 mi².

PERIOD OF RECORD.--July 1918 to current year. Prior to October 1918 monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 780.36 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1930, 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. National Weather Service satellite and landline telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	40	148	e580	e370	831	2120	1150	583	119	4460	998
2	36	40	143	e540	e350	873	1970	1000	459	112	3020	776
3	35	39	503	e580	e330	833	1750	1020	400	115	2060	678
4	34	36	851	e720	e310	818	1530	871	362	144	1520	709
5	38	35	563	1260	e280	833	1350	789	383	150	1210	517
6	69	35	462	1120	e250	928	1180	741	908	144	894	472
7	79	35	395	1060	e260	1150	1120	678	767	121	697	554
8	67	38	403	958	e240	1570	1350	628	689	106	592	466
9	55	37	478	867	e170	1640	1670	651	607	161	1410	473
10	50	37	506	825	e160	1720	1750	632	517	167	993	454
11	62	63	478	733	e200	2540	1770	564	441	128	750	860
12	49	110	446	638	e180	2320	2720	513	382	113	625	657
13	38	114	421	588	e190	1950	2370	484	338	110	522	578
14	36	96	681	1030	e210	1620	2090	481	302	158	769	507
15	41	93	737	1310	e250	1370	1750	432	280	599	594	447
16	112	93	650	e1000	e450	1130	1500	407	255	1930	589	395
17	157	84	e560	e980	e430	1010	1960	386	226	1060	557	351
18	98	74	e520	e840	e350	883	2530	396	204	2600	496	319
19	75	66	e500	e700	e310	844	3070	405	267	2110	442	323
20	65	62	e380	e600	e580	742	2810	347	461	1680	393	295
21	60	68	e500	e540	536	694	2490	317	309	2060	342	254
22	56	227	e460	e600	501	616	2770	295	259	1540	301	529
23	51	1010	e400	e700	525	597	2360	280	225	1210	266	1400
24	49	486	e380	e940	600	518	2320	282	205	1040	238	1160
25	48	321	e340	e720	730	515	2720	291	204	878	224	1010
26	46	248	e310	e600	754	762	2300	273	185	793	274	1290
27	45	203	e270	e520	756	3380	2000	279	175	866	241	1390
28	43	177	e240	e480	747	3510	1710	263	161	672	435	1470
29	41	166	e260	e450	987	2630	1470	238	142	576	3160	1310
30	40	156	e560	e400	---	2270	1280	227	129	550	1730	1160
31	40	---	e740	e380	---	2000	---	561	---	4060	1320	---
TOTAL	1754	4289	14285	23259	12006	43097	59780	15881	10825	26072	31124	21802
MEAN	56.6	143	461	750	414	1390	1993	512	361	841	1004	727
MAX	157	1010	851	1310	987	3510	3070	1150	908	4060	4460	1470
MIN	34	35	143	380	160	515	1120	227	129	106	224	254
CFSM	.09	.24	.76	1.24	.69	2.30	3.30	.85	.60	1.39	1.66	1.20
IN.	.11	.26	.88	1.43	.74	2.65	3.68	.98	.67	1.61	1.92	1.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1992, BY WATER YEAR (WY)

	354	709	824	792	899	1877	1941	1272	628	288	200	202
MEAN	354	709	824	792	899	1877	1941	1272	628	288	200	202
MAX	2910	3077	2260	2741	3090	6362	5279	3580	3601	1160	1136	2458
(WY)	1991	1951	1928	1937	1981	1936	1940	1919	1972	1928	1984	1975
MIN	28.9	41.3	65.4	47.6	119	590	374	238	90.4	50.2	32.6	19.3
(WY)	1965	1931	1961	1931	1920	1981	1946	1941	1991	1966	1939	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1919 - 1992

ANNUAL TOTAL	201323	264174	
ANNUAL MEAN	552	722	831
HIGHEST ANNUAL MEAN			1400
LOWEST ANNUAL MEAN			444
HIGHEST DAILY MEAN	8670	Mar 4	42600
LOWEST DAILY MEAN	21	Aug 8	8.0
ANNUAL SEVEN-DAY MINIMUM	27	Aug 29	36
INSTANTANEOUS PEAK FLOW			7900
INSTANTANEOUS PEAK STAGE			6.30
INSTANTANEOUS LOW FLOW			23
ANNUAL RUNOFF (CFSM)	.91	1.20	8.0
ANNUAL RUNOFF (INCHES)	12.40	16.27	1.38
10 PERCENT EXCEEDS	1300	1750	2030
50 PERCENT EXCEEDS	203	504	390
90 PERCENT EXCEEDS	35	66	64

a From rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA

LOCATION.--Lat 41°28'25", long 77°13'52", Lycoming County, Hydrologic Unit 02050205, on right bank just downstream from bridge on State Highway 284, 0.7 mi upstream from Blacks Creek, 1.7 mi upstream from confluence with Texas Creek, and 5.0 mi northeast of English Center.

DRAINAGE AREA.--37.7 mi².

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

REVISED RECORDS.--WSP 951: 1941. WSP 1031: 1942-44(M). WSP 1502: 1942. WDR PA-75-2: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 1,041.85 ft above National Geodetic Vertical Datum of 1929.

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 Mar. 18, 1936, reached a stage of 9.0 ft, from floodmark, discharge, 5,780 ft³/s, from rating curve extended above 1,200 ft³/s on basis of contracted-opening measurement at gage height 8.81 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.2	12	e35	30	e44	125	49	169	8.7	51	23
2	2.0	2.1	12	e33	e28	43	109	44	124	7.6	38	20
3	1.9	1.9	105	e32	e26	42	99	44	88	8.2	34	22
4	1.9	1.7	68	e23	40	88	37	66	13	32	23	23
5	2.1	1.8	47	82	e22	40	75	34	116	10	33	18
6	5.6	1.8	41	64	e21	43	64	33	433	10	29	17
7	4.7	1.8	35	60	e19	73	61	29	244	7.9	25	17
8	3.5	1.8	34	53	e16	87	62	27	170	7.6	26	19
9	2.8	1.8	34	51	e15	88	62	39	111	43	34	22
10	2.5	1.7	29	49	e14	107	62	33	79	17	26	33
11	2.5	8.3	26	43	e17	203	74	30	60	14	21	50
12	2.6	8.9	24	39	e16	159	155	28	48	11	17	32
13	2.5	5.9	25	37	e14	127	113	29	40	11	16	27
14	2.3	4.9	46	163	e18	102	104	31	34	23	20	25
15	3.5	4.3	44	109	e21	84	90	27	33	173	17	23
16	24	4.0	37	e80	e70	e66	78	26	26	153	16	21
17	9.6	3.5	34	e60	e33	61	119	25	23	203	15	20
18	5.9	3.1	34	e48	e25	54	158	30	21	340	16	18
19	4.4	2.9	e30	e37	e34	53	173	26	31	187	13	19
20	3.7	2.7	e35	e32	33	e45	150	22	35	115	11	17
21	3.3	3.1	e30	e29	26	43	143	20	24	109	9.8	16
22	3.0	96	25	e35	24	e38	179	19	20	72	8.9	41
23	2.8	123	24	e52	25	38	143	18	18	57	7.9	52
24	2.6	46	24	e68	32	e33	141	20	18	52	7.2	30
25	2.6	31	20	e60	39	36	128	20	16	55	7.8	25
26	2.6	23	e16	e43	36	86	99	19	14	63	20	99
27	2.6	18	17	e39	35	537	81	23	19	77	12	90
28	2.6	15	e15	e35	36	299	69	18	13	59	56	83
29	2.3	14	e29	34	53	198	59	16	11	52	113	70
30	2.3	13	e47	33	---	157	54	16	9.7	45	36	60
31	2.2	---	e38	33	---	141	---	213	---	68	27	---
TOTAL	119.0	449.2	1037	1636	801	3167	3117	1045	2113.7	2072.0	795.6	1032
MEAN	3.84	15.0	33.5	52.8	27.6	102	104	33.7	70.5	66.8	25.7	34.4
MAX	24	123	105	163	70	537	179	213	433	340	113	99
MIN	1.9	1.7	12	29	14	33	54	16	9.7	7.6	7.2	16
CFSM	.10	.40	.89	1.40	.73	2.71	2.76	.89	1.87	1.77	.68	.91
IN.	.12	.44	1.02	1.61	.79	3.12	3.08	1.03	2.09	2.04	.79	1.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

	32.3	58.7	66.3	52.3	68.4	124	119	80.9	44.0	19.5	12.3	15.3
MEAN	32.3	58.7	66.3	52.3	68.4	124	119	80.9	44.0	19.5	12.3	15.3
MAX	194	195	184	146	268	260	279	211	303	74.7	53.8	115
(WY)	1991	1978	1974	1979	1981	1945	1984	1946	1972	1990	1973	1975
MIN	1.36	3.61	6.72	6.18	12.8	16.5	24.8	15.7	5.42	1.98	1.21	.43
(WY)	1965	1965	1965	1981	1941	1969	1946	1941	1991	1955	1966	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1941 - 1992

ANNUAL TOTAL	12980.08	17384.5	57.7
ANNUAL MEAN	35.6	47.5	104
HIGHEST ANNUAL MEAN			26.3
LOWEST ANNUAL MEAN			1978
HIGHEST DAILY MEAN	450	Mar 4	3180
LOWEST DAILY MEAN	.60	Sep 3	.00
ANNUAL SEVEN-DAY MINIMUM	.90	Aug 29	.19
INSTANTANEOUS PEAK FLOW		863	Mar 27
INSTANTANEOUS PEAK STAGE		4.28	Mar 27
INSTANTANEOUS LOW FLOW			9.34
ANNUAL RUNOFF (CFSM)	.94	1.26	.00
ANNUAL RUNOFF (INCHES)	12.81	17.15	1.53
10 PERCENT EXCEEDS	91	112	132
50 PERCENT EXCEEDS	15	31	27
90 PERCENT EXCEEDS	1.8	3.4	3.8

a Also Aug. 31, Sept. 1, 2, 1962.

b From rating curve extended above 1,200 ft³/s on basis of contracted-opening measurement at gage height 8.81 ft.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

99

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA

LOCATION.--Lat 41°16'25", long 77°19'28", Lycoming County, Hydrologic Unit 02050205, on left bank on State Highway 44, on abutment of abandoned bridge 0.9 mi downstream from Ramsey Run, 4.0 mi downstream from Little Pine Creek, 4.0 mi south of Waterville, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--944 mi².

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

REVISED RECORDS.--WDR PA-72-1: 1964(P).

GAGE.--Water-stage recorder. Datum of gage is 570.62 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1982, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flood flows subject to regulation by Little Pine Dam 8.5 mi upstream, capacity 24,900 acre-ft. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	56	220	e940	e580	1360	3430	1750	1450	234	6290	1230
2	59	54	204	e870	e560	1450	3320	1540	1110	215	4180	987
3	55	50	498	e970	e520	1370	2950	1500	951	201	2900	832
4	53	48	1420	1010	e480	1310	2580	1340	827	274	2150	871
5	54	48	993	1800	e450	1280	2250	1190	795	286	1750	742
6	71	46	754	1710	e400	1340	1940	1110	1840	299	1340	646
7	101	41	643	1610	e410	1550	1770	1030	1820	262	1080	687
8	109	37	576	1480	e390	2290	1860	948	1560	223	915	706
9	96	46	647	1340	e280	2480	2170	973	1330	536	1470	822
10	80	51	679	1270	e260	2530	2360	1000	1130	496	1410	776
11	71	61	656	1160	e340	3780	2370	904	938	448	1060	1290
12	72	83	615	1020	e300	3900	3640	834	801	374	889	1140
13	76	131	586	927	e320	3330	3640	780	695	344	762	971
14	57	151	742	1210	e350	2760	3330	775	617	639	838	859
15	61	138	1080	2520	e400	2330	2860	735	555	1280	877	770
16	110	123	963	e1800	e540	1880	2430	698	513	6060	749	695
17	202	112	841	e1600	e640	1680	2490	655	446	3250	763	622
18	193	107	e760	e1300	604	1480	3530	658	402	5700	705	564
19	145	96	e640	e1000	543	1360	4420	696	436	4530	644	536
20	122	89	e560	e900	784	1240	4190	619	796	3260	585	527
21	110	85	e740	e800	824	1120	3760	561	653	3190	526	465
22	107	153	e700	e940	771	1030	4270	513	510	2580	466	543
23	103	1560	629	e1100	803	972	3880	483	441	2000	423	1600
24	99	969	574	e1500	880	862	3580	473	399	1730	387	1430
25	78	576	507	e1300	1110	836	4140	488	387	1530	360	1250
26	65	416	e440	e1000	1200	973	3510	482	358	1340	413	1420
27	63	332	e350	e840	1210	5490	3020	458	378	1520	422	1970
28	59	281	e360	e760	1200	6480	2570	460	338	1250	462	2200
29	58	254	e380	e700	1450	4670	2210	425	293	1040	3130	1950
30	56	232	e900	e640	---	3950	1930	389	258	936	2190	1730
31	56	---	e1100	e620	---	3450	---	836	---	3740	1600	---
TOTAL	2705	6426	20757	36637	18599	70533	90400	25303	23027	49767	41736	30831
MEAN	87.3	214	670	1182	641	2275	3013	816	768	1605	1346	1028
MAX	202	1560	1420	2520	1450	6480	4420	1750	1840	6060	6290	2200
MIN	53	37	204	620	260	836	1770	389	258	201	360	465
CFSM	.09	.23	.71	1.25	.68	2.41	3.19	.86	.81	1.70	1.43	1.09
IN.	.11	.25	.82	1.44	.73	2.78	3.56	1.00	.91	1.96	1.64	1.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

	MEAN	677	1157	1474	1137	1698	2929	3134	1919	1212	558	355	434
MAX	4597	4337	3860	3847	5148	6840	6193	3919	6070	2423	1668	4053	
(WY)	1991	1978	1974	1979	1981	1964	1958	1960	1972	1972	1984	1975	
MIN	46.7	66.3	107	93.7	410	850	1171	446	153	73.4	51.7	30.4	
(WY)	1964	1965	1961	1961	1987	1969	1988	1985	1991	1964	1966	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1958 - 1992

ANNUAL TOTAL	324019	416721	
ANNUAL MEAN	888	1139	
HIGHEST ANNUAL MEAN			1387
LOWEST ANNUAL MEAN			2379
HIGHEST DAILY MEAN	13400	Mar 5	6480
LOWEST DAILY MEAN	26	Sep 4	37
ANNUAL SEVEN-DAY MINIMUM	31	Aug 31	45
INSTANTANEOUS PEAK FLOW			9620
INSTANTANEOUS PEAK STAGE			6.52
INSTANTANEOUS LOW FLOW	26	Sep 3,4,5	36
ANNUAL RUNOFF (CFSM)	.94		1.21
ANNUAL RUNOFF (INCHES)	12.77		16.42
10 PERCENT EXCEEDS	2060		2790
50 PERCENT EXCEEDS	342		782
90 PERCENT EXCEEDS	48		100

a From rating curve extended above 22,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark.

c Also Sept. 26, 27, 1964.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN. PA

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft upstream from bridge on Township Route 840, 0.5 mi downstream from Grays Run, and 2.6 mi northeast of Trout Run.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--December 1913 to current year.

PERIOD OF RECORD.--December 1913 to current year.
REVISED RECORDS.--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922(M), 1932-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 150 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	e24	100	184	162	231	735	342	666	e47	264	57
2	10	e23	91	183	133	238	630	313	509	e43	176	44
3	9.9	e22	759	198	129	229	545	312	390	e42	137	41
4	9.8	e21	637	286	118	219	478	272	316	e80	120	46
5	9.4	e20	418	455	110	212	426	247	408	e60	117	35
6	17	e20	331	348	90	229	377	236	1530	e70	95	30
7	36	e19	273	311	94	396	367	219	951	e60	78	30
8	26	e19	250	279	90	510	388	203	694	e54	79	70
9	21	e18	263	266	72	470	367	255	523	e110	160	138
10	17	e17	230	260	60	495	350	236	400	e92	114	137
11	20	e31	200	238	68	1090	388	206	319	e70	83	326
12	22	e39	184	214	56	847	757	189	262	e54	64	205
13	21	e45	182	202	54	661	575	184	220	e50	65	154
14	22	e42	272	765	64	532	507	188	e170	e80	87	123
15	31	e40	287	718	65	447	445	170	e150	e350	83	102
16	119	e38	236	507	142	362	400	161	e130	e600	69	87
17	124	e36	205	e430	135	333	501	152	e110	e400	62	73
18	88	e35	202	369	109	293	744	165	e100	e1000	56	63
19	70	e34	e170	e330	171	282	844	155	e150	522	48	60
20	62	e32	e150	e280	222	248	694	135	e170	374	e42	48
21	54	e32	162	247	165	225	661	123	e130	428	e38	41
22	48	e250	149	224	149	200	930	113	e110	330	e35	136
23	42	930	142	274	144	195	750	102	e92	256	e31	373
24	38	406	144	486	172	169	738	104	e80	240	e28	196
25	36	282	127	295	209	171	823	108	e74	233	e25	151
26	33	209	111	245	198	383	646	98	e66	239	e35	536
27	31	164	105	208	187	2880	551	110	e86	344	e45	573
28	e30	136	94	203	188	1660	472	98	e66	233	37	540
29	e29	121	148	191	310	1070	414	86	e56	190	320	421
30	e27	110	320	184	---	864	372	85	e49	160	130	343
31	e25	---	212	176	---	769	---	761	---	263	80	---
TOTAL	1138.1	3215	7154	9556	3866	16910	16875	6128	8977	7074	2803	5179
MEAN	36.7	107	231	308	133	545	562	198	299	228	90.4	173
MAX	124	930	759	765	310	2880	930	761	1530	1000	320	573
MIN	9.4	17	91	176	54	169	350	85	49	42	25	30
CFSM	.21	.62	1.33	1.78	.77	3.15	3.25	1.14	1.73	1.32	.52	1.00
IN.	.24	.69	1.54	2.05	.83	3.64	3.63	1.32	1.93	1.52	.60	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

MEAN	153	292	299	253	292	592	615	395	214	116	82.8	95.5
MAX	983	1044	845	772	1082	1788	1631	979	1487	674	488	776
(WY)	1991	1927	1974	1979	1981	1936	1940	1919	1972	1915	1933	1975
MIN	7.65	13.4	26.4	20.5	37.8	160	132	74.8	18.0	16.0	10.3	6.25
(WY)	1965	1965	1965	1931	1931	1969	1946	1941	1991	1964	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1914 - 1992

ANNUAL TOTAL	70963.2			88875.1			
ANNUAL MEAN	194			243		283	
HIGHEST ANNUAL MEAN						491	1978
LOWEST ANNUAL MEAN						124	1965
HIGHEST DAILY MEAN	2930	Mar 4		2880	Mar 27	13900	Jun 22 1972
LOWEST DAILY MEAN	6.7	Aug 8		9.4	Oct 5	4.0	Sep 19-24 1936a
ANNUAL SEVEN-DAY MINIMUM	8.6	Aug 2		15	Oct 1	4.1	Sep 18 1936
INSTANTANEOUS PEAK FLOW				4040	Mar 27	525900	Jun 22 1972
INSTANTANEOUS PEAK STAGE				7.52	Mar 27	20.19	Jun 22 1972
INSTANTANEOUS LOW FLOW						3.2	Sep 27 1936
ANNUAL RUNOFF (CFSM)	1.12			1.40		1.63	
ANNUAL RUNOFF (INCHES)	15.26			19.11		22.21	
10 PERCENT EXCEEDS	480			541		664	
50 PERCENT EXCEEDS	94			167		140	
90 PERCENT EXCEEDS	11			32		25	

a Also Sept. 27, 28, 1936 and Sept. 1, 1968

b From rating curve extended above 5,300 ft³/s on basis of slope-area measurement of peak flow.

c From floodmark in gage.

e Estimated.

LOCATION.--Lat 41°14'10", long 76°59'49", Lycoming County, Hydrologic Unit 02050206, on right bank 100 ft upstream from Market Street bridge at South Williamsport, and 350 ft upstream from Hagermans Run.

DRAINAGE AREA.--5.682 mi²

PERIOD OF RECORD.--March 1895 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1925-28. WSP 1502: 1895-1904, 1912-13, 1919.

GAGE.-- Water-stage recorder. Datum of gage is 494.98 ft above National Geodetic Vertical Datum of 1929.

Mar. 1, 1895, to Sept. 30, 1928, nonrecording gage at bridge 100 ft downstream at same datum. Prior to July 1980, 100 ft downstream on left bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 6 flood-control reservoirs which have a combined capacity of 440,200 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter and National Weather Service and city of Williamsport landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 32.4 ft, June 1, 1889, discharge, about 252,000 ft³/s.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	764	2240	6490	6510	12700	23800	11100	7540	1790	26300	9750
2	1520	782	2100	5910	6070	12800	26100	10200	7060	1640	25300	7470
3	1510	735	5170	5990	5110	11900	24500	9340	5910	1520	16700	6330
4	1500	728	10100	5890	4740	10900	21100	9010	5080	1640	12400	5730
5	1590	705	13200	6800	4730	9750	17600	8200	4810	1930	10300	5430
6	1670	722	9420	7090	4110	9030	14700	7610	7310	2770	8640	4750
7	1600	730	7080	6670	3760	9060	13100	7110	8540	2830	7020	4500
8	1210	712	5750	6270	3680	11200	12300	6780	7490	2710	6020	4810
9	895	705	5070	5970	3910	13000	12900	6760	6670	3090	7420	5460
10	858	711	4950	5630	3150	13300	13800	7120	5700	3320	13100	6120
11	806	841	4750	5450	2590	16300	13400	6980	5000	3580	11800	7980
12	796	857	4450	5190	2440	20700	14300	6560	4420	3270	8820	8590
13	773	889	4140	4880	2460	19400	15300	6200	3890	2990	7330	7390
14	759	948	4410	5390	2620	17100	14200	6000	3510	4140	6510	6410
15	792	1070	5490	8570	2730	14600	13200	6080	3170	10400	6250	5720
16	1010	1040	6670	9750	3450	12800	11900	6020	2970	27200	5610	5200
17	1120	986	6450	8720	4010	11300	11200	5640	2750	26000	6150	4630
18	1700	956	6000	e7500	5070	10200	13900	5390	2550	25000	6200	4150
19	1930	923	5030	e6300	5130	9540	18500	5420	2580	25100	5450	3900
20	1550	894	4020	e5300	5440	9100	19200	5490	2990	19200	4890	3820
21	1320	886	3770	5280	6300	8460	17600	5070	3540	15300	4300	3830
22	1140	1370	3950	5920	7210	7960	17900	4620	3050	14500	3840	3750
23	1040	5840	4130	6510	7490	7610	19500	4280	2590	12500	3470	8790
24	999	7330	3950	7850	7460	7080	18600	4090	2380	11900	3180	12900
25	967	6080	3730	11700	8850	6540	18200	4030	2270	10800	2990	10400
26	941	4190	3490	10900	12000	6950	17200	3940	2200	9700	2910	10200
27	916	3290	3140	10200	12700	21300	16000	3780	2280	9470	3020	10700
28	880	2980	2820	9110	11700	22800	14700	3590	2210	9010	3180	10700
29	853	2760	2950	8450	11400	26400	13300	3380	2040	8150	7810	11600
30	775	2490	3700	7580	---	23700	12100	3240	1900	7230	18700	10800
31	768	---	5790	7190	---	22600	---	5260	---	8070	14000	---
TOTAL	35738	53914	157910	220450	166820	422080	490100	188290	124400	286750	269610	211810
MEAN	1153	1797	5094	7111	5752	13620	16340	6074	4147	9250	8697	7060
MAX	1930	7330	13200	1								

MEAN	4125	6769	8691	9502	10560	20120	18050	12440	7253	4152	2784	2688
MAX	20850	28330	24140	30210	29100	62970	49060	32030	37400	20080	10200	20280
(WY)	1991	1951	1928	1937	1981	1936	1940	1919	1972	1902	1956	1975
MIN	416	408	642	423	1965	5559	4633	2766	1733	847	592	425
(WY)	1931	1931	1931	1931	1931	1969	1946	1941	1991	1966	1910	1932

WATER YEARS 1895 - 1992

ANNUAL TOTAL	2398011			2627872					
ANNUAL MEAN	6570			7180				8929	
HIGHEST ANNUAL MEAN								14010	1928
LOWEST ANNUAL MEAN								5357	1934
HIGHEST DAILY MEAN	71300	Mar	5	28800	Mar	28	240000		Jun 23 1972
LOWEST DAILY MEAN	609	Sep	3	705	Nov	5, 9	251		Sep 13 1932
ANNUAL SEVEN-DAY MINIMUM	641	Sep	1	716	Nov	4	328		Nov 25 1930
INSTANTANEOUS PEAK FLOW				37400	Jul	16	a279000		Jun 23 1972
INSTANTANEOUS PEAK STAGE				10.28	Jul	16	34.75		Jun 23 1972
INSTANTANEOUS LOW FLOW				695	Nov	5	162		Sep 17 1943
ANNUAL RUNOFF (CFSM)	1.16			1.26			1.57		
ANNUAL RUNOFF (INCHES)	15.70			17.20			21.35		
10 PERCENT EXCEEDS	14900			14600			20900		
50 PERCENT EXCEEDS	3170			5770			5000		
90 PERCENT EXCEEDS	782			1040			1040		

a From rating curve extended above 210,000 ft³/s on basis of slope-area measurement at gage height 33.57 ft.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA

LOCATION.--Lat 41°19'30", long 76°54'46", Lycoming County, Hydrologic Unit 02050206, on right bank 30 ft downstream from bridge on State Highway 973 at Loyalsockville, 2.5 mi downstream from Wallis Run, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--443 mi².

PERIOD OF RECORD.--August 1925 to September 1974, October 1975 to current year. Prior to October 1925, monthly discharge only, published in WSP 1302. Prior to October 1969, published as "at Loyalsock".

REVISED RECORDS.--WSP 756: Drainage area. WSP 871: 1938(M). WSP 1051: 1926(M), 1933(M), 1936(M). WSP 1302: 1926-30. WSP 1502: 1932-33, 1935(M), 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 585.63 ft above National Geodetic Vertical Datum of 1929. August 1925 to Sept. 16, 1926, nonrecording gage, and Sept. 17, 1926, to June 13, 1988, water-stage recorder at site 500 feet downstream on left bank 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. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 26, 1975, reached a stage of 14.50 ft, from floodmark, discharge, 84,600 ft³/s, from rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	85	360	e500	406	668	1920	602	2100	114	939	386
2	53	86	325	e490	e370	678	1710	556	1620	103	567	319
3	55	79	2840	514	e340	601	1450	584	1110	100	411	285
4	51	78	2970	530	e310	564	1240	563	784	104	363	271
5	51	74	1740	1080	e280	540	1080	496	696	106	362	247
6	85	73	1220	871	e240	557	913	486	1570	152	320	220
7	91	68	940	710	e250	743	812	495	1220	175	266	209
8	93	68	785	616	e250	1460	794	452	871	132	242	206
9	84	66	759	565	e220	1200	723	607	763	248	935	288
10	75	69	678	591	e190	1090	675	671	609	200	969	331
11	71	90	585	560	e190	2900	702	549	508	157	572	1430
12	72	111	518	511	e160	2820	1570	490	435	121	441	788
13	108	122	497	479	e140	1950	1400	453	382	112	366	505
14	110	112	619	913	e180	1480	1080	457	340	133	362	404
15	96	108	788	1750	229	1210	921	437	301	321	358	349
16	180	105	632	e1300	318	928	803	401	268	986	327	310
17	266	102	530	e1100	418	834	827	406	234	604	327	277
18	242	100	e490	e1000	337	723	1160	398	219	1850	320	248
19	333	94	e460	e900	339	670	1290	397	215	921	319	262
20	247	88	e430	e900	447	605	1070	359	236	526	271	318
21	198	88	e410	e700	404	559	970	319	245	611	226	251
22	164	375	e400	e600	360	500	1680	288	220	489	202	279
23	145	3130	396	e1100	339	494	1570	266	199	412	181	889
24	132	1630	412	e1300	358	433	1320	249	193	511	165	578
25	123	1050	389	e900	445	438	1380	258	178	497	152	411
26	114	760	334	e740	480	710	1210	266	169	451	209	1410
27	109	589	318	e660	492	8070	1030	257	160	741	307	2110
28	106	495	293	e600	463	4670	862	251	150	605	240	1650
29	101	432	359	e520	742	2830	736	230	139	455	1470	1200
30	96	389	635	e500	---	2290	649	217	121	380	938	880
31	87	---	e520	462	---	2020	---	1580	---	424	531	---
TOTAL	3807	10716	22632	23962	9697	45235	33547	14040	16255	12741	13658	17311
MEAN	123	357	730	773	334	1459	1118	453	542	411	441	577
MAX	333	3130	2970	1750	742	8070	1920	1580	2100	1850	1470	2110
MIN	51	66	293	462	140	433	649	217	121	100	152	206
CFSM	.28	.81	1.65	1.74	.75	3.29	2.52	1.02	1.22	.93	.99	1.30
IN.	.32	.90	1.90	2.01	.81	3.80	2.82	1.18	1.36	1.07	1.15	1.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1992, BY WATER YEAR (WY)

	MEAN	466	841	886	724	818	1491	1548	990	531	279	260	263
MAX	2512	2856	3033	2612	2961	4490	4194	2694	4327	1206	1634	1503	
(WY)	1991	1951	1974	1979	1981	1936	1940	1946	1972	1928	1933	1933	
MIN	20.2	28.4	80.5	34.1	108	449	363	220	92.4	41.6	31.5	13.8	
(WY)	1965	1965	1931	1931	1931	1969	1946	1941	1991	1962	1964	1964	

SUMMARY STATISTICS

	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1926 - 1992
ANNUAL TOTAL	196591	223601	
ANNUAL MEAN	539	611	757
HIGHEST ANNUAL MEAN			1312
LOWEST ANNUAL MEAN			332
HIGHEST DAILY MEAN	6140	Mar 4	45000
LOWEST DAILY MEAN	18	Sep 9	11
ANNUAL SEVEN-DAY MINIMUM	20	Sep 12	12
INSTANTANEOUS PEAK FLOW		11400	Mar 27
INSTANTANEOUS PEAK STAGE		8.34	Mar 27
INSTANTANEOUS LOW FLOW		44	Oct 4, 5
ANNUAL RUNOFF (CFSM)	1.22	1.38	1.71
ANNUAL RUNOFF (INCHES)	16.51	18.78	23.22
10 PERCENT EXCEEDS	1390	1300	1690
50 PERCENT EXCEEDS	283	432	400
90 PERCENT EXCEEDS	31	106	68

a From rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark in gage.

c Also Nov. 24, 1964.

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552500 MUNCY CREEK NEAR SONESTOWN, PA

LOCATION.--Lat 41°21'25", long 76°32'06", Sullivan County, Hydrologic Unit 02050206, on right bank 150 ft downstream from Slip Run, 185 ft downstream from bridge on SR 2002, and 1.2 mi east of Sonestown.

DRAINAGE AREA.--23.8 mi².

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

REVISED RECORDS.--WSP 1502: 1941-42.

GAGE.--Water-stage recorder. Datum of gage is 1,025.01 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 31, 1941, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 9.3 ft, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	8.6	26	e32	e20	e52	94	41	107	6.0	102	13
2	4.9	8.3	24	34	e20	46	82	38	79	5.4	65	12
3	4.6	7.7	302	34	e18	42	70	51	57	5.4	48	12
4	4.4	7.2	143	59	e18	38	61	39	45	7.5	47	12
5	4.7	6.7	92	61	e16	36	52	38	60	6.5	40	11
6	14	6.6	72	53	e16	35	46	40	71	9.2	30	10
7	8.5	6.4	59	47	e15	71	45	35	50	6.0	25	10
8	6.8	6.1	55	42	e14	74	45	38	44	5.2	24	10
9	6.1	5.8	52	42	e12	64	44	55	39	19	60	9.5
10	5.8	5.7	43	41	e11	65	43	46	32	7.9	36	52
11	9.7	14	38	36	e10	399	53	44	27	6.4	30	53
12	16	11	33	32	e11	177	69	41	23	5.6	26	28
13	11	9.2	40	30	e10	113	54	50	20	6.2	23	23
14	9.2	8.5	83	92	e13	84	50	59	18	11	22	20
15	9.7	8.4	67	74	e15	66	45	45	16	19	20	18
16	31	8.2	56	e58	44	e54	42	48	14	25	20	16
17	25	8.1	49	e54	21	e45	48	43	13	22	19	15
18	47	7.7	43	e47	17	41	48	43	12	76	21	14
19	30	7.5	e37	e30	28	40	45	38	15	33	16	20
20	25	7.5	e34	e27	24	36	43	32	19	24	14	14
21	22	9.4	33	e25	21	31	49	29	14	26	12	13
22	19	166	29	e29	19	e29	115	26	12	19	11	26
23	17	189	30	e37	20	e27	84	23	10	75	9.8	35
24	15	103	30	e58	24	e26	83	24	12	59	9.0	21
25	14	70	25	e70	27	e25	87	22	11	44	8.6	18
26	13	52	e22	e45	31	107	74	20	9.2	63	13	157
27	12	41	21	e35	28	534	66	19	10	80	9.2	107
28	11	35	e21	e29	33	203	56	17	8.1	52	21	79
29	10	31	45	e26	73	127	49	15	7.1	42	48	58
30	9.2	28	41	e25	---	102	45	16	6.6	34	20	46
31	8.9	---	e32	e23	---	102	---	215	---	135	16	---
TOTAL	429.6	883.6	1677	1327	629	2891	1787	1290	861.0	935.3	865.6	932.5
MEAN	13.9	29.5	54.1	42.8	21.7	93.3	59.6	41.6	28.7	30.2	27.9	31.1
MAX	47	189	302	92	73	534	115	215	107	135	102	157
MIN	4.4	5.7	21	23	10	25	42	15	6.6	5.2	8.6	9.5
CFSM	.58	1.24	2.27	1.80	.91	3.92	2.50	1.75	1.21	1.27	1.17	1.31
IN.	.67	1.38	2.62	2.07	.98	4.52	2.79	2.02	1.35	1.46	1.35	1.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

	MEAN	32.2	56.3	62.4	47.6	54.4	86.8	87.4	63.0	31.4	18.6	16.4	21.8
MAX	127	140	161	167	236	168	195	156	240	93.0	75.6	167	
(WY)	1977	1973	1974	1976	1981	1964	1983	1946	1972	1972	1967	1975	
MIN	1.44	2.62	12.8	6.60	7.70	25.4	20.9	11.9	4.93	2.73	1.60	.73	
(WY)	1965	1965	1990	1981	1987	1981	1946	1941	1991	1991	1957	1964	

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1941 - 1992
ANNUAL TOTAL	12101.4	14508.6	
ANNUAL MEAN	33.2	39.6	48.1
HIGHEST ANNUAL MEAN			77.3
LOWEST ANNUAL MEAN			22.1
HIGHEST DAILY MEAN	498	Mar 4	3910
LOWEST DAILY MEAN	1.2	Aug 7, 8	.20
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 2	.31
INSTANTANEOUS PEAK FLOW		1100	53260
INSTANTANEOUS PEAK STAGE		4.47	8.94
INSTANTANEOUS LOW FLOW			.10
ANNUAL RUNOFF (CFSM)	1.39	1.67	2.02
ANNUAL RUNOFF (INCHES)	18.91	22.68	27.48
10 PERCENT EXCEEDS	79	74	103
50 PERCENT EXCEEDS	21	29	25
90 PERCENT EXCEEDS	1.8	8.4	4.4

a Also Sept. 12, 13, 1964.

b From rating curve extended above 3,400 ft³/s.

c Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°58'05", long 76°52'25", Northumberland County, Hydrologic Unit 02050206, at downstream side of left abutment of Market Street bridge on State Highway 45 at Lewisburg, 0.2 mi downstream from Buffalo Creek, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--6,847 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. September 1913 to August 1923 (gage heights only), are contained in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 428.20 ft above National Geodetic Vertical Datum of 1929. Sept. 21, 1913, to Aug. 31, 1923, Dec. 7, 1939, to July 2, 1940, and Oct. 20, 1987, to Sept. 30, 1988, non-recording gage at same site and datum. Since Oct. 1, 1942, water-stage recorder for Susquehanna River at Sunbury (station 01553990) used as an auxiliary gage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 6 flood-control reservoirs, which have a combined capacity of 440,200 acre-ft. U.S. Army Corps of Engineers satellite telemeter and National Weather Service landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a stage of 32.1 ft, from floodmarks (back-water from Susquehanna River), discharge, 287,000 ft³/s from slope-area measurement at Watsontown, 8.0 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	1020	2890	6980	e7000	14100	26800	13100	9910	2150	20700	12300
2	1800	1020	2660	6810	e6400	14600	28800	12100	9770	2010	28700	8970
3	1800	1030	7080	6610	e5700	13900	28100	11000	8520	1860	20800	7300
4	1780	980	14300	6830	e5100	12600	24900	10300	6990	1880	14800	6480
5	1780	955	16400	7810	e4800	11400	21100	9790	6160	1990	12200	6100
6	2000	935	13100	8580	e4500	10300	17900	9190	9710	2630	10300	5540
7	1990	923	9560	8030	e4100	10700	15600	8520	11200	2970	8240	4960
8	1860	928	7550	7490	e3800	12900	14300	7990	9990	3070	6870	5090
9	1400	921	6500	7050	e3600	15000	14100	8060	8720	3570	7510	5570
10	1160	915	6140	6800	e3200	15500	15100	8370	7560	3640	12300	6440
11	1140	1000	5850	6530	e2900	19400	15400	8370	6510	3980	14200	8860
12	1110	1240	5430	6210	e2600	26500	15500	7760	5670	3710	10500	9900
13	1100	1230	5090	5840	e2600	24400	17600	7240	4940	3460	8380	8880
14	1070	1250	5170	6200	e4100	21400	16600	6960	4360	4100	7260	7530
15	1020	1270	6290	9790	4030	18300	15400	6770	3910	7940	6770	6690
16	1300	1380	7610	11400	4230	15700	14000	6900	3610	21400	6360	6030
17	1510	1320	7520	10500	4920	13700	12800	6650	3430	30600	6100	5410
18	1730	1270	7130	e9000	5400	12200	14100	6430	3180	26500	6970	4850
19	2340	1220	6280	e7600	5870	11300	19200	6280	2950	28500	6270	4400
20	2220	1190	5290	e6100	6080	10700	21500	6320	3150	22400	5590	4280
21	1850	1190	4490	e5600	6580	9930	20200	6000	3780	18100	4940	4150
22	1640	1780	4460	e5800	7350	9200	20300	5450	3710	16400	4370	4140
23	1470	7870	4680	e6400	8090	8800	22400	4990	3200	14500	3910	5820
24	1360	10200	4640	e7600	8130	8230	21700	4610	2920	16300	3540	14200
25	1300	8460	4390	e10100	9090	7650	21000	4480	2780	14300	3290	12300
26	1260	6100	4100	e11000	13100	8260	20400	4430	2600	12000	3200	12600
27	1220	4480	3770	e10000	14600	28800	19100	4410	2700	11500	3230	14300
28	1180	3750	3360	e9100	13800	39400	17600	4170	2650	10900	3390	13200
29	1130	3480	3390	e8500	13200	35100	15900	3910	2450	9770	5530	13700
30	1090	3190	4210	e8000	---	29800	14300	3690	2290	8590	17900	12900
31	1030	---	5550	e7400	---	27500	---	6040	---	8870	17200	---
TOTAL	46530	72497	194880	241660	184870	517270	561700	220280	159320	319590	291320	242890
MEAN	1501	2417	6286	7795	6375	16690	18720	7106	5311	10310	9397	8096
MAX	2340	10200	16400	11400	14600	39400	28800	13100	11200	30600	28700	14300
MIN	1020	915	2660	5600	2600	7650	12800	3690	2290	1860	3200	4140
CFSM	.22	.35	.92	1.14	.93	2.44	2.73	1.04	.78	1.51	1.37	1.18
IN.	.25	.39	1.06	1.31	1.00	2.81	3.05	1.20	.87	1.74	1.58	1.32

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5126	8682	11390	10840	13090	22070	22080	15330	9234	4935	3344	3443
MAX	24900	32000	28230	30740	33010	49200	56360	28750	46900	20120	11380	24080
(WY)	1991	1951	1973	1952	1981	1945	1940	1978	1972	1972	1984	1975
MIN	659	762	1727	1752	2914	6169	5822	3353	2048	1032	983	601
(WY)	1964	1965	1961	1981	1940	1969	1946	1941	1991	1965	1966	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1940 - 1992

ANNUAL TOTAL	2800732											
ANNUAL MEAN	7673											
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	76500	Mar 5				39400	Mar 28		285000		Jun 24	1972
LOWEST DAILY MEAN	790	Sep 4				915	Nov 10		417		Nov 16	1964
ANNUAL SEVEN-DAY MINIMUM	a833	Sep 1				937	Nov 4		511		Sep 15	1964
INSTANTANEOUS PEAK FLOW						39400	Mar 28		b300000		Jun 24	1972
INSTANTANEOUS PEAK STAGE						10.16	Mar 27		c34.23		Jun 24	1972
INSTANTANEOUS LOW FLOW						915	Nov 10		390		Nov 16	1964
ANNUAL RUNOFF (CFSM)	1.12					1.22			1.57			
ANNUAL RUNOFF (INCHES)	15.22					16.59			21.39			
10 PERCENT EXCEEDS	17500					17600			24700			
50 PERCENT EXCEEDS	3680					6520			6310			
90 PERCENT EXCEEDS	1010					1390			1460			

a Computed using estimated daily discharges.

b About.

c From floodmarks (backwater from Susquehanna River).

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-53, 1956-58, 1960 to current year.

REMARKS.--Agency collection codes: 42011 - Susquehanna River Basin Commission, 1028 - U.S. Geological Survey. Agency analyzing codes: 9813 - Pennsylvania Department of Environmental Resources, 80020 - U.S. Geological Survey. Suspended-sediment samples analyzed by collecting agency.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT										
10...	0700	42011	9813	1140	340	8.2	13.0	--	--	--
NOV										
05...	1330	42011	9813	955	360	8.6	7.5	--	--	--
07...	1130	1028	80020	915	404	8.1	5.0	0.820	<0.010	0.010
07...	1135	1028	9813	915	--	--	--	--	--	--
DEC										
12...	1115	42011	9813	5440	200	7.3	5.0	--	--	--
FEB										
04...	1115	42011	9813	5320	--	--	--	--	--	--
MAR										
18...	1115	42011	9813	12300	152	7.0	2.5	--	--	--
26...	1520	42011	9813	8090	192	8.0	6.5	--	--	--
27...	1300	42011	9813	32800	150	7.5	6.5	--	--	--
28...	1245	42011	9813	39500	128	7.5	6.5	--	--	--
30...	1200	1028	80020	29400	133	6.6	5.0	--	<0.010	<0.010
30...	1205	1028	9813	29400	--	--	--	--	--	--
APR										
01...	1110	42011	9813	26600	136	7.5	5.5	--	--	--
06...	1030	42011	9813	18100	146	6.5	5.5	--	--	--
MAY										
20...	1000	1028	80020	6430	208	7.4	18.0	0.440	<0.010	0.010
20...	1005	42011	9813	6430	208	7.4	18.0	--	--	--
JUN										
19...	1050	42011	9813	2980	218	7.3	22.0	--	--	--
JUL										
17...	1235	42011	9813	29500	136	7.4	20.0	--	--	--
18...	1505	42011	9813	27000	110	7.8	21.0	--	--	--
19...	1320	42011	9813	28900	105	7.5	21.0	--	--	--
30...	1330	42011	9813	8520	165	6.9	22.0	--	--	--
AUG										
17...	0700	1028	80020	5880	180	7.7	19.0	--	<0.010	<0.010
17...	0705	42011	9813	5880	180	7.8	19.0	--	--	--
SEP										
16...	1300	42011	9813	6110	196	7.7	21.0	--	--	--

< Actual value is known to be less than the value shown.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
OCT									
10...	0.750	0.810	0.020	0.020	0.27	--	0.29	<0.20	1.0
NOV									
05...	0.920	0.810	0.020	0.020	--	--	<0.20	<0.20	--
07...	0.910	0.830	<0.010	0.020	--	--	<0.20	--	--
07...	0.920	0.920	0.040	<0.020	--	--	<0.20	<0.20	--
DEC									
12...	1.08	1.08	0.060	0.060	--	--	<0.20	<0.20	--
FEB									
04...	0.770	0.770	0.060	0.060	--	--	<0.20	<0.20	--
MAR									
18...	0.900	0.900	0.110	0.090	--	--	<0.20	<0.20	--
26...	0.860	0.860	0.080	0.080	0.25	0.16	0.33	0.24	1.2
27...	0.990	0.990	0.260	0.260	1.4	0.69	1.7	0.95	2.7
28...	0.920	0.920	0.230	0.210	0.83	0.48	1.1	0.69	2.0
30...	0.790	0.800	0.040	0.040	--	--	<0.20	--	--
30...	0.770	0.770	0.040	0.030	0.18	--	0.22	<0.20	0.99
APR									
01...	0.810	0.810	0.040	0.040	--	--	<0.20	<0.20	--
06...	0.730	0.730	0.040	0.040	0.22	0.18	0.26	0.22	0.99
MAY									
20...	0.490	0.450	0.020	0.030	--	--	<0.20	--	--
20...	0.550	0.530	0.040	0.030	--	--	<0.20	<0.20	--
JUN									
19...	0.680	0.660	<0.020	<0.020	--	--	0.24	<0.20	0.92
JUL									
17...	0.330	0.330	0.050	0.030	1.7	0.29	1.8	0.32	2.1
18...	0.420	0.420	0.040	<0.020	0.61	--	0.65	0.29	1.1
19...	0.420	0.420	0.020	0.020	0.42	0.26	0.44	0.28	0.86
30...	0.620	0.590	0.020	0.020	--	--	<0.20	<0.20	--
AUG									
17...	0.490	0.490	0.020	0.010	--	--	<0.20	--	--
17...	0.510	0.510	<0.020	<0.020	--	--	<0.20	<0.20	--
SEP									
16...	0.460	0.460	0.020	0.020	0.22	--	0.24	<0.20	0.70

< Actual value is known to be less than the value shown.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. 7 FINER THAN (70331)
OCT									
10...	--	0.050	0.020	--	0.010	2.3	2	6.2	--
NOV									
05...	--	0.030	0.030	--	--	1.7	1	2.6	--
07...	--	0.030	0.010	0.030	0.020	--	1	2.5	83
07...	--	0.040	0.030	--	0.015	1.7	--	--	--
DEC									
12...	--	0.020	0.020	--	0.010	1.9	2	29	--
FEB									
04...	--	0.020	0.020	--	--	2.5	6	86	--
MAR									
18...	--	0.030	0.020	--	--	1.2	5	166	--
26...	1.1	0.030	0.020	--	--	1.1	13	284	--
27...	1.9	0.260	0.020	--	0.020	2.6	270	23900	--
28...	1.6	0.100	<0.020	--	0.010	2.0	89	9490	--
30...	--	<0.010	<0.010	<0.010	<0.010	--	26	2060	78
30...	--	0.030	<0.020	--	0.002	1.3	--	--	--
APR									
01...	--	0.040	<0.020	--	--	1.8	15	1080	--
06...	0.95	0.020	<0.020	--	--	1.0	14	684	--
MAY									
20...	--	0.040	<0.010	<0.010	<0.010	--	2	--	--
20...	--	0.020	<0.020	--	--	1.2	2	35	--
JUN									
19...	--	0.030	0.020	--	--	2.2	4	32	--
JUL									
17...	0.65	0.240	0.020	--	--	8.3	240	19100	--
18...	0.71	0.100	0.020	--	--	2.9	59	4300	--
19...	0.70	0.060	0.020	--	--	2.3	33	2570	--
30...	--	0.030	0.020	--	--	1.5	6	138	--
AUG									
17...	--	<0.010	<0.010	<0.010	<0.010	--	5	79	--
17...	--	0.030	0.002	--	<0.002	1.4	--	--	--
SEP									
16...	--	0.040	0.030	--	--	1.8	14	231	--

< Actual value is known to be less than the value shown.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 μ M-MF (COLS./ 100 ML) (31625)
NOV 07...	1130	1028	80020	942	404	8.1	5.0	0.50	758	13.7	108	K 7
MAR 30...	1200	1028	80020	29400	133	6.6	5.0	5.6	752	12.3	98	K 17
MAY 20...	1000	1028	80020	6430	208	7.4	18.0	0.70	767	10.3	108	K 3
AUG 17...	0700	1028	80020	5790	180	7.7	19.0	0.90	756	8.5	92	K 18

DATE	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARE DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD SORP- TION RATIO PERCENT (00932)	SODIUM AD SORP- TION RATIO PERCENT (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)
NOV 07...	62	170	110	42	15	14	15	0.5	2.1	65	55
MAR 30...	100	50	39	13	4.3	4.4	16	0.3	1.1	13	12
MAY 20...	120	77	60	19	7.1	4.7	12	0.2	1.1	20	18
AUG 17...	2000	70	49	18	6.0	4.1	11	0.2	1.2	25	21

DATE	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	ALUM- INUM, DIS- SOLVED (μ G/L AS AL) (01106)
NOV 07...	54	40	140	17	0.10	0.58	248	267	0.34	613	50
MAR 30...	11	11	36	7.1	<0.10	4.4	92	81	0.13	7300	<10
MAY 20...	17	17	58	6.9	<0.10	3.3	114	112	0.16	1980	40
AUG 17...	21	21	51	6.5	<0.10	3.0	104	105	0.14	1650	10

DATE	BARIUM, DIS- SOLVED (μ G/L AS BA) (01005)	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)
NOV 07...	33	<3	4	9	31	<10	4	<1	<1.0	260	<6
MAR 30...	27	4	10	<4	360	<10	10	<1	<1.0	61	<6
MAY 20...	28	<3	9	7	280	<10	9	<1	<1.0	100	<6
AUG 17...	28	<3	8	5	140	<10	5	<1	<1.0	94	<6

< Actual value is known to be less than the value shown.

K Results based on non-ideal colony count.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (000009)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV								
07...	1100	140	--	--	--	--	--	--
07...	1105	170	450	8.0	5.5	13.8	3	71
07...	1110	220	429	8.1	5.0	--	1	80
07...	1115	270	415	8.1	5.0	13.7	1	84
07...	1120	320	401	8.1	5.0	--	2	40
07...	1125	370	402	8.2	5.0	13.9	1	67
07...	1140	420	402	8.1	5.0	--	2	86
07...	1145	470	399	8.2	5.0	13.7	1	80
07...	1150	520	400	8.2	5.0	--	2	38
07...	1155	570	396	8.1	5.0	13.7	1	83
07...	1200	620	360	8.1	5.0	--	1	67
07...	1205	670	403	8.0	5.0	13.9	1	75
07...	1210	730	--	--	--	--	--	--
MAY								
20...	0930	1230	--	--	--	--	--	--
20...	0935	1190	162	7.8	15.5	9.4	4	88
20...	0940	1120	197	7.8	17.5	8.7	3	--
20...	0945	1050	201	7.8	18.0	9.6	2	--
20...	0950	970	202	7.7	17.5	9.9	3	--
20...	0955	900	205	7.8	18.0	10.3	2	--
20...	1006	830	210	7.8	18.0	10.3	2	100
20...	1007	770	211	8.0	18.0	10.1	1	--
20...	1010	700	207	8.0	17.5	9.9	1	--
20...	1015	630	206	7.9	18.0	10.3	1	--
20...	1020	560	206	7.8	18.0	9.9	2	100
20...	1022	490	205	7.7	18.0	9.8	1	--
20...	1025	430	204	7.7	18.0	10.0	2	--
20...	1030	370	204	7.8	18.0	10.5	2	--
20...	1035	300	211	7.8	17.5	10.3	2	--
20...	1040	230	214	7.6	17.0	9.5	1	100
20...	1042	140	--	--	--	--	--	--
AUG								
17...	0623	1230	--	--	--	--	--	--
17...	0625	1150	182	7.3	19.0	8.2	5	--
17...	0630	1070	181	7.7	19.0	8.3	4	--
17...	0635	990	181	7.7	19.0	8.4	6	76
17...	0640	910	181	7.8	19.0	8.5	4	--
17...	0645	830	180	7.7	19.0	8.6	4	--
17...	0650	750	181	7.7	19.0	8.6	5	67
17...	0655	670	182	7.6	19.0	8.4	4	--
17...	0701	590	180	7.8	19.0	8.6	4	--
17...	0706	510	180	7.8	19.0	8.5	6	81
17...	0710	430	181	7.7	19.0	8.5	4	--
17...	0715	350	179	7.6	19.0	8.4	4	--
17...	0720	270	184	7.8	19.0	8.4	5	--
17...	0722	200	--	--	--	--	--	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553700 CHILLISQUAKE CREEK AT WASHINGTONVILLE, PA

LOCATION.--Lat 41°03'42", long 76°40'50", Montour County, Hydrologic Unit 02050206, on left bank 60 ft upstream from bridge on State Highway 54, and 0.7 mi north of U.S. Post Office in Washingtonville.

DRAINAGE AREA.--51.3 mi².

PERIOD OF RECORD.--May 1979 to current year.

REVISED RECORDS.--WDR PA-82-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 503.70 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Power and Light Co. bench mark).

REMARKS.--Records fair. Flow includes diversion from West Branch Susquehanna River. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	28	50	37	26	84	108	46	57	15	74	17
2	21	27	44	36	22	81	89	43	36	15	52	15
3	20	21	646	37	23	69	76	38	30	15	42	16
4	18	27	e268	68	22	59	67	48	31	18	37	16
5	18	28	e111	90	22	54	61	147	41	17	29	15
6	51	24	76	70	21	50	53	166	56	19	23	16
7	23	14	61	59	21	154	53	96	36	18	21	17
8	21	14	53	52	21	137	42	56	32	17	21	17
9	19	24	50	56	19	99	37	129	28	26	30	16
10	18	27	47	59	17	83	37	64	26	22	23	24
11	20	31	40	49	21	640	49	51	24	18	20	41
12	28	29	37	42	20	291	46	45	23	20	18	22
13	23	26	45	40	19	147	39	40	23	26	17	18
14	19	25	76	80	20	96	37	36	23	31	17	17
15	17	26	59	67	22	73	35	33	22	66	18	17
16	32	26	48	47	93	58	40	38	20	72	17	17
17	32	27	44	51	51	53	60	33	20	46	18	16
18	69	20	40	41	39	49	79	32	20	62	20	16
19	36	18	35	39	51	54	75	29	20	36	19	18
20	29	15	32	35	52	50	58	26	20	28	17	16
21	24	20	35	34	45	50	56	24	20	60	17	15
22	21	366	35	32	43	50	255	23	20	34	17	18
23	20	402	40	36	45	47	137	23	19	44	16	21
24	18	138	38	43	85	45	130	23	18	268	16	16
25	18	92	31	31	132	68	195	23	18	125	16	16
26	18	73	29	29	260	292	107	23	16	73	17	183
27	17	63	31	28	166	1410	93	24	20	60	16	91
28	16	59	28	28	125	394	69	32	18	41	22	52
29	16	54	49	27	151	198	58	25	16	32	60	37
30	16	52	63	26	---	125	51	27	16	28	24	31
31	20	---	43	27	---	177	---	175	---	135	18	---
TOTAL	738	1796	2284	1396	1654	5237	2292	1618	769	1487	772	847
MEAN	23.8	59.9	73.7	45.0	57.0	169	76.4	52.2	25.6	48.0	24.9	28.2
MAX	69	402	646	90	260	1410	255	175	57	268	74	183
MIN	16	14	28	26	17	45	35	23	16	15	16	15
CFSM	.46	1.17	1.44	.88	1.11	3.29	1.49	1.02	.50	.94	.49	.55
IN.	.54	1.30	1.66	1.01	1.20	3.80	1.66	1.17	.56	1.08	.56	.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

	MEAN	48.6	89.6	92.1	58.2	109	114	103	74.3	62.0	39.0	34.5
MAX	211	149	231	123	243	213	245	228	221	102	87.0	99.8
(WY)	1991	1987	1984	1991	1981	1986	1984	1989	1982	1984	1990	1987
MIN	16.5	34.4	22.2	27.5	29.0	38.3	42.9	20.0	16.0	13.4	18.3	18.7
(WY)	1983	1981	1990	1981	1980	1981	1988	1987	1991	1991	1991	1984

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1979 - 1992

ANNUAL TOTAL	19707.2	20890	71.0	1984
ANNUAL MEAN	54.0	57.1	52.2	1988
HIGHEST ANNUAL MEAN			108	1984
LOWEST ANNUAL MEAN			6.2	1986
HIGHEST DAILY MEAN	738	Jan 17	2080	Mar 15
LOWEST DAILY MEAN	6.2	Jul 27	6.2	Jul 27
ANNUAL SEVEN-DAY MINIMUM	11	Jun 26	11	Jun 26
INSTANTANEOUS PEAK FLOW		2100	a3510	Jun 28
INSTANTANEOUS PEAK STAGE		8.28	10.82	Jun 28
ANNUAL RUNOFF (CFSM)	1.05	1.11	1.38	
ANNUAL RUNOFF (INCHES)	14.29	15.15	18.80	
10 PERCENT EXCEEDS	106	101	139	
50 PERCENT EXCEEDS	28	32	37	
90 PERCENT EXCEEDS	14	17	18	

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

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

RESERVOIRS IN WEST BRANCH SUSQUEHANNA RIVER BASIN

01541180 CURWENSVILLE LAKE.--Lat 40°57'13", long 78°31'40", Clearfield County, Hydrologic Unit 02050201, at Curwensville Dam on West Branch Susquehanna River, 0.7 mi upstream from State Highway 453, 1.2 mi south of Curwensville, and 2.5 mi upstream from Anderson Creek. DRAINAGE AREA, 365 mi². PERIOD OF RECORD, November 1965 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by earthfill dam with excavated chute spillway and concrete control sill at elevation 1,228.00 ft. Storage began in November 1965. Capacity at elevation 1,228.00 ft is 124,200 acre-ft. Conservation pool elevation is 1,155.00 ft, capacity, 4,870 acre-ft. Reservoir is used for flood control, recreation and study of water quality. Figures given herein represent total contents. Flow regulated by three gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite and landline telemetry at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 87,650 acre-ft, June 25, 1972, elevation, 1,214.11 ft; minimum, 252 acre-ft, Nov. 6, 1968, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,760 acre-ft, July 14, elevation, 1,165.73 ft; minimum, 4,520 acre-ft, Dec. 19, elevation, 1,154.37 ft.

01541340 GLENDALE LAKE.--Lat 40°41'50", long 78°32'15", Cambria County, Hydrologic Unit 02050201, at Glendale Dam on Beaverdam Run, 1.0 mi upstream from Dutch Run, 1.3 mi southwest of Flinton, 1.9 mi above mouth, and 3.4 mi south of Coalport. DRAINAGE AREA, 41.9 mi². PERIOD OF RECORD, January 1963 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,435.00 ft. Storage began Dec. 1, 1960. Capacity at elevation 1,435.00 ft is 41,200 acre-ft of which 15,900 acre-ft is controlled storage above elevation 1,427.00 ft. Dead storage is 25,300 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Outflow is controlled by 72-inch gate and an 8-inch bypass valve.

COOPERATION.--Records provided by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 33,390 acre-ft, June 24, 1972, elevation, 1,431.63 ft; minimum, 10,640 acre-ft, Nov. 16, 1965, elevation, 1,415.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents recorded, 27,460 acre-ft, Apr. 1, 2, elevation, 1,428.35 ft; minimum recorded, 24,920 acre-ft, Nov. 8, 9, 10, 11, elevation, 1,426.75 ft.

01543900 FIRST FORK SINNEMAHONING CREEK RESERVOIR.--Lat 41°24'25", long 78°01'10", Cameron County, Hydrologic Unit 02050202, at control tower of George B. Stevenson Dam, on First Fork Sinnemahoning Creek, 8.0 mi northeast of Sinnemahoning, and 8.0 mi upstream from mouth. DRAINAGE AREA, 243 mi². PERIOD OF RECORD, January 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Jan. 31, 1956. Capacity, 75,800 acre-ft between elevations 890.00 ft (sill of outlet gates) and 1,026.00 ft (crest of spillway). No dead storage. Ordinary minimum (conservation) pool elevation is 920.00 ft, capacity, 2,000 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. U.S. Army Corps of Engineers satellite telemetry at station.

COOPERATION.--Records provided by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,030 acre-ft, June 26, 1972, elevation, 1,015.87 ft; minimum, (after first filling), 37 acre-ft many days in October 1973, elevation, 891.84 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,860 acre-ft, July 16, elevation, 946.35 ft; minimum, 1,540 acre-ft, Oct. 28, 29, elevation, 916.28 ft.

01544800 KETTLE CREEK LAKE (formerly published as Alvin R. Bush Reservoir).--Lat 41°21'37", long 77°55'27", Clinton County, Hydrologic Unit 02050203, at control tower of dam on Kettle Creek, 1.1 mi downstream from Sugar Camp Run, and 8.5 mi upstream from mouth and Westport. DRAINAGE AREA, 226 mi². PERIOD OF RECORD, February 1962 to current year. GAGE, water-stage recorder. Datum of gage is National Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earthfill embankment, rock faced, with ungated concrete spillway at elevation 937.00 ft. Storage began Feb. 7, 1962; water in reservoir first reached conservation pool elevation in March 1962. Total capacity at elevation 937.00 ft is 75,000 acre-ft. No dead storage. Ordinary minimum (conservation) pool elevation is 840.00 ft, capacity, 1,590 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Storage is regulated by three gates and low-flow bypass system. U.S. Army Corps of Engineers satellite and landline telemetry at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 51,660 acre-ft, June 25, 1972, elevation, 919.13 ft; minimum, no storage, June 7, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,050 acre-ft, Aug. 1, elevation, 847.55 ft; minimum, 1,700 acre-ft, Apr. 04, elevation, 840.68 ft.

01547480 FOSTER JOSEPH SAYERS LAKE.--Lat 41°02'53", long 77°36'35", Centre County, Hydrologic Unit 02050204, at Foster Joseph Sayers Dam, on Bald Eagle Creek, 1.0 mi upstream from Marsh Creek, and 1.2 mi south of Blanchard. DRAINAGE AREA, 339 mi². PERIOD OF RECORD, March 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earthfill dam with ungated concrete ogee weir at elevation 657.00 ft with abutting concrete gravity walls and partially paved exit channel. Storage began in March 1971. Capacity at elevation 657.00 ft is 99,100 acre-ft. Dead storage is 25 acre-ft. Ordinary minimum (conservation) pool elevation is 610.0 ft, capacity, 6,300 acre-ft. Reservoir used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by two gates. U.S. Army Corps of Engineers satellite and landline telemetry at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,900 acre-ft, June 25, 1972, elevation, 658.41 ft; minimum, 3,250 acre-ft, Oct. 27, 1987, elevation, 604.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,520 acre-ft, Aug. 9, elevation, 630.96 ft; minimum, 6,370 acre-ft, Jan. 17, elevation, 610.11 ft.

WEST BRANCH SUSQUEHANNA RIVER BASIN

Reservoirs in West Branch Susquehanna River basin--Continued

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)
01541180 Curwensville Lake				01541340 Glendale Lake		
Sept. 30.....	1,162.70	10,120	--	1,426.88	25,120	--
Oct. 31.....	1,160.56	8,450	- 27.2	1,426.84	25,060	- 1.0
Nov. 30.....	1,158.09	6,720	- 29.1	1,427.25	25,700	+ 10.8
Dec. 31.....	1,155.59	5,200	- 24.7	1,427.47	26,050	+ 5.7
CAL YR 1991.....	--	--	- 17.2	--	--	- 2.0
Jan. 31.....	1,155.07	4,910	- 4.7	1,427.55	26,180	+ 2.1
Feb. 29.....	1,157.05	6,080	+ 20.3	1,427.85	26,660	+ 8.3
Mar. 31.....	1,158.73	7,160	+ 17.6	1,428.31	27,400	+ 12.0
Apr. 30.....	1,159.82	7,910	+ 12.6	1,427.55	26,180	- 20.5
May 31.....	1,162.38	9,860	+ 31.7	1,427.31	25,800	- 6.2
June 30.....	1,162.47	9,930	+ 1.2	1,427.20	25,670	- 2.2
July 31.....	1,162.28	9,770	- 2.6	1,427.35	25,860	+ 3.1
Aug. 31.....	1,162.03	9,560	- 3.4	1,427.30	25,780	- 1.3
Sept. 30.....	1,162.03	9,560	0	1,427.25	25,700	- 1.3
WTR YR 1992.....	--	--	- 0.8	--	--	+ 0.8
01543900 F. F. Sinnemahoning Cr. Reservoir				01544800 Kettle Creek Lake		
Sept. 30.....	921.26	2,330	--	841.38	1,800	--
Oct. 31.....	916.36	1,550	- 12.7	841.55	1,830	+ 0.5
Nov. 30.....	921.10	2,310	+ 12.8	841.33	1,800	- 0.5
Dec. 31.....	921.39	2,340	+ 0.5	841.47	1,820	+ 0.3
CAL YR 1991.....	--	--	0	--	--	+ 0.1
Jan. 31.....	921.08	2,310	- 0.5	841.16	1,770	- 0.8
Feb. 29.....	921.58	2,360	+ 0.9	841.22	1,780	+ 0.2
Mar. 31.....	921.28	2,330	- 0.5	841.29	1,790	+ 0.2
Apr. 30.....	921.20	2,320	- 0.2	841.24	1,780	- 0.2
May 31.....	921.64	2,360	+ 0.7	841.40	1,810	+ 0.5
June 30.....	921.13	2,310	- 0.8	840.90	1,730	- 1.3
July 31.....	923.70	2,660	+ 5.7	847.42	3,020	+21.0
Aug. 31.....	920.89	2,270	- 6.3	841.12	1,760	-20.5
Sept. 30.....	921.27	2,330	+ 1.0	841.38	1,800	+ 0.7
WTR YR 1992.....	--	--	0	--	--	0
01547480 Foster Joseph Sayers Lake						
Sept. 30.....	624.51	20,370	--			
Oct. 31.....	614.07	9,210	-181			
Nov. 30.....	611.36	7,210	- 33.6			
Dec. 31.....	610.38	6,560	- 10.6			
CAL YR 1991.....	--	--	- 6.2			
Jan. 31.....	610.33	6,520	- 0.7			
Feb. 29.....	610.89	6,900	+ 6.6			
Mar. 31.....	625.39	21,610	+239			
Apr. 30.....	630.18	29,120	+126			
May 31.....	630.36	29,440	+ 5.2			
June 30.....	630.12	29,010	- 7.2			
July 31.....	630.58	29,840	+ 13.5			
Aug. 31.....	630.37	29,460	- 6.2			
Sept. 30.....	625.17	21,300	-137			
WTR YR 1992.....	--	--	+ 1.3			

SHAMOKIN CREEK BASIN

01554500 SHAMOKIN CREEK NEAR SHAMOKIN, PA

LOCATION.--Lat 40°48'37", long 76°35'04", Northumberland County, Hydrologic Unit 02050301, on right bank at Weigh Scales, 1.0 mi downstream from Trout Run, 1.1 mi upstream from Bennys Run, and 2.0 mi northwest of Shamokin.

DRAINAGE AREA.--54.2 mi².

PERIOD OF RECORD.--December 1939 to current year. Prior to October 1964, published as "at Weigh Scales".

REVISED RECORDS.--WDR PA-91-2: 1990(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.28 ft above National Geodetic Vertical Datum of 1929. Nov. 14, 1939, to Jan. 9, 1967, water-stage recorder at site 0.4 mi upstream at datum 2.00 ft higher, and Jan. 10 to Dec. 10, 1967, nonrecording gage at site 0.4 mi downstream at datum 11.50 ft lower.

REMARKS.--No estimated daily discharges. Records good. Regulation by mine pumps upstream from station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	38	39	39	52	186	119	81	52	54	40
2	29	28	40	39	38	52	168	117	74	50	52	39
3	29	27	110	39	38	52	161	112	71	53	50	57
4	28	28	59	51	39	51	152	107	66	56	50	43
5	35	27	49	47	38	51	140	108	71	52	49	39
6	43	27	47	43	38	51	134	105	72	51	47	45
7	29	27	45	42	38	60	127	99	63	48	47	41
8	28	26	44	42	38	56	119	100	62	48	47	40
9	28	26	46	44	37	53	112	107	67	58	82	41
10	28	27	48	43	36	55	107	96	67	47	56	60
11	38	31	42	42	37	240	111	93	66	47	50	59
12	33	27	41	42	36	157	105	90	65	47	51	42
13	29	27	49	42	36	147	99	88	64	49	48	40
14	28	26	52	52	38	137	96	87	63	113	48	39
15	43	26	46	44	47	125	95	87	62	62	49	39
16	47	26	43	43	50	115	94	98	60	55	47	38
17	54	25	42	42	40	109	93	90	59	54	47	38
18	44	25	41	41	39	103	94	87	59	61	48	37
19	34	26	39	40	39	103	94	85	62	50	45	36
20	32	26	40	41	39	98	88	82	62	49	43	36
21	31	45	41	41	38	96	89	81	59	49	43	36
22	31	104	40	40	37	94	136	79	58	49	42	50
23	31	73	42	46	37	91	130	78	57	51	42	51
24	30	48	40	46	39	87	134	77	62	62	41	38
25	30	40	39	41	41	85	139	77	59	57	41	43
26	29	37	38	41	77	94	147	76	56	54	41	115
27	29	35	38	40	54	290	137	75	63	53	48	77
28	29	34	38	40	52	280	130	73	59	48	63	61
29	28	34	51	40	60	240	126	72	55	79	52	55
30	28	33	49	40	---	217	122	72	54	71	43	52
31	28	---	41	40	---	217	---	97	---	66	41	---
TOTAL	1011	1019	1418	1313	1215	3658	3665	2814	1898	1741	1507	1427
MEAN	32.6	34.0	45.7	42.4	41.9	118	122	90.8	63.3	56.2	48.6	47.6
MAX	54	104	110	52	77	290	186	119	81	113	82	115
MIN	28	25	38	39	36	51	88	72	54	47	41	36
CFSM	.60	.63	.84	.78	.77	2.18	2.25	1.67	1.17	1.04	.90	.88
IN.	.69	.70	.97	.90	.83	2.51	2.52	1.93	1.30	1.19	1.03	.98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	MEAN	55.5	68.5	81.2	80.5	88.9	115	129	123	96.4	69.3	57.7	54.6
MAX	194	223	267	202	193	208	302	247	450	203	106	183	
(WY)	1977	1944	1951	1979	1951	1979	1940	1989	1972	1972	1947	1975	
MIN	19.2	26.2	24.3	20.9	24.4	46.7	51.7	45.6	33.5	23.3	31.0	30.4	
(WY)	1942	1981	1981	1940	1940	1969	1965	1941	1965	1965	1966	1980	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1940 - 1992

ANNUAL TOTAL	24892		22686		85.0	
ANNUAL MEAN	68.2		62.0		141	1972
HIGHEST ANNUAL MEAN					38.7	1965
LOWEST ANNUAL MEAN					2960	Jun 22 1972
HIGHEST DAILY MEAN	197	Aug 20	290	Mar 27	9.8	Jan 5 1947
LOWEST DAILY MEAN	25	Nov 17	25	Nov 17, 18	14	Jan 29 1940
ANNUAL SEVEN-DAY MINIMUM	26	Nov 14	26	Nov 14	a4070	Jun 22 1972
INSTANTANEOUS PEAK FLOW			630	Jul 14	8.72	Jun 22 1972
INSTANTANEOUS PEAK STAGE			3.85	Jul 14	3.2	Feb 15 1940
INSTANTANEOUS LOW FLOW			23	Nov 18	1.57	
ANNUAL RUNOFF (CFSM)	1.26		1.14		21.30	
ANNUAL RUNOFF (INCHES)	17.08		15.57			
10 PERCENT EXCEEDS	117		109		150	
50 PERCENT EXCEEDS	54		49		69	
90 PERCENT EXCEEDS	29		30		35	

a From rating curve extended above 560 ft³/s on basis of slope-area measurement of peak flow.

PENNS CREEK BASIN

01555000 PENNS CREEK AT PENNS CREEK, PA

LOCATION.--Lat 40°52'00", long 77°02'55", Union County, Hydrologic Unit 02050301, on left bank 200 ft downstream from bridge on State Highway 104, 0.8 mi northeast of Penns Creek, and 2.9 mi upstream from Sweitzers Run.

DRAINAGE AREA.--301 mi².

PERIOD OF RECORD.--October 1929 to current year. Prior to October 1965, published as Penn Creek at Penns Creek.

REVISED RECORDS.--WSP 891: 1934(M). WSP 1502: 1933(M), 1934, 1936(M). WDR PA-72-1: 1933-34(M), 1936(M), 1940(M), 1951(M). WDR PA-79-2: 1978.

GAGE.--Water-stage recorder. Datum of gage is 506.72 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1930, 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. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	53	131	e150	e160	482	1350	763	597	153	208	120
2	64	53	126	e140	e150	461	1220	687	444	145	179	108
3	72	53	723	e140	e140	438	1100	636	385	142	159	106
4	72	52	772	e180	e130	412	989	577	353	163	152	117
5	70	51	460	263	e130	388	884	538	481	161	146	108
6	88	51	354	249	e120	371	778	514	895	175	136	107
7	97	52	300	225	e115	557	706	470	573	158	125	117
8	85	53	266	212	e120	641	651	446	488	138	127	115
9	75	53	247	211	e120	559	598	522	437	162	188	104
10	71	60	233	221	e100	539	559	492	394	145	260	125
11	71	71	212	216	e90	844	576	438	362	127	188	140
12	75	85	196	220	e88	776	566	402	335	121	161	133
13	73	82	190	198	e85	724	504	389	313	148	150	106
14	67	75	213	320	e82	680	457	402	294	351	142	95
15	65	71	246	443	e100	628	426	381	280	366	141	89
16	90	66	206	e300	262	558	407	379	260	311	142	86
17	103	62	e190	e230	242	533	413	356	250	238	135	83
18	93	59	e170	e220	194	510	435	355	239	217	133	80
19	77	56	e160	e190	202	526	434	346	244	190	122	83
20	70	55	e150	e160	217	480	406	317	262	166	114	78
21	65	62	e140	e140	208	449	411	298	239	178	102	77
22	62	268	e150	e130	192	434	729	285	222	160	100	87
23	62	972	e170	e130	185	417	664	274	209	167	97	111
24	61	475	e180	e250	212	384	643	272	211	212	93	108
25	59	285	e170	e220	285	400	712	273	209	194	89	89
26	59	216	e150	e170	439	849	905	260	193	182	87	267
27	57	182	e130	e150	437	3170	1180	261	209	208	86	268
28	55	181	e120	e140	394	2440	1020	247	194	202	116	194
29	55	150	e130	e130	500	1770	919	233	173	169	327	155
30	53	140	e190	e130	---	1470	832	243	164	199	218	132
31	53	---	e180	e140	---	1560	---	879	---	242	145	---
TOTAL	2183	4124	7255	6218	5699	24450	21474	12935	9909	5890	4568	3588
MEAN	70.4	137	234	201	197	789	716	417	330	190	147	120
MAX	103	972	772	443	500	3170	1350	879	895	366	327	268
MIN	53	51	120	130	82	371	406	233	164	121	86	77
CFSM	.23	.46	.78	.67	.65	2.62	2.38	1.39	1.10	.63	.49	.40
IN.	.27	.51	.90	.77	.70	3.02	2.65	1.60	1.22	.73	.56	.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

	MEAN	217	351	435	417	527	892	860	626	405	198	152	151
MAX	1355	1567	1352	1155	1697	3093	1769	1793	2845	759	684	1295	
(WY)	1991	1978	1951	1978	1984	1936	1940	1978	1972	1989	1984	1979	
MIN	35.9	34.1	47.9	76.0	108	195	330	179	107	57.2	37.0	36.4	
(WY)	1931	1931	1931	1981	1940	1931	1946	1941	1962	1962	1966	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1930 - 1992

ANNUAL TOTAL	122564		108293										
ANNUAL MEAN	336		296										
HIGHEST ANNUAL MEAN													
LOWEST ANNUAL MEAN													
HIGHEST DAILY MEAN	1740	Mar 5	3170	Mar 27									
LOWEST DAILY MEAN	51	Nov 5, 6	51	Nov 5, 6									
ANNUAL SEVEN-DAY MINIMUM	52	Nov 1	52	Nov 1									
INSTANTANEOUS PEAK FLOW			3450	Mar 27									
INSTANTANEOUS PEAK STAGE			6.31	Mar 27									
INSTANTANEOUS LOW FLOW			51	Nov 4-7									
ANNUAL RUNOFF (CFSM)	1.12		.98										
ANNUAL RUNOFF (INCHES)	15.15		13.38										
10 PERCENT EXCEEDS	851		630										
50 PERCENT EXCEEDS	170		193										
90 PERCENT EXCEEDS	58		71										

a From rating curve extended above 6,800 ft³/s on basis of contracted-opening measurement of peak flow.

b From floodmark in gage.

e Estimated.

JUNIATA RIVER BASIN

01556000 FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG, PA

LOCATION.--Lat 40°27'47", long 78°12'00", Blair County, Hydrologic Unit 02050302, on left bank 10 ft downstream from highway bridge on SR 2015 at Williamsburg, and 2.5 mi upstream from Clover Creek.

DRAINAGE AREA.--291 mi².

PERIOD OF RECORD.--October 1916 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WDR PA-71-1: 1954(M), 1960(M), 1961(M). WDR PA-77-2: 1936-39(M)

GAGE.--Water-stage recorder. Datum of gage is 831.78 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad bench mark). Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation at low flow by mill above station. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 19.1 ft, from floodmark, discharge, about 35,500 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	67	105	186	e180	540	1040	388	198	90	120	90
2	67	67	107	155	e150	493	894	352	163	90	96	85
3	65	65	821	158	e155	449	734	366	143	108	88	98
4	65	64	442	159	e150	422	628	316	134	142	87	125
5	67	64	294	180	e150	378	546	293	364	100	84	95
6	112	64	237	166	e140	352	482	297	455	93	82	130
7	81	65	197	151	e140	572	457	270	324	87	81	152
8	71	65	180	143	e130	624	459	261	301	84	78	117
9	66	64	178	145	e110	537	446	445	270	91	82	166
10	66	66	191	157	e100	546	432	409	221	90	82	123
11	66	76	173	151	e98	1240	480	372	193	154	78	181
12	65	80	158	141	e98	1010	464	351	173	104	83	124
13	64	73	154	138	e94	811	400	336	159	116	78	108
14	64	69	181	204	e92	e600	369	336	150	163	76	101
15	72	66	201	259	128	e520	351	306	141	115	76	97
16	147	66	167	205	246	e460	337	301	131	123	92	94
17	91	68	e150	e140	215	e440	359	275	126	99	87	90
18	76	67	e130	e110	204	527	405	256	125	94	83	87
19	70	67	e110	e100	272	580	446	227	130	87	77	87
20	71	67	e100	e96	383	603	392	204	133	82	76	85
21	68	71	146	e98	358	573	548	186	120	84	75	88
22	68	442	136	e100	340	601	1400	174	115	83	70	121
23	68	671	128	306	331	532	927	165	109	103	67	130
24	69	234	129	702	442	471	786	161	128	153	66	102
25	66	161	122	394	593	533	757	163	122	130	66	95
26	65	135	110	e310	1130	1070	620	156	110	125	64	100
27	66	119	111	e250	907	1640	550	156	109	133	65	130
28	67	115	106	e230	701	1320	487	143	101	111	147	131
29	63	110	217	e210	704	971	436	137	94	95	378	100
30	64	105	269	e190	---	849	405	170	92	115	131	88
31	66	---	202	e200	---	1150	---	273	---	131	102	---
TOTAL	2244	3513	5952	6134	8741	21414	17037	8245	5134	3375	2917	3320
MEAN	72.4	117	192	198	301	691	568	266	171	109	94.1	111
MAX	147	671	821	702	1130	1640	1400	445	455	163	378	181
MIN	63	64	100	96	92	352	337	137	92	82	64	85
CFSM	.25	.40	.66	.68	1.04	2.37	1.95	.91	.59	.37	.32	.38
IN.	.29	.45	.76	.78	1.12	2.74	2.18	1.05	.66	.43	.37	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1992, BY WATER YEAR (WY)

	183	264	369	413	552	885	756	524	308	186	143	134
MEAN	183	264	369	413	552	885	756	524	308	186	143	134
MAX	969	937	1268	1446	1340	3561	1753	1314	1743	824	738	648
(WY)	1977	1986	1973	1937	1971	1936	1937	1924	1972	1989	1956	1945
MIN	45.9	48.0	52.4	61.3	86.0	263	215	127	83.0	49.7	46.9	45.9
(WY)	1931	1931	1931	1918	1934	1990	1925	1934	1965	1965	1966	1932

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1917 - 1992

ANNUAL TOTAL	118780	88026	
ANNUAL MEAN	325	241	
HIGHEST ANNUAL MEAN			392
LOWEST ANNUAL MEAN			670
HIGHEST DAILY MEAN	3480	Mar 4	25000
LOWEST DAILY MEAN	63	Oct 29	31
ANNUAL SEVEN-DAY MINIMUM	64	Nov 3	32
INSTANTANEOUS PEAK FLOW			1820
INSTANTANEOUS PEAK STAGE			6.41
INSTANTANEOUS LOW FLOW			62
ANNUAL RUNOFF (CFSM)	1.12	.83	1.35
ANNUAL RUNOFF (INCHES)	15.18	11.25	18.31
10 PERCENT EXCEEDS	766	546	871
50 PERCENT EXCEEDS	145	140	204
90 PERCENT EXCEEDS	68	67	71

a From rating curve extended above 14,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark in gage.

e Estimated.

JUNIATA RIVER BASIN

01557500 BALD EAGLE CREEK AT TYRONE, PA

LOCATION.--Lat 40°41'01", long 78°14'02", Blair County, Hydrologic Unit 02050302, on left bank 0.2 mi upstream from plant of West Virginia Pulp and Paper Co. at Tyrone, 0.2 mi upstream from Laurel Run, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--44.1 mi².

PERIOD OF RECORD.--October 1944 to current year. Prior to October 1967, published as South Bald Eagle Creek at Tyrone.

REVISED RECORDS.--WSP 1903: 1954(M). WDR PA-75-2: 1974.

GAGE.--Water-stage recorder. Datum of gage is 921.80 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1944, to Nov. 15, 1950, water-stage recorder, and Nov. 16, 1950, to Nov. 30, 1952, nonrecording gage at site 0.5 mi downstream at datum 17.99 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to Nov. 30, 1952, daily discharges were affected by diversion of West Virginia Pulp and Paper Co. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft, Mar. 17 or 18, 1936, site and datum in use prior to Dec. 1, 1952.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	e6.6	22	e35	e43	e140	249	98	e50	15	20	28
2	4.8	e6.6	26	e35	e38	e110	196	88	e40	14	17	26
3	4.6	e6.4	454	e40	e35	e92	157	85	e35	16	17	31
4	4.6	e6.2	153	e45	e34	e80	130	74	e31	16	19	30
5	12	e6.2	94	45	e33	e74	107	74	e50	14	17	24
6	28	e6.2	73	39	e30	e70	90	101	e62	14	16	51
7	9.9	e6.2	61	36	e29	e86	84	e72	e50	13	15	37
8	e7.9	e6.0	56	34	e28	e92	86	e66	e43	12	26	36
9	e7.0	e6.0	51	38	e25	e78	90	e110	e38	13	36	32
10	e6.6	e6.6	46	40	e20	e82	90	e90	e33	12	20	29
11	e6.4	e7.6	40	37	e23	e130	102	e80	30	15	18	29
12	e6.2	e10	37	34	e22	e120	84	e72	28	12	17	26
13	e6.0	8.2	38	34	e21	e110	69	e68	27	16	17	26
14	e6.0	7.6	87	91	e25	e100	63	e86	26	53	17	26
15	e7.0	7.0	61	72	e44	e86	59	e70	24	19	17	25
16	e35	6.8	e50	e60	72	e80	56	e74	22	17	24	24
17	e18	6.6	e42	e50	44	e74	76	e80	22	15	19	23
18	e10	6.2	e40	e52	38	e80	69	e70	21	16	18	23
19	e7.8	6.4	e33	e42	69	e90	63	e60	27	13	17	23
20	e7.6	6.5	e28	e37	e82	e84	61	e52	26	12	16	21
21	e7.4	7.7	e30	e47	e70	e80	157	e48	21	13	15	27
22	e7.4	199	e28	e45	e64	e80	329	e47	20	13	15	37
23	e7.4	148	e26	179	e62	e76	219	e45	19	27	14	33
24	e7.2	64	e26	149	e90	e72	206	e44	21	24	14	22
25	e7.2	47	e25	e100	e130	e90	169	e42	19	18	13	21
26	e7.2	37	e23	e75	e190	e200	152	e40	18	18	13	23
27	e7.2	33	e22	e60	e150	e290	156	e37	21	23	14	46
28	e7.0	28	e21	e52	e130	e230	129	e35	17	17	56	33
29	e6.8	25	54	e50	e170	e180	117	e34	16	15	52	25
30	e6.8	23	e45	e47	---	e160	108	e40	15	15	31	23
31	e6.6	---	e39	e48	---	e260	---	e60	---	24	30	---
TOTAL	278.8	747.6	1831	1748	1811	3576	3723	2042	872	534	650	860
MEAN	8.99	24.9	59.1	56.4	62.4	115	124	65.9	29.1	17.2	21.0	28.7
MAX	35	199	454	179	190	290	329	110	62	53	56	51
MIN	4.6	6.0	21	34	20	70	56	34	15	12	13	21
CFSM	.20	.57	1.34	1.28	1.42	2.62	2.81	1.49	.66	.39	.48	.65
IN.	.24	.63	1.54	1.47	1.53	3.02	3.14	1.72	.74	.45	.55	.73

e Estimated

JUNIATA RIVER BASIN
01557500 BALD EAGLE CREEK AT TYRONE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.1	53.7	76.3	79.3	104	164	142	110	67.7	32.6	21.9	23.0
MAX	178	216	217	226	251	364	300	304	377	138	99.8	125
(WY)	1991	1951	1973	1952	1981	1945	1948	1978	1972	1956	1956	1975
MIN	4.10	5.95	6.43	10.9	15.9	48.1	34.0	23.8	12.1	5.41	4.15	3.59
(WY)	1964	1954	1966	1981	1963	1990	1946	1976	1965	1965	1966	1965

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1945 - 1992		
ANNUAL TOTAL	21290.7			18673.4			75.5		
ANNUAL MEAN	58.3			51.0			133		
HIGHEST ANNUAL MEAN							46.7		
LOWEST ANNUAL MEAN							1951		
HIGHEST DAILY MEAN	e750	Mar	4	454	Dec	3	2800	Jun	23
LOWEST DAILY MEAN	3.1	Sep	9	4.6	Oct	3,4	1.4	Sep	13
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep	3	a6.2	Nov	3	1.7	Sep	7
INSTANTANEOUS PEAK FLOW				711	Dec	3	b5140	Nov	25
INSTANTANEOUS PEAK STAGE				3.56	Dec	3	c7.50	Nov	25
INSTANTANEOUS LOW FLOW				4.3	Oct	5	1.4	Sep	12
ANNUAL RUNOFF (CFSM)	1.32			1.16			1.71		
ANNUAL RUNOFF (INCHES)	17.96			15.75			23.27		
10 PERCENT EXCEEDS	146			109			172		
50 PERCENT EXCEEDS	28			34			41		
90 PERCENT EXCEEDS	5.5			7.4			7.7		

a Using estimated daily values.

b From rating curve extended above 2,100 ft³/s on basis of contracted-opening measurement of peak flow.

c From floodmark, site and datum then in use.

e Estimated.

JUNIATA RIVER BASIN

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA

LOCATION.--Lat 40°36'45", long 78°08'27", Huntingdon County, Hydrologic Unit 02050302, on right bank on SR 4006, 150 ft downstream from Penn Central Railroad bridge, 0.5 mi northwest of village of Spruce Creek, and 0.5 mi upstream from Spruce Creek.

DRAINAGE AREA.--220 mi².

PERIOD OF RECORD.--June 1938 to current year. Prior to October 1938 monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 19.1 ft, from floodmarks 175 ft downstream, discharge, 39,800 ft³/s, from rating curve extended as explained below.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	79	109	182	237	646	1160	432	222	105	128	148
2	71	79	108	183	201	597	992	396	193	102	109	135
3	71	78	1380	198	203	523	817	373	180	118	104	153
4	71	77	621	201	195	459	700	336	173	147	105	174
5	76	77	392	222	192	413	607	319	261	111	102	138
6	134	77	321	201	174	381	529	361	289	104	99	202
7	96	77	274	186	175	481	494	307	222	97	97	192
8	85	77	255	176	177	496	517	305	207	93	112	169
9	81	76	241	179	142	430	535	465	196	99	150	184
10	79	76	232	196	120	460	530	404	188	98	112	163
11	e78	84	207	189	e110	741	561	374	183	156	103	188
12	e77	96	193	176	e120	657	502	356	177	113	102	156
13	e76	88	190	172	e110	617	431	341	170	130	99	147
14	e74	83	332	297	e120	563	394	403	167	273	97	144
15	e89	82	292	306	e140	519	368	334	159	155	97	140
16	169	80	e240	e250	271	453	350	343	151	151	127	135
17	108	79	e220	e220	221	435	413	317	143	120	110	130
18	96	78	e200	e200	210	472	454	335	141	114	105	123
19	91	79	e180	e170	291	496	456	298	151	106	98	122
20	88	80	e160	e160	416	475	421	272	161	99	93	119
21	87	84	e190	e190	375	444	682	253	141	110	88	132
22	87	525	186	e200	352	449	1390	243	134	104	85	176
23	86	597	179	359	343	418	1050	235	124	118	85	200
24	85	235	180	560	493	379	981	230	142	160	85	137
25	86	182	165	e300	639	417	860	225	138	120	85	121
26	86	152	148	e260	857	833	727	214	123	116	85	128
27	85	131	144	e250	744	1410	674	209	125	169	88	213
28	85	125	133	e240	681	1240	561	196	119	126	250	199
29	83	118	237	245	e670	966	502	185	112	111	426	157
30	82	112	279	233	---	918	466	214	108	112	191	138
31	80	---	213	244	---	1200	---	280	---	136	166	---
TOTAL	2714	3863	8201	7145	8979	18988	19124	9555	5000	3873	3783	4663
MEAN	87.5	129	265	230	310	613	637	308	167	125	122	155
MAX	169	597	1380	560	857	1410	1390	465	289	273	426	213
MIN	71	76	108	160	110	379	350	185	108	93	85	119
CFSM	.40	.59	1.20	1.05	1.41	2.78	2.90	1.40	.76	.57	.55	.71
IN.	.46	.65	1.39	1.21	1.52	3.21	3.23	1.62	.85	.65	.64	.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

	188	256	356	366	492	772	704	525	350	192	140	140
MEAN	188	256	356	366	492	772	704	525	350	192	140	140
MAX	816	1092	997	991	1128	1609	1509	1239	2022	623	389	533
(WY)	1991	1951	1973	1949	1976	1979	1940	1978	1972	1956	1956	1975
MIN	64.7	71.3	73.2	90.5	138	261	228	150	104	70.4	56.9	64.3
(WY)	1964	1939	1966	1940	1963	1990	1946	1976	1965	1965	1966	1966

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1939 - 1992

ANNUAL TOTAL	115296	95888	
ANNUAL MEAN	316	262	
HIGHEST ANNUAL MEAN			373
LOWEST ANNUAL MEAN			630
HIGHEST DAILY MEAN	2710	Mar 4	21100
LOWEST DAILY MEAN	66	Sep 2, 8, 9	50
ANNUAL SEVEN-DAY MINIMUM	69	Aug 29	51
INSTANTANEOUS PEAK FLOW			2210
INSTANTANEOUS PEAK STAGE			4.97
INSTANTANEOUS LOW FLOW			71
ANNUAL RUNOFF (CFSM)	1.44		1.19
ANNUAL RUNOFF (INCHES)	19.50		16.21
10 PERCENT EXCEEDS	735		531
50 PERCENT EXCEEDS	165		180
90 PERCENT EXCEEDS	76		85

a From rating curve extended above 5,600 ft³/s on basis of slope-area measurement at gage height 15.77 ft.

b Also Nov. 18.

c Also Oct. 4, 1949.

e Estimated.

JUNIATA RIVER BASIN

01559000 JUNIATA RIVER AT HUNTINGDON, PA

LOCATION.--Lat 40°29'05", long 78°01'09", Huntingdon County, Hydrologic Unit 02050302, on right bank 170 ft downstream from Smithfield Bridge on State Highway 26 at Huntingdon, and 0.8 mi upstream from Standing Stone Creek.

DRAINAGE AREA.--816 mi².

PERIOD OF RECORD.--October 1941 to current year. Gage-height records collected in this vicinity for the period May 1895 to December 1938 are contained in reports of U.S. Weather Bureau. Prior to October 1950, published as Frankstown Branch Juniata River at Huntingdon.

REVISED RECORDS.--WDR PA-73-1: 1936(M). WDR PA-80-2: 1972(M). WDR PA-84-2: 1936(M) 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 599.69 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Flow regulated September 1941 to June 1972, and since December 15, 1985 by Warrior Ridge Hydroelectric Plant 4 mi upstream (reservoir capacity 400 acre-ft). National Weather Service satellite telemeter and U.S. Army Corps of Engineers landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.87 ft, from floodmark, discharge, 81,000 ft³/s, from rating curve extended on basis of computation of peak discharge at dam and runoff comparison with downstream station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	231	320	471	587	1500	2910	1140	666	281	386	366
2	244	247	397	474	522	1380	2540	1060	548	308	335	311
3	178	222	2490	441	505	1220	2120	1010	491	330	332	374
4	226	194	1750	487	498	1120	1730	926	450	389	289	419
5	220	211	1030	505	504	1100	1560	874	553	383	312	370
6	273	249	742	495	442	954	1360	952	1070	326	267	375
7	271	221	659	489	456	1130	1260	843	746	297	302	500
8	275	211	617	437	459	1460	1240	795	656	257	270	489
9	181	237	566	425	445	1290	1250	1140	625	309	350	437
10	215	239	565	463	349	1200	1210	1100	570	284	325	482
11	224	246	554	437	e340	2180	1280	1010	523	357	306	520
12	220	256	493	447	e350	2180	1260	956	504	409	266	484
13	204	251	493	449	e360	1860	1080	898	467	327	308	386
14	233	251	588	538	e380	1540	1010	989	427	525	257	330
15	235	235	640	805	415	1420	948	887	435	484	292	342
16	379	213	616	575	617	1260	913	865	438	423	294	336
17	356	254	519	e500	657	1130	972	808	381	342	344	333
18	247	241	524	e450	556	1220	1080	805	391	343	278	314
19	222	221	463	e430	643	1250	1180	761	376	324	299	317
20	227	225	365	e410	902	1400	1060	691	423	268	262	310
21	227	269	514	e400	916	1260	1220	624	397	296	272	312
22	249	565	485	e390	839	1280	3860	618	384	308	244	384
23	235	2510	449	e380	820	1250	2920	567	328	321	261	452
24	218	808	426	e1500	947	1150	2330	578	391	441	235	371
25	229	532	441	1070	1450	1170	2310	554	389	389	255	318
26	266	441	384	880	2180	2080	1850	548	370	392	228	331
27	229	389	378	821	2200	4420	1700	525	348	433	265	377
28	210	382	339	675	1760	3830	1450	514	361	388	303	473
29	242	369	441	607	e1650	2850	1320	482	300	349	980	368
30	229	343	676	569	---	2400	1210	513	330	343	560	330
31	189	---	587	591	---	3110	---	744	---	408	390	---
TOTAL	7339	11263	19511	17611	22749	52594	48133	24777	14338	11034	10067	11511
MEAN	237	375	629	568	784	1697	1604	799	478	356	325	384
MAX	379	2510	2490	1500	2200	4420	3860	1140	1070	525	980	520
MIN	178	194	320	380	340	954	913	482	300	257	228	310
CFSM	.29	.46	.77	.70	.96	2.08	1.97	.98	.59	.44	.40	.47
IN.	.33	.51	.89	.80	1.04	2.40	2.19	1.13	.65	.50	.46	.52

e Estimated.

JUNIATA RIVER BASIN

01559000 JUNIATA RIVER AT HUNTINGDOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	553	757	1056	1107	1453	2225	1977	1487	988	579	449	430
MAX	2114	2577	3100	2655	3059	4586	3887	3217	5562	1920	1447	1571
(WY)	1991	1951	1973	1949	1971	1979	1970	1978	1972	1989	1956	1975
MIN	146	233	232	265	379	693	747	528	312	201	163	143
(WY)	1964	1964	1966	1981	1963	1969	1946	1976	1965	1966	1966	1963

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1942 - 1992

ANNUAL TOTAL	338930		250927									
ANNUAL MEAN	929		686							1086		
HIGHEST ANNUAL MEAN										1830		1972
LOWEST ANNUAL MEAN										595		1969
HIGHEST DAILY MEAN	5810	Mar 4	4420	Mar 27	50400						Jun 23	1972
LOWEST DAILY MEAN	170	Sep 13	178	Oct 3	40						Sep 12	1963
ANNUAL SEVEN-DAY MINIMUM	203	Sep 7	216	Oct 9	117						Sep 10	1963
INSTANTANEOUS PEAK FLOW			5300	Apr 22	^a 57000						Jun 23	1972
INSTANTANEOUS PEAK STAGE			5.63	Apr 22	20.03						Jun 23	1972
INSTANTANEOUS LOW FLOW			47	Oct 3	^b 14						Feb 8	1948
ANNUAL RUNOFF (CFSM)	1.14		.84		1.33							
ANNUAL RUNOFF (INCHES)	15.45		11.44		18.08							
10 PERCENT EXCEEDS	2280		1370		2340							
50 PERCENT EXCEEDS	476		449		657							
90 PERCENT EXCEEDS	225		242		262							

^a From rating curve extended above 22,000 ft³/s on basis of computation of peak discharge at dam, slope-conveyance study, and Pennsylvania Department of Environmental Resources step-backwater study.

^b Minimum recorded; Also Aug. 2, 1954.

JUNIATA RIVER BASIN

01560000 DUNNING CREEK AT BELDEN, PA

LOCATION.--Lat 40°04'18", long 78°29'34", Bedford County, Hydrologic Unit 02050303, on left bank 10 ft upstream from highway bridge on SR 1014, 0.8 mi southeast of Belden, 3.8 mi north of Bedford, and 4.3 mi upstream from mouth.

DRAINAGE AREA.--172 mi²

PERIOD OF RECORD.--May 1939 to current year. Prior to October 1939 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 971: 1940(M). WSP 1502: 1940-41. WDR PA-72-1: 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,051.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 17.8 ft, Mar. 18, 1936, from floodmarks (backwater from Raystown Branch Juniata River), discharge, about 16,900 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	35	90	e72	342	622	171	78	62	65	42
2	11	15	39	106	e80	310	531	148	62	41	49	36
3	11	15	322	96	e66	263	412	153	54	46	40	37
4	11	14	224	97	e56	222	333	131	50	105	38	55
5	11	14	149	98	e60	192	273	124	151	54	33	37
6	20	14	117	88	e50	171	228	119	187	43	29	99
7	20	14	94	80	e45	299	210	106	131	37	26	115
8	18	14	84	76	e42	393	211	106	122	33	26	94
9	15	14	81	74	e40	400	220	325	113	36	31	128
10	13	14	93	82	e35	404	210	461	94	35	27	103
11	14	18	88	79	e32	1070	209	377	84	69	22	124
12	15	19	87	74	e36	900	189	307	74	47	24	88
13	16	19	87	72	49	629	163	252	67	39	23	75
14	16	18	100	96	56	439	149	218	62	35	21	66
15	17	17	109	128	66	341	142	179	58	31	19	59
16	39	16	95	e110	156	267	136	166	51	28	18	53
17	23	16	92	e80	142	241	137	144	48	27	19	47
18	16	16	85	e70	146	268	182	128	46	24	19	42
19	14	16	71	e64	187	371	295	111	48	22	18	41
20	14	16	71	e60	278	448	236	98	50	19	16	38
21	13	17	78	e56	290	470	300	87	45	17	14	36
22	14	82	65	e60	273	453	956	79	42	17	13	48
23	14	233	58	e70	270	368	766	73	40	34	12	49
24	14	102	58	311	326	318	537	69	43	115	12	37
25	14	71	53	228	477	397	429	70	52	178	11	32
26	14	56	43	e180	984	826	325	63	46	100	11	34
27	14	44	45	e140	826	1100	266	61	41	271	13	43
28	15	43	38	e120	557	976	227	56	37	137	67	53
29	15	40	100	e100	475	701	197	53	34	89	248	38
30	15	36	141	e90	---	542	179	66	35	78	77	33
31	15	---	105	e80	---	634	---	115	---	78	54	---
TOTAL	483	1038	2907	3155	6172	14755	9270	4616	2045	1947	1095	1782
MEAN	15.6	34.6	93.8	102	213	476	309	149	68.2	62.8	35.3	59.4
MAX	39	233	322	311	984	1100	956	461	187	271	248	128
MIN	11	14	35	56	32	171	136	53	34	17	11	32
CFSM	.09	.20	.55	.59	1.24	2.77	1.80	.87	.40	.37	.21	.35
IN.	.10	.22	.63	.68	1.33	3.19	2.00	1.00	.44	.42	.24	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

MEAN	102	153	245	250	357	537	434	272	170	92.0	56.0	54.9
MAX	798	702	859	664	825	1207	885	662	1015	740	214	367
(WY)	1977	1986	1973	1952	1971	1979	1970	1960	1972	1989	1979	1945
MIN	14.0	18.3	20.0	45.8	65.2	129	112	45.7	25.6	8.96	8.05	9.86
(WY)	1970	1954	1944	1981	1963	1990	1946	1941	1965	1966	1966	1985

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1940 - 1992

ANNUAL TOTAL	58485		49265			
ANNUAL MEAN	160		135		226	
HIGHEST ANNUAL MEAN					378	1972
LOWEST ANNUAL MEAN					107	1954
HIGHEST DAILY MEAN	1980	Mar 4	1100	Mar 27	9140	Jun 23 1972
LOWEST DAILY MEAN	11	Jul 15 ^a	11	Oct 2-5 ^b	6.4	Sep 6 1964
ANNUAL SEVEN-DAY MINIMUM	11	Sep 29	12	Aug 21	6.7	Aug 5 1966
INSTANTANEOUS PEAK FLOW			1510	Mar 11	c19400	Jul 20 1977
INSTANTANEOUS PEAK STAGE			5.43	Mar 11	14.15	Jul 20 1977
INSTANTANEOUS LOW FLOW			11	Oct 2-5 ^d	2.6	Sep 6 1964
ANNUAL RUNOFF (CFSM)	.93		.78		1.31	
ANNUAL RUNOFF (INCHES)	12.65		10.65		17.86	
10 PERCENT EXCEEDS	472		328		556	
50 PERCENT EXCEEDS	44		69		98	
90 PERCENT EXCEEDS	13		15		20	

a Also July 28-29, Sept. 13-14, 17-18, 30.

b Also Aug. 25-26.

c From rating curve extended above 9,200 ft³/s on basis of contracted-opening measurement at gage height 12.67 ft and contracted-opening and flow-over-road measurement at gage height 13.03 ft.

d Also Aug. 24-27.

d Also Aug.
e Estimated.

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA
(National stream-quality accounting network station)

LOCATION.--Lat 40°12'57", long 78°15'56", Bedford County, Hydrologic Unit 02050303, on left bank 500 ft downstream from bridge on State Highway 913, 0.5 mi west of Saxton, and 1.5 mi upstream from Shoup Run.

DRAINAGE AREA.--756 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to current year. Monthly discharge only for September 1911 published in WSP 1302.

REVISED RECORDS.--WSP 1302: 1912-13(M), 1914-15. WSP 1502: 1934, 1936.

GAGE.--Water-stage recorder. Datum of gage is 795.77 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, nonrecording gage at site 0.8 mi downstream at datum 4.82 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter and U.S. Army Corps of Engineers landline telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 23.0 ft at present site and datum, from floodmarks, discharge, about 71,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	91	132	259	e230	1280	1970	726	419	179	273	213
2	81	91	139	245	e270	909	1750	696	374	212	251	171
3	78	90	259	286	e215	836	1560	616	291	215	212	151
4	78	87	630	270	e210	736	1310	642	252	244	185	143
5	82	86	573	256	e220	668	1130	515	302	289	170	134
6	101	86	381	256	e205	551	990	488	816	273	157	155
7	92	86	285	258	e190	690	815	479	863	194	146	162
8	99	86	246	236	e180	1300	794	444	583	162	139	367
9	89	86	225	219	e170	1350	702	628	522	151	146	349
10	82	87	222	211	e160	1230	695	1910	472	140	160	477
11	81	97	215	209	e150	1580	729	1820	403	157	188	480
12	83	98	217	208	e145	2810	708	1450	345	150	239	490
13	82	98	210	200	e140	2200	637	1130	303	187	217	411
14	81	101	208	198	e150	1640	579	1060	274	172	184	355
15	83	101	196	208	e180	1370	499	935	249	146	151	327
16	89	103	e190	267	228	1180	531	840	227	139	146	306
17	87	100	e160	e250	360	1050	534	718	215	125	145	286
18	86	96	e150	e210	504	882	487	650	196	118	141	270
19	105	96	e130	e200	499	1000	518	588	195	111	132	266
20	103	93	e160	e190	636	1470	629	522	206	103	125	232
21	98	94	e180	e180	733	1700	600	460	200	102	115	206
22	94	161	176	e210	707	1840	1350	410	194	99	107	210
23	91	326	172	e250	651	1700	2120	371	173	130	102	211
24	89	610	167	e300	682	1330	1750	346	167	294	97	171
25	88	319	145	499	755	1340	1560	332	183	448	93	155
26	89	224	e130	e450	1450	1880	1350	334	177	507	90	153
27	88	179	e130	e390	2890	4190	1130	315	187	505	88	153
28	88	158	e160	e330	1940	3710	1000	294	194	787	126	160
29	88	142	e180	e300	1410	2830	827	270	176	567	226	157
30	88	135	216	e275	---	2130	766	256	154	385	610	157
31	89	---	359	e255	---	2090	---	296	---	307	312	---
TOTAL	2735	4207	6943	8075	16260	49472	30020	20541	9312	7598	5473	7478
MEAN	88.2	140	224	260	561	1596	1001	663	310	245	177	249
MAX	105	610	630	499	2890	4190	2120	1910	863	787	610	490
MIN	78	86	130	180	140	551	487	256	154	99	88	134
CFSM	.12	.19	.30	.34	.74	2.11	1.32	.88	.41	.32	.23	.33
IN.	.13	.21	.34	.40	.80	2.43	1.48	1.01	.46	.37	.27	.37

e Estimated.

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	435	574	844	980	1430	2068	1707	1238	731	404	265	259
MAX	3561	2630	3254	3477	4817	7669	3593	3425	4624	2847	851	1475
(WY)	1977	1986	1973	1937	1979	1936	1970	1924	1972	1989	1915	1975
MIN	59.5	65.3	93.6	132	138	459	338	211	134	66.6	55.1	57.6
(WY)	1964	1931	1931	1981	1934	1990	1915	1926	1965	1966	1966	1963

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1992	
ANNUAL TOTAL	241420		168114		908	
ANNUAL MEAN	661		459		1517	
HIGHEST ANNUAL MEAN					1972	
LOWEST ANNUAL MEAN					402	
HIGHEST DAILY MEAN	6800	Jan 17	4190	Mar 27	58300	Mar 18 1936
LOWEST DAILY MEAN	73	Sep 17	78	Oct 3-4	39	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	76	Sep 13	83	Oct 9	41	Sep 7 1966
INSTANTANEOUS PEAK FLOW			4670	Mar 27	a80500	Mar 18 1936
INSTANTANEOUS PEAK STAGE			5.90	Mar 27	b24.54	Mar 18 1936
INSTANTANEOUS LOW FLOW			73	Oct 5	39	Sep 6,7,12 1966
ANNUAL RUNOFF (CFSM)	.87		.61		1.20	
ANNUAL RUNOFF (INCHES)	11.88		8.27		16.33	
10 PERCENT EXCEEDS	1720		1240		2150	
50 PERCENT EXCEEDS	180		225		420	
90 PERCENT EXCEEDS	87		92		119	

a From rating curve extended above 21,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark in gage.

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SXTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-56, 1958-64, 1966-68, 1972-76, 1987 to current year.

REMARKS.--Agency collection codes: 1028 - U.S. Geological Survey. Agency analyzing codes: 9813 - Pennsylvania Department of Environmental Resources, 80020 - U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00300)	COLI-FORM, FECAL, 0.7 μM-MF (COLS./100 ML) (31625)
NOV 06...	1600	1028	80020	86	387	8.2	5.0	1.0	747	13.9	111 K 2
JAN 08...	1445	1028	80020	232	--	8.1	2.5	1.5	749	14.2	-- K 7
MAR 27...	1250	1028	80020	4700	177	6.6	5.5	37	736	10.9	90 530
MAY 19...	1015	1028	80020	581	198	8.0	18.5	2.3	756	9.2	99 25
JUL 08...	1745	1028	80020	153	309	8.4	26.5	1.7	751	11.4	144 27
AUG 18...	1000	1028	80020	142	322	8.2	19.5	4.6	744	8.2	92 60

DATE	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY TOT WH FIELD (MG/L AS CAC03) (00410)
NOV 06...	26	190	48	45	19	6.2	7	0.2	2.0	174	-- 142
JAN 08...	K 15	120	51	33	9.3	9.6	15	0.4	1.7	85	-- 70
MAR 27...	5200	59	30	16	4.5	9.2	25	0.5	2.1	34	-- 28
MAY 19...	220	79	28	21	6.3	5.7	13	0.3	1.4	61	-- 52
JUL 08...	730	130	43	35	11	7.9	11	0.3	2.3	109	0 92
AUG 18...	110	140	39	38	12	7.0	9	0.3	2.4	129	-- 107

DATE	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	ALUM-INUM, DIS-SOLVED (μG/L AS AL) (01106)
NOV 06...	143	140	52	13	0.10	0.97	226	232	0.31	52.5	170
JAN 08...	70	78	38	19	0.20	2.7	149	163	0.20	93.3	--
MAR 27...	28	29	21	18	<0.10	4.7	111	103	0.15	1410	30
MAY 19...	50	52	23	10	<0.10	4.1	109	107	0.15	171	50
JUL 08...	90	95	34	15	<0.10	4.5	165	170	0.22	68.2	--
AUG 18...	106	103	37	15	0.30	3.7	178	185	0.24	68.2	70

< Actual value is known to be less than the value shown.

K Results based on non-ideal colony counts.

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (μG/L AS BA) (01005)	COBALT, DIS- SOLVED (μG/L AS CO) (01035)	IRON, DIS- SOLVED (μG/L AS FE) (01046)	LITHIUM, DIS- SOLVED (μG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (μG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (μG/L AS MO) (01060)	NICKEL, DIS- SOLVED (μG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (μG/L AS SE) (01145)	SILVER, DIS- SOLVED (μG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (μG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (μG/L AS V) (01085)
NOV 06...	40	<3	6	6	17	<10	3	<1	<1.0	400	<6
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 27...	41	<3	32	<4	37	<10	2	<1	<1.0	100	<6
MAY 19...	42	<3	28	<4	19	<10	2	<1	<1.0	150	<6
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
AUG 18...	57	<3	7	5	16	<10	3	<1	<1.0	290	<6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE NUMBER (00027)	AGENCY ANA- LYZING SAMPLE NUMBER (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
NOV 06...	1600	1028	80020	86	387	8.2	5.0	--	--	<0.010
NOV 06...	1605	1028	9813	86	--	--	--	--	--	--
JAN 08...	1445	1028	80020	232	--	8.1	2.5	1.69	1.69	0.010
JAN 08...	1450	1028	9813	232	--	--	--	--	--	--
MAR 27...	1250	1028	80020	4700	177	6.6	5.5	2.38	2.39	0.020
MAR 27...	1255	1028	9813	4700	--	--	--	--	--	--
MAY 19...	1015	1028	80020	581	198	8.0	18.5	1.09	1.09	0.010
MAY 19...	1020	1028	9813	581	--	--	--	--	--	--
JUL 08...	1745	1028	80020	153	309	8.4	26.5	1.29	--	0.010
JUL 08...	1750	1028	1028	153	--	--	--	--	--	--
AUG 18...	1000	1028	80020	142	322	8.2	19.5	--	--	<0.010
AUG 18...	1005	1028	9813	142	--	--	--	--	--	--

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NOV 06...	<0.010	1.70	1.60	<0.010	<0.010	--	--	<0.20	--	--
NOV 06...	--	1.65	1.65	0.060	0.040	--	--	<0.20	<0.20	--
JAN 08...	0.010	1.70	1.70	<0.010	<0.010	--	--	<0.20	--	--
JAN 08...	--	1.64	1.62	<0.020	<0.020	--	--	<0.20	<0.20	--
MAR 27...	0.010	2.40	2.40	0.040	0.040	0.36	--	0.40	--	2.8
MAR 27...	--	2.22	2.20	0.060	0.050	0.83	--	0.89	<0.20	3.1
MAY 19...	0.010	1.10	1.10	0.030	0.030	0.27	--	0.30	--	1.4
MAY 19...	--	1.14	1.14	0.040	0.040	0.23	--	0.27	<0.20	1.4
JUL 08...	<0.010	1.30	1.40	0.010	0.020	0.19	--	0.20	--	1.5
JUL 08...	--	1.25	1.25	0.020	0.020	0.40	0.31	0.42	0.33	1.7
AUG 18...	<0.010	1.30	1.30	0.020	0.020	--	--	<0.20	--	--
AUG 18...	--	1.30	1.30	0.030	0.020	0.26	0.19	0.29	0.21	1.6

< Actual value is known to be less than the value shown.

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV									
06...	--	<0.010	<0.010	<0.010	<0.010	--	1	0.23	75
06...	--	<0.020	<0.020	--	0.002	2.1	--	--	--
JAN									
08...	--	0.020	<0.010	<0.010	<0.010	--	1	0.63	96
08...	--	0.020	<0.020	--	0.002	1.9	--	--	--
MAR									
27...	--	0.050	<0.010	0.020	<0.010	--	127	1610	86
27...	--	0.150	<0.020	--	0.005	2.9	--	--	--
MAY									
19...	--	0.040	<0.010	0.010	<0.010	--	9	14	100
19...	--	0.030	0.020	--	0.005	2.0	--	--	--
JUL									
08...	--	0.030	<0.010	0.010	<0.010	--	5	2.1	96
08...	1.6	0.040	0.025	--	0.006	2.8	--	--	--
AUG									
18...	--	0.010	<0.010	<0.010	<0.010	--	13	5.0	--
18...	1.5	0.040	<0.002	--	<0.002	2.7	--	--	--

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	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)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV								
06...	1610	226	--	--	--	--	--	--
06...	1612	232	383	7.9	4.5	14.0	1	67
06...	1614	244	375	8.1	5.0	13.9	1	80
06...	1616	256	381	8.1	5.0	14.0	1	75
06...	1618	268	396	8.1	5.0	13.9	1	80
06...	1620	280	382	8.2	5.0	13.9	1	67
06...	1622	292	388	8.2	5.0	13.9	1	67
06...	1624	304	386	8.2	5.0	14.0	1	80
06...	1626	316	396	8.3	5.0	13.9	1	35
06...	1628	328	397	8.3	5.0	14.0	1	67
06...	1629	340	387	8.3	5.5	13.8	1	67
06...	1630	346	--	--	--	--	--	--
MAY								
19...	0958	200	--	--	--	--	--	--
19...	1000	230	194	7.8	18.5	9.2	8	--
19...	1005	250	200	7.9	18.5	9.2	9	--
19...	1010	270	200	7.9	18.5	9.3	11	--
19...	1014	285	200	7.8	18.5	--	12	96
19...	1022	300	199	7.9	18.5	--	11	--
19...	1025	313	197	7.8	18.5	--	9	--
19...	1030	333	199	7.8	18.5	9.4	9	--
19...	1032	260	--	--	--	--	--	--
AUG								
18...	0948	180	--	--	--	--	--	--
18...	0950	195	321	8.2	19.5	8.1	15	--
18...	0955	220	325	8.0	19.5	8.1	13	95
18...	1001	245	320	8.1	19.5	8.2	11	--
18...	1006	270	319	8.2	19.5	8.2	12	96
18...	1010	295	319	7.8	19.5	8.1	12	--
18...	1012	315	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

JUNIATA RIVER BASIN

01563100 RAYSTOWN LAKE NEAR HUNTINGDON, PA

LOCATION.--Lat 40°26'06", long 78°00'25", Huntingdon County, Hydrologic Unit 02050303, at Raystown Dam on Raystown Branch Juniata River, 3.5 mi south of Huntingdon, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--959 mi².

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with a gated spillway in right abutment at elevation 768.6 ft and an ungated spillway, separate from embankment, at elevation 812.0 ft. Storage began November 1972. Capacity at elevation 768.6 ft is 383,500 acre-ft. Capacity at elevation 812.0 ft is 762,000 acre-ft. Conservation pool elevation is 786.0 ft and capacity is 514,000 acre-ft. Lake is used for flood control, low-flow augmentation, and recreation. Figures given herein represent total contents. U.S. Army Corps of Engineers satellite tele-meter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 614,600 acre-ft, Feb. 16, 1984, elevation, 797.48 ft; minimum, 2,240 acre-ft, March 2, 1973, elevation, 628.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 523,940 acre-ft, Mar. 27, elevation, 787.17 ft; minimum, 439,150 acre-ft, Feb. 17, elevation, 776.71 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
Sept. 30	783.31	491,000	--
Oct. 31	782.24	482,170	-144
Nov. 30	780.73	469,970	-205
Dec. 31	779.08	457,020	-211
CAL YR 1991.....	--	--	- 93.2
Jan. 31	777.74	446,850	-165
Feb. 29	779.53	460,530	+238
Mar. 31	786.96	522,160	+1000
Apr. 30	786.55	518,680	- 58.5
May 31	786.37	517,140	- 25.0
June 30	786.39	517,320	+ 3.0
July 31	786.47	518,000	+ 11.1
Aug. 31	785.76	511,910	- 99.0
Sept. 30	786.29	516,460	+ 76.5
WTR YR 1992.....	--	--	+ 35.1

JUNIATA RIVER BASIN

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA

LOCATION.--Lat 40°25'44", long 77°59'29", Huntingdon County, Hydrologic Unit 02050303, on left bank 1.0 mi downstream from Raystown Dam on Township Route 430, 4.0 mi south of Huntingdon, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--960 mi².

PERIOD OF RECORD.--January 1946 to current year. Prior to October 1946 monthly discharge only, published in WSP 1302. Prior to Oct. 1, 1969, published as Raystown Branch Juniata River near Huntingdon.

GAGE.--Water-stage recorder. Datum of gage is 597.36 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to Oct. 1, 1969, water-stage recorder at site 4.3 mi upstream at datum 22.72 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1972 by Raystown Dam (station 01563100). Several measurements of water temperature were made during the year. National Weather Service satellite telemeter and U.S. Army Corps of Engineers landline telemeter at station.

AVERAGE DISCHARGE.--46 years, 1,128 ft³/s, 15.96 in/yr, adjusted for storage since October 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 31.0 ft, discharge, 87,000 ft³/s, at previous site and datum, by computation of peak discharge at dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	192	485	485	481	197	2470	940	548	207	373	204
2	202	203	486	485	481	199	1850	910	443	207	239	204
3	203	208	490	485	481	199	1660	910	385	209	201	208
4	206	210	477	485	481	199	1650	908	385	210	201	204
5	204	204	481	485	481	199	1650	778	385	210	201	204
6	204	207	481	485	481	199	1650	703	445	209	205	204
7	204	207	479	485	481	201	1650	703	693	221	207	204
8	203	207	481	485	481	200	1650	690	732	207	207	204
9	201	207	477	485	481	200	1250	918	841	207	209	204
10	206	208	481	485	479	200	988	1440	844	209	209	204
11	204	207	481	485	479	203	995	1660	624	208	216	204
12	204	207	481	485	481	203	992	1670	490	207	411	204
13	204	210	481	485	481	204	806	1670	424	207	920	204
14	203	210	487	487	476	204	708	1670	385	209	921	204
15	204	364	481	485	478	207	670	1670	324	211	561	204
16	204	486	481	485	481	210	592	1300	261	210	206	265
17	204	490	481	482	481	210	550	1100	240	210	204	299
18	204	481	481	481	481	211	553	950	220	210	201	267
19	204	487	481	481	481	211	553	801	209	210	203	249
20	204	485	481	481	482	210	548	737	210	209	207	249
21	202	498	480	481	485	702	778	701	207	208	203	248
22	204	495	481	469	485	1110	1410	611	206	207	204	248
23	204	493	481	475	485	1460	1660	542	206	205	204	249
24	204	490	481	481	486	1660	2030	542	215	202	204	220
25	207	490	480	481	425	1660	2140	587	207	201	203	205
26	207	486	478	481	196	1670	1870	385	207	201	201	204
27	207	485	484	481	196	3760	1650	305	207	702	203	205
28	207	485	490	485	199	4990	1650	299	207	784	206	204
29	207	485	490	485	199	3560	1650	293	207	811	204	204
30	207	485	490	488	---	2980	1230	292	210	710	204	204
31	200	---	487	481	---	2980	---	548	---	572	204	---
TOTAL	6331	10582	14956	14975	12765	30598	39503	27233	11167	8990	8542	6584
MEAN	204	353	482	483	440	987	1317	878	372	290	276	219
MAX	207	498	490	488	486	4990	2470	1670	844	811	921	299
MIN	200	192	477	469	196	197	548	292	206	201	201	204
MEAN‡	60	148	271	318	678	1987	1258	853	375	301	177	296
CFSM‡	.06	.15	.28	.33	.71	2.07	1.31	.89	.39	.31	.18	.31
IN.‡	.07	.17	.32	.38	.77	2.39	1.46	1.03	.44	.36	.21	.35

‡ Adjusted for change in contents in Raystown Lake.

JUNIATA RIVER BASIN

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	857	1014	1267	1073	1788	2249	2126	1445	774	574	351	390
MAX	4616	3778	4204	3008	3999	5610	4523	3438	2241	3484	802	1880
(WY)	1977	1974	1973	1974	1984	1979	1987	1978	1989	1989	1979	1975
MIN	150	125	215	208	440	360	370	18.6	59.1	133	118	134
(WY)	1975	1975	1981	1981	1992	1974	1974	1973	1973	1973	1973	1973

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1973 - 1992

ANNUAL TOTAL	329328		192226									
ANNUAL MEAN	902	‡809	525	‡560						1155		
HIGHEST ANNUAL MEAN										1585		1978
LOWEST ANNUAL MEAN										525		1992
HIGHEST DAILY MEAN	7560	Jan 1	4990	Mar 28					14900		Feb 18	1984
LOWEST DAILY MEAN	192	Nov 1	192	Nov 1					5.0		May 18	1973
ANNUAL SEVEN-DAY MINIMUM	200	Jun 11	198	Feb 26					8.3		May 18	1973
INSTANTANEOUS PEAK FLOW			5550	Mar 28					a15600		Feb 17	1984
INSTANTANEOUS PEAK STAGE			9.10	Mar 28					b18.54		Apr 3	1970
ANNUAL RUNOFF (CFSM)	.94	‡.84	.55	‡.58					1.20			
ANNUAL RUNOFF (INCHES)	12.76	‡11.44	7.45	‡7.95					16.35			
10 PERCENT EXCEEDS	2130		1030						2800			
50 PERCENT EXCEEDS	479		457						507			
90 PERCENT EXCEEDS	201		203						196			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1972, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	343	651	985	1195	1649	2695	2132	1500	875	442	303	229
MAX	1587	2796	2877	2915	4150	4481	4632	3346	5740	1722	925	648
(WY)	1955	1971	1951	1949	1971	1963	1970	1960	1972	1972	1956	1950
MIN	64.7	65.3	131	220	317	754	683	482	180	80.1	66.0	67.6
(WY)	1964	1958	1966	1954	1954	1969	1968	1969	1965	1966	1966	1963

SUMMARY STATISTICS

WATER YEARS 1947 - 1972

ANNUAL MEAN	1080											
HIGHEST ANNUAL MEAN	1960				1972							
LOWEST ANNUAL MEAN	497				1969							
HIGHEST DAILY MEAN	22200			Apr 3	1970							
LOWEST DAILY MEAN	5.0			Oct 30	1957							
ANNUAL SEVEN-DAY MINIMUM	7.7			Nov 3	1957							
INSTANTANEOUS PEAK FLOW	c24500			Nov 25	1950							
INSTANTANEOUS PEAK STAGE	d16.74			Nov 25	1950							
INSTANTANEOUS LOW FLOW	4.3			Oct 31	1957							
ANNUAL RUNOFF (CFSM)	1.13											
ANNUAL RUNOFF (INCHES)	15.29											
10 PERCENT EXCEEDS	2580											
50 PERCENT EXCEEDS	475											
90 PERCENT EXCEEDS	114											

‡ Adjusted for change in contents in Raystown Lake.

a Gage height, 14.86 ft.

b Present site and datum.

c From rating curve extended above 16,000 ft³/s on basis of computation of peak discharge at dam.

d Site and datum then in use.

JUNIATA RIVER BASIN

01563500 JUNIATA RIVER AT MAPLETON DEPOT, PA

LOCATION.--Lat 40°23'32", long 77°56'07", Huntingdon County, Hydrologic Unit 02050304, on right bank 0.2 mi downstream from Scrub Run, and 0.3 mi downstream from bridge on State Highway 655 at Mapleton Depot.

DRAINAGE AREA.--2,030 mi².

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WDR PA-73-1: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 557.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since October 1972 by Raystown Dam (station 01563100) 12 mi upstream. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter and U.S. Army Corps of Engineers and National Weather Service landline telemeters at station.

AVERAGE DISCHARGE.--55 years, 2,495 ft³/s, 16.70 in/yr, adjusted for storage since October 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 38.2 ft, from floodmark, discharge, 165,000 ft³/s from rating curve extended as explained on following page.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	447	458	851	1040	1190	2110	6090	2400	1550	577	879	560
2	515	435	916	1060	1090	1890	5010	2250	1220	569	672	531
3	435	477	2850	1030	1070	1690	4250	2190	1030	573	540	563
4	469	469	2750	1100	1060	1590	3820	2080	985	701	544	625
5	481	416	1770	1130	1030	1510	3600	1920	1170	682	510	592
6	547	476	1420	1110	997	1370	3300	1910	1910	599	523	601
7	554	476	1280	1070	995	1610	3170	1760	1790	573	502	719
8	545	465	1200	1010	1000	2130	3110	1710	1670	542	525	711
9	442	432	1170	1000	974	1890	2830	2320	1710	531	552	701
10	506	477	1170	1050	858	1750	2450	2780	1610	574	582	742
11	463	505	1120	1010	e820	2580	2570	2890	1390	564	542	747
12	466	495	1060	1020	e800	2880	2510	2820	1130	715	565	758
13	486	503	1050	1010	e780	2520	2230	2780	1040	582	1230	604
14	449	494	1140	1090	e850	2180	1910	2920	934	791	1250	564
15	527	573	1250	1570	e900	1990	1820	2750	900	812	1050	561
16	565	741	1240	e1270	1150	1790	1700	2480	824	734	562	586
17	744	720	1080	e1050	1270	1650	1710	2140	724	633	548	644
18	454	761	1090	e1000	1150	1720	1870	2030	719	542	549	617
19	521	743	977	e960	1180	1790	2020	1790	726	607	508	581
20	491	737	910	e930	1500	1950	1870	1620	803	500	515	568
21	476	756	1030	e920	1550	2130	2150	1510	753	525	476	579
22	476	1080	1050	e900	1450	2750	6200	1380	680	541	502	652
23	465	3250	1000	e980	1430	2940	5360	1260	670	594	468	764
24	464	1610	978	e2200	1530	3020	4840	1220	667	706	485	666
25	476	1140	989	1770	2210	3100	5000	1250	692	675	459	557
26	500	1030	915	1530	2800	4380	4250	1130	673	653	481	577
27	473	947	920	1350	3030	10000	3800	963	623	981	459	632
28	453	917	886	1260	2430	10400	3470	929	660	1250	560	756
29	477	882	1010	1220	e2200	7370	3270	905	612	1270	1260	639
30	474	901	1410	1180	---	6020	2850	926	572	1070	846	565
31	462	---	1210	1180	---	6780	---	1640	---	1080	649	---
TOTAL	15303	23366	37692	36000	39294	97480	99030	58653	30437	21746	19793	18962
MEAN	494	779	1216	1161	1355	3145	3301	1892	1015	701	638	632
MAX	744	3250	2850	2200	3030	10400	6200	2920	1910	1270	1260	764
MIN	435	416	851	900	780	1370	1700	905	572	500	459	531
MEAN ‡	350	574	1005	996	1593	4145	3242	1867	1018	712	539	708
CFSM ‡	.17	.28	.50	.49	.78	2.04	1.60	.92	.50	.35	.27	.35
IN. ‡	.20	.31	.58	.56	.84	2.35	1.79	1.06	.56	.40	.31	.39

‡ Adjusted for change in contents in Raystown Lake.

e Estimated

JUNIATA RIVER BASIN

01563500 JUNIATA RIVER AT MAPLETON DEPOT, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1801	2160	2910	2529	3936	5029	4737	3412	2099	1401	922	999
MAX	7397	5802	8006	5712	8159	11490	8777	7725	5274	6123	2020	3757
(WY)	1977	1986	1973	1974	1984	1979	1987	1978	1989	1989	1979	1975
MIN	494	578	872	481	1355	1612	2601	1309	679	608	528	496
(WY)	1992	1979	1981	1981	1992	1990	1976	1976	1991	1988	1974	1985

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1973 - 1992

ANNUAL TOTAL	733659	497756	
ANNUAL MEAN	2010	1360	2654
HIGHEST ANNUAL MEAN	1917	1395	3647
LOWEST ANNUAL MEAN			1360
HIGHEST DAILY MEAN	13700	Jan 1	32000
LOWEST DAILY MEAN	416	Nov 5	416
ANNUAL SEVEN-DAY MINIMUM	456	Oct 30	423
INSTANTANEOUS PEAK FLOW		12400	39400
INSTANTANEOUS PEAK STAGE		10.06	18.33
INSTANTANEOUS LOW FLOW		299	
ANNUAL RUNOFF (CFSM)	.99	.67	1.31
ANNUAL RUNOFF (INCHES)	13.44	9.12	17.76
10 PERCENT EXCEEDS	4770	2780	5850
50 PERCENT EXCEEDS	943	992	1590
90 PERCENT EXCEEDS	480	489	569

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1972, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	925	1473	2124	2500	3303	5542	4766	3324	2215	1058	812	664
MAX	3136	6057	6058	6342	8327	8641	9845	7044	14450	3864	2638	3073
(WY)	1938	1951	1951	1949	1971	1967	1940	1960	1972	1972	1956	1945
MIN	245	377	374	610	826	1763	1697	849	540	317	244	262
(WY)	1964	1958	1966	1940	1963	1969	1968	1941	1965	1966	1966	1964

SUMMARY STATISTICS WATER YEARS 1938 - 1972

ANNUAL MEAN	2387	
HIGHEST ANNUAL MEAN	4479	1972
LOWEST ANNUAL MEAN	1329	1969
HIGHEST DAILY MEAN	115000	Jun 23 1972
LOWEST DAILY MEAN	101	Aug 21 1966
ANNUAL SEVEN-DAY MINIMUM	203	Sep 7 1964
INSTANTANEOUS PEAK FLOW	a125000	Jun 23 1972
INSTANTANEOUS PEAK STAGE	33.07	Jun 23 1972
INSTANTANEOUS LOW FLOW	68	Sep 13 1964
ANNUAL RUNOFF (CFSM)	1.18	
ANNUAL RUNOFF (INCHES)	15.97	
10 PERCENT EXCEEDS	5520	
50 PERCENT EXCEEDS	1210	
90 PERCENT EXCEEDS	393	

‡ Adjusted for change in contents in Raystown Lake.

a From rating curve extended above 39,000 ft³/s on basis of runoff comparison with upstream and downstream stations.

JUNIATA RIVER BASIN

01564500 AUGWICK CREEK NEAR THREE SPRINGS, PA

LOCATION.--Lat 40°12'45", long 77°55'32", Huntingdon County, Hydrologic Unit 02050304, on right bank 10 ft downstream from bridge on State Highway 994, 300 ft upstream from East Broad Top Railroad bridge, 350 ft upstream from Three Springs Creek, and 3.5 mi northeast of Three Springs. Records include flow of Three Springs Creek.

DRAINAGE AREA.--205 mi², includes that of Three Springs Creek.

PERIOD OF RECORD.--June 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 618.65 ft above National Geodetic Vertical Datum of 1929, unadjusted.

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 1, 1889, reached a stage of about 19.3 ft, discharge, about 24,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.8	13	53	e27	174	e470	197	168	38	64	25
2	12	8.7	18	45	e24	149	e380	170	105	79	51	19
3	15	10	109	40	e23	130	e330	164	83	67	43	17
4	15	10	136	42	e22	112	e270	150	70	148	39	17
5	15	11	62	58	e23	98	e240	138	106	113	38	18
6	24	10	40	61	e21	90	e210	146	361	69	35	29
7	23	10	32	49	e19	290	e190	137	209	51	29	91
8	17	11	27	42	e19	490	176	129	166	41	26	56
9	15	11	28	38	e16	339	157	213	151	37	28	78
10	14	12	32	38	e15	259	147	219	128	37	36	64
11	12	13	43	37	e14	330	158	182	105	40	32	170
12	9.9	14	36	33	e13	348	183	166	86	35	31	97
13	9.6	15	32	30	e12	317	152	148	73	38	47	58
14	9.8	14	30	43	e12	277	133	156	65	37	35	44
15	10	14	28	80	28	243	126	153	58	29	30	37
16	12	13	25	62	74	200	118	164	50	26	28	33
17	18	12	20	e50	116	187	117	166	43	26	30	29
18	16	12	e17	e40	99	190	126	150	40	25	30	26
19	13	11	e14	e30	97	225	125	139	45	20	26	26
20	11	11	e12	e25	105	278	116	124	136	18	25	25
21	9.6	12	e13	e22	96	333	130	109	82	17	21	23
22	10	43	e12	e23	83	417	1030	96	55	16	18	25
23	10	141	17	35	76	399	717	75	45	31	16	31
24	10	64	19	52	81	325	507	72	42	285	15	32
25	11	34	17	e48	107	323	479	73	57	375	14	28
26	11	24	15	e40	567	664	376	75	53	274	13	34
27	12	18	e14	e35	572	1940	318	75	43	213	13	49
28	11	15	e13	e32	320	1110	275	70	42	177	18	40
29	10	15	38	e30	233	704	235	61	35	124	90	34
30	9.9	14	93	e28	---	e520	210	57	30	93	71	29
31	10	---	70	e27	---	e620	---	202	---	74	34	---
TOTAL	396.8	612.5	1075	1268	2914	12081	8201	4176	2732	2653	1026	1284
MEAN	12.8	20.4	34.7	40.9	100	390	273	135	91.1	85.6	33.1	42.8
MAX	24	141	136	80	572	1940	1030	219	361	375	90	170
MIN	9.6	8.7	12	22	12	90	116	57	30	16	13	17
CFSM	.06	.10	.17	.20	.49	1.90	1.33	.66	.44	.42	.16	.21
IN.	.07	.11	.20	.23	.53	2.19	1.49	.76	.50	.48	.19	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

	MEAN	111	177	258	238	385	547	466	317	191	87.2	62.1	53.2
	MAX	656	946	890	683	1399	982	1250	798	1985	848	355	406
	(WY)	1977	1951	1973	1953	1984	1978	1970	1960	1972	1989	1967	1979
	MIN	6.59	18.3	16.2	14.2	63.5	93.0	103	55.0	25.0	8.40	3.25	5.08
	(WY)	1964	1942	1966	1981	1963	1990	1971	1941	1991	1966	1966	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1939 - 1992

ANNUAL TOTAL	53927.1	38419.3	240
ANNUAL MEAN	148	105	486
HIGHEST ANNUAL MEAN			105
LOWEST ANNUAL MEAN			192
HIGHEST DAILY MEAN	2340	Jan 17	18700
LOWEST DAILY MEAN	5.2	Sep 18	.80
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 12	1.2
INSTANTANEOUS PEAK FLOW		2240	Mar 27
INSTANTANEOUS PEAK STAGE		7.91	Mar 27
INSTANTANEOUS LOW FLOW		b6.2	Nov 2
ANNUAL RUNOFF (CFSM)	.72	.51	1.17
ANNUAL RUNOFF (INCHES)	9.79	6.97	15.92
10 PERCENT EXCEEDS	401	271	570
50 PERCENT EXCEEDS	30	42	99
90 PERCENT EXCEEDS	7.9	12	14

a From rating curve extended above 7,100 ft³/s on basis of contracted-opening measurement at gage height 18.04 ft.

b Minimum recorded, but may have been less during period of ice effect Feb. 7-14.

c Also Sept. 3, 4, 11, 12, 13, 1966.

e Estimated.

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA

LOCATION.--Lat 40°28'42", long 77°07'46", Perry County, Hydrologic Unit 02050304, on right bank at downstream side of bridge on State Highway 34 at Newport and 1,000 ft upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1899 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1902(M). WSP 1302: 1915-17. WSP 1502: 1899-1908, 1914, 1924, 1936. WSP 1722: 1916.

GAGE.--Water-stage recorder. Datum of gage is 363.93 ft above National Geodetic Vertical Datum of 1929. Prior to July 16, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since October 1972 by Raystown Dam (station 01563100) about 75 mi upstream. National Weather Service satellite and landline telemeters at station.

AVERAGE DISCHARGE.--93 years, 4,264 ft³/s, 17.26 in/yr, adjusted for storage since October 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 35.9 ft, from floodmarks, discharge, 209,000 ft³/s, from rating curve extended above 100,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	696	1060	1730	e1700	3990	11000	5050	3930	1120	1500	1180
2	722	692	1060	1530	e1650	3590	9570	4370	3480	1100	1350	939
3	713	690	1560	1430	e1600	3130	8090	4020	2650	1070	1170	820
4	670	693	3550	1480	e1550	2830	7000	3780	2130	1180	982	934
5	745	694	4640	1570	e1500	2550	6330	3620	2010	1310	853	897
6	750	692	2910	1680	e1400	2410	5760	3460	3390	1410	811	898
7	786	695	2270	1640	e1350	3030	5300	3350	4210	1400	791	1010
8	734	687	1900	1560	e1300	3870	4970	3190	3740	1210	776	1020
9	767	714	1740	1500	e1200	4410	4780	3500	3350	1090	776	1150
10	769	695	1690	1440	e1100	4030	4500	3940	3020	1060	795	1200
11	752	715	1660	1420	e1000	4010	4040	4420	2760	993	827	1240
12	701	742	1640	1440	e1050	4570	4030	4430	2520	981	852	1270
13	715	784	1590	1380	e1100	5120	4010	4240	2000	1030	816	1250
14	676	791	1610	1460	1270	4550	3630	4170	1810	1270	879	1180
15	678	798	1640	1850	1380	4090	3130	4260	1660	1340	1450	978
16	751	773	1710	2220	1530	3650	2970	4260	1520	1490	1480	888
17	827	770	e1600	e1600	1610	3290	2840	4010	1440	1480	1240	824
18	795	1050	e1500	e1200	1960	3040	2800	3500	1330	1380	833	836
19	1090	1090	e1400	e1020	1930	3110	3100	3350	1300	1250	811	894
20	672	1090	e1350	e960	1870	3290	3210	2950	1640	1070	770	884
21	727	1120	e1300	e920	2070	3470	3120	2670	1760	1030	729	830
22	682	1420	e1250	e900	2290	3690	6340	2420	1530	970	695	834
23	667	2260	1400	e920	2160	4530	11500	2280	1330	955	677	857
24	673	4200	1360	1950	2100	4610	9330	2060	1230	1100	652	905
25	687	2920	1290	e2900	2260	4720	8240	1970	1190	1240	651	1000
26	697	1730	1240	e2600	3840	5590	8640	1940	1190	1420	651	1240
27	684	1390	1230	e2300	5580	17300	8120	1950	1210	1520	651	1250
28	694	1240	1130	e2100	5860	20700	6840	1690	1180	1400	684	1070
29	717	1140	1230	e1900	4560	15900	6080	1580	1100	1830	949	1010
30	694	1090	1380	e1800	---	11700	5570	1520	1170	1730	1170	1070
31	680	---	1660	e1800	---	10600	---	2780	---	1620	1620	---
TOTAL	22615	34061	52550	50200	59770	175370	174840	100730	62780	39049	28891	30358
MEAN	730	1135	1695	1619	2061	5657	5828	3249	2093	1260	932	1012
MAX	1090	4200	4640	2900	5860	20700	11500	5050	4210	1830	1620	1270
MIN	667	687	1060	900	1000	2410	2800	1520	1100	955	651	820
MEAN $\frac{1}{2}$	586	930	1484	1454	2299	6657	5770	3224	2096	1271	833	1088
CFSM $\frac{1}{2}$	.17	.28	.44	.43	.69	1.98	1.72	.96	.62	.38	.25	.32
IN. $\frac{1}{2}$	.20	.31	.51	.50	.74	2.28	1.92	1.11	.69	.44	.29	.36

$\frac{1}{2}$ Adjusted for change in contents in Raystown Lake.
e Estimated.

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2863	3440	5021	4327	6407	7952	7832	5645	3505	2378	1526	1616
MAX	11610	8494	13770	9801	15070	17080	13070	13940	8510	12080	3637	6282
(WY)	1977	1986	1973	1974	1984	1979	1987	1978	1982	1989	1979	1975
MIN	730	871	1262	495	1779	2576	4138	2363	1084	864	782	586
(WY)	1992	1979	1990	1981	1980	1990	1988	1977	1991	1988	1985	1986

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1973 - 1992

ANNUAL TOTAL	1223060		831214									
ANNUAL MEAN	3351	\$3258	2271	\$2306						4364		
HIGHEST ANNUAL MEAN										6682		1978
LOWEST ANNUAL MEAN										2271		1992
HIGHEST DAILY MEAN	22100	Jan 1	20700	Mar 28						87100	Feb 15	1984
LOWEST DAILY MEAN	652	Aug 7	651	Aug 25-27						450	Jan 13	1981
ANNUAL SEVEN-DAY MINIMUM	676	Sep 8	666	Aug 22						461	Jan 9	1981
INSTANTANEOUS PEAK FLOW			21600	Mar 28						90500	Feb 15	1984
INSTANTANEOUS PEAK STAGE			10.36	Mar 28						23.21	Feb 15	1984
INSTANTANEOUS LOW FLOW			608	Oct 20						195	Jul 27	1966
ANNUAL RUNOFF (CFSM)	1.00	\$.97	.68	\$.69						1.30		
ANNUAL RUNOFF (INCHES)	13.57	\$13.19	9.22	\$9.36						17.68		
10 PERCENT EXCEEDS	8380		4450							9680		
50 PERCENT EXCEEDS	1380		1440							2730		
90 PERCENT EXCEEDS	694		720							843		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1972, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1820	2658	3649	4621	5570	9856	8097	5797	3612	2072	1563	1419
MAX	8108	10880	11310	13300	16160	33600	17160	14870	25050	7865	4605	6890
(WY)	1928	1951	1902	1937	1915	1936	1940	1908	1972	1972	1905	1911
MIN	351	418	471	841	943	2340	2026	1319	890	455	327	370
(WY)	1964	1931	1931	1931	1934	1931	1915	1941	1965	1966	1966	1964

SUMMARY STATISTICS WATER YEARS 1899 - 1972

ANNUAL MEAN	4228											
HIGHEST ANNUAL MEAN	7403				1972							
LOWEST ANNUAL MEAN	2166				1969							
HIGHEST DAILY MEAN	172000			Mar 19	1936							
LOWEST DAILY MEAN	207			Jul 27	1966							
ANNUAL SEVEN-DAY MINIMUM	269			Aug 3	1966							
INSTANTANEOUS PEAK FLOW	a190000			Mar 19	1936							
INSTANTANEOUS PEAK STAGE	b34.24			Mar 19	1936							
INSTANTANEOUS LOW FLOW	195			Jul 27	1966							
ANNUAL RUNOFF (CFSM)	1.26											
ANNUAL RUNOFF (INCHES)	17.13											
10 PERCENT EXCEEDS	9360											
50 PERCENT EXCEEDS	2300											
90 PERCENT EXCEEDS	680											

‡ Adjusted for change in contents in Raystown Lake.

a From rating curve extended above 100,000 ft³/s.

b From floodmark in gage.

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to 1990.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to current year.

pH: October 1969 to September 1970, October 1972 to September 1973.

WATER TEMPERATURE: October 1944 to June 1953, April 1958 to September 1962, October 1964 to current year.

SUSPENDED-SEDIMENT DISCHARGE: January 1951 to current year.

INSTRUMENTATION.--Sediment sampler and shelter attached to downstream bridge-rail about 445 ft from left bank.

REMARKS.--Once-daily water temperatures and laboratory specific conductance values obtained from suspended-sediment samples.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: (Water years 1965-86, 1991-92) Maximum daily, 558 microsiemens, Oct. 27, 1969; minimum daily, 107 microsiemens, Dec. 2, 1984.

WATER TEMPERATURE: Maximum daily, 33.0°C, July 23, 24, 1987, Aug. 2, 1988; minimum daily, 0.0°C on many days during winter periods based on unpublished records.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,130 mg/L, Mar. 2, 1954; minimum daily mean, <1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 365,000 tons, June 23, 1972; minimum daily, <.01 ton on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum daily, 382 microsiemens, Sept. 19; minimum daily, 113 microsiemens, Dec. 7.

WATER TEMPERATURE: Maximum daily, 30.0°C, July 14, Aug. 27; minimum daily, 0.0°C, Jan. 16, Feb. 12-13.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 191 mg/L, Mar. 27; minimum daily mean, 1 mg/L, many days during the year.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 9,400 tons, Mar. 27; minimum daily, 1.8 tons, several days in October.

SPECIFIC CONDUCTANCE, $\mu\text{S}/\text{CM}$ @ 25° CENTIGRADE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	165	134	261	249	203	184	200	230	228	235	294
2	164	172	133	225	250	209	191	210	225	300	252	338
3	142	154	129	236	252	209	182	210	220	297	253	339
4	154	156	141	212	260	219	187	210	225	---	213	331
5	163	156	124	255	244	198	185	190	230	209	253	313
6	148	178	114	201	265	225	194	220	210	266	302	267
7	152	179	113	201	232	220	199	230	220	275	311	302
8	148	180	118	192	223	223	208	220	220	289	291	297
9	165	185	130	263	249	218	207	220	235	294	228	345
10	157	163	127	224	270	211	207	215	220	288	290	335
11	171	158	128	214	276	215	201	220	220	294	304	353
12	172	159	132	249	246	217	217	230	230	256	286	340
13	161	176	260	249	297	217	209	220	230	239	312	334
14	157	176	245	261	283	207	211	220	230	282	254	347
15	157	177	242	261	263	202	220	220	230	276	306	340
16	169	179	257	261	273	232	217	215	208	290	232	347
17	174	167	228	---	223	221	224	215	251	299	256	369
18	168	165	245	---	277	227	211	215	168	290	200	355
19	171	171	283	---	263	228	228	225	254	277	287	382
20	156	173	285	---	273	216	226	215	239	220	282	345
21	157	158	286	265	250	228	227	230	232	225	316	338
22	153	155	261	282	250	234	189	240	227	290	277	345
23	172	146	261	268	271	246	180	230	248	243	318	359
24	171	138	271	---	263	233	165	240	255	259	308	321
25	174	151	271	---	249	229	169	215	266	276	308	354
26	178	160	258	256	252	225	160	240	275	278	346	322
27	159	140	273	266	216	187	180	260	259	268	354	326
28	151	135	273	248	197	187	190	260	268	290	262	321
29	159	131	264	259	174	182	200	250	255	209	310	270
30	164	130	261	226	---	184	200	240	279	300	250	---
31	164	---	261	245	---	184	---	240	---	266	278	---
MEAN	161	161	210	243	251	214	199	225	235	269	280	329

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER TEMPERATURE, (°C) WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	14.0	7.5	3.0	2.0	6.5	7.5	15.0	17.0	24.5	26.0	24.0
2	21.5	13.0	7.0	2.0	1.0	8.0	7.0	17.5	19.0	28.0	26.5	23.0
3	22.5	11.5	6.5	3.0	2.0	8.0	5.5	18.0	21.5	24.5	27.0	28.0
4	23.0	8.0	4.5	4.0	2.0	7.0	6.0	10.0	22.0	---	26.0	25.0
5	20.5	7.5	3.5	4.5	2.5	8.0	8.0	14.0	19.5	25.0	25.5	23.0
6	19.5	7.0	3.5	4.5	3.0	7.0	9.5	14.0	21.0	26.5	27.0	21.0
7	16.0	6.5	3.5	4.0	3.0	7.0	11.0	14.5	22.0	27.0	27.0	22.0
8	16.5	4.5	5.0	4.0	1.5	9.0	12.5	13.0	23.0	25.0	23.0	22.0
9	16.5	4.0	6.0	3.5	.5	11.0	10.5	13.5	23.5	26.0	26.0	24.5
10	18.0	5.0	7.0	4.0	.5	10.0	12.5	15.5	24.0	27.5	28.0	24.0
11	14.5	5.5	7.0	3.5	1.0	6.0	11.0	18.5	24.5	27.0	26.0	23.5
12	14.5	6.0	6.5	4.0	.0	5.0	12.5	19.0	25.0	26.0	25.0	22.5
13	14.0	5.5	7.5	6.0	.0	4.0	12.0	20.5	25.0	29.0	24.0	22.0
14	14.5	8.0	8.5	6.0	1.0	3.5	13.0	21.0	26.0	30.0	24.0	22.0
15	15.0	9.0	4.5	3.0	1.0	3.0	14.0	17.5	26.0	29.5	22.0	23.0
16	15.5	9.0	2.0	.0	2.0	4.0	11.0	17.0	26.0	27.5	21.0	24.0
17	11.5	8.0	1.5	---	3.0	4.5	13.5	16.0	26.0	25.0	21.0	26.0
18	15.5	7.0	1.0	---	2.0	4.0	11.5	19.0	24.0	26.0	25.0	25.0
19	12.0	8.0	.5	---	4.5	3.0	11.0	20.0	24.0	28.0	24.0	22.0
20	11.0	11.0	1.0	---	4.0	4.0	11.0	21.0	22.0	29.5	25.0	21.5
21	12.0	12.0	1.5	1.0	5.5	5.0	13.5	22.0	19.0	28.0	26.0	21.0
22	14.0	11.0	2.0	1.0	5.5	4.0	14.5	24.0	20.5	26.0	25.5	23.0
23	15.5	11.0	1.5	1.0	7.0	4.5	16.0	21.0	22.0	24.0	27.0	19.0
24	15.0	9.5	2.0	---	5.5	5.5	15.5	19.0	23.0	21.5	25.0	19.5
25	15.0	7.0	1.5	---	5.0	7.0	13.0	17.0	23.0	21.0	28.5	16.0
26	15.0	5.5	2.0	.5	4.5	6.5	12.5	15.5	20.0	21.0	29.0	16.5
27	18.0	4.0	3.0	.5	4.5	6.0	13.0	17.5	23.0	24.5	30.0	18.0
28	16.5	6.0	1.3	.5	6.0	6.0	13.5	17.5	25.0	25.0	26.5	20.5
29	15.5	7.0	3.0	1.5	4.0	6.5	14.0	18.0	26.0	26.5	22.0	17.0
30	14.0	7.5	3.0	2.0	---	6.0	13.0	16.0	27.5	27.0	23.0	---
31	14.5	---	3.0	1.5	---	8.0	---	18.0	---	28.0	24.0	---
MEAN	16.0	7.9	3.8	2.7	2.9	6.0	11.6	17.4	23.0	26.1	25.3	22.0

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	700	3	5.7	696	1	1.9	1060	5	14
2	722	2	3.9	692	2	3.7	1060	3	8.6
3	713	3	5.8	690	1	1.9	1560	3	13
4	670	3	5.4	693	6	11	3550	26	330
5	745	3	6.0	694	3	5.6	4640	33	427
6	750	4	8.1	692	1	1.9	2910	15	118
7	786	3	6.4	695	1	1.9	2270	7	43
8	734	1	2.0	687	1	1.9	1900	5	26
9	767	1	2.1	714	1	1.9	1740	5	23
10	769	1	2.1	695	1	1.9	1690	3	14
11	752	1	2.0	715	1	1.9	1660	3	13
12	701	1	1.9	742	1	2.0	1640	2	8.9
13	715	1	1.9	784	1	2.1	1590	1	4.3
14	676	1	1.8	791	1	2.1	1610	1	4.3
15	678	1	1.8	798	2	4.3	1640	1	4.4
16	751	1	2.0	773	2	4.2	1710	1	4.6
17	827	1	2.2	770	1	2.1	1600	1	4.3
18	795	1	2.1	1050	4	11	1500	1	4.1
19	1090	1	2.9	1090	3	8.8	1400	2	7.6
20	672	1	1.8	1090	3	8.8	1350	4	15
21	727	1	2.0	1120	3	9.1	1300	3	11
22	682	1	1.8	1420	19	73	1250	2	6.8
23	667	1	1.8	2260	8	49	1400	1	3.8
24	673	1	1.8	4200	52	662	1360	1	3.7
25	687	1	1.9	2920	22	173	1290	1	3.5
26	697	1	1.9	1730	7	33	1240	1	3.3
27	684	1	1.8	1390	6	23	1230	1	3.3
28	694	2	3.7	1240	4	13	1130	1	3.1
29	717	2	3.9	1140	2	6.2	1230	1	3.3
30	694	2	3.7	1090	2	5.9	1380	1	3.7
31	680	2	3.7	---	---	---	1660	1	4.5
TOTAL	22615	---	95.9	34061	---	1128.1	52550	---	1137.1

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	1730	1	4.7	1700	2	9.2	3990	13	140
2	1530	1	4.1	1650	2	8.9	3590	9	87
3	1430	3	12	1600	1	4.3	3130	7	59
4	1480	1	4.0	1550	1	4.2	2830	6	46
5	1570	1	4.2	1500	3	12	2550	5	34
6	1680	1	4.5	1400	3	11	2410	5	33
7	1640	1	4.4	1350	3	11	3030	7	57
8	1560	1	4.2	1300	2	7.0	3870	12	125
9	1500	1	4.1	1200	2	6.5	4410	16	191
10	1440	1	3.9	1100	3	8.9	4030	16	174
11	1420	4	15	1000	2	5.4	4010	15	162
12	1440	2	7.8	1050	3	8.5	4570	17	210
13	1380	1	3.7	1100	4	12	5120	18	249
14	1460	1	3.9	1270	3	10	4550	14	172
15	1850	1	5.0	1380	2	7.5	4090	7	77
16	2220	7	42	1530	3	12	3650	5	49
17	1600	5	22	1610	3	13	3290	4	36
18	1200	4	13	1960	4	21	3040	3	25
19	1020	5	14	1930	4	21	3110	3	25
20	960	9	23	1870	4	20	3290	3	27
21	920	3	7.5	2070	5	28	3470	3	28
22	900	1	2.4	2290	6	37	3690	4	40
23	920	1	2.5	2160	5	29	4530	8	98
24	1950	1	5.3	2100	4	23	4610	7	87
25	2900	9	70	2260	12	73	4720	7	89
26	2600	10	70	3840	38	409	5590	14	240
27	2300	5	31	5580	69	1080	17300	191	9400
28	2100	4	23	5860	68	1090	20700	152	8500
29	1900	2	10	4560	30	369	15900	52	2230
30	1800	3	15	---	---	---	11700	25	790
31	1800	3	15	---	---	---	10600	18	515
TOTAL	50200	---	451.2	59770	---	3351.4	175370	---	23995
APRIL			MAY			JUNE			
1	11000	21	624	5050	10	136	3930	38	406
2	9570	17	439	4370	7	83	3480	22	207
3	8090	13	284	4020	8	87	2650	12	86
4	7000	9	170	3780	9	92	2130	9	52
5	6330	7	120	3620	8	78	2010	10	54
6	5760	6	93	3460	7	65	3390	21	192
7	5300	8	114	3350	7	63	4210	30	341
8	4970	11	148	3190	5	43	3740	24	242
9	4780	12	155	3500	8	76	3350	22	199
10	4500	8	97	3940	9	96	3020	19	155
11	4040	7	76	4420	12	143	2760	17	127
12	4030	9	98	4430	12	144	2520	15	102
13	4010	8	87	4240	12	137	2000	12	65
14	3630	6	59	4170	14	158	1810	11	54
15	3130	5	42	4260	18	207	1660	10	45
16	2970	4	32	4260	19	219	1520	11	45
17	2840	5	38	4010	15	162	1440	12	47
18	2800	5	38	3500	13	123	1330	11	40
19	3100	4	33	3350	15	136	1300	11	39
20	3210	5	43	2950	11	88	1640	14	62
21	3120	5	42	2670	7	50	1760	17	81
22	6340	49	938	2420	5	33	1530	14	58
23	11500	68	2070	2280	6	37	1330	10	36
24	9330	42	1060	2060	4	22	1230	9	30
25	8240	28	623	1970	2	11	1190	10	32
26	8640	25	583	1940	4	21	1190	8	26
27	8120	21	460	1950	4	21	1210	8	26
28	6840	16	295	1690	4	18	1180	7	22
29	6080	13	213	1580	3	13	1100	8	24
30	5570	12	180	1520	3	12	1170	7	22
31	---	---	---	2780	15	137	---	---	---
TOTAL	174840	---	9254	100730	---	2711	62780	---	2917

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY				AUGUST			SEPTEMBER		
1	1120	6	18	1500	17	69	1180	12	38
2	1100	9	27	1350	13	47	939	9	23
3	1070	14	40	1170	17	54	820	9	20
4	1180	13	41	982	10	27	934	9	23
5	1310	12	42	853	7	16	897	10	24
6	1410	10	38	811	6	13	898	11	27
7	1400	9	34	791	4	8.5	1010	12	33
8	1210	8	26	776	5	10	1020	12	33
9	1090	8	24	776	4	8.4	1150	13	40
10	1060	7	20	795	4	8.6	1200	15	49
11	993	8	21	827	5	11	1240	19	64
12	981	7	19	852	6	14	1270	17	58
13	1030	7	19	816	5	11	1250	16	54
14	1270	10	34	879	5	12	1180	12	38
15	1340	10	36	1450	10	39	978	9	24
16	1490	12	48	1480	11	44	888	9	22
17	1480	15	60	1240	9	30	824	9	20
18	1380	14	52	833	7	16	836	10	23
19	1250	11	37	811	6	13	894	8	19
20	1070	7	20	770	7	15	884	7	17
21	1030	5	14	729	6	12	830	5	11
22	970	5	13	695	5	9.4	834	5	11
23	955	6	15	677	4	7.3	857	7	16
24	1100	10	30	652	4	7.0	905	7	17
25	1240	11	37	651	5	8.8	1000	5	13
26	1420	17	65	651	5	8.8	1240	6	20
27	1520	21	86	651	5	8.8	1250	5	17
28	1400	16	60	684	6	11	1070	4	12
29	1830	25	124	949	9	23	1010	6	16
30	1730	24	112	1170	13	41	1070	4	12
31	1620	19	83	1620	21	92	---	---	---
TOTAL	39049	---	1295	28891	---	695.6	30358	---	794
YEAR	831214		47825.3						

SHERMAN CREEK BASIN

01567500 BIXLER RUN NEAR LOYSVILLE, PA

LOCATION.--Lat 40°22'15", long 77°24'09", Perry County, Hydrologic Unit 02050305, on right bank 400 ft upstream from bridge on State Highway 850 at Bixler, 2.3 mi upstream from mouth, and 3.6 mi west of Loysville.

DRAINAGE AREA.--15.0 mi².

REVISED RECORDS.--WRD PA-90-2: 1989 (M).

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 601.22 ft above National Geodetic Vertical Datum of 1929. Prior to May 14, 1954, nonrecording gage and crest-stage gage 400 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.0	3.6	3.9	3.7	8.7	27	18	12	4.8	3.6	3.0
2	4.1	4.0	4.0	3.9	3.5	7.9	24	16	10	4.6	3.6	2.9
3	4.1	3.9	17	4.1	3.5	7.0	21	15	9.2	7.0	3.6	3.0
4	4.1	3.8	6.1	5.1	3.6	6.4	19	14	8.8	6.5	3.7	2.8
5	4.9	3.7	4.4	5.3	e3.5	6.0	17	14	16	5.1	3.6	2.7
6	5.0	3.8	4.2	4.4	e3.3	6.0	14	14	15	5.3	3.5	4.1
7	4.0	3.8	4.0	4.0	e3.2	41	13	12	11	4.7	3.4	3.6
8	4.0	3.7	3.9	3.9	e3.4	26	12	15	10	4.6	3.6	4.4
9	4.0	3.7	4.2	4.1	e3.1	19	11	25	9.4	4.8	3.7	4.5
10	4.0	3.9	5.3	4.1	e2.5	16	10	17	8.7	4.8	3.4	3.3
11	4.5	4.5	4.3	3.9	e2.7	26	11	15	8.0	4.9	3.8	3.5
12	4.5	4.1	4.0	3.7	e2.6	20	10	14	7.4	4.7	3.7	2.8
13	4.1	3.9	5.6	3.7	e2.5	17	8.5	13	7.1	4.8	3.5	2.7
14	4.0	3.8	5.6	7.7	e3.0	14	8.2	13	6.8	6.4	3.6	2.7
15	4.0	3.8	4.6	6.1	4.6	12	7.7	13	6.3	11	3.5	2.7
16	4.1	3.8	4.2	e4.0	8.5	10	7.5	17	5.9	7.4	3.7	2.7
17	4.1	3.6	4.1	e3.9	5.6	9.8	7.8	13	5.7	4.9	3.6	2.7
18	4.1	3.6	4.0	e3.5	5.6	9.4	9.4	13	5.7	4.7	3.6	2.7
19	4.1	3.7	3.6	e2.3	7.0	12	11	11	9.0	4.2	3.5	2.6
20	4.1	3.6	3.6	e2.3	6.7	12	8.8	10	8.6	3.9	3.4	2.6
21	4.1	4.6	4.0	e2.6	5.6	13	38	9.9	6.1	4.1	3.3	2.7
22	4.0	14	4.0	e3.1	5.1	14	113	9.3	5.8	4.0	3.3	2.9
23	4.0	8.1	4.3	5.7	4.9	13	45	9.0	5.6	7.1	3.3	2.9
24	3.8	4.3	4.2	6.7	6.1	14	35	9.0	6.3	5.5	3.3	2.6
25	3.8	3.7	3.9	4.4	9.7	17	30	8.7	5.7	5.1	3.3	2.6
26	3.8	3.6	3.7	e3.0	36	50	36	8.6	5.4	4.9	3.3	7.4
27	4.0	3.5	3.8	e2.9	19	129	29	8.5	5.3	4.9	3.3	3.1
28	3.9	3.5	3.7	e2.9	14	52	25	7.6	5.0	4.4	5.0	2.8
29	3.8	3.5	8.2	e3.1	11	34	22	7.2	4.9	4.0	4.6	2.6
30	3.9	3.5	6.0	e3.5	---	30	20	9.0	4.9	3.9	3.3	2.6
31	4.0	---	4.3	3.9	---	36	---	30	---	3.8	3.1	---
TOTAL	127.0	129.0	150.4	125.7	193.5	688.2	650.9	408.8	235.6	160.8	110.7	94.2
MEAN	4.10	4.30	4.85	4.05	6.67	22.2	21.7	13.2	7.85	5.19	3.57	3.14
MAX	5.0	14	17	7.7	36	129	113	30	16	11	5.0	7.4
MIN	3.8	3.5	3.6	2.3	2.5	6.0	7.5	7.2	4.9	3.8	3.1	2.6
CFSM	.27	.29	.32	.27	.44	1.48	1.45	.88	.52	.35	.24	.21
IN.	.31	.32	.37	.31	.48	1.71	1.61	1.01	.58	.40	.27	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

	MEAN	10.4	14.1	18.5	16.5	28.1	35.9	31.4	23.8	18.1	12.3	6.91	6.75
MAX	48.6	61.9	54.3	49.0	91.0	76.3	69.9	81.2	172	112	32.3	37.7	37.7
(WY)	1977	1957	1978	1979	1984	1978	1970	1978	1972	1989	1955	1975	1975
MIN	2.07	2.96	2.70	3.51	6.67	9.77	10.4	6.79	4.12	2.62	2.28	2.38	2.38
(WY)	1964	1966	1966	1981	1992	1990	1963	1969	1965	1966	1966	1963	1963

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1954 - 1992

ANNUAL TOTAL	4928.9	3074.8	18.6	1972
ANNUAL MEAN	13.5	8.40	42.6	1969
HIGHEST ANNUAL MEAN			7.59	1969
LOWEST ANNUAL MEAN			2120	Jun 22 1972
HIGHEST DAILY MEAN	188	Jan 17	1.9	Sep 1 1966
LOWEST DAILY MEAN	3.5	Nov 27	1.9	Sep 6 1966
ANNUAL SEVEN-DAY MINIMUM	3.6	Nov 25	1.9	Sep 6 1966
INSTANTANEOUS PEAK FLOW			a16000	Jun 20 1989
INSTANTANEOUS PEAK STAGE			b12.90	Jun 20 1989
INSTANTANEOUS LOW FLOW			1.5	Feb 2 1959
ANNUAL RUNOFF (CFSM)	.90	.56	1.24	
ANNUAL RUNOFF (INCHES)	12.22	7.63	16.87	
10 PERCENT EXCEEDS	28	16	37	
50 PERCENT EXCEEDS	5.6	4.5	9.3	
90 PERCENT EXCEEDS	3.9	3.1	3.5	

a From rating curve extended above 2,700 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

b From outside floodmark; 12.19 ft in gage well.

c May have been less during period of ice affect.

e Estimated.

CLARK CREEK BASIN

01568400 DeHART RESERVOIR NEAR CARSONVILLE, PA

LOCATION.--Lat 40°27'50", long 76°44'50", Dauphin County, Hydrologic Unit 02050305, at DeHart Dam on Clark Creek, 1.8 mi southeast of Carsonville, and 15.3 mi upstream from mouth.

DRAINAGE AREA.--21.7 mi².

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

GAGE.--Staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Harrisburg).

REMARKS.--Reservoir formed by earthfill dam with ungated concrete spillway at elevation 644.00 ft (capacity, 18,480 acre-ft). Storage began Jan. 21, 1940; crest of spillway raised 4 ft in November 1954. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is controlled by valves on pipe through dam.

COOPERATION.--Records provided by city of Harrisburg.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 19,460 acre-ft, Sept. 27, 1975, elevation, 645.75 ft; minimum (after first filling), 4,680 acre-ft, Jan. 2, 1966, elevation, 613.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,800 acre-ft, June 6, elevation 644.58 ft; minimum, 9,730 acre-ft, Feb. 23, elevation, 628.00 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
Sept. 30.....	635.08	13,240	--
Oct. 31.....	632.50	11,860	-22.4
Nov. 30.....	630.83	11,030	-13.9
Dec. 31.....	629.58	10,420	- 9.9
CAL YR 1991.....	--	--	-11.5
Jan. 31.....	628.83	10,080	- 5.5
Feb. 29.....	628.42	9,910	- 3.0
Mar. 31.....	636.83	14,260	+70.7
Apr. 30.....	642.92	17,840	+60.2
May 31.....	644.25	18,610	+12.5
June 30.....	643.92	18,430	- 3.0
July 31.....	642.92	17,840	- 9.6
Aug. 31.....	641.25	16,870	-15.8
Sept. 30.....	640.00	16,140	-12.3
WTR YR 1992.....	--	--	+ 4.0

CLARK CREEK BASIN

01568500 CLARK CREEK NEAR CARSONVILLE, PA

LOCATION.--Lat 40°27'37", long 76°45'06", Dauphin County, Hydrologic Unit 02050305, on right bank 0.3 mi downstream from DeHart Dam, 1.8 mi southeast of Carsonville, and 15.0 mi upstream from mouth.

DRAINAGE AREA.--22.5 mi².

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WSP 1302: 1940(M). WSP 1702: 1942 (monthly mean).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 552.32 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1939, water-stage recorder at site 1,700 ft upstream at datum 9.49 ft higher. Jan. 6, 1939, to July 27, 1940, nonrecording gage at site 100 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Jan. 28, 1940 by DeHart Dam (station 01568400). Diversion from reservoir to city of Harrisburg. Several measurements of water temperature were made during the year.

COOPERATION.--Records of diversion and change in reservoir contents provided by city of Harrisburg.

AVERAGE DISCHARGE.--54 years, 39.7 ft³/s, 23.96 in/yr, adjusted for storage and diversion since 1941.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	4.7	2.3	.76	.75	.99	6.9	6.6	102	5.5	5.3	5.5
2	5.1	4.7	2.4	.75	.73	3.2	7.3	6.5	65	5.5	5.3	5.5
3	5.1	4.7	3.0	.76	.75	2.8	6.9	6.5	48	5.8	5.3	5.5
4	5.1	4.3	2.6	1.1	.75	2.8	6.7	6.4	37	5.6	5.3	5.5
5	5.1	3.5	2.4	.95	.72	2.7	6.6	6.3	69	5.8	5.3	5.5
6	5.3	3.5	2.4	.86	.71	2.7	6.2	6.3	169	5.7	5.3	5.9
7	5.0	3.5	2.3	.81	.71	3.3	5.8	6.3	133	5.5	5.3	5.7
8	5.0	3.5	2.3	.80	.70	3.1	5.7	7.3	97	5.5	5.3	5.9
9	5.0	3.5	2.4	.81	.68	3.0	5.7	6.5	75	5.3	5.3	5.7
10	5.0	3.6	2.5	.80	.67	3.1	5.6	6.3	56	5.3	5.2	6.0
11	5.2	3.6	2.4	.76	.68	12	5.6	7.1	43	5.3	5.3	5.8
12	5.1	3.5	2.3	.75	.68	5.5	5.5	7.8	34	5.3	4.5	5.7
13	5.1	3.5	2.4	.75	.69	4.5	5.9	9.0	27	5.3	6.1	5.7
14	5.0	3.4	2.4	1.3	.69	4.1	5.9	9.9	23	5.7	6.9	5.6
15	5.1	3.4	2.3	.97	.97	3.9	5.8	13	18	6.3	6.9	5.6
16	5.2	3.4	1.9	.87	1.0	3.7	5.8	19	14	5.8	6.9	5.6
17	5.5	3.4	.91	.84	.85	3.5	5.9	18	10	5.5	6.9	5.7
18	5.2	3.4	.76	.81	.84	3.5	5.9	19	8.4	5.4	6.9	5.6
19	5.1	2.9	.69	.77	.84	3.7	5.9	16	11	5.4	6.6	5.5
20	5.0	2.5	.68	.78	.84	3.6	5.9	13	12	5.3	6.5	5.5
21	4.7	2.6	.73	.77	.83	3.5	8.2	11	8.7	5.3	6.1	5.5
22	4.8	4.6	.70	.76	.80	3.5	14	9.0	7.4	5.3	5.6	6.2
23	5.0	3.3	.76	.94	.80	3.4	8.2	7.8	6.5	5.4	5.6	5.7
24	4.9	2.5	.72	.91	.84	3.4	7.7	8.4	6.8	5.5	5.6	5.7
25	5.1	2.4	.68	.81	.88	3.4	7.4	6.9	6.3	5.4	5.6	6.0
26	5.1	2.3	.68	.80	2.0	7.2	8.1	7.3	6.0	5.4	5.6	11
27	5.1	2.3	.68	.80	1.3	16	7.5	6.3	5.8	5.4	5.6	6.4
28	4.9	2.3	.68	.79	1.1	7.3	7.1	5.7	5.6	5.3	6.3	6.1
29	5.1	2.3	1.1	.79	1.1	5.9	6.9	5.6	5.6	5.4	5.7	5.9
30	4.9	2.3	.87	.78	---	5.3	6.7	9.1	5.5	5.4	5.5	5.9
31	4.7	---	.80	.78	---	6.2	---	103	---	5.3	5.5	---
TOTAL	156.6	99.4	49.74	25.93	24.90	140.79	203.3	376.9	1115.6	169.9	179.1	177.4
MEAN	5.05	3.31	1.60	.84	.86	4.54	6.78	12.2	37.2	5.48	5.78	5.91
MAX	5.5	4.7	3.0	1.3	2.0	16	14	103	169	6.3	6.9	11
MIN	4.7	2.3	.68	.75	.67	.99	5.5	5.6	5.5	5.3	4.5	5.5
(†)	19.3	18.9	18.7	19.3	19.1	19.1	18.7	18.1	19.0	19.8	19.0	18.8
MEAN‡	1.95	8.31	10.4	14.6	17.0	94.3	85.7	42.8	53.2	15.7	8.98	12.4
CFSM‡	.09	.37	.46	.65	.76	4.19	3.81	1.90	2.36	.70	.40	.55
IN.‡	.10	.41	.53	.75	.82	4.83	4.25	2.19	2.63	.81	.46	.61

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

‡ Adjusted for diversion and change in reservoir contents.

CLARK CREEK BASIN

01568500 CLARK CREEK NEAR CARSONVILLE, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.1	12.7	16.4	19.4	18.6	32.6	40.7	37.6	19.8	10.1	6.17	8.75
MAX	95.5	108	85.6	113	76.1	120	176	106	280	56.3	13.8	102
(WY)	1977	1943	1991	1979	1951	1977	1983	1978	1972	1947	1945	1975
MIN	3.15	3.31	1.60	.84	.86	2.79	2.85	4.35	4.12	3.27	3.09	2.62
(WY)	1986	1992	1992	1992	1992	1981	1989	1955	1940	1986	1986	1986

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1940 - 1992

ANNUAL TOTAL	5677.44		2719.56									
ANNUAL MEAN	15.6	‡24.6	7.43	‡30.4						19.4		
HIGHEST ANNUAL MEAN										53.3		1972
LOWEST ANNUAL MEAN										4.58		1966
HIGHEST DAILY MEAN	97	Jan 17	169	Jun 6					4130		Jun 22	1972
LOWEST DAILY MEAN	.68	Dec 20	.67	Feb 10					.20		Jan 29	1940 ^a
ANNUAL SEVEN-DAY MINIMUM	.70	Dec 22	.68	Feb 8					.21		Jan 28	1940
INSTANTANEOUS PEAK FLOW			186	Jun 6					‡4800		Jun 22	1972
INSTANTANEOUS PEAK STAGE			2.78	Jun 6					10.98		Jun 22	1972
INSTANTANEOUS LOW FLOW			.66	Feb 9,10,12,13					.20		Jan 29	1940 ^a
ANNUAL RUNOFF (CFSM)	.69	‡1.09	.33	‡1.35					.86			
ANNUAL RUNOFF (INCHES)	9.39	‡14.83	4.50	‡18.40					11.72			
10 PERCENT EXCEEDS	44		8.5						48			
50 PERCENT EXCEEDS	5.7		5.3						6.2			
90 PERCENT EXCEEDS	2.5		.78						4.0			

‡ Adjusted for diversion and change in reservoir contents.

^a Also Jan. 30 to Feb. 3, 1940.^b From rating curve extended above 2,400 ft³/s on basis of computation of peak discharge at dam.

CONODOGUINET CREEK BASIN

01569800 LETORT SPRING RUN NEAR CARLISLE, PA

LOCATION.--Lat 40°14'05", long 77°08'23", Cumberland County, Hydrologic Unit 02050305, on right bank 320 ft downstream from bridge on U.S. Highway 11, 0.2 mi upstream from mouth, 3.1 mi west of New Kingstown, and 3.7 mi east of Carlisle.

DRAINAGE AREA.--21.6 mi².

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 410 ft above National Geodetic Vertical Datum of 1929, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 8.8 ft, discharge not determined, and flood in June 1972 reached a stage of 8.4 ft, from information by local resident, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	21	23	25	23	28	55	38	31	24	21	17
2	21	20	27	24	23	27	52	37	29	24	21	18
3	21	21	44	24	23	27	50	36	29	47	20	18
4	21	19	32	35	22	26	49	36	28	35	29	18
5	22	20	29	30	22	25	48	35	40	29	23	18
6	41	20	28	29	22	25	46	34	34	27	22	27
7	24	20	26	28	22	52	45	34	32	26	22	22
8	22	20	25	28	22	39	44	43	31	26	22	24
9	23	20	32	30	22	37	44	44	29	26	22	25
10	21	21	34	27	e20	36	43	38	28	25	21	23
11	29	23	29	27	21	48	41	34	28	24	26	25
12	23	21	28	26	21	39	41	33	26	27	21	22
13	23	21	30	26	22	39	40	32	26	24	22	21
14	23	20	28	31	22	38	37	32	27	35	21	20
15	25	20	27	27	24	36	37	39	26	33	21	19
16	29	19	26	e24	26	34	37	35	25	28	21	19
17	25	19	26	e24	24	34	37	32	25	31	20	19
18	25	19	26	e23	25	33	35	31	28	26	20	19
19	24	19	24	e20	25	43	35	30	45	24	20	19
20	23	19	24	e21	24	39	34	30	32	23	19	19
21	22	22	24	e22	24	38	49	30	29	23	19	19
22	22	56	24	24	23	38	67	29	28	22	19	25
23	21	36	24	28	23	38	46	29	27	29	19	22
24	21	29	23	25	24	37	46	29	31	25	19	20
25	21	26	23	24	25	36	44	29	27	28	19	21
26	21	25	22	24	38	53	44	30	26	25	18	42
27	21	25	22	24	31	92	42	28	26	27	18	25
28	20	24	22	24	30	68	40	27	25	24	20	23
29	21	23	35	24	29	61	39	27	25	23	20	22
30	21	22	27	23	---	60	39	32	24	22	19	21
31	21	---	25	23	---	60	---	47	---	21	19	---
TOTAL	718	690	839	794	702	1286	1306	1040	867	833	643	652
MEAN	23.2	23.0	27.1	25.6	24.2	41.5	43.5	33.5	28.9	26.9	20.7	21.7
MAX	41	56	44	35	38	92	67	47	45	47	29	42
MIN	20	19	22	20	20	25	34	27	24	21	18	17
CFSM	1.07	1.06	1.25	1.19	1.12	1.92	2.02	1.55	1.34	1.24	.96	1.01
IN.	1.24	1.19	1.44	1.37	1.21	2.21	2.25	1.79	1.49	1.43	1.11	1.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	MEAN	35.6	34.4	39.5	41.2	47.4	52.4	56.5	49.9	42.7	37.8	33.5	31.5
MAX	79.6	54.4	65.9	92.0	84.4	93.1	92.0	84.5	66.1	59.3	54.5	57.9	
(WY)	1977	1980	1978	1979	1979	1978	1984	1978	1978	1984	1989	1987	
MIN	22.0	23.0	22.4	24.2	22.3	30.4	29.3	32.9	28.9	23.4	20.7	21.7	
(WY)	1989	1992	1982	1989	1989	1989	1989	1982	1991	1987	1992	1992	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1976 - 1992

ANNUAL TOTAL	13342	10370	
ANNUAL MEAN	36.6	28.3	41.7
HIGHEST ANNUAL MEAN			61.9
LOWEST ANNUAL MEAN			28.3
HIGHEST DAILY MEAN	92	Jan 17	452
LOWEST DAILY MEAN	19	Nov 4	10
ANNUAL SEVEN-DAY MINIMUM	19	Nov 14	18
INSTANTANEOUS PEAK FLOW			152
INSTANTANEOUS PEAK STAGE			4.48
INSTANTANEOUS LOW FLOW			16
ANNUAL RUNOFF (CFSM)	1.69		1.31
ANNUAL RUNOFF (INCHES)	22.98		17.86
10 PERCENT EXCEEDS	58		41
50 PERCENT EXCEEDS	29		25
90 PERCENT EXCEEDS	22		20

a From rating curve extended above 680 ft³/s on basis of slope-area measurement at gage height 6.43 ft.

b Part of day.

e Estimated.

CONODOGUINET CREEK BASIN

01570000 CONODOGUINET CREEK NEAR HOGESTOWN, PA

LOCATION.--Lat 40°15'08", long 77°01'17", Cumberland County, Hydrologic Unit 02050305, on left bank 1,000 ft upstream from highway bridge on Township Route 596 (Sample Bridge Road), 0.4 mi downstream from Hogestown Run, and 1.0 mi northeast of Hogestown.

DRAINAGE AREA.--470 mi².

PERIOD OF RECORD.--October 1911 to September 1917, October 1929 to September 1958, July 1967 to current year.

October 1917 to December 1919 (gage heights and discharge measurements only), in reports of Water Supply Commission of Pennsylvania. Published as "at Brysons Bridge" 1912-17.

REVISED RECORDS.--WSP 1722: 1913, 1917.

GAGE.--Water-stage recorder. Datum of gage is 351.00 ft above National Geodetic Vertical Datum of 1929. Prior to December 1919, nonrecording gage at site 2 mi downstream at different datum. Oct. 1, 1929, to Aug. 3, 1931, nonrecording gage at site 1,000 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since June 1969 the Pa. American Water Co. has diverted water upstream from station for municipal supply. Diversion for the year was equivalent to a mean daily discharge of 7.1 ft³/s. Several measurements of water temperature were made during the year. National Weather Service satellite and landline telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	70	110	276	e115	547	1080	488	647	146	135	109
2	82	72	118	210	e105	450	884	453	435	146	126	89
3	83	72	370	228	e105	389	770	426	324	192	116	85
4	82	71	535	297	e110	338	685	395	280	292	134	81
5	82	70	402	367	e105	303	625	359	304	416	138	78
6	138	72	286	325	e100	281	560	340	685	264	146	93
7	105	74	235	282	e98	548	504	350	774	197	120	114
8	109	75	201	249	e97	1860	476	339	571	165	109	131
9	91	72	188	230	e80	1170	442	449	471	153	110	171
10	84	72	312	222	e67	839	418	467	410	143	105	195
11	90	84	325	208	e76	903	404	407	341	132	116	194
12	107	84	288	188	e70	975	400	344	295	147	144	316
13	89	79	266	174	e68	808	371	315	263	145	158	220
14	90	79	268	189	e82	680	330	298	237	162	160	164
15	82	85	260	e180	101	591	315	295	219	138	135	131
16	101	90	228	e140	196	512	303	407	200	151	130	119
17	85	88	199	e140	407	452	298	485	185	134	123	111
18	97	79	e165	e140	420	426	296	409	180	164	122	103
19	85	78	e110	e92	411	460	290	363	218	149	125	95
20	83	83	e115	e94	430	571	282	320	312	131	113	95
21	75	88	163	e98	408	657	303	285	314	112	102	90
22	73	206	151	e110	355	742	2220	265	244	107	96	105
23	71	423	138	e140	312	790	2600	249	198	113	92	140
24	74	348	135	e145	291	728	1370	241	199	142	89	104
25	74	226	124	e135	309	677	1060	234	200	204	83	105
26	71	163	114	e110	625	854	995	232	200	395	79	250
27	73	137	100	e99	1290	3690	827	234	182	324	80	218
28	74	118	96	e100	921	2990	678	229	167	264	79	210
29	72	111	173	e105	697	1700	591	207	148	237	87	162
30	70	111	297	e110	---	1250	530	204	148	188	129	135
31	78	---	355	e120	---	1220	---	403	---	156	165	---
TOTAL	2648	3480	6827	5503	8451	28401	20907	10492	9351	5809	3646	4213
MEAN	85.4	116	220	178	291	916	697	338	312	187	118	140
MAX	138	423	535	367	1290	3690	2600	488	774	416	165	316
MIN	70	70	96	92	67	281	282	204	148	107	79	78
CFSM	.18	.25	.47	.38	.62	1.95	1.48	.72	.66	.40	.25	.30
IN.	.21	.28	.54	.44	.67	2.25	1.65	.83	.74	.46	.29	.33

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

	356	459	628	678	795	1009	914	684	489	323	304	291
MEAN	356	459	628	678	795	1009	914	684	489	323	304	291
MAX	1838	1436	1775	1742	2257	3210	2172	1500	3120	1184	1584	1408
(WY)	1977	1971	1973	1979	1984	1936	1970	1978	1972	1989	1915	1975
MIN	55.1	53.4	57.3	83.5	150	287	268	194	148	98.0	86.5	68.0
(WY)	1931	1931	1931	1931	1931	1931	1915	1941	1991	1930	1932	1932

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL TOTAL	137663	109728	577
ANNUAL MEAN	377	300	1045
HIGHEST ANNUAL MEAN			1972
LOWEST ANNUAL MEAN			1931
HIGHEST DAILY MEAN	4040	Jan 17	3690
LOWEST DAILY MEAN	70	Oct 30	e67
ANNUAL SEVEN-DAY MINIMUM	72	Nov 1	72
INSTANTANEOUS PEAK FLOW			4200
INSTANTANEOUS PEAK STAGE			6.66
INSTANTANEOUS LOW FLOW			Mar 27
ANNUAL RUNOFF (CFSM)	.80	.64	1.23
ANNUAL RUNOFF (INCHES)	10.90	8.68	16.67
10 PERCENT EXCEEDS	840	625	1220
50 PERCENT EXCEEDS	170	183	339
90 PERCENT EXCEEDS	82	82	117

a From floodmark in gage.

e Estimated.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA

(National stream-quality accounting network, radiochemical and tritium program)

LOCATION.--Lat 40°15'17", long 76°53'11", Dauphin County, Hydrologic Unit 02050305, on east bank of City Island, 60 ft downstream from Market Street bridge in Harrisburg, 3,670 ft upstream from sanitary dam, and 1.7 mi upstream from Paxton Creek.

DRAINAGE AREA.--24,100 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1890 to current year.

REVISED RECORDS.--WSP 711: 1929. WSP 1502: 1891-1923, 1926(M), 1928. WSP 1702: 1953 (total runoff in inches), 1958 (1957 calendar year mean discharge).

GAGE.--Water-stage recorder. Concrete control since Aug. 29, 1916. Datum of gage is 290.01 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1928, nonrecording gage at Walnut Street Bridge 600 ft upstream, and Oct. 1, 1928, to Aug. 31, 1975, water-stage recorder at site 3,170 ft downstream, all gages at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 15 flood-control reservoirs which have a combined capacity of 1,571,000 acre-ft. National Weather Service satellite and landline telemeters at station.

COOPERATION.--Daily discharges through Safe Harbor Dam provided by Safe Harbor Water Power Corporation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known during period 1786 to 1890, 26.8 ft at Walnut Street bridge, June 2, 1889, discharge, 654,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5440	4640	16100	16400	e22500	35800	89800	46600	21100	8330	21100	32200
2	5120	4400	14500	19900	e19500	36500	80900	41000	30100	7860	36500	25900
3	4950	4320	14800	21900	e17200	37000	76500	38300	47300	7650	54700	20000
4	4940	4320	26800	20800	e18400	34700	70700	35400	50400	7610	46000	17000
5	4980	4320	41000	20400	e16600	31700	62100	37700	42000	7370	35900	14900
6	5490	4270	42900	22000	e15000	29400	53700	42500	37800	7610	28900	13700
7	5250	4310	39000	26700	e13700	28800	47200	42900	39900	7550	24700	14200
8	5340	4290	32600	31000	e14000	34000	42700	39100	37900	8050	20700	14600
9	7150	4170	27000	29400	e11800	38800	39700	38100	32900	7740	18200	13700
10	7350	4180	24100	26700	e10300	43100	38600	41300	30600	8060	17400	13300
11	5350	4270	22600	24300	e9800	50200	40300	42600	26700	9320	21700	14000
12	4680	4260	21900	22600	e10500	74500	40700	40100	23500	9000	24100	16400
13	4520	4320	22100	21400	e9200	83600	40400	35800	20400	9160	21400	18300
14	4500	4510	22500	20700	e8200	78600	46200	32800	17800	9490	18200	18400
15	4530	4660	22100	21200	e8200	66900	50400	30600	15800	10700	16200	18000
16	4840	4580	22900	26500	e12000	54600	45400	29500	13500	13500	15700	16100
17	4940	4590	24800	32800	e14400	46000	39900	28600	12600	31000	15200	14600
18	5520	5130	25600	35600	e16800	40400	37000	25200	11700	36200	14600	13100
19	6090	5430	24500	e23000	e18500	37500	42400	24900	11700	37800	16400	11600
20	7010	5630	21700	e19500	e20300	35100	62900	23600	11500	40100	16500	10500
21	7120	5740	19500	e17700	e22000	33500	72800	22200	11200	34800	15500	9930
22	6660	6890	17400	e18200	23300	32300	73100	20800	11000	31500	14000	9840
23	6020	10600	16900	e19000	28000	31500	80400	19300	10700	28000	13200	9710
24	5730	24800	16500	e21200	28000	30100	74600	17700	10200	24600	12500	10100
25	5570	30300	16400	e20900	26400	28600	66900	16400	10000	28400	11500	18600
26	5430	31900	16000	e22500	28900	28700	65200	15600	10600	26800	10600	26100
27	5230	29700	15300	e26600	40100	61600	67200	14300	10000	23300	9860	28700
28	5050	24800	14400	e26000	41600	126000	66600	14700	9680	25300	9790	27400
29	5120	20800	14000	e27100	37700	158000	60000	13900	9840	25900	10100	29700
30	5000	18200	13800	e26900	---	137000	53000	13400	9070	27400	12000	31800
31	4800	---	14900	e25000	---	105000	---	14600	---	23800	24300	---
TOTAL	169720	294330	684600	733900	562900	1689500	1727300	899500	637490	583900	627450	532380
MEAN	5475	9811	22080	23670	19410	54500	57580	29020	21250	18840	20240	17750
MAX	7350	31900	42900	35600	41600	158000	89800	46600	50400	40100	54700	32200
MIN	4500	4170	13800	16400	8200	28600	37000	13400	9070	7370	9790	9710
CFSM	.23	.41	.92	.98	.81	2.26	2.39	1.20	.88	.78	.84	.74
IN.	.26	.45	1.06	1.13	.87	2.61	2.67	1.39	.98	.90	.97	.82

e Estimated.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1891 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17280	26020	33710	36020	40850	74480	71340	45210	26490	15430	11580	11450
MAX	75150	83540	95820	92550	153500	216100	190800	103900	166800	71450	38990	69050
(WY)	1977	1927	1973	1937	1891	1936	1940	1894	1972	1902	1915	1975
MIN	2356	2303	3835	3876	9122	27460	20380	12750	7328	3315	2878	2066
(WY)	1931	1931	1931	1931	1931	1960	1946	1941	1962	1965	1930	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1891 - 1992

ANNUAL TOTAL	9051900		9142970		34110	
ANNUAL MEAN	24800		24980		16940	1972
HIGHEST ANNUAL MEAN					16940	1965
LOWEST ANNUAL MEAN					954000	Jun 24 1972
HIGHEST DAILY MEAN	191000	Mar 6	158000	Mar 29	1700	Nov 29 1930
LOWEST DAILY MEAN	2940	Sep 11	4170	Nov 9	1790	Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	3140	Sep 6	4250	Nov 6	1020000	Jun 24 1972
INSTANTANEOUS PEAK FLOW			160000	Mar 29	a32.57	Jun 24 1972
INSTANTANEOUS PEAK STAGE			11.02	Mar 29	b1600	Nov 29 1930
INSTANTANEOUS LOW FLOW			4140	Nov 9	1.42	
ANNUAL RUNOFF (CFSM)	1.03		1.04		19.23	
ANNUAL RUNOFF (INCHES)	13.97		14.11			
10 PERCENT EXCEEDS	56700		46000		78900	
50 PERCENT EXCEEDS	13800		20800		20000	
90 PERCENT EXCEEDS	3830		5410		5430	

a From floodmark.

b Result of freezeup. Minimum daily discharge since construction of sanitary dam and not affected by freezeup, 1,700 ft³/s, Sept. 18, 1964.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-53, 1956 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1974 to August 1979.

pH: May 1974 to June 1979.

WATER TEMPERATURE: May 1974 to August 1979.

DISSOLVED OXYGEN: May 1974 to August 1979.

SUSPENDED SEDIMENT DISCHARGE: March, April, 1962, October 1963 to September 1968, April 1970 to September 1979, March 1980 to March 1981.

INSTRUMENTATION.--Water-quality monitor May 1974 to August 1979.

REMARKS.--Agency collection codes: 42011 - Susquehanna River Basin Commission, 1028 - U.S. Geological Survey.

Agency analyzing codes: 9813 - Pennsylvania Department of Environmental Resources, 80020 - U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)
NOV											
07...	1615	1028	80020	4320	380	8.1	6.0	1.0	762	12.9	104
JAN											
08...	1000	1028	80020	31000	--	7.4	1.5	5.5	765	13.1	--
FEB											
27...	0915	1028	80020	40100	236	7.4	4.0	14	762	12.9	98
MAR											
13...	0915	1028	80020	84800	155	7.1	4.5	21	754	12.1	95
30...	0815	1028	80020	143000	147	7.0	3.0	69	757	12.3	92
APR											
20...	1415	1028	80020	65500	168	7.5	9.0	7.5	759	11.0	96
MAY											
18...	1115	1028	80020	23900	211	8.2	19.5	3.0	762	10.6	116
JUL											
09...	0900	1028	80020	7740	315	7.7	25.0	1.0	758	7.3	89
09...	0905	1028	9813	7740	--	--	--	--	--	--	--
AUG											
03...	1530	1028	80020	57800	159	6.7	23.5	20	--	7.2	--
19...	1015	1028	80020	16700	248	7.9	23.0	3.1	753	8.4	100
19...	1020	1028	9813	16700	--	--	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 μ M-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS./ PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION PERCENT RATIO (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV										
07...	K 2	K 13	150	68	40	13	18	20	0.6	2.3
JAN										
08...	140	80	75	44	21	5.4	8.8	20	0.4	1.4
FEB										
27...	K 47	K 80	73	33	21	4.9	8.6	20	0.4	0.80
MAR										
13...	290	160	52	27	15	3.6	6.2	20	0.4	1.2
30...	K 610	5400	49	25	14	3.5	5.8	20	0.4	1.4
APR										
20...	--	--	60	14	17	4.3	6.0	17	0.3	1.3
MAY										
18...	K 15	630	80	39	22	6.0	7.1	16	0.3	1.2
JUL										
09...	K 15	K 9500	110	68	29	10	13	20	0.5	1.7
09...	--	--	--	--	--	--	--	--	--	--
AUG										
03...	--	--	61	32	17	4.6	5.7	16	0.3	1.3
19...	28	320	94	41	26	7.1	8.4	16	0.4	1.7
19...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

K Results based on non-ideal colony count.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
NOV 07...	104	85	85	76	93	26	0.20	0.05	230	246
JAN 08...	37	31	30	32	32	15	0.10	4.2	121	106
FEB 27...	48	40	40	39	37	16	0.10	3.3	119	122
MAR 13...	30	26	25	26	24	11	<0.10	4.2	84	86
MAR 30...	30	26	24	25	22	12	<0.10	4.6	96	84
APR 20...	56	31	46	30	29	11	<0.10	3.8	94	104
MAY 18...	49	41	40	41	39	11	<0.10	2.1	118	116
JUL 09...	56	46	46	48	68	21	0.10	2.2	174	175
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 03...	36	30	30	33	31	8.3	<0.10	4.3	103	93
AUG 19...	65	53	53	51	46	13	<0.10	1.7	131	138
AUG 19...	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COPPER, TOTAL RECOVER- ABLE (µG/L) (01119)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, TOTAL RECOVER- ABLE (µG/L) (01114)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)
NOV 07...	0.31	2680	20	26	<3	--	--	5	--	--
JAN 08...	0.16	10100	--	--	--	--	--	--	--	--
FEB 27...	0.16	12900	<10	25	<3	--	--	52	--	--
MAR 13...	0.11	19200	--	--	--	--	--	--	--	--
MAR 30...	0.13	37100	--	--	--	--	--	--	--	--
APR 20...	0.13	16600	--	--	--	--	--	--	--	--
MAY 18...	0.16	7610	30	24	<3	--	--	18	--	--
JUL 09...	0.24	3640	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	2	2	--	1	1
AUG 03...	0.14	16100	--	--	--	--	--	--	--	--
AUG 19...	0.18	5910	20	27	<3	--	--	19	--	--
AUG 19...	--	--	--	--	--	2	1	--	0	0

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	LITHIUM DIS- SOLVED ($\mu\text{G/L}$ AS LI) (01130)	MANGA- NESE, DIS- SOLVED ($\mu\text{G/L}$ AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED ($\mu\text{G/L}$ AS MO) (01060)	NICKEL, DIS- SOLVED ($\mu\text{G/L}$ AS NI) (01065)	SELE- NIUM, DIS- SOLVED ($\mu\text{G/L}$ AS SE) (01145)	SILVER, DIS- SOLVED ($\mu\text{G/L}$ AS AG) (01075)	STRON- TIUM, DIS- SOLVED ($\mu\text{G/L}$ AS SR) (01080)	VANA- DIUM, DIS- SOLVED ($\mu\text{G/L}$ AS V) (01085)	ZINC, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01094)	ZINC, DIS- SOLVED ($\mu\text{G/L}$ AS ZN) (01090)
NOV 07...	9	5	<10	2	<1	<1.0	280	<6	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 27...	9	120	<10	4	<1	<1.0	100	<6	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
MAY 18...	5	8	<10	2	<1	<1.0	120	<6	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	5	3
AUG 03...	--	--	--	--	--	--	--	--	--	--
AUG 19...	6	7	<10	1	<1	<1.0	140	<6	--	--
AUG 19...	--	--	--	--	--	--	--	--	6	1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE NUMBER (00027)	AGENCY ANA- LYZING SAMPLE NUMBER (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE ($\mu\text{S}/\text{CM}$) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
NOV 07...	1615	1028	80020	4320	380	8.1	6.0	--	--	<0.010
NOV 07...	1620	1028	9813	4320	--	--	--	--	--	--
FEB 27...	0915	1028	80020	40100	236	7.4	4.0	1.39	1.38	0.010
FEB 27...	0920	1028	9813	40100	--	--	--	--	--	--
MAR 13...	0915	1028	80020	84800	155	7.1	4.5	1.39	1.39	0.010
MAR 13...	0920	1028	9813	84800	--	--	--	--	--	--
MAR 30...	0815	1028	80020	143000	147	7.0	3.0	1.28	--	0.020
MAR 30...	0820	1028	9813	143000	--	--	--	--	--	--
APR 20...	1415	1028	80020	65500	168	7.5	9.0	0.820	0.820	0.010
APR 20...	1420	1028	9813	65500	--	--	--	--	--	--
MAY 18...	1115	1028	80020	23900	211	8.2	19.5	0.660	0.630	0.010
MAY 18...	1120	1028	9813	23900	--	--	--	--	--	--
JUL 09...	0900	1028	80020	7740	315	7.7	25.0	0.530	--	0.010
JUL 09...	0905	1028	9813	7740	--	--	--	--	--	--
AUG 03...	1530	1028	80020	57800	159	6.7	23.5	0.560	--	0.010
AUG 19...	1015	1028	80020	16700	248	7.9	23.0	--	--	<0.010
AUG 19...	1020	1028	9813	16700	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NOV										
07...	<0.010	0.460	0.470	<0.010	<0.010	--	--	<0.20	--	--
07...	--	0.530	0.530	0.030	0.020	--	--	<0.20	<0.20	--
FEB										
27...	0.020	1.40	1.40	0.070	0.090	0.43	--	0.50	--	1.9
27...	--	1.47	1.41	0.070	0.060	0.60	--	0.67	<0.20	2.1
MAR										
13...	0.010	1.40	1.40	0.070	0.060	0.53	--	0.60	--	2.0
13...	--	1.50	1.47	0.070	0.060	1.0	0.28	1.1	0.34	2.6
30...	<0.010	1.30	1.30	0.090	0.040	0.21	--	0.30	--	1.6
30...	--	1.25	1.23	0.060	0.060	0.77	--	0.83	<0.20	2.1
APR										
20...	0.010	0.830	0.830	0.050	0.040	0.25	--	0.30	--	1.1
20...	--	0.860	0.860	0.060	0.040	0.19	--	0.25	<0.20	1.1
MAY										
18...	0.010	0.670	0.640	0.020	0.020	0.28	--	0.30	--	0.97
18...	--	0.730	0.730	0.030	<0.020	0.33	--	0.36	<0.20	1.1
JUL										
09...	<0.010	0.540	0.550	0.030	0.030	0.27	--	0.30	--	0.84
09...	--	0.550	0.530	0.020	0.020	0.38	0.22	0.40	0.24	0.95
AUG										
03...	<0.010	0.570	0.600	0.040	0.040	0.46	--	0.50	--	1.1
19...	<0.010	0.540	0.540	0.010	<0.010	--	--	<0.20	--	--
19...	--	0.550	0.550	0.020	<0.020	--	--	<0.20	<0.20	--

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. z FINER THAN .062 MM (70331)
NOV									
07...	--	<0.010	<0.010	<0.010	<0.010	--	2	23	79
07...	--	0.020	<0.020	--	0.004	2.8	--	--	--
FEB									
27...	--	0.110	<0.010	0.020	<0.010	--	60	6500	83
27...	--	0.110	0.020	--	0.003	2.6	--	--	--
MAR									
13...	--	0.130	<0.010	0.010	<0.010	--	92	21100	81
13...	1.8	0.160	0.020	--	<0.002	2.6	--	--	--
30...	--	0.250	<0.010	0.010	<0.010	--	211	81500	94
30...	--	0.240	<0.020	--	0.007	2.9	--	--	--
APR									
20...	--	0.080	<0.010	0.020	<0.010	--	35	6190	86
20...	--	0.060	0.020	--	0.005	2.0	--	--	--
MAY									
18...	--	0.030	<0.010	<0.010	<0.010	--	10	645	96
18...	--	0.030	<0.020	--	0.003	2.2	--	--	--
JUL									
09...	--	0.020	<0.010	<0.010	<0.010	--	5	104	99
09...	0.77	0.040	0.021	--	0.004	2.5	--	--	--
AUG									
03...	--	0.100	<0.010	<0.010	0.010	--	66	10300	95
19...	--	0.020	<0.010	<0.010	<0.010	--	9	406	96
19...	--	0.040	0.005	--	<0.002	2.5	--	--	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)
JAN 08...	1000	1028	80020	31000	1.4	<0.6	<0.6	0.50	<0.60	0.30	1.8
MAR 13...	0915	1028	80020	84800	1.2	<0.6	1.7	0.40	<0.60	1.5	1.7
DATE		GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
JAN 08...		<0.6	1.6	<0.6	0.60	0.50	0.60	<0.02	0.010	0.02	<1.0
MAR 13...		2.2	1.3	2.1	0.50	0.80	0.70	0.02	0.010	0.03	<1.0

PAXTON CREEK BASIN

01570980 PAXTON CREEK NEAR LINGLESTOWN, PA

LOCATION.--Lat 40°20'44", long 76°49'18", Dauphin County, Hydrologic Unit 02050305, at culvert under Patton Road, 0.6 mi north of Linglestown Road and 1.5 mi west of Linglestown.

DRAINAGE AREA.--0.92 mi².

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

COOPERATION.--Chemical samples analyzed by the Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
NOV										
21...	0955	0.13	307	7.4	11.0	<0.040	<0.040	0.030	0.030	--
DEC										
12...	1320	0.54	331	8.0	5.5	0.590	0.570	<0.020	<0.020	--
JAN										
04...	1000	2.6	220	7.7	5.0	0.460	0.460	0.030	<0.020	0.19
04...	1240	3.9	208	7.8	6.0	0.440	0.440	0.040	<0.020	0.17
04...	1545	2.4	192	7.9	5.5	0.440	0.440	0.030	0.020	0.21
05...	1020	1.2	212	7.8	5.0	0.480	0.480	0.020	<0.020	--
06...	1125	0.91	222	7.8	6.0	0.480	0.480	0.020	<0.020	--
16...	1130	0.62	241	7.7	0.0	0.640	0.640	<0.020	<0.020	--
FEB										
10...	1040	0.11	272	8.0	0.0	0.400	0.400	<0.020	<0.020	--
MAR										
11...	0600	23	120	7.0	7.5	0.590	0.570	0.040	0.030	2.6
11...	0725	20	133	7.1	7.0	0.730	0.700	<0.020	<0.020	--
11...	1315	7.4	166	7.1	6.0	0.920	0.920	<0.020	<0.020	--
12...	0730	3.4	173	7.1	5.0	1.08	1.08	<0.020	<0.020	--
13...	1200	2.0	175	7.2	6.0	1.14	1.14	0.020	0.020	0.34
25...	1115	1.7	202	7.7	4.5	0.750	0.750	0.020	0.020	--
APR										
20...	1100	0.66	194	8.5	8.5	0.420	0.420	0.020	0.020	--
MAY										
12...	0920	0.66	190	8.2	14.0	0.330	0.330	0.020	<0.020	--
30...	2000	0.70	196	8.0	--	0.370	0.350	0.020	<0.020	0.45
30...	2140	1.3	192	8.0	13.5	0.310	0.310	0.040	0.020	0.65
30...	2340	2.8	171	7.9	--	0.240	0.240	0.070	<0.020	0.92
31...	0715	4.5	141	7.8	15.0	0.350	0.330	0.050	<0.020	0.66
31...	1820	1.0	181	7.6	17.5	0.260	0.260	<0.020	<0.020	--
JUN										
18...	0925	0.23	--	--	15.0	0.330	0.330	0.020	0.020	--
JUL										
03...	1715	1.1	172	7.5	--	0.440	0.440	0.030	0.020	0.45
03...	1840	1.3	171	7.5	--	0.440	0.440	0.020	<0.020	0.58
03...	2030	0.78	174	7.5	--	0.460	0.460	0.030	0.030	0.41
04...	0920	0.39	200	7.7	17.5	0.290	0.290	0.030	0.020	0.24
04...	2155	0.11	209	7.5	19.5	0.220	0.220	0.030	0.030	0.20
15...	1015	0.09	205	7.7	22.5	0.260	0.260	0.030	<0.020	0.50
AUG										
19...	1125	0.20	--	7.5	19.0	0.290	0.290	0.030	0.030	0.27
28...	1920	1.7	102	7.7	19.0	0.130	0.130	0.040	0.030	1.6
28...	2135	3.3	142	7.6	18.5	--	0.330	0.080	0.070	1.8
28...	2310	1.8	147	7.6	18.5	0.400	0.350	0.080	0.060	1.1
29...	0930	0.31	192	7.5	17.5	0.240	0.240	0.020	0.020	0.69
30...	1220	0.06	242	7.6	15.0	0.040	0.040	<0.020	<0.020	--
SEP										
21...	0845	0.01	267	7.6	15.5	0.130	0.130	0.030	0.030	0.33

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570980 PAXTON CREEK NEAR LINGLESTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	COPPER, DIS- SOLVED (MG/L AS CU) (01040)
NOV										
21...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	1
DEC										
12...	--	<0.20	<0.20	--	--	0.020	<0.020	0.002	0.01	1
JAN										
04...	--	0.22	<0.20	0.68	--	0.040	0.020	0.005	0.02	1
04...	--	0.21	<0.20	0.65	--	0.040	0.020	0.004	0.01	2
04...	--	0.24	<0.20	0.68	--	0.030	<0.020	0.004	0.01	2
05...	--	<0.20	<0.20	--	--	0.020	<0.020	0.003	0.01	1
06...	--	<0.20	<0.20	--	--	0.020	<0.020	0.003	0.01	1
16...	--	<0.20	<0.20	--	--	<0.020	<0.020	<0.002	--	1
FEB										
10...	--	<0.20	<0.20	--	--	0.020	0.020	<0.002	--	1
MAR										
11...	--	2.7	<0.20	3.3	--	0.440	0.020	0.009	0.03	3
11...	--	1.1	0.26	1.8	0.96	0.170	0.020	<0.002	--	2
11...	--	0.32	<0.20	1.2	--	0.040	0.020	<0.002	--	1
12...	--	<0.20	<0.20	--	--	0.030	0.020	<0.002	--	1
13...	--	0.36	<0.20	1.5	--	0.020	<0.020	<0.002	--	1
25...	--	<0.20	<0.20	--	--	0.020	0.020	0.005	0.02	1
APR										
20...	--	<0.20	<0.20	--	--	0.020	0.020	0.005	0.02	1
MAY										
12...	--	<0.20	<0.20	--	--	0.020	0.020	0.002	0.01	1
30...	--	0.47	0.24	0.84	0.59	0.030	0.020	<0.002	--	1
30...	0.20	0.69	0.22	1.0	0.53	0.070	0.020	<0.002	--	1
30...	--	0.99	0.29	1.2	0.53	0.110	0.020	<0.002	--	1
31...	--	0.71	0.31	1.1	0.64	0.070	0.020	<0.002	--	1
31...	--	0.32	0.24	0.58	0.50	0.020	0.020	<0.002	--	1
JUN										
18...	--	<0.20	<0.20	--	--	0.030	0.020	0.007	0.02	1
JUL										
03...	--	0.48	<0.20	0.92	--	0.090	0.019	0.005	0.02	2
03...	--	0.60	<0.20	1.0	--	0.070	0.023	0.009	0.03	6
03...	--	0.44	<0.20	0.90	--	0.060	0.024	0.008	0.02	5
04...	--	0.27	<0.20	0.56	--	0.030	0.021	0.008	0.02	5
04...	--	0.23	<0.20	0.45	--	0.030	0.022	0.008	0.02	4
15...	--	0.53	0.32	0.79	0.58	0.040	0.030	0.008	0.02	2
AUG										
19...	0.20	0.30	0.23	0.59	0.52	0.030	<0.002	<0.002	--	--
28...	0.41	1.6	0.44	1.8	0.57	0.300	0.065	0.026	0.08	2
28...	0.63	1.8	0.70	--	1.0	0.210	0.040	0.003	0.01	3
28...	0.57	1.2	0.63	1.6	0.98	0.120	0.036	<0.002	--	3
29...	0.30	0.71	0.32	0.95	0.56	0.070	0.026	<0.002	--	5
30...	--	0.34	<0.20	0.38	--	0.040	0.022	<0.002	--	2
SEP										
21...	0.28	0.36	0.31	0.49	0.44	0.030	0.022	0.006	0.02	1

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570980 PAXTON CREEK NEAR LINGLESTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER- ABLE (μG/L) (01119)	LEAD, DIS- SOLVED (μG/L AS PB) (01049)	LEAD, TOTAL RECOVER- ABLE (μG/L) (01114)	ZINC, DIS- SOLVED (μG/L AS ZN) (01090)	ZINC, TOTAL RECOVER- ABLE (μG/L) (01094)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV									
21...	1	0	0	7	10	2.9	--	1	0.00
DEC									
12...	1	0	0	2	1	2.4	--	1	0.00
JAN									
04...	2	--	2	3	5	3.5	<0.5	23	0.16
04...	2	1	2	2	5	5.0	<0.5	27	0.28
04...	2	1	2	4	4	4.8	<0.5	12	0.08
05...	1	0	0	2	3	2.8	<0.5	12	0.04
06...	1	0	0	2	2	2.4	<0.5	1	0.00
16...	1	0	0	3	1	2.2	--	1	0.00
FEB									
10...	21	0	0	1	1	1.9	<1	1	0.00
MAR									
11...	11	0	17	4	40	13	<0.5	649	40
11...	4	0	5	2	10	9.2	<0.5	182	9.9
11...	2	0	1	4	3	5.1	<0.5	23	0.46
12...	1	0	0	2	1	2.8	<0.5	4	0.04
13...	1	0	0	2	2	2.2	<0.5	2	0.01
25...	1	0	0	5	2	1.9	<0.5	3	0.01
APR									
20...	1	0	0	2	2	2.0	0.6	2	0.00
MAY									
12...	1	0	0	1	1	2.2	<0.5	6	0.01
30...	1	0	1	1	4	3.3	<0.5	23	0.04
30...	2	0	2	1	7	4.6	<0.5	76	0.27
30...	4	0	4	4	10	6.8	<0.5	121	0.91
31...	3	0	2	2	8	9.0	<0.5	59	0.72
31...	1	0	0	1	2	5.0	<0.5	13	0.04
JUN									
18...	1	0	0	1	1	2.9	<0.5	11	0.01
JUL									
03...	4	1	2	4	6	5.0	<0.5	50	0.15
03...	9	1	1	4	7	5.8	<0.5	41	0.15
03...	7	0	1	2	4	6.4	<0.5	24	0.05
04...	8	0	0	2	2	4.7	<0.5	2	0.00
04...	5	0	0	1	2	4.1	<0.5	16	0.00
15...	2	0	0	1	2	4.4	<0.5	14	0.00
AUG									
19...	1	0	0	1	1	3.6	0.5	--	--
28...	7	0	6	3	30	6.8	<0.5	172	0.77
28...	8	0	7	7	30	9.8	<0.5	146	1.3
28...	5	0	2	3	10	9.8	<0.5	46	0.22
29...	2	0	1	7	3	7.0	<0.5	11	0.01
30...	2	0	0	3	3	4.9	<0.5	8	0.00
SEP									
21...	1	0	0	2	1	3.4	<0.5	14	0.00

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570984 PAXTON CREEK TRIBUTARY, SITE 1, NEAR LINGLESTOWN, PA

LOCATION.--Lat 40°20'27", long 76°49'43", Dauphin County, Hydrologic Unit 02050305, at Wimbledon Drive, 0.1 mi west of Colonial Road, 0.3 mi north of Linglestown Road, and 2.0 mi west of Linglestown.

DRAINAGE AREA.--1.23 mi².

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

COOPERATION.--Chemical samples analyzed by the Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
NOV										
21...	0935	0.10	455	7.8	11.0	<0.040	<0.040	0.040	0.030	--
DEC										
12...	1310	0.71	301	8.1	7.0	0.970	0.950	0.020	0.020	--
JAN										
04...	0945	11	143	8.6	6.0	0.350	0.330	0.040	0.020	0.78
04...	1225	5.9	152	8.4	6.0	0.510	0.480	0.050	0.020	0.50
04...	1530	4.1	180	8.4	7.0	0.510	0.480	0.050	0.020	0.28
05...	1005	1.5	225	8.3	6.5	0.950	0.950	0.030	0.020	--
06...	1110	1.2	263	8.2	6.5	0.910	0.910	0.020	<0.020	--
16...	1145	1.1	260	8.0	1.0	0.900	0.900	<0.020	<0.020	--
FEB										
10...	1015	0.32	314	7.9	0.0	0.420	0.420	0.030	<0.020	--
MAR										
11...	0550	71	114	7.2	8.0	1.06	0.970	0.080	0.050	1.5
11...	0715	44	136	7.3	7.5	1.23	1.21	0.030	0.030	1.2
11...	1305	21	177	7.2	6.0	1.43	1.41	0.020	0.020	0.43
12...	0720	8.6	200	7.1	5.0	1.32	1.32	<0.020	<0.020	--
13...	1145	4.8	206	7.1	6.0	1.14	1.14	<0.020	<0.020	--
25...	1030	2.6	279	7.6	6.5	0.840	0.810	0.020	0.020	--
APR										
20...	1040	0.89	241	8.3	8.5	0.400	0.400	0.020	<0.020	--
MAY										
12...	0845	0.98	245	8.1	13.5	0.420	0.420	0.040	0.030	0.16
30...	1945	3.9	195	7.5	18.0	0.660	0.640	0.050	0.050	0.53
30...	2130	3.4	156	7.6	--	0.530	0.530	0.060	0.060	0.42
30...	2330	7.6	144	7.6	--	0.550	0.530	0.060	0.060	0.69
31...	0705	10	170	7.5	15.5	0.790	0.770	0.070	0.110	0.69
31...	1800	2.6	267	7.5	--	0.900	0.880	<0.020	<0.020	--
JUN										
18...	0845	0.43	--	--	15.0	0.440	0.440	0.020	0.020	0.19
JUL										
03...	1730	5.0	121	7.5	--	0.730	0.700	0.130	0.080	0.53
03...	1845	2.9	137	7.7	--	0.680	0.680	0.070	0.070	0.47
03...	2045	1.4	183	7.6	--	0.770	0.770	0.110	0.080	0.33
04...	0930	0.90	262	7.7	18.0	0.810	0.790	0.050	<0.020	0.19
04...	2210	0.52	322	7.8	19.0	0.750	0.750	0.050	0.050	--
15...	1000	0.43	310	7.8	20.5	0.620	0.620	0.020	<0.020	0.26
AUG										
19...	1145	0.15	--	8.0	17.0	0.420	0.400	0.020	0.020	--
28...	1925	104	77	7.4	19.0	0.510	0.260	0.080	0.080	2.1
28...	2145	3.9	155	7.3	20.0	1.10	0.480	0.110	0.080	1.7
28...	2320	1.6	202	7.3	19.5	1.34	0.570	0.090	0.070	1.6
29...	0945	0.49	352	7.6	18.0	0.310	0.310	0.030	0.030	0.39
30...	1300	0.25	409	7.9	16.5	0.220	0.220	0.020	0.020	--
SEP										
21...	0915	0.15	345	8.0	15.5	0.510	0.550	0.020	0.020	0.54

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570984 PAXTON CREEK TRIBUTARY, SITE 1, NEAR LINGLESTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	COPPER, DIS- SOLVED (MG/L AS CU) (01040)
NOV										
21...	--	<0.20	<0.20	--	--	0.030	0.020	0.003	0.01	1
DEC										
12...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	1
JAN										
04...	--	0.82	<0.20	1.2	--	0.150	0.020	0.009	0.03	2
04...	0.24	0.55	0.26	1.1	0.74	0.070	0.020	0.008	0.02	2
04...	--	0.33	<0.20	0.84	--	0.050	0.020	0.007	0.02	2
05...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	1
06...	--	<0.20	<0.20	--	--	0.020	<0.020	0.003	0.01	1
16...	--	<0.20	<0.20	--	--	0.020	<0.020	0.002	0.01	1
FEB										
10...	--	<0.20	<0.20	--	--	0.020	0.020	<0.002	--	1
MAR										
11...	--	1.5	<0.20	2.6	--	0.270	0.040	0.018	0.05	3
11...	0.48	1.2	0.51	2.4	1.7	0.140	0.030	0.004	0.01	2
11...	0.20	0.45	0.22	1.9	1.6	0.070	0.030	<0.002	--	1
12...	--	<0.20	<0.20	--	--	0.030	0.020	<0.002	--	1
13...	--	<0.20	<0.20	--	--	0.020	0.020	<0.002	--	1
25...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	1
APR										
20...	--	<0.20	<0.20	--	--	0.020	0.020	0.006	0.02	1
MAY										
12...	--	0.20	<0.20	0.62	--	0.020	0.020	0.002	0.01	1
30...	0.25	0.58	0.30	1.2	0.94	0.070	0.030	0.007	0.02	1
30...	0.19	0.48	0.25	1.0	0.78	0.060	0.030	0.008	0.02	1
30...	0.30	0.75	0.36	1.3	0.89	0.100	0.040	0.010	0.03	1
31...	0.37	0.76	0.48	1.5	1.2	0.070	0.040	0.009	0.03	2
31...	--	0.26	0.26	1.2	1.1	0.030	0.020	0.005	0.02	1
JUN										
18...	--	0.21	<0.20	0.65	--	0.040	0.020	0.012	0.04	1
JUL										
03...	--	0.66	<0.20	1.4	--	0.130	0.030	0.014	0.04	2
03...	--	0.54	<0.20	1.2	--	0.110	0.031	0.014	0.04	2
03...	0.18	0.44	0.26	1.2	1.0	0.080	0.030	0.012	0.04	2
04...	--	0.24	<0.20	1.0	--	0.040	0.024	0.011	0.03	2
04...	--	<0.20	<0.20	--	--	0.030	0.024	0.013	0.04	1
15...	--	0.28	<0.20	0.90	--	0.040	0.040	0.010	0.03	1
AUG										
19...	--	<0.20	<0.20	--	--	0.030	0.003	<0.002	--	1
28...	0.43	2.1	0.51	2.6	0.77	0.720	0.103	0.067	0.21	2
28...	0.74	1.8	0.82	2.9	1.3	0.430	0.083	0.042	0.13	3
28...	0.78	1.7	0.85	3.1	1.4	0.260	0.075	0.033	0.10	3
29...	0.29	0.42	0.32	0.73	0.63	0.070	0.049	0.022	0.07	4
30...	--	<0.20	<0.20	--	--	0.040	0.033	0.014	0.04	1
SEP										
21...	0.54	0.56	0.56	1.1	1.1	0.040	0.030	0.014	0.04	1

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570984 PAXTON CREEK TRIBUTARY, SITE 1, NEAR LINGLESTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01119)	LEAD, DIS- SOLVED ($\mu\text{G/L}$) AS PB (01049)	LEAD, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01114)	ZINC, DIS- SOLVED ($\mu\text{G/L}$) AS ZN (01090)	ZINC, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01094)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO- METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV									
21...	1	0	0	4	6	1.9	--	5	0.00
DEC									
12...	1	0	0	2	3	2.4	--	5	0.01
JAN									
04...	5	0	5	9	70	4.3	<0.5	143	4.2
04...	3	1	2	11	30	7.4	<0.5	45	0.72
04...	2	1	1	9	20	6.2	<0.5	31	0.35
05...	1	1	1	7	10	3.0	<0.5	7	0.03
06...	1	1	1	6	7	2.1	<0.5	12	0.04
16...	1	0	0	4	5	2.0	--	2	0.01
FEB									
10...	1	0	0	3	3	1.4	<1	1	0.00
MAR									
11...	6	0	7	10	70	12	<0.5	293	56
11...	4	0	3	11	50	9.8	<0.5	146	17
11...	2	0	1	11	20	5.4	<0.5	36	2.0
12...	1	0	0	11	20	2.8	<0.5	11	0.26
13...	1	0	0	9	10	2.1	<0.5	2	0.03
25...	1	0	0	9	10	1.7	<0.5	6	0.04
APR									
20...	1	0	0	2	3	1.5	0.6	2	0.00
MAY									
12...	0	0	1	3	3	1.5	<0.5	3	0.01
30...	2	0	2	4	30	4.6	<0.5	64	0.67
30...	2	0	2	5	30	4.0	<0.5	65	0.60
30...	3	0	3	4	50	4.8	<0.5	93	1.9
31...	3	0	1	9	30	8.4	<0.5	51	1.4
31...	1	0	0	5	9	4.1	<0.5	9	0.06
JUN									
18...	0	0	0	1	3	1.7	<0.5	9	0.01
JUL									
03...	5	0	3	5	50	4.8	<0.5	106	1.4
03...	5	0	3	4	40	5.2	<0.5	88	0.69
03...	3	2	1	6	20	5.9	<0.5	44	0.17
04...	2	0	0	3	8	4.0	<0.5	12	0.03
04...	1	0	0	2	5	2.6	<0.5	7	0.01
15...	1	1	0	2	4	2.2	<0.5	4	0.00
AUG									
19...	1	0	0	1	2	1.6	<0.5	--	--
28...	11	0	10	5	260	6.2	0.8	934	262
28...	9	0	6	3	60	8.2	<0.5	459	4.8
28...	6	0	3	3	30	8.4	0.5	207	0.89
29...	2	0	1	5	9	4.0	<0.5	24	0.03
30...	1	0	0	1	3	2.1	<0.5	1	0.00
SEP									
21...	1	0	0	3	3	2.5	<0.5	1	0.00

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570988 STORM-WATER MANAGEMENT POND No.1 NEAR LINGLESTOWN, PA

LOCATION.--Lat 40°19'55", long 76°48'36", Dauphin County, Hydrologic Unit 02050305, at culvert on Goose Valley Road, 0.2 mi west of Colonial Club Road, and 1.0 mi southwest of Linglestown.

DRAINAGE AREA.--0.04 mi².

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

COOPERATION.--Chemical samples analyzed by the Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
JAN										
04...	1015	0.05	142	8.3	5.5	0.110	0.090	0.040	0.020	0.64
04...	1250	0.08	133	8.0	5.5	0.090	0.090	0.050	0.020	0.78
04...	1605	0.08	132	8.0	6.0	0.090	0.090	0.040	<0.020	0.60
05...	1035	0.03	141	8.0	5.5	0.090	0.070	0.040	<0.020	0.62
06...	1140	0.02	150	8.0	6.0	0.070	0.070	0.040	0.020	0.52
MAR										
11...	0610	0.30	78	7.5	9.0	0.350	0.310	0.070	0.070	1.3
11...	0730	0.37	78	7.4	8.5	0.370	0.330	0.080	0.070	1.2
11...	1330	0.22	84	7.2	8.5	0.370	0.330	0.070	0.060	1.1
12...	0745	0.06	99	7.3	4.0	0.370	0.350	0.070	0.070	1.0
13...	1210	0.01	126	7.3	6.0	0.510	0.510	0.240	0.090	0.86
25...	1150	0.00	194	7.3	--	0.460	0.440	0.060	0.040	0.38
MAY										
12...	0945	0.00	135	8.2	17.0	0.110	0.110	0.100	0.070	0.61
30...	2010	0.05	147	8.7	16.5	<0.040	<0.040	0.100	<0.020	1.8
30...	2200	0.07	122	8.5	--	0.110	0.110	<0.020	<0.020	--
30...	2355	0.09	122	8.5	--	0.110	0.110	0.060	0.020	1.2
31...	0735	0.13	112	8.2	17.0	0.200	0.180	0.040	0.030	0.84
31...	1840	0.04	117	8.4	22.5	0.070	0.070	0.020	<0.020	1.0
JUL										
03...	1700	0.04	114	7.6	--	0.180	0.150	0.040	<0.020	2.0
03...	1830	0.04	132	7.6	--	<0.040	<0.040	0.120	0.120	2.3
03...	2010	0.03	120	7.3	--	0.110	0.110	0.100	0.020	1.9
04...	0910	0.05	107	7.6	20.5	0.200	0.200	0.070	0.040	1.6
04...	2140	0.01	102	8.4	25.0	<0.040	<0.040	0.250	0.110	1.8
AUG										
28...	1915	0.22	61	8.3	20.5	<0.040	<0.040	0.020	<0.020	3.3
28...	2125	0.19	63	8.1	20.5	<0.040	<0.040	0.020	<0.020	1.4
28...	2305	0.19	62	7.9	20.0	0.040	<0.040	0.020	<0.020	1.6
29...	0910	0.07	68	7.8	21.0	<0.040	<0.040	<0.020	<0.020	--
30...	1130	0.00	85	7.6	21.0	<0.040	<0.040	0.020	<0.020	1.3

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570988 STORM-WATER MANAGEMENT POND No.1 NEAR LINGLESTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00660)	COPPER, DIS- SOLVED (MG/L AS CU) (01040)
JAN										
04...	--	0.68	<0.20	0.79	--	0.160	0.020	<0.002	--	1
04...	--	0.83	<0.20	0.92	--	0.190	<0.020	0.002	0.01	1
04...	--	0.64	<0.20	0.73	--	0.190	0.020	<0.002	--	1
05...	--	0.66	<0.20	0.75	--	0.190	0.020	<0.002	--	1
06...	--	0.56	<0.20	0.63	--	0.150	0.020	<0.002	--	1
MAR										
11...	--	1.4	<0.20	1.7	--	0.440	0.020	0.005	0.02	2
11...	--	1.3	<0.20	1.7	--	0.410	0.020	<0.002	--	2
11...	--	1.2	<0.20	1.6	--	0.400	0.020	<0.002	--	1
12...	--	1.1	<0.20	1.5	--	0.330	0.020	<0.002	--	1
13...	--	1.1	<0.20	1.6	--	0.250	<0.020	<0.002	--	2
25...	--	0.44	<0.20	0.90	--	0.090	0.020	0.002	0.01	1
MAY										
12...	0.31	0.71	0.38	0.82	0.49	0.110	0.040	0.011	0.03	2
30...	--	1.9	0.70	--	--	0.130	0.030	<0.002	--	1
30...	--	1.4	0.57	1.5	0.68	0.100	0.030	<0.002	--	1
30...	0.46	1.2	0.48	1.3	0.59	0.120	0.030	<0.002	--	1
31...	0.45	0.88	0.48	1.1	0.66	0.090	0.020	<0.002	--	1
31...	--	1.0	0.36	1.1	0.43	0.090	0.020	<0.002	--	1
JUL										
03...	--	2.0	0.40	2.2	0.55	0.250	0.022	0.004	0.01	1
03...	0.35	2.4	0.47	--	--	0.290	0.023	0.003	0.01	2
03...	0.36	2.0	0.38	2.1	0.49	0.240	0.019	0.004	0.01	2
04...	0.29	1.7	0.33	1.9	0.53	0.230	0.020	0.018	0.05	2
04...	0.24	2.0	0.35	--	--	0.200	0.020	0.003	0.01	1
AUG										
28...	--	3.3	0.24	--	--	0.480	0.019	<0.002	--	1
28...	--	1.5	<0.20	--	--	0.380	0.019	<0.002	--	1
28...	--	1.7	0.21	1.7	--	0.370	0.021	<0.002	--	1
29...	--	1.4	0.24	--	--	0.270	0.020	<0.002	--	3
30...	--	1.3	0.25	--	--	0.180	0.020	<0.002	--	0

DATE	COPPER, TOTAL RECOVER- ABLE (MG/L) (01119)	LEAD, DIS- SOLVED (MG/L AS PB) (01049)	LEAD, TOTAL RECOVER- ABLE (MG/L) (01114)	ZINC, DIS- SOLVED (MG/L AS ZN) (01090)	ZINC, TOTAL RECOVER- ABLE (MG/L) (01094)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO- METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JAN									
04...	3	0	3	25	90	5.6	<0.5	79	0.01
04...	5	0	4	16	80	5.8	<0.5	91	0.02
04...	--	0	3	11	90	5.6	<0.5	148	0.03
05...	3	0	3	16	80	5.6	<0.5	91	0.01
06...	3	0	3	23	90	5.5	<0.5	89	0.00
MAR									
11...	6	0	9	8	70	9.6	<0.5	448	0.36
11...	7	0	9	6	70	8.6	<0.5	412	0.41
11...	8	0	8	8	70	8.5	<0.5	352	0.21
12...	5	0	7	9	60	7.9	<0.5	195	0.03
13...	7	0	5	43	100	7.2	<0.5	131	0.00
25...	3	0	2	62	140	4.3	<0.5	35	0.00
MAY									
12...	2	1	1	23	70	8.5	<0.5	12	0.00
30...	2	0	1	5	30	25	<0.5	30	0.00
30...	1	0	1	6	50	20	<0.5	32	0.01
30...	1	0	1	11	50	14	<0.5	31	0.01
31...	1	0	1	16	60	9.8	<0.5	30	0.01
31...	2	0	0	6	50	10	<0.5	29	0.00
JUL									
03...	2	0	2	33	110	33	<0.5	63	0.01
03...	3	1	2	32	100	42	1	73	0.01
03...	2	2	2	41	100	37	1	42	0.00
04...	3	2	2	42	100	30	1	57	0.01
04...	2	0	2	5	60	37	4	46	0.00
AUG									
28...	12	0	9	16	150	11	<0.5	481	0.29
28...	7	0	6	9	90	10	<0.5	308	0.16
28...	8	0	7	8	110	10	<0.5	283	0.15
29...	4	0	3	12	70	10	<0.5	131	0.02
30...	2	0	2	12	50	9.9	<0.5	68	0.00

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570992 STORM-WATER MANAGEMENT POND No.2 NEAR PAXTONIA, PA

LOCATION.--Lat 40°18'46", long 76°48'40", Dauphin County, Hydrologic Unit 02050305, at downstream end of storm drain, 10 feet upstream of culvert under Berwyn Drive, and 1.0 mi west of Paxtonia.

DRAINAGE AREA.--Undetermined.

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

COOPERATION.--Chemical samples analyzed by the Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED TOTAL (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED TOTAL (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
MAY										
30...	1845	0.06	75	7.9	15.0	0.330	0.310	0.300	0.300	0.32
30...	2105	0.10	103	7.8	15.0	0.370	0.350	0.340	0.330	0.24
30...	2240	0.08	101	7.8	--	0.310	0.290	0.250	0.250	0.11
31...	0800	0.03	113	7.6	17.0	0.240	0.240	0.190	0.180	0.11
31...	1915	0.01	249	7.6	21.5	0.220	0.220	0.040	0.030	0.65
JUL										
03...	1650	0.08	85	7.3	--	0.590	0.570	0.280	0.280	0.29
03...	1815	0.15	72	7.3	--	0.510	0.510	0.270	0.270	0.29
03...	1950	0.10	94	7.5	--	0.640	0.590	0.280	0.320	0.43
04...	0830	0.05	130	7.8	19.0	0.510	0.510	0.120	0.120	0.44
04...	2110	0.01	47	7.6	23.0	0.330	0.330	0.030	0.020	0.74
AUG										
28...	1910	0.34	56	7.3	21.0	0.240	0.070	0.060	0.060	0.81
28...	2110	0.27	50	7.2	20.5	0.090	0.070	0.070	0.070	0.24
28...	2245	0.27	54	7.2	20.5	0.330	0.090	0.060	0.060	0.20
29...	0845	0.10	149	7.0	19.5	0.200	0.180	<0.020	<0.020	--
30...	1030	0.01	544	8.2	19.0	0.150	<0.040	<0.020	<0.020	--

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	COPPER, DIS-SOLVED (μG/L AS CU) (01040)
MAY										
30...	0.20	0.62	0.50	0.95	0.81	0.020	0.020	0.002	0.01	1
30...	0.12	0.58	0.45	0.95	0.80	0.030	0.020	0.003	0.01	1
30...	0.01	0.36	0.26	0.67	0.55	0.020	0.020	<0.002	--	1
31...	0.04	0.30	0.22	0.54	0.46	0.030	0.020	0.002	0.01	1
31...	0.33	0.69	0.36	0.91	0.58	0.040	0.020	<0.002	--	1
JUL										
03...	0.18	0.57	0.46	1.2	1.0	0.050	0.025	0.006	0.02	2
03...	0.06	0.56	0.33	1.1	0.84	0.040	0.019	0.007	0.02	1
03...	0.31	0.71	0.63	1.3	1.2	0.050	0.030	0.012	0.04	2
04...	0.15	0.56	0.27	1.1	0.78	0.070	0.037	0.010	0.03	1
04...	0.51	0.77	0.53	1.1	0.86	0.060	0.025	0.007	0.02	2
AUG										
28...	--	0.87	<0.20	1.1	--	0.230	0.040	0.005	0.02	1
28...	--	0.31	<0.20	0.40	--	0.070	0.031	0.005	0.02	1
28...	--	0.26	<0.20	0.59	--	0.080	0.040	0.012	0.04	1
29...	--	0.56	0.22	0.76	0.40	0.190	0.099	0.057	0.17	3
30...	--	<0.20	<0.20	--	--	0.030	0.022	0.003	0.01	1

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570992 STORM-WATER MANAGEMENT POND No.2 NEAR PAXTONIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER -ABLE (UG/L) (01119)	LEAD, DIS- SOLVED (UG/L) AS PB (01049)	LEAD, TOTAL RECOVER -ABLE (UG/L) (01114)	ZINC, DIS- SOLVED (UG/L) AS ZN (01090)	ZINC, TOTAL RECOVER -ABLE (UG/L) (01094)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
MAY									
30...	2	0	2	97	150	4.1	<0.5	21	0.00
30...	2	0	1	140	170	4.8	<0.5	9	0.00
30...	1	0	1	100	120	3.0	<0.5	8	0.00
31...	1	0	1	79	100	3.2	<0.5	19	0.00
31...	2	0	1	46	110	8.0	<0.5	16	0.00
JUL									
03...	3	1	3	170	200	6.2	<0.5	19	0.00
03...	3	0	2	150	240	5.6	<0.5	9	0.00
03...	4	1	2	150	240	7.4	<0.5	16	0.00
04...	4	0	1	140	150	6.4	<0.5	22	0.00
04...	3	0	2	120	290	11	<0.5	22	0.00
AUG									
28...	8	0	16	190	1000	3.4	<0.5	182	0.17
28...	2	0	2	170	280	2.7	<0.5	25	0.02
28...	2	0	2	180	270	3.3	2	23	0.02
29...	3	0	2	260	410	6.7	<0.5	39	0.01
30...	1	0	0	130	170	3.4	<0.5	11	0.00

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570996 PAXTON CREEK TRIBUTARY, SITE 5, NEAR PAXTONIA, PA

LOCATION.--Lat 40°19'01", long 76°48'55", Dauphin County, Hydrologic Unit 02050305, at culvert on Earl Drive, 0.4 mi east of Colonial Road, and 1.3 mi west of Paxtonia.

DRAINAGE AREA.--1.00 mi².

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

COOPERATION.--Chemical samples analyzed by the Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
NOV										
21...	0910	0.04	455	7.8	11.0	0.040	0.040	0.040	0.040	--
DEC										
12...	1430	0.40	402	8.0	8.5	1.56	1.56	<0.020	<0.020	--
JAN										
04...	1045	11	170	8.4	6.0	0.570	0.570	0.040	0.040	0.50
04...	1325	4.6	241	8.5	6.0	0.750	0.750	0.040	0.030	0.30
04...	1630	2.7	285	8.3	6.0	0.840	0.840	0.030	<0.020	--
05...	1110	1.0	326	8.2	7.0	1.23	1.23	0.020	<0.020	--
06...	1210	0.50	375	8.1	9.0	1.32	1.32	0.020	<0.020	--
16...	1030	0.32	409	8.2	1.0	1.39	1.39	<0.020	<0.020	--
FEB										
10...	1115	0.11	628	7.9	0.0	0.770	0.750	<0.020	<0.020	--
MAR										
11...	0632	33	283	7.2	8.0	0.950	0.950	0.050	0.060	1.5
11...	0800	20	281	7.2	7.5	1.23	1.21	0.080	0.060	0.70
11...	1400	8.2	312	7.2	6.5	1.83	1.83	0.050	0.050	0.31
12...	0815	2.7	372	7.2	6.0	2.64	2.64	0.030	0.020	--
13...	1230	1.6	402	7.3	9.0	2.64	2.64	0.020	0.020	0.28
25...	1255	0.98	521	7.2	9.5	1.47	1.47	0.040	0.030	--
APR										
20...	1150	0.12	498	8.2	9.5	0.750	0.750	0.020	<0.020	--
MAY										
12...	1010	0.16	440	8.0	16.5	0.530	0.530	0.050	<0.020	--
30...	1910	6.1	233	7.4	14.5	0.880	0.860	0.190	0.170	1.4
30...	2020	8.1	145	7.6	--	0.590	0.590	0.110	0.150	1.0
30...	2220	19	149	7.6	--	0.460	0.420	0.190	0.190	1.7
31...	0830	6.0	261	7.4	17.0	0.510	0.510	0.150	0.130	0.62
31...	1855	1.2	357	7.4	18.5	0.790	0.770	0.020	0.020	0.80
JUN										
18...	1005	0.06	--	--	16.5	0.350	0.350	0.030	0.030	--
JUL										
03...	1635	6.1	202	7.8	--	1.50	1.50	0.100	0.080	1.4
03...	1800	12	124	7.4	--	0.730	0.660	0.110	0.100	0.63
03...	2000	3.7	194	7.5	--	0.590	0.550	0.100	0.090	0.58
04...	0850	2.4	253	7.6	20.0	0.550	0.510	0.290	0.290	0.30
04...	2130	0.29	352	7.7	21.5	0.640	0.590	0.050	0.050	0.24
15...	1040	0.18	325	7.6	23.0	0.440	0.440	0.020	<0.020	0.45
AUG										
19...	1100	0.20	--	7.7	19.5	0.480	0.460	0.020	<0.020	0.40
28...	1900	40	140	7.7	20.5	0.510	0.330	0.130	0.110	1.9
28...	2115	7.5	170	7.8	20.5	0.420	0.220	0.080	0.080	0.90
28...	2255	4.6	196	7.8	20.0	0.400	0.240	0.080	0.070	0.90
29...	0855	0.44	292	7.8	19.5	0.150	0.150	0.020	<0.020	0.46
30...	1045	0.14	385	7.7	16.0	0.150	0.150	0.020	0.020	0.20
SEP										
21...	0800	0.05	480	7.9	16.5	0.480	0.460	0.040	0.030	0.40
21...	0805	0.05	480	7.9	16.5	0.460	0.460	0.020	0.020	0.35

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570996 PAXTON CREEK TRIBUTARY, SITE 5, NEAR PAXTONIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)
NOV										
21...	--	<0.20	<0.20	--	--	0.030	0.020	0.004	0.01	2
DEC										
12...	--	<0.20	<0.20	--	--	0.030	0.020	0.008	0.02	1
JAN										
04...	--	0.54	<0.20	1.1	--	0.160	0.030	0.017	0.05	2
04...	--	0.34	<0.20	1.1	--	0.070	0.020	0.010	0.03	2
04...	--	<0.20	<0.20	--	--	0.060	0.020	0.005	0.02	2
05...	--	<0.20	<0.20	--	--	0.030	0.020	0.006	0.02	1
06...	--	<0.20	<0.20	--	--	0.030	0.020	0.006	0.02	1
16...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	1
FEB										
10...	--	<0.20	<0.20	--	--	0.030	0.020	0.002	0.01	1
MAR										
11...	--	1.5	<0.20	2.5	--	0.310	0.040	0.021	0.06	3
11...	0.16	0.78	0.22	2.0	1.4	0.200	0.040	0.005	0.02	2
11...	0.15	0.36	0.20	2.2	2.0	0.090	0.030	0.005	0.02	2
12...	--	<0.20	<0.20	--	--	0.040	0.030	0.008	0.02	1
13...	0.28	0.30	0.30	2.9	2.9	0.030	0.020	0.008	0.02	1
25...	--	<0.20	<0.20	--	--	0.030	0.020	0.005	0.02	1
APR										
20...	--	<0.20	<0.20	--	--	0.020	0.020	0.005	0.02	1
MAY										
12...	--	<0.20	<0.20	--	--	0.020	0.020	0.004	0.01	2
30...	0.43	1.5	0.60	2.4	1.5	0.190	0.050	0.020	0.06	2
30...	0.24	1.1	0.39	1.7	0.98	0.200	0.050	0.025	0.08	1
30...	0.18	1.9	0.37	2.4	0.79	0.380	0.030	0.012	0.04	1
31...	0.23	0.77	0.36	1.3	0.87	0.090	0.020	0.003	0.01	1
31...	0.40	0.82	0.42	1.6	1.2	0.070	0.020	0.003	0.01	1
JUN										
18...	--	<0.20	<0.20	--	--	0.040	0.030	0.019	0.06	1
JUL										
03...	0.71	1.5	0.79	3.0	2.3	0.230	0.041	0.017	0.05	4
03...	--	0.74	<0.20	1.5	--	0.230	0.045	0.029	0.09	2
03...	0.33	0.68	0.42	1.3	0.97	0.090	0.044	0.026	0.08	1
04...	0.17	0.59	0.46	1.1	0.97	0.070	0.036	0.017	0.05	1
04...	0.17	0.29	0.22	0.93	0.81	0.050	0.038	0.024	0.07	1
15...	--	0.47	0.27	0.91	0.71	0.060	0.038	0.019	0.06	1
AUG										
19...	--	0.42	0.26	0.90	0.72	0.060	<0.002	<0.002	--	1
28...	0.27	2.1	0.38	2.6	0.71	0.920	0.109	0.073	0.22	1
28...	0.39	0.98	0.47	1.4	0.69	0.180	0.047	0.013	0.04	1
28...	0.33	0.98	0.40	1.4	0.64	0.140	0.039	0.006	0.02	1
29...	--	0.48	0.30	0.63	0.45	0.080	0.038	0.007	0.02	2
30...	--	0.22	<0.20	0.37	--	0.040	0.034	0.014	0.04	1
SEP										
21...	0.33	0.44	0.36	0.92	0.82	0.030	0.034	0.018	0.05	2
21...	0.31	0.37	0.33	0.83	0.79	0.040	0.034	0.018	0.05	1

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01570996 PAXTON CREEK TRIBUTARY, SITE 5, NEAR PAXTONIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01119)	LEAD, DIS- SOLVED ($\mu\text{G/L}$) AS PB (01049)	LEAD, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01114)	ZINC, DIS- SOLVED ($\mu\text{G/L}$) AS ZN (01090)	ZINC, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01094)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	OIL AND GREASE, TOTAL RECOVER- ELECTRO METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, PENDE (T/DAY) (80155)
NOV									
21...	1	1	0	31	20	2.8	--	5	0.00
DEC									
12...	1	0	0	3	3	2.6	--	1	0.00
JAN									
04...	6	0	9	7	50	4.4	<0.5	133	4.0
04...	3	0	2	9	30	3.7	<0.5	43	0.53
04...	5	0	1	10	20	3.5	<0.5	16	0.12
05...	1	0	0	5	7	2.6	<0.5	24	0.06
06...	1	0	0	4	4	2.2	<0.5	7	0.01
16...	1	0	0	3	4	2.4	--	1	0.01
FEB									
10...	1	0	0	2	2	2.3	<1	1	0.00
MAR									
11...	8	0	18	5	60	6.1	<0.5	381	34
11...	5	0	10	6	50	5.2	<0.5	159	8.4
11...	2	0	3	12	30	4.2	<0.5	37	0.82
12...	1	0	1	9	10	2.8	<0.5	10	0.07
13...	1	0	0	5	40	2.4	<0.5	2	0.01
25...	1	0	0	4	6	2.3	<0.5	2	0.01
APR									
20...	1	0	0	3	3	2.8	<0.4	2	0.00
MAY									
12...	1	--	0	3	3	2.6	<0.5	1	0.00
30...	5	0	7	8	40	8.9	<0.5	91	1.5
30...	9	0	21	5	100	4.8	<0.5	167	3.7
30...	14	0	27	2	120	6.8	<0.5	354	18
31...	2	0	2	12	20	5.7	<0.5	20	0.32
31...	1	0	1	4	8	4.9	<0.5	11	0.04
JUN									
18...	1	0	0	2	2	2.7	<0.5	15	0.00
JUL									
03...	10	1	20	20	90	14	<0.5	101	1.7
03...	9	1	20	14	100	7.8	<0.5	176	5.7
03...	3	1	3	6	20	6.2	<0.5	27	0.27
04...	1	0	1	5	10	5.7	<0.5	9	0.06
04...	1	0	1	3	4	4.7	<0.5	5	0.00
15...	1	0	0	2	4	4.0	<0.5	1	0.00
AUG									
19...	1	0	1	1	3	4.4	<0.5	--	--
28...	30	0	64	3	240	5.3	0.8	1270	137
28...	8	0	7	5	40	5.4	<0.5	68	1.4
28...	3	0	5	4	20	5.5	0.5	33	0.41
29...	1	0	1	5	9	4.4	<0.5	12	0.01
30...	1	0	0	1	2	3.0	0.7	2	0.00
SEP									
21...	2	0	0	1	1	2.6	<0.5	2	0.00
21...	1	0	0	2	2	2.5	<0.5	11	0.00

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA

LOCATION.--Lat 40°18'30", Long 76°51'00", Dauphin County, Hydrologic Unit 02050305, on right bank 90 ft upstream from bridge on North Progress Avenue, 0.3 mi north of Interstate Highway 81, and 2.0 mi north of Penbrook.

DRAINAGE AREA.--11.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1940 to September 1950; October 1984 to December 1988. Annual maximum, water years 1974-84, 1990-91. October 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 1, 1940, to Sept. 30, 1950, water-stage recorder at bridge 100 ft downstream at same datum.

REMARKS.--Records good except those below 1.0 ft³/s which are fair, and Oct. 1 to Nov. 5, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972 reached a stage of 13.45 ft, from floodmarks, discharge, 3,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.3	4.8	7.8	e3.7	10	23	12	8.0	1.6	1.6	1.5
2	1.1	1.2	12	6.4	e3.5	9.1	19	10	5.7	1.4	1.3	1.3
3	1.0	1.1	57	6.6	e3.2	8.0	16	9.0	4.5	8.2	1.3	1.4
4	1.0	1.0	20	23	e3.1	6.9	13	9.3	3.9	13	1.4	1.4
5	1.3	.86	12	13	e3.0	6.3	11	8.4	37	2.8	1.4	1.2
6	28	e.82	10	9.9	e2.9	6.0	9.8	8.5	21	3.4	1.2	18
7	2.8	e.78	8.5	8.4	e2.8	31	9.1	6.6	15	2.0	1.0	6.8
8	2.1	e.74	7.2	7.3	e2.7	17	8.3	9.6	9.1	1.7	1.3	5.9
9	1.8	e.66	11	11	e2.6	13	7.8	12	7.0	2.1	2.9	6.2
10	1.7	2.8	23	8.7	e2.2	12	7.2	7.2	5.5	3.1	1.5	15
11	12	5.5	11	7.0	e2.1	218	6.9	6.3	4.6	3.0	5.7	11
12	5.3	2.3	9.1	6.2	e2.1	46	6.4	5.5	4.0	3.3	2.9	3.9
13	3.3	2.1	14	5.9	e2.5	30	5.6	5.2	3.6	2.6	1.6	3.0
14	2.6	1.9	13	17	e3.0	22	5.4	4.7	3.3	12	1.5	2.5
15	6.6	1.7	9.1	9.0	e9.9	17	5.1	7.1	2.9	10	1.3	2.2
16	12	1.5	e7.4	e7.9	18	13	5.0	7.9	2.5	7.3	1.3	2.1
17	20	1.3	e6.5	e6.8	9.0	12	5.7	5.5	2.3	32	1.5	2.0
18	11	1.2	e5.8	e6.2	9.0	11	5.5	5.0	2.4	9.9	4.8	1.8
19	5.4	1.2	e5.2	e4.9	11	28	5.1	4.3	10	3.8	2.9	1.6
20	4.2	1.1	e4.7	e4.7	9.3	27	4.7	3.8	4.1	3.0	1.6	1.4
21	3.4	3.0	5.2	e4.5	8.0	24	62	3.4	2.7	2.5	1.3	1.7
22	3.2	101	5.0	e4.3	7.1	22	152	3.2	2.4	2.2	1.1	20
23	2.8	31	6.0	e10	6.8	23	35	3.0	2.1	7.1	1.1	7.5
24	2.4	15	5.5	e9.5	7.2	20	24	3.0	3.9	4.7	.99	2.8
25	2.3	9.4	4.2	e6.1	11	19	24	3.0	2.4	4.0	.95	11
26	2.1	7.3	3.6	e3.5	42	126	46	3.7	2.1	3.5	.78	219
27	1.8	5.8	3.5	e3.0	20	424	26	3.5	1.9	4.3	.86	22
28	1.6	5.2	3.3	e3.3	16	66	20	2.8	1.6	2.8	33	13
29	1.6	4.7	26	e3.5	14	41	16	2.5	1.5	2.2	7.9	8.2
30	1.5	4.2	12	e3.8	---	34	14	7.1	1.9	1.9	2.4	6.2
31	1.4	---	7.9	e4.0	---	36	---	38	---	1.8	1.8	---
TOTAL	148.3	217.66	333.5	233.2	237.7	1378.3	598.6	221.1	178.9	163.2	92.18	401.6
MEAN	4.78	7.26	10.8	7.52	8.20	44.5	20.0	7.13	5.96	5.26	2.97	13.4
MAX	28	101	57	23	42	424	152	38	37	32	33	219
MIN	1.0	.66	3.3	3.0	2.1	6.0	4.7	2.5	1.5	1.4	.78	1.2
CFSM	.43	.65	.96	.67	.73	3.97	1.78	.64	.53	.47	.27	1.20
IN.	.49	.72	1.11	.77	.79	4.58	1.99	.73	.59	.54	.31	1.33

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

	5.55	14.4	17.1	15.4	20.1	25.6	20.6	22.7	9.19	9.08	6.76	7.83
MEAN	5.55	14.4	17.1	15.4	20.1	25.6	20.6	22.7	9.19	9.08	6.76	7.83
MAX	23.2	33.6	35.2	36.4	41.9	46.5	50.4	46.0	32.2	33.7	32.1	49.6
(WY)	1943	1944	1949	1949	1950	1940	1940	1946	1946	1945	1942	1987
MIN	.56	1.50	4.00	5.08	7.33	9.41	7.89	2.21	1.53	1.15	.36	.16
(WY)	1942	1942	1944	1985	1944	1985	1946	1941	1949	1941	1941	1943

SUMMARY STATISTICS

FOR 1992 WATER YEAR

PERIOD OF RECORD

ANNUAL TOTAL	4204.24											
ANNUAL MEAN	11.5									14.4		
HIGHEST ANNUAL MEAN										19.0		1945
LOWEST ANNUAL MEAN										7.84		1985
HIGHEST DAILY MEAN	424	Mar 27								644	May 19	1988
LOWEST DAILY MEAN	e.66	Nov 9								.10	Aug 17	1941
ANNUAL SEVEN-DAY MINIMUM	.85	Nov 3								.10	Aug 17	1943
INSTANTANEOUS PEAK FLOW	1490	Mar 27								a4600	Sep 26	1975
INSTANTANEOUS PEAK STAGE	6.70	Mar 27								13.25	Sep 26	1975
ANNUAL RUNOFF (CFSM)	1.03									1.29		
ANNUAL RUNOFF (INCHES)	13.96									17.47		
10 PERCENT EXCEEDS	22									31		
50 PERCENT EXCEEDS	5.2									6.9		
90 PERCENT EXCEEDS	1.4									1.0		

a From rating curve extended above 2,800 ft³/s on basis of peak flow through culvert.

e Estimated.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENNBROOK, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1985 to 1989, 1992 to current year.

INSTRUMENTATION.--Automatic pumping sampler June 1985 to December 1988, October 1991 to current year.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT										
28...	1515	2.0	415	8.2	17.0	0.060	0.040	0.040	0.040	0.20
NOV										
20...	1030	1.1	418	7.9	8.0	0.130	--	0.070	0.070	--
JAN										
04...	1100	56	280	7.9	--	1.01	1.01	0.030	0.020	0.70
04...	1210	62	--	--	--	0.530	0.530	0.040	<0.020	0.31
04...	1315	50	230	7.9	--	0.920	0.920	0.040	0.020	0.36
04...	1615	31	218	7.9	--	0.880	0.880	0.050	0.030	0.36
04...	2015	21	223	7.9	--	1.03	1.03	0.030	0.030	0.33
05...	0215	16	250	7.9	--	1.14	1.14	0.030	0.030	0.20
05...	0950	13	270	8.1	--	1.30	1.30	0.050	0.020	--
06...	1000	10	312	8.2	8.5	1.76	1.76	0.030	0.020	--
16...	1245	7.5	--	8.6	1.0	1.36	1.36	0.070	0.040	--
FEB										
10...	1130	2.2	360	8.1	--	0.880	0.860	<0.020	<0.020	--
MAR										
11...	0145	85	--	--	--	--	--	--	--	--
11...	0200	98	--	--	--	--	--	--	--	--
11...	0215	117	--	--	--	--	--	--	--	--
11...	0230	136	--	--	--	--	--	--	--	--
11...	0245	151	--	--	--	--	--	--	--	--
11...	0300	161	--	--	--	--	--	--	--	--
11...	0315	175	--	--	--	--	--	--	--	--
11...	0330	183	--	--	--	--	--	--	--	--
11...	0345	194	--	--	--	--	--	--	--	--
11...	0400	208	--	--	--	--	--	--	--	--
11...	0415	244	--	--	--	--	--	--	--	--
11...	0430	310	--	--	--	--	--	--	--	--
11...	0445	395	--	--	--	--	--	--	--	--
11...	0500	524	--	--	--	--	--	--	--	--
11...	0515	693	--	--	--	--	--	--	--	--
11...	0535	947	193	6.9	8.5	0.970	0.950	0.100	0.080	5.7
11...	0545	1060	--	--	--	--	--	--	--	--
11...	0600	1120	--	--	--	--	--	--	--	--
11...	0615	1160	--	--	--	--	--	--	--	--
11...	0630	1130	--	--	--	--	--	--	--	--
11...	0645	1070	157	6.8	8.0	0.970	0.920	0.080	0.060	2.9
11...	0700	950	--	--	--	--	--	--	--	--
11...	0730	680	--	--	--	--	--	--	--	--
11...	0745	579	--	--	--	--	--	--	--	--
11...	0800	490	--	--	--	--	--	--	--	--
11...	0815	424	--	--	--	--	--	--	--	--
11...	0830	363	--	--	--	--	--	--	--	--
11...	0845	314	--	--	--	--	--	--	--	--
11...	0900	276	--	--	--	--	--	--	--	--
11...	0945	196	--	--	--	--	--	--	--	--
11...	1000	181	--	--	--	--	--	--	--	--
11...	1015	165	--	--	--	--	--	--	--	--
11...	1030	155	202	6.9	6.0	1.43	1.41	0.060	0.040	0.80
11...	1045	146	--	--	--	--	--	--	--	--
11...	1100	138	--	--	--	--	--	--	--	--
11...	1115	130	--	--	--	--	--	--	--	--
11...	1130	122	--	--	--	--	--	--	--	--
11...	1145	118	--	--	--	--	--	--	--	--
11...	1200	109	--	--	--	--	--	--	--	--
11...	1215	109	--	--	--	--	--	--	--	--
11...	1230	106	--	--	--	--	--	--	--	--
11...	1245	102	--	--	--	--	--	--	--	--
11...	1300	99	--	--	--	--	--	--	--	--
11...	1315	97	--	--	--	--	--	--	--	--
11...	1330	95	--	--	--	--	--	--	--	--
11...	1345	93	--	--	--	--	--	--	--	--
11...	1400	90	--	--	--	--	--	--	--	--
11...	1415	88	--	--	--	--	--	--	--	--
11...	1430	88	--	--	--	--	--	--	--	--
11...	1445	85	237	7.0	6.0	1.65	1.65	0.050	0.020	--
12...	0700	47	259	6.9	4.0	2.02	2.02	0.040	0.020	--
13...	1245	29	274	7.1	6.5	2.11	2.11	0.020	0.020	0.30
25...	1350	18	--	--	7.5	1.47	1.47	0.030	0.030	--

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01119)	LEAD, DIS- SOLVED ($\mu\text{G/L}$) AS PB (01049)	LEAD, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01114)	ZINC, DIS- SOLVED ($\mu\text{G/L}$) AS ZN (01090)	ZINC, TOTAL RECOVER- ABLE ($\mu\text{G/L}$) (01094)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 28...	2	0	1	3	4	3.8	--	1	0.01
NOV 20...	2	1	1	4	4	2.6	--	2	0.01
JAN 04...	--	--	--	--	--	10	--	196	30
04...	2	0	2	4	10	3.2	<0.5	--	--
04...	--	--	--	--	--	7.0	--	76	10
04...	--	--	--	--	--	6.6	--	58	4.9
04...	--	--	--	--	--	6.6	--	50	2.9
05...	--	--	--	--	--	6.4	--	17	0.73
05...	--	--	--	--	--	3.6	--	4	0.14
06...	3	0	0	15	10	2.5	--	1	0.03
16...	1	0	0	2	3	2.2	--	14	0.28
FEB 10...	1	0	0	3	4	1.9	--	17	0.10
MAR 11...	--	--	--	--	--	--	--	434	100
11...	--	--	--	--	--	--	--	358	95
11...	--	--	--	--	--	--	--	348	110
11...	--	--	--	--	--	--	--	427	157
11...	--	--	--	--	--	--	--	486	198
11...	--	--	--	--	--	--	--	402	175
11...	--	--	--	--	--	--	--	417	197
11...	--	--	--	--	--	--	--	474	234
11...	--	--	--	--	--	--	--	664	348
11...	--	--	--	--	--	--	--	545	306
11...	--	--	--	--	--	--	--	596	393
11...	--	--	--	--	--	--	--	737	617
11...	--	--	--	--	--	--	--	984	1050
11...	--	--	--	--	--	--	--	1140	1620
11...	--	--	--	--	--	--	--	1070	2010
11...	23	1	63	4	190	13	--	1540	3940
11...	--	--	--	--	--	--	--	2000	5710
11...	--	--	--	--	--	--	--	2340	7080
11...	--	--	--	--	--	--	--	2280	7140
11...	--	--	--	--	--	--	--	1980	6050
11...	16	0	34	3	120	13	--	1540	4450
11...	--	--	--	--	--	--	--	1170	3000
11...	--	--	--	--	--	--	--	789	1450
11...	--	--	--	--	--	--	--	706	1100
11...	--	--	--	--	--	--	--	626	828
11...	--	--	--	--	--	--	--	554	634
11...	--	--	--	--	--	--	--	514	504
11...	--	--	--	--	--	--	--	438	371
11...	--	--	--	--	--	--	--	367	273
11...	--	--	--	--	--	--	--	308	163
11...	--	--	--	--	--	--	--	244	119
11...	--	--	--	--	--	--	--	254	113
11...	5	1	6	8	30	7.8	--	229	96
11...	--	--	--	--	--	--	--	212	84
11...	--	--	--	--	--	--	--	210	78
11...	--	--	--	--	--	--	--	168	59
11...	--	--	--	--	--	--	--	164	54
11...	--	--	--	--	--	--	--	136	43
11...	--	--	--	--	--	--	--	129	38
11...	--	--	--	--	--	--	--	117	34
11...	--	--	--	--	--	--	--	112	32
11...	--	--	--	--	--	--	--	105	29
11...	--	--	--	--	--	--	--	96	26
11...	--	--	--	--	--	--	--	106	28
11...	--	--	--	--	--	--	--	101	26
11...	--	--	--	--	--	--	--	92	23
11...	--	--	--	--	--	--	--	86	21
11...	--	--	--	--	--	--	--	81	19
11...	--	--	--	--	--	--	--	78	19
11...	5	1	2	13	20	5.4	--	--	--
12...	2	0	1	4	8	3.0	--	--	--
13...	1	0	1	3	6	2.3	--	--	--
25...	1	0	0	6	8	2.0	--	--	--

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μS/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
APR										
20...	1210	4.9	--	--	--	0.750	0.730	0.030	0.020	--
MAY										
12...	1040	5.5	340	8.3	19.0	0.770	0.770	0.060	0.050	0.18
30...	1925	7.0	289	7.3	--	0.900	0.840	0.130	0.120	0.51
30...	2040	10	280	7.4	19.0	0.810	0.790	0.120	0.100	0.83
30...	2255	41	251	7.4	--	0.590	0.570	0.100	0.080	0.96
31...	0030	58	280	7.4	--	0.680	0.660	0.080	0.080	1.2
31...	0650	79	189	7.4	16.0	0.620	0.590	0.090	0.070	0.79
31...	1910	13	280	7.4	18.0	0.880	0.860	0.040	<0.020	0.45
JUN										
18...	1120	2.3	380	7.7	15.0	0.750	0.750	0.040	0.040	0.23
JUL										
03...	1745	28	237	7.4	15.0	0.750	0.660	0.070	0.070	0.91
03...	1900	34	292	7.6	--	0.510	0.460	0.050	0.050	0.85
03...	2100	21	282	7.5	--	0.640	0.640	0.030	<0.020	0.76
04...	0445	55	200	7.6	--	0.840	0.770	0.040	0.020	1.3
04...	0530	40	202	7.6	--	0.750	0.700	0.140	0.040	0.84
04...	0750	19	204	7.7	18.0	0.790	0.730	0.050	0.040	0.88
04...	2000	3.8	265	7.7	22.0	0.790	0.790	0.040	0.020	0.39
04...	2005	3.8	--	--	--	0.790	0.790	0.040	0.020	0.39
29...	1100	2.3	330	7.9	20.0	1.01	1.01	<0.020	<0.020	--
AUG										
19...	1340	2.3	--	8.0	19.0	0.860	0.840	0.020	0.020	0.32
28...	1845	48	--	--	--	--	--	--	--	--
28...	1900	61	--	--	--	--	--	--	--	--
28...	1915	114	--	--	--	--	--	--	--	--
28...	1930	130	--	--	--	--	--	--	--	--
28...	1935	113	164	7.7	21.0	0.730	--	0.060	0.040	3.6
28...	1945	116	--	--	--	--	--	--	--	--
28...	2000	241	--	--	--	--	--	--	--	--
28...	2015	359	--	--	--	--	--	--	--	--
28...	2030	412	--	--	--	--	--	--	--	--
28...	2045	363	--	--	--	--	--	--	--	--
28...	2055	321	152	7.7	21.0	0.590	--	0.070	0.060	2.8
28...	2100	285	--	--	--	--	--	--	--	--
28...	2115	213	--	--	--	--	--	--	--	--
28...	2130	148	--	--	--	--	--	--	--	--
28...	2145	106	--	--	--	--	--	--	--	--
28...	2200	86	--	--	--	--	--	--	--	--
28...	2205	92	127	7.7	20.0	0.700	--	0.090	0.060	2.0
28...	2215	75	--	--	--	--	--	--	--	--
28...	2230	67	--	--	--	--	--	--	--	--
28...	2245	61	--	--	--	--	--	--	--	--
28...	2300	55	--	--	--	--	--	--	--	--
28...	2315	50	--	--	--	--	--	--	--	--
28...	2330	45	--	--	--	--	--	--	--	--
28...	2335	48	140	7.6	20.0	0.810	--	0.090	0.070	1.8
28...	2345	40	--	--	--	--	--	--	--	--
28...	2400	36	--	--	--	--	--	--	--	--
29...	0830	7.3	212	7.6	20.0	0.880	0.880	0.050	0.040	1.0
29...	1730	4.5	241	7.7	20.0	0.900	--	0.030	0.030	0.74
30...	1410	2.3	297	7.8	20.0	1.08	--	0.020	0.020	0.63
SEP										
21...	1005	1.6	430	8.1	16.0	0.860	0.840	0.030	0.020	0.34
25...	1900	52	--	--	--	--	--	--	--	--
25...	1930	52	--	--	--	--	--	--	--	--
25...	2000	43	--	--	--	--	--	--	--	--
25...	2037	34	--	--	--	0.680	0.590	0.030	0.030	0.96
26...	0030	43	--	--	--	--	--	--	--	--
26...	0107	125	--	--	--	0.510	0.480	0.020	<0.020	2.0
26...	0145	405	--	--	--	--	--	--	--	--
26...	0200	656	--	--	--	--	--	--	--	--
26...	0215	822	--	--	--	--	--	--	--	--
26...	0322	866	127	7.7	20.0	0.590	0.590	0.030	0.030	1.7
26...	0400	752	--	--	--	--	--	--	--	--
26...	0430	693	--	--	--	--	--	--	--	--
26...	0522	551	--	--	--	0.700	0.700	0.030	0.020	1.7
26...	0600	412	--	--	--	--	--	--	--	--
26...	0630	375	--	--	--	--	--	--	--	--
26...	0700	391	--	--	--	--	--	--	--	--
26...	0730	399	--	--	--	--	--	--	--	--
26...	0807	314	--	--	--	0.840	0.840	0.030	0.030	1.5
26...	0945	157	--	--	--	--	--	--	--	--
26...	1045	108	--	--	--	--	--	--	--	--
26...	1145	86	--	--	--	--	--	--	--	--
26...	1307	71	--	--	--	1.23	1.23	0.020	0.020	1.3
26...	1315	50	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	COPPER, DIS- SOLVED (MG/L AS CU) (01040)
APR										
20...	--	<0.20	<0.20	--	--	0.020	0.020	--	--	1
MAY										
12...	0.19	0.24	0.24	1.0	1.0	0.020	0.020	--	--	1
30...	0.23	0.64	0.35	1.5	1.2	0.080	0.030	0.010	0.03	1
30...	0.13	0.95	0.23	1.8	1.0	0.160	0.030	0.010	0.03	1
30...	0.14	1.1	0.22	1.7	0.79	0.310	0.040	0.020	0.06	1
31...	0.22	1.2	0.30	1.9	0.96	0.160	0.030	0.010	0.03	1
31...	0.36	0.88	0.43	1.5	1.0	0.140	0.040	0.010	0.03	1
31...	--	0.49	0.33	1.4	1.2	0.050	0.030	0.010	0.03	1
JUN										
18...	0.23	0.27	0.27	1.0	1.0	0.040	0.020	0.010	0.03	1
JUL										
03...	0.17	0.98	0.24	1.7	0.90	0.500	0.340	0.310	0.95	1
03...	0.15	0.90	0.20	1.4	0.66	0.210	0.050	0.030	0.09	1
03...	--	0.79	0.30	1.4	0.94	0.090	0.020	--	--	1
04...	0.28	1.4	0.30	2.2	1.1	0.290	0.050	0.020	0.06	--
04...	0.34	0.98	0.38	1.7	1.1	0.190	0.040	0.020	0.06	--
04...	0.34	0.93	0.38	1.7	1.1	0.180	0.040	0.020	0.06	1
04...	0.36	0.43	0.38	1.2	1.2	0.070	0.040	0.020	0.06	--
04...	0.36	0.43	0.38	1.2	1.2	0.070	0.036	0.019	0.06	1
29...	--	0.21	<0.20	1.2	--	0.030	0.030	0.010	0.03	2
AUG										
19...	0.20	0.34	0.22	1.2	1.1	0.050	--	--	--	1
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	0.33	3.7	0.37	4.4	--	1.56	0.100	0.060	0.18	2
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	0.36	2.9	0.42	3.5	--	0.920	0.080	0.050	0.15	2
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	0.37	2.1	0.43	2.8	--	0.700	0.090	0.060	0.18	2
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	0.53	1.8	0.60	2.7	--	0.440	0.090	0.060	0.18	2
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	0.39	1.1	0.43	2.0	1.3	0.170	0.070	0.030	0.09	2
29...	0.40	0.77	0.43	1.7	--	0.120	0.050	0.020	0.06	2
30...	0.36	0.65	0.38	1.7	--	0.090	0.040	0.020	0.06	2
SEP										
21...	0.32	0.37	0.34	1.2	1.2	0.030	0.020	0.010	0.03	1
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	0.59	0.99	0.62	1.7	1.2	0.140	0.050	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	2.0	0.64	2.5	1.1	0.480	0.060	0.030	0.09	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	0.80	1.7	0.83	2.3	1.4	0.470	0.090	0.020	0.06	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	1.2	1.7	1.3	2.5	2.0	0.300	0.090	0.020	0.06	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	0.87	1.5	0.90	2.4	1.7	0.220	0.080	0.040	0.12	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	1.2	1.4	1.2	2.6	2.4	0.160	0.090	0.050	0.15	--
26...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COPPER, TOTAL RECOVER- ABLE (μG/L) (01119)	LEAD, DIS- SOLVED (μG/L) AS PB (01049)	LEAD, TOTAL RECOVER- ABLE (μG/L) (01114)	ZINC, DIS- SOLVED (μG/L) AS ZN (01090)	ZINC, TOTAL RECOVER- ABLE (μG/L) (01094)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	OIL AND GREASE, TOTAL RECOV. ELECTRO METRIC (MG/L) (00560)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
APR									
20...	1	0	0	1	2	2.2	--	--	--
MAY									
12...	1	--	0	2	2	2.4	--	--	--
30...	2	0	8	7	40	3.8	--	82	1.5
30...	4	0	17	3	40	3.7	--	170	4.6
30...	6	0	13	2	50	5.2	--	359	40
31...	4	0	7	2	30	4.5	--	216	34
31...	4	0	5	4	40	5.7	--	138	29
31...	2	0	1	2	20	5.6	--	44	1.5
JUN									
18...	1	0	0	2	2	2.5	--	--	--
JUL									
03...	4	1	20	7	50	5.8	--	121	9.1
03...	4	0	7	11	40	4.6	--	141	13
03...	2	1	3	4	20	5.3	--	45	2.6
04...	--	--	--	--	--	5.6	--	255	38
04...	--	--	--	--	--	6.0	--	123	13
04...	4	0	6	2	30	6.1	--	110	5.6
04...	--	--	--	--	--	4.5	--	17	0.17
04...	2	0	1	3	8	4.5	<0.5	--	--
29...	1	0	0	3	4	2.8	--	2	0.01
AUG									
19...	1	0	1	1	3	3.3	--	--	--
28...	--	--	--	--	--	--	--	776	101
28...	--	--	--	--	--	--	--	1180	194
28...	--	--	--	--	--	--	--	2130	657
28...	--	--	--	--	--	--	--	1320	463
28...	24	0	42	2	200	7.5	--	1400	428
28...	--	--	--	--	--	--	--	1270	398
28...	--	--	--	--	--	--	--	1960	1280
28...	--	--	--	--	--	--	--	1110	1070
28...	--	--	--	--	--	--	--	1650	1830
28...	--	--	--	--	--	--	--	1350	1320
28...	15	0	28	3	170	7.1	--	1030	894
28...	--	--	--	--	--	--	--	1090	839
28...	--	--	--	--	--	--	--	834	480
28...	--	--	--	--	--	--	--	846	338
28...	--	--	--	--	--	--	--	765	219
28...	--	--	--	--	--	--	--	737	171
28...	12	0	14	3	120	8.0	--	669	166
28...	--	--	--	--	--	--	--	619	125
28...	--	--	--	--	--	--	--	549	99
28...	--	--	--	--	--	--	--	490	81
28...	--	--	--	--	--	--	--	423	63
28...	--	--	--	--	--	--	--	315	43
28...	--	--	--	--	--	--	--	303	37
28...	8	0	9	3	60	7.8	--	324	42
28...	--	--	--	--	--	--	--	331	36
28...	--	--	--	--	--	--	--	304	30
29...	4	0	3	2	20	5.5	--	74	1.5
29...	3	0	2	2	10	5.2	--	47	0.57
30...	2	0	1	12	10	4.5	--	24	0.15
SEP									
21...	1	0	0	1	2	2.4	--	12	0.05
25...	--	--	--	--	--	--	--	106	15
25...	--	--	--	--	--	--	--	676	95
25...	--	--	--	--	--	--	--	69	8.0
25...	--	--	--	--	--	4.7	--	110	10
26...	--	--	--	--	--	--	--	301	35
26...	--	--	--	--	--	7.5	--	576	194
26...	--	--	--	--	--	--	--	1540	1680
26...	--	--	--	--	--	--	--	1460	2590
26...	--	--	--	--	--	--	--	1170	2610
26...	--	--	--	--	--	6.7	--	565	1320
26...	--	--	--	--	--	--	--	417	847
26...	--	--	--	--	--	--	--	307	574
26...	--	--	--	--	--	7.2	--	250	372
26...	--	--	--	--	--	--	--	215	239
26...	--	--	--	--	--	--	--	186	188
26...	--	--	--	--	--	--	--	126	133
26...	--	--	--	--	--	--	--	169	182
26...	--	--	--	--	--	7.5	--	162	137
26...	--	--	--	--	--	--	--	94	40
26...	--	--	--	--	--	--	--	80	23
26...	--	--	--	--	--	--	--	62	14
26...	--	--	--	--	--	7.4	--	54	10
26...	--	--	--	--	--	--	--	34	4.6

< Actual value is known to be less than the value shown.

YELLOW BREECHES CREEK BASIN

01571500 YELLOW BREECHES CREEK NEAR CAMP HILL, PA

LOCATION.--Lat 40°13'29", long 76°53'54", Cumberland County, Hydrologic Unit 02050305, on left bank 50 ft downstream from single-span highway bridge on Green Lane Drive, 150 ft downstream from Olmsted Mill dam, 1.0 mi southeast of Camp Hill, and 3.1 mi upstream from mouth.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--April 1909 to December 1919, July 1954 to current year. Prior to January 1910 monthly discharge only, published in WSP 1302. Prior to June 1954, published as "at Olmsted Mill".

REVISED RECORDS.--WSP 1302: 1910, 1912-13, 1914(M), 1916.

GAGE.--Water-stage recorder. Datum of gage is 307.49 ft above National Geodetic Vertical Datum of 1929. March 1909 to December 1919, nonrecording gage at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. The Mechanicsburg Water Co. diverts water about 4 mi upstream from station, for municipal supply. Diversion for the year was equivalent to a mean daily discharge of 1.9 ft³/s. Several measurements of water temperature were made during the year. National Weather Service satellite and landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1953, reached a stage of 9.4 ft, from floodmarks, discharge, 3,940 ft³/s.

REVISIONS.--The maximum discharge for water year 1991 has been revised to 1,670 ft³/s, Oct. 23, 1991, gage height, 5.2 ft, from National Weather Service gage heights; revised daily discharges, in cubic feet per second for October 1991 are given below. These figures supersede those published in the 1991 report.

Oct. 16....320
Oct. 17....245

Oct. 18....285
Oct. 19....592

Oct. 20....365
Oct. 21....300

Oct. 22....280
Oct. 23....805

Oct. 24....1210

	<u>TOTAL</u>	<u>MEAN</u>	<u>MAX</u>	<u>MIN</u>	<u>CFSM</u>	<u>IN</u>
October 1990	11295	364	1210	121	1.69	1.95
CAL YR 1990	109916	301	1580	109	1.39	18.93
WTR YR 1991	112404	308	1290	111	1.43	19.36

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	116	128	156	157	204	548	331	364	148	118	96
2	114	116	142	150	149	197	476	311	268	145	115	95
3	114	112	384	152	146	192	427	305	237	158	113	94
4	114	111	307	210	147	186	395	286	219	205	112	94
5	113	111	199	293	147	182	376	283	241	176	112	94
6	282	112	173	238	144	179	361	306	407	152	109	144
7	186	111	161	207	142	329	338	282	322	144	107	159
8	139	111	154	193	145	525	318	281	265	139	106	135
9	129	110	166	196	141	351	297	422	248	137	110	142
10	126	116	292	209	133	309	292	399	235	135	110	135
11	145	138	231	194	135	1020	288	323	215	137	110	144
12	156	137	188	182	137	540	280	294	205	136	117	127
13	145	128	181	176	137	404	264	282	195	136	117	112
14	134	121	188	192	141	358	252	285	186	167	114	106
15	138	119	179	205	158	328	248	282	178	150	111	104
16	164	116	163	e135	227	299	242	345	170	150	115	102
17	172	113	157	e130	205	283	241	323	169	139	118	101
18	199	112	154	e120	185	273	240	296	170	139	121	100
19	164	112	143	e98	194	314	241	277	204	135	114	99
20	147	112	139	e100	196	338	236	257	272	127	109	99
21	140	114	138	e105	183	322	274	245	205	122	106	97
22	137	201	141	e115	174	317	1170	237	182	120	104	113
23	135	367	141	166	170	314	702	229	171	133	103	168
24	134	217	144	197	170	296	520	222	177	149	101	119
25	132	161	139	176	181	283	479	220	177	156	101	120
26	129	144	134	166	288	413	509	224	169	169	99	327
27	130	135	132	159	289	2090	474	236	162	149	96	213
28	124	130	131	156	238	1130	401	218	154	141	108	156
29	119	128	198	157	222	754	365	204	148	133	113	139
30	116	126	238	156	---	625	343	208	150	125	103	124
31	116	---	182	158	---	649	---	476	---	122	101	---
TOTAL	4407	4057	5547	5247	5081	14004	11597	8889	6465	4474	3393	3858
MEAN	142	135	179	169	175	452	387	287	215	144	109	129
MAX	282	367	384	293	289	2090	1170	476	407	205	121	327
MIN	113	110	128	98	133	179	236	204	148	120	96	94
CFSM	.66	.63	.83	.78	.81	2.09	1.79	1.33	1.00	.67	.51	.60
IN.	.76	.70	.96	.90	.88	2.41	2.00	1.53	1.11	.77	.58	.66

e Estimated.

YELLOW BREECHES CREEK BASIN

01571500 YELLOW BREECHES CREEK NEAR CAMP HILL, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	189	205	257	286	376	466	453	364	291	202	187	184
MAX	620	407	569	741	824	892	979	777	1639	486	573	1012
(WY)	1977	1976	1984	1979	1984	1978	1983	1989	1972	1989	1915	1975
MIN	98.6	99.4	97.2	92.4	153	221	216	167	122	81.2	80.6	94.7
(WY)	1964	1966	1966	1981	1989	1911	1966	1969	1966	1966	1966	1965

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL TOTAL	91557	77019	
ANNUAL MEAN	251	210	288
HIGHEST ANNUAL MEAN			500
LOWEST ANNUAL MEAN			159
HIGHEST DAILY MEAN	1120	Jan 17	2090
LOWEST DAILY MEAN	110	Nov 9	94
ANNUAL SEVEN-DAY MINIMUM	111	Nov 3	97
INSTANTANEOUS PEAK FLOW			2600
INSTANTANEOUS PEAK STAGE			7.18
INSTANTANEOUS LOW FLOW			88
ANNUAL RUNOFF (CFSM)	1.16	.97	1.33
ANNUAL RUNOFF (INCHES)	15.77	13.26	18.13
10 PERCENT EXCEEDS	464	338	509
50 PERCENT EXCEEDS	173	159	210
90 PERCENT EXCEEDS	117	111	116

a From floodmark.

SWATARA CREEK BASIN

01572025 SWATARA CREEK NEAR PINE GROVE, PA

LOCATION.--Lat 40°31'57", 76°24'09", Schuylkill County, Hydrologic Unit 02050305, on right bank 1.0 mi downstream from Lower Little Swatara Creek, 1.3 mi southwest of Pine Grove, and 1.6 mi upstream from bridge on Interstate Highway 81.

DRAINAGE AREA.--116 mi².

PERIOD OF RECORD.--October 1988 to January 1991, October 1991 to current year.

REVISED RECORDS.--WDR PA-90-2: 1989.

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above National Geodetic Vertical Datum of 1929, 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	28	91	106	e53	199	419	271	837	74	69	32
2	21	27	96	103	e51	181	361	252	489	68	59	30
3	20	26	369	104	e51	165	328	233	352	72	54	30
4	19	25	330	132	e49	152	298	212	286	94	53	32
5	19	25	220	136	e48	143	266	200	388	77	51	29
6	56	25	175	120	e46	138	240	195	739	135	46	34
7	28	25	146	113	e44	251	226	176	548	86	43	44
8	24	25	128	107	e42	237	212	207	414	71	41	41
9	22	24	127	111	e42	208	197	356	336	98	51	59
10	22	25	187	114	e41	205	189	239	281	77	46	74
11	32	49	143	105	e49	692	191	214	241	66	46	169
12	44	39	131	98	e42	557	178	199	214	62	47	85
13	30	34	155	95	e41	401	162	191	192	66	42	63
14	27	31	167	145	e51	322	154	191	176	87	41	52
15	26	29	146	e110	e76	273	147	181	162	81	39	45
16	59	28	135	e94	152	238	142	287	145	98	40	42
17	114	26	126	e85	113	216	147	224	134	72	44	39
18	189	25	119	e80	105	200	157	215	128	66	66	38
19	90	25	100	e68	130	220	173	197	184	57	53	35
20	63	25	e98	e72	127	200	149	178	153	52	44	32
21	51	30	e94	e76	119	187	215	166	126	48	38	33
22	44	493	92	e83	112	179	1040	156	115	47	35	57
23	40	903	95	e110	112	174	693	147	106	58	32	115
24	36	320	95	e68	115	164	531	142	133	72	31	62
25	34	197	85	e60	149	183	474	138	117	118	30	59
26	33	145	77	e55	366	578	570	134	101	85	30	535
27	32	120	74	e51	337	2530	448	139	94	116	29	356
28	30	106	70	e72	273	1190	380	126	87	84	34	221
29	29	99	137	e64	244	734	332	115	81	68	97	156
30	28	89	141	e58	---	563	300	117	77	89	48	122
31	28	---	114	e54	---	542	---	1380	---	80	38	---
TOTAL	1311	3068	4263	2849	3180	12222	9319	7178	7436	2424	1417	2721
MEAN	42.3	102	138	91.9	110	394	311	232	248	78.2	45.7	90.7
MAX	189	903	369	145	366	2530	1040	1380	837	135	97	535
MIN	19	24	70	51	41	138	142	115	77	47	29	29
CFSM	.36	.88	1.19	.79	.95	3.40	2.68	2.00	2.14	.67	.39	.78
IN.	.42	.98	1.37	.91	1.02	3.92	2.99	2.30	2.38	.78	.45	.87

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

MEAN	149	181	206	217	189	271	231	429	231	180	84.7	79.9
MAX	269	226	529	326	328	394	311	756	317	378	107	90.7
(WY)	1991	1991	1991	1991	1990	1992	1992	1989	1989	1989	1990	1992
MIN	42.1	102	77.8	91.9	110	185	149	232	129	78.2	45.7	68.7
(WY)	1989	1992	1990	1992	1992	1990	1989	1992	1990	1992	1992	1989

SUMMARY STATISTICS

FOR 1992 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL TOTAL	57388											
ANNUAL MEAN	157									188		
HIGHEST ANNUAL MEAN										216		1989
LOWEST ANNUAL MEAN										157		1992
HIGHEST DAILY MEAN	2530	Mar 27								2770	May 17	1989
LOWEST DAILY MEAN	19	Oct 4, 5								e18	Oct 18	1988
ANNUAL SEVEN-DAY MINIMUM	25	Nov 4								23	Oct 14	1988
INSTANTANEOUS PEAK FLOW	3230	Mar 27								a3940	May 16	1989
INSTANTANEOUS PEAK STAGE	10.91	Mar 27								11.88	May 16	1989
INSTANTANEOUS LOW FLOW	18	Oct 4, 5								18	Oct 4-5	1991
ANNUAL RUNOFF (CFSM)	1.35									1.62		
ANNUAL RUNOFF (INCHES)	18.40									21.96		
10 PERCENT EXCEEDS	331									414		
50 PERCENT EXCEEDS	102									135		
90 PERCENT EXCEEDS	30									44		

a From rating curve extended above 3,300 ft³/s on basis of step-backwater analysis.

e Estimated.

SWATARA CREEK BASIN

01572190 SWATARA CREEK NEAR INWOOD, PA

LOCATION.--Lat 40°28'45", long 76°31'52", Lebanon County, Hydrologic Unit 02050305, on right bank 20 ft downstream from single-span steel-truss bridge on Appalachian Trail, 0.4 mi upstream from steel-truss bridge at Inwood, 0.5 mi downstream from Trout Run, and 2.0 mi north of Lickdale.

DRAINAGE AREA.--167 mi².

PERIOD OF RECORD.--October 1988 to January 1991, October 1991 to current year.

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. The Pennsylvania American Water Co. diverts water upstream from station for municipal supply of city of Lebanon. Diversion for the year was equivalent to a mean daily discharge of 4.3 ft³/s. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e28	e40	102	123	e62	290	744	410	1360	90	80	41
2	e28	e39	108	126	e60	263	586	387	813	84	67	37
3	e27	e38	404	123	e60	235	492	346	570	86	61	36
4	e26	e36	474	149	e58	203	478	307	425	115	62	38
5	e26	e36	288	170	e56	194	393	275	761	99	60	35
6	e70	e36	216	144	e54	190	321	263	1250	159	54	40
7	e39	e36	177	135	e52	336	298	233	878	111	51	55
8	e34	e36	153	127	e50	359	291	259	657	90	49	50
9	e30	e35	144	130	e50	313	274	525	515	104	57	67
10	e30	e36	223	138	e48	309	261	345	411	94	55	61
11	e42	e71	176	125	e58	945	254	281	344	79	68	192
12	e63	e60	157	115	e50	971	236	247	297	72	63	99
13	e43	45	178	112	e48	730	210	235	250	77	52	71
14	e40	42	210	156	e60	565	184	240	225	98	52	61
15	e38	38	185	e130	e90	463	175	225	203	96	50	53
16	e90	36	164	e110	209	372	171	420	182	124	51	50
17	e150	34	149	e100	152	309	180	321	170	89	54	46
18	e290	32	136	e95	134	285	216	285	167	80	73	44
19	e150	32	e110	e80	169	320	234	246	262	71	70	41
20	e100	32	e105	e85	174	303	193	214	217	63	55	37
21	e78	34	e100	e90	163	279	272	198	151	59	48	37
22	e64	367	104	e98	154	267	2340	184	138	57	44	67
23	e58	e1250	103	e130	151	244	1370	178	131	66	41	143
24	e52	e540	106	e80	157	216	1040	175	157	83	40	75
25	e50	e310	95	e70	196	240	840	173	150	136	39	71
26	e48	e220	84	e65	494	758	962	172	125	103	37	764
27	e46	e165	79	e60	535	3840	776	175	115	131	37	634
28	e44	e142	78	e85	420	2130	656	156	106	119	38	306
29	e42	e128	131	e75	361	1220	533	142	99	101	108	198
30	e41	104	175	e68	---	950	464	144	94	111	76	151
31	e40	---	136	e64	---	923	---	1800	---	102	57	---
TOTAL	1907	4050	5050	3358	4325	19022	15444	9561	11223	2949	1749	3600
MEAN	61.5	135	163	108	149	614	515	308	374	95.1	56.4	120
MAX	290	1250	474	170	535	3840	2340	1800	1360	159	108	764
MIN	26	32	78	60	48	190	171	142	94	57	37	35
CFSM	.37	.81	.98	.65	.89	3.67	3.08	1.85	2.24	.57	.34	.72
IN.	.42	.90	1.12	.75	.96	4.24	3.44	2.13	2.50	.66	.39	.80

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

	215	257	293	312	277	414	368	657	347	261	115	108
MEAN	215	257	293	312	277	414	368	657	347	261	115	108
MAX	383	337	780	485	485	614	515	1184	471	576	147	120
(WY)	1991	1991	1991	1991	1990	1992	1992	1989	1989	1990	1992	1992
MIN	61.1	135	114	108	149	271	237	308	196	95.1	56.4	99.6
(WY)	1989	1992	1989	1992	1992	1990	1989	1992	1990	1992	1992	1989

SUMMARY STATISTICS

FOR 1992 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL TOTAL	82238	
ANNUAL MEAN	225	277
HIGHEST ANNUAL MEAN		327
LOWEST ANNUAL MEAN		225
HIGHEST DAILY MEAN	3840	4790
LOWEST DAILY MEAN	e26	e26
ANNUAL SEVEN-DAY MINIMUM	34	32
INSTANTANEOUS PEAK FLOW	4600	a6030
INSTANTANEOUS PEAK STAGE	11.36	13.02
INSTANTANEOUS LOW FLOW	e26	e26
ANNUAL RUNOFF (CFSM)	1.35	1.66
ANNUAL RUNOFF (INCHES)	18.32	22.53
10 PERCENT EXCEEDS	493	620
50 PERCENT EXCEEDS	125	187
90 PERCENT EXCEEDS	40	56

a From rating curve extended above 4,500 ft³/s.

e Estimated.

LOCATION.--Lat 40°24'09", long 76°34'39", Lebanon County, Hydrologic Unit 02050305, on left bank 100 ft downstream from bridge on State Highway 934 at Harper Tavern, 6.0 mi northwest of Annville, and 8.5 mi downstream from Little Swatara Creek.

DRAINAGE AREA.--337 mi².

PERIOD OF RECORD.--January 1919 to current year. Prior to October 1927, published as "at Harpers"

REVISED RECORDS.--WSP 1202: 1948. WSP 1302: 1920(M), 1921, 1924-25(M), 1927-28(M), 1930(M). WSP 1903: Drainage area. WDR PA-72-1: 1889 (M). WDR PA-85-2: 1984(P)(m).

GAGE.--Water-stage recorder. Datum of gage is 356.68 ft above National Geodetic Vertical Datum of 1929. Prior to July 16, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. The Pa. American Water Co. diverts water upstream from station for municipal supply of city of Lebanon. Diversion for the year was equivalent to a mean daily discharge of 9.3 ft³/s. Several measurements of water temperature were made during the year. National Weather Service satellite and landline telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 25.6 ft. from floodmark, discharge, 88,000 ft³/s. from rating curve extended as explained above.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	78	250	250	e145	561	1290	685	2740	158	196	91
2	33	81	285	285	e140	508	1080	634	1350	148	153	76
3	35	75	1330	280	e140	458	895	579	986	146	133	71
4	34	68	1230	318	e135	408	849	517	769	209	128	73
5	33	56	722	381	e130	379	749	471	1270	271	131	73
6	452	56	555	317	e120	366	617	459	2780	817	120	91
7	190	54	462	287	e115	699	566	405	1560	302	107	147
8	79	54	402	266	e110	840	547	417	1150	211	95	130
9	57	52	381	274	e100	636	508	901	935	216	153	186
10	48	51	735	319	e96	585	484	626	765	215	133	162
11	66	112	512	281	e110	1690	460	502	645	174	149	460
12	137	152	423	250	e100	1650	436	422	556	148	232	257
13	129	100	450	234	e96	1190	392	397	475	161	136	160
14	91	79	581	289	e110	945	351	388	418	203	115	129
15	72	72	488	e260	e150	791	333	369	380	233	107	113
16	130	66	403	e220	e450	670	320	632	339	444	104	100
17	268	61	362	e200	414	570	334	551	315	292	114	96
18	804	56	339	e190	324	533	384	476	e350	592	158	88
19	371	51	243	e160	389	652	423	425	e532	248	240	83
20	244	51	265	e170	428	755	372	357	e443	194	144	75
21	186	58	294	e170	374	693	412	326	e328	171	112	68
22	154	712	265	e190	342	679	3480	300	e296	158	98	128
23	133	3150	251	e250	326	635	2250	287	e273	181	90	541
24	117	1190	269	e160	333	572	1530	280	e346	254	82	207
25	104	656	232	e140	402	585	1240	278	e313	335	79	176
26	96	454	196	e135	1040	1360	1450	275	e258	277	76	2380
27	92	362	176	e130	1010	5990	1220	298	e238	304	71	1440
28	89	315	161	e175	801	4130	975	264	e218	279	73	885
29	83	290	304	e165	704	2380	853	233	e200	216	253	569
30	73	257	502	e160	---	1730	753	235	166	257	170	419
31	71	---	330	e150	---	1670	---	2960	---	243	118	---
TOTAL	4503	8869	13398	7056	9134	35310	25553	15949	21394	8057	4070	9474
MEAN	145	296	432	228	315	1139	852	514	713	260	131	316
MAX	804	3150	1330	381	1040	5990	3480	2960	2780	817	253	2380
MIN	32	51	161	130	96	366	320	233	166	146	71	68
CFSM	.43	.88	1.28	.68	.93	3.38	2.53	1.53	2.12	.77	.39	.94
IN.	.50	.98	1.48	.78	1.01	3.90	2.82	1.76	2.36	.89	.45	1.05

	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31	1932, 31
MEAN	327	513	689	650	759	1038	868	697	444	309	249	269
MAX	2104	1752	1868	2489	2097	2986	2466	2189	3952	1472	1772	2000
(WY)	1977	1927	1984	1979	1925	1920	1983	1989	1972	1945	1933	1975
MIN	28.1	35.9	60.0	42.1	162	358	297	154	80.2	30.8	22.0	15.9
(WY)	1942	1932	1931	1981	1980	1985	1988	1926	1965	1966	1966	1932

WATER YEARS 1919 - 1992

ANNUAL TOTAL	132092		162767				
ANNUAL MEAN	362		445			566	
HIGHEST ANNUAL MEAN						948	1972
LOWEST ANNUAL MEAN						201	1931
HIGHEST DAILY MEAN	3150	Nov 23	5990	Mar 27		42500	Jun 23 1972
LOWEST DAILY MEAN	20	Aug 8	32	Oct 1		6.6	Aug 21 1965
ANNUAL SEVEN-DAY MINIMUM	26	Aug 2	56	Nov 4		10	Sep 19 1932
INSTANTANEOUS PEAK FLOW			6850	Mar 27		a66700	Jun 23 1972
INSTANTANEOUS PEAK STAGE			10.18	Mar 27		b23.72	Jun 23 1972
INSTANTANEOUS LOW FLOW			30	Oct 1		6.0	Aug 21 1965
ANNUAL RUNOFF (CFSM)	1.07		1.32			1.68	
ANNUAL RUNOFF (INCHES)	14.58		17.97			22.80	
10 PERCENT EXCEEDS	809		911			1280	
50 PERCENT EXCEEDS	265		276			317	
90 PERCENT EXCEEDS	44		79			65	

a From rating curve extended above 25,000 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark in gage.

e Estimated.

SWATARA CREEK BASIN

01573160 QUITTAPAHILLA CREEK NEAR BELLEGGROVE, PA

LOCATION.--Lat 40°20'34", long 76°33'46", Lebanon County, Hydrologic Unit 02050305, on right bank 210 ft downstream from bridge on SR 4008, 0.7 mi downstream from Killinger Creek, and 1.8 mi south of Belleggrove.

DRAINAGE AREA.--74.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 361.88 ft above National Geodetic Vertical Datum of 1929 (levels by Susquehanna River Basin Commission).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight regulation from Millard limestone quarry 0.7 mi upstream. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	46	62	62	61	61	141	105	127	76	85	e55
2	46	47	64	61	61	61	139	98	105	60	72	51
3	44	46	130	61	61	61	128	102	92	78	70	48
4	48	46	92	64	61	61	125	101	84	96	73	46
5	47	47	83	62	61	61	115	94	143	109	79	49
6	125	46	71	62	61	61	118	102	151	191	74	71
7	67	45	68	61	61	70	114	98	123	94	72	95
8	61	46	68	62	61	61	116	93	120	88	65	58
9	56	46	70	63	61	61	107	112	109	95	87	90
10	55	46	93	61	61	62	103	114	103	89	94	57
11	74	51	72	62	61	92	103	96	100	81	61	98
12	59	46	69	62	61	73	111	94	87	88	81	62
13	62	47	73	61	61	69	95	85	99	85	61	53
14	57	46	73	68	62	70	96	84	88	106	61	52
15	57	46	70	62	62	66	93	80	80	125	59	51
16	69	46	70	62	61	64	92	93	78	120	e58	52
17	94	46	66	61	61	64	91	86	78	129	e60	53
18	79	46	68	61	61	63	94	80	75	111	e70	54
19	64	46	67	61	61	74	94	88	108	89	e95	51
20	60	46	64	61	61	74	91	73	109	76	e82	47
21	55	47	63	61	61	74	90	77	85	71	e66	48
22	54	93	62	61	62	68	152	67	78	73	e60	49
23	53	97	63	64	62	69	127	66	73	116	e54	50
24	51	78	62	63	62	67	114	67	83	114	e52	47
25	51	69	62	61	62	65	113	62	74	123	e50	57
26	50	65	62	61	65	84	122	61	71	106	e49	273
27	50	62	62	61	62	316	117	67	72	111	e50	134
28	50	63	61	61	61	244	110	58	68	94	e49	91
29	50	61	71	61	61	181	100	56	73	77	e84	75
30	48	61	63	61	---	159	100	63	64	85	e88	69
31	47	---	62	61	---	154	---	249	---	94	e70	---
TOTAL	1829	1623	2186	1916	1780	2810	3311	2771	2800	3050	2131	2086
MEAN	59.0	54.1	70.5	61.8	61.4	90.6	110	89.4	93.3	98.4	68.7	69.5
MAX	125	97	130	68	65	316	152	249	151	191	95	273
MIN	44	45	61	61	61	61	90	56	64	60	49	46
CFSM	.80	.73	.95	.83	.83	1.22	1.49	1.20	1.26	1.33	.93	.94
IN.	.92	.81	1.10	.96	.89	1.41	1.66	1.39	1.40	1.53	1.07	1.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	MEAN	83.2	82.9	98.4	115	121	125	128	113	113	101	82.2	74.3
MAX	209	167	219	411	327	271	309	208	262	201	164	132	
(WY)	1977	1976	1984	1979	1979	1978	1983	1989	1982	1984	1976	1979	
MIN	41.7	32.9	29.7	30.7	56.6	54.1	52.9	52.5	46.0	28.3	44.5	41.1	
(WY)	1982	1981	1981	1981	1983	1981	1981	1991	1991	1991	1991	1981	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1976 - 1992

ANNUAL TOTAL	22664	28293	101
ANNUAL MEAN	62.1	77.3	151
HIGHEST ANNUAL MEAN			53.2
LOWEST ANNUAL MEAN			1981
HIGHEST DAILY MEAN	231	Jan 17	316
LOWEST DAILY MEAN	19	Jul 22	44
ANNUAL SEVEN-DAY MINIMUM	21	Aug 2	46
INSTANTANEOUS PEAK FLOW			499
INSTANTANEOUS PEAK STAGE			6.18
ANNUAL RUNOFF (CFSM)	.84		1.04
ANNUAL RUNOFF (INCHES)	11.36		14.18
10 PERCENT EXCEEDS	93		113
50 PERCENT EXCEEDS	58		67
90 PERCENT EXCEEDS	33		50

a From rating curve extended above 1,900 ft³/s.
e Estimated.

SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA

LOCATION.--Lat 40°17'54", long 76°40'05", Dauphin County, Hydrologic Unit 02050305, on left bank, 0.4 mi downstream from Manada Creek, 0.5 mi upstream from State Highway 39, and 1.5 mi northwest of Hershey.

DRAINAGE AREA.--483 mi².

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

GAGE.--Water-stage recorder and gated concrete control. Datum of gage is 325.94 ft above National Geodetic Vertical Datum of 1929 (levels by Susquehanna River Basin Commission).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Daily discharge adjusted during periods of diversion which occur intermittently throughout the year. National Weather Service satellite and landline telemeters at station.

COOPERATION.--Records of daily diversion furnished by Hershey Chocolate U.S.A., a division of Hershey Foods Corporation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	123	367	403	e210	750	1760	837	3770	224	279	162
2	78	124	413	410	e205	667	1460	757	1750	211	227	140
3	79	118	1650	423	e200	616	1190	709	1210	212	203	132
4	85	119	1790	509	e190	562	1100	645	923	290	196	122
5	80	112	1040	573	e180	518	978	608	1340	273	199	128
6	468	104	772	497	e175	502	830	625	3580	1120	191	181
7	328	98	665	448	e170	845	749	525	2150	433	180	286
8	148	97	587	417	e160	1120	730	499	1530	299	167	217
9	105	101	557	429	e150	822	697	1010	1180	288	210	293
10	101	106	970	485	e140	754	666	822	938	292	228	247
11	114	159	762	447	e165	2050	644	650	772	252	191	529
12	198	209	626	404	e150	2310	625	598	655	228	310	398
13	210	180	640	386	e140	1640	566	496	579	236	230	254
14	178	144	783	462	e170	1290	519	485	513	278	190	218
15	141	134	697	e400	e280	1070	492	481	460	308	174	195
16	191	127	594	e350	682	893	474	681	414	531	172	178
17	318	118	533	e310	642	761	487	705	380	442	180	166
18	966	112	502	e280	496	717	531	597	359	719	223	152
19	535	106	395	e240	557	842	580	568	515	366	312	157
20	352	106	358	e250	621	1050	542	482	682	278	234	140
21	279	110	454	e260	555	972	555	462	426	247	185	132
22	237	647	406	e300	511	941	4210	436	347	231	166	146
23	216	3390	384	e370	484	876	3110	414	318	252	153	561
24	195	1560	406	e250	487	799	2040	390	326	342	146	327
25	179	854	371	e210	564	786	1650	369	358	424	140	250
26	164	627	330	e200	1270	1500	1830	374	310	382	140	3150
27	157	517	308	e190	1300	7100	1640	422	281	388	137	2110
28	137	457	284	e270	1050	6120	1230	383	258	366	138	1210
29	133	417	440	e240	912	3260	1060	341	248	298	278	744
30	114	384	704	e230	---	2420	928	344	227	300	287	552
31	123	---	511	e220	---	2270	---	2740	---	314	188	---
TOTAL	6683	11460	19299	10863	12816	46823	33873	19455	26799	10824	6254	13477
MEAN	216	382	623	350	442	1510	1129	628	893	349	202	449
MAX	966	3390	1790	573	1300	7100	4210	2740	3770	1120	312	3150
MIN	74	97	284	190	140	502	474	341	227	211	137	122
CFSM	.45	.79	1.29	.73	.91	3.13	2.34	1.30	1.85	.72	.42	.93
IN.	.51	.88	1.49	.84	.99	3.61	2.61	1.50	2.06	.83	.48	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	610	674	938	872	968	1227	1162	979	597	436	322	344					
MAX	2632	1221	2606	3370	1653	2543	3166	2708	1959	1536	1036	1320					
(WY)	1977	1976	1984	1979	1986	1977	1983	1989	1982	1989	1978	1987					
MIN	85.3	152	111	79.9	226	459	424	457	166	143	106	73.0					
(WY)	1981	1982	1981	1981	1980	1985	1988	1976	1991	1987	1987	1980					

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1976 - 1992
ANNUAL TOTAL	188582	218626	
ANNUAL MEAN	517	597	760
HIGHEST ANNUAL MEAN			1225
LOWEST ANNUAL MEAN			380
HIGHEST DAILY MEAN	3990	7100	23800
LOWEST DAILY MEAN	74	74	59
ANNUAL SEVEN-DAY MINIMUM	79	105	63
INSTANTANEOUS PEAK FLOW		8410	29400
INSTANTANEOUS PEAK STAGE		6.90	15.36
ANNUAL RUNOFF (CFSM)	1.07	1.24	1.57
ANNUAL RUNOFF (INCHES)	14.52	16.84	21.38
10 PERCENT EXCEEDS	1060	1200	1680
50 PERCENT EXCEEDS	384	389	430
90 PERCENT EXCEEDS	95	140	130

e Estimated.

WEST CONEWAGO CREEK BASIN

REVISION OF RECORDS FOR A DISCONTINUED STATION

01573810 BRUSH RUN, SITE 2, NEAR McSHERRYSTOWN, PA

LOCATION.--Lat 39°49'06", long 77°06'26", Adams County, Hydrologic Unit 02050306, on right bank 10 ft downstream of private culvert, 700 ft downstream from Spook Lane (Township Route 485), 1.0 mi upstream from small left-bank tributary, and 4.7 mi west of McSherrystown.

DRAINAGE AREA.--0.38 mi².

PERIOD OF RECORD.--October 1985 to September 1991 (discontinued).

GAGE.--Water-stage recorder and wooden control. Elevation of gage is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--6 years, 0.57 ft³/s, 20.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 175 ft³/s, July 20, 1989, gage height, 3.56 ft, from rating curve extended above 40 ft³/s on basis of computation of peak flow through culvert and over road; no flow at times each year.

REVISIONS.--Revised figures of discharge for the water year 1990, superseding those published in the report for 1990 are given below. There are no revisions to the extremes for the 1990 water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	<.01	.88	.42	e.06	.33	.18	.04	<.01	e.00	<.01
2	.13	.01	<.01	.70	.38	e.05	2.5	.04	.02	.00	e.00	<.01
3	.01	.01	e.00	.53	.43	e.04	2.6	.01	.01	.00	e.00	<.01
4	e.01	.01	e.00	1.1	.81	e.03	.40	.07	.01	.00	.01	<.01
5	e.01	.01	e.00	1.3	.50	e.01	.22	.52	.01	.00	.02	.02
6	e.01	.02	e.00	.74	.29	e.01	.09	.12	.01	.01	.04	.02
7	e.01	.02	e.00	.40	.22	e.01	.36	.02	.01	.00	.02	.02
8	e.01	.04	e.00	.24	.17	e.01	.20	.01	.13	.00	.02	.01
9	e.01	.55	e.00	.27	.24	e.01	.05	.01	.12	.00	.04	.02
10	e.01	.21	e.00	e1.0	2.9	e.01	.04	9.4	.01	.00	.14	.01
11	e.01	.05	e.00	.89	.74	e.01	.08	.89	.01	.02	.03	.01
12	e.01	.02	e.00	.50	.56	e.01	.03	.14	.01	.08	.01	.01
13	e.01	.01	e.00	.19	.32	.07	.01	.18	<.01	.08	.56	.02
14	.01	e.01	e.00	.06	.23	.03	.01	.17	<.01	.25	.19	.02
15	e.00	.03	e.00	.11	.20	.03	.28	.03	<.01	.37	.02	.02
16	e.00	.72	e.00	.34	.23	.05	.12	.01	<.01	.19	.01	.03
17	.01	.23	<.01	.51	.19	1.8	.04	.02	<.01	.03	.01	.01
18	.02	.05	e.00	.51	.09	.86	.02	.01	<.01	.03	.01	.01
19	2.3	.02	e.00	.25	.07	.23	.01	.01	<.01	.02	.02	.03
20	11	.02	e.00	.56	.05	.91	.02	<.01	<.01	.04	.18	.02
21	.49	.03	e.00	1.1	.04	.70	.03	.01	<.01	.26	.06	.01
22	.12	<.01	e.00	.55	.05	.35	.03	.01	<.01	.32	8.6	.04
23	.03	<.01	e.00	.29	2.5	.13	.02	.01	<.01	.04	4.5	.01
24	.02	<.01	e.00	.22	4.8	.07	.01	<.01	<.01	<.01	.48	.01
25	.01	<.01	e.00	1.3	.43	.12	.01	e.00	<.01	<.01	.19	.01
26	.01	<.01	e.00	e5.7	.14	.06	.01	.42	<.01	e.00	.06	.01
27	.01	.03	e.00	.62	e.01	.03	.01	.21	<.01	e.00	.04	.01
28	.01	.12	e.00	.37	e.03	.01	.01	.05	<.01	e.00	.02	.01
29	.01	.04	e.00	16	---	.01	.27	15	<.01	e.00	.03	.01
30	.01	<.01	e.00	3.2	---	.05	.37	1.9	<.01	e.00	.02	.01
31	.01	---	.32	.63	---	.17	---	.18	---	e.00	.01	---
TOTAL	14.32	2.33	0.35	41.06	17.04	5.94	8.18	29.65	0.57	1.77	15.34	0.45
MEAN	.46	.078	.011	1.32	.61	.19	.27	.96	.019	.057	.49	.015
MAX	11	.72	.32	16	4.8	1.8	2.6	15	.13	.37	8.6	.04
MIN	.00	.01	.00	.06	.01	.01	.01	.00	.01	.00	.00	.01
CFSM	1.22	.20	.03	3.49	1.60	.50	.72	2.52	.05	.15	1.30	.04
IN.	1.40	.23	.03	4.02	1.67	.58	.80	2.90	.06	.17	1.50	.04

CAL YR 1989 TOTAL 302.90 MEAN .83 MAX 27 MIN .00 CFSM 2.18 IN. 29.65
WTR YR 1990 TOTAL 137.00 MEAN .38 MAX 16 MIN .00 CFSM .99 IN. 13.41

e Estimated.

< Actual value is known to be less than the value shown.

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA

LOCATION.--Lat 40°04'56", long 76°43'13", York County, Hydrologic Unit 02050306, on left bank 500 ft upstream from bridge on State Highway 181, 0.6 mi downstream from Little Conewago Creek, and 1.5 mi north of Manchester.

DRAINAGE AREA.--510 mi².

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1931, published as Conewago Creek near Manchester.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional slight regulation since October 1959 by Conewago Lake about 13 miles upstream, capacity, 3,570 acre-ft. Pennsylvania Department of Environmental Resources satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	56	114	436	189	530	1080	578	1100	98	89	33
2	53	54	143	320	163	437	921	517	511	102	79	32
3	51	54	2920	313	173	396	795	474	343	117	71	33
4	47	54	1970	505	164	353	691	419	268	127	66	36
5	44	54	883	1170	e145	320	611	376	270	246	61	33
6	62	52	555	837	e125	304	545	370	712	163	55	80
7	289	49	415	556	e120	1120	492	370	674	115	51	147
8	193	46	318	448	e130	2770	455	342	415	99	51	300
9	106	45	304	397	e90	1130	423	617	337	89	51	183
10	74	49	1680	463	e82	845	392	733	279	80	48	217
11	63	68	1250	445	e85	4580	384	492	233	74	46	224
12	83	74	742	356	e82	2980	371	384	197	69	50	420
13	90	87	558	307	e80	1240	355	322	173	68	51	184
14	102	81	605	312	125	921	308	291	156	78	51	115
15	84	81	657	466	176	774	282	287	146	83	51	90
16	93	76	442	407	752	645	268	347	136	93	52	75
17	104	124	330	236	888	546	266	456	124	91	54	66
18	316	129	280	206	555	517	274	373	116	120	59	60
19	385	125	e180	e140	716	592	290	329	132	139	66	54
20	190	123	e155	e135	850	864	317	271	199	90	72	50
21	129	124	214	e135	674	1080	345	230	333	71	75	47
22	103	252	188	e140	519	1040	4900	207	187	68	69	49
23	92	1370	180	192	452	995	3110	188	144	82	59	80
24	81	814	209	235	424	1050	1400	175	128	97	54	107
25	76	399	210	259	447	856	1130	169	128	112	49	138
26	72	276	169	264	1340	1120	1120	167	165	489	42	457
27	68	222	155	e160	1500	11400	1220	191	216	282	37	806
28	65	175	140	e160	879	3630	936	222	156	179	41	360
29	62	124	248	e165	685	1780	752	184	121	161	75	217
30	59	115	1190	174	---	1280	637	167	104	127	49	154
31	58	---	724	197	---	1200	---	635	---	101	37	---
TOTAL	3352	5352	18138	10536	12610	47295	25070	10883	8203	3910	1761	4847
MEAN	108	178	585	340	435	1526	836	351	273	126	56.8	162
MAX	385	1370	2920	1170	1500	11400	4900	733	1100	489	89	806
MIN	44	45	114	135	80	304	266	167	104	68	37	32
CFSM	.21	.35	1.15	.67	.85	2.99	1.64	.69	.54	.25	.11	.32
IN.	.24	.39	1.32	.77	.92	3.45	1.83	.79	.60	.29	.13	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

	MEAN	271	436	638	735	964	1186	966	663	435	254	227	256
MAX	1783	1534	2314	2428	2521	3452	2655	2874	4445	1419	2423	3862	
(WY)	1977	1933	1978	1978	1971	1936	1983	1989	1972	1969	1933	1975	
MIN	9.71	14.7	43.3	37.7	86.2	345	276	135	52.7	12.2	13.3	12.0	
(WY)	1942	1932	1966	1981	1934	1931	1963	1941	1965	1966	1930	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1929 - 1992

ANNUAL TOTAL	155645	151957	584	
ANNUAL MEAN	426	415	1117	1972
HIGHEST ANNUAL MEAN			154	1931
LOWEST ANNUAL MEAN			64000	Sep 26 1975
HIGHEST DAILY MEAN	7660	Jan 17	11400	Mar 27
LOWEST DAILY MEAN	17	Aug 3-7	32	Sep 2
ANNUAL SEVEN-DAY MINIMUM	17	Aug 2	36	Aug 30
INSTANTANEOUS PEAK FLOW			14800	Mar 27
INSTANTANEOUS PEAK STAGE			14.59	Mar 27
INSTANTANEOUS LOW FLOW			29	Sep 5,6
ANNUAL RUNOFF (CFSM)	.84		.81	
ANNUAL RUNOFF (INCHES)	11.35		11.08	
10 PERCENT EXCEEDS	1070		898	1250
50 PERCENT EXCEEDS	175		189	246
90 PERCENT EXCEEDS	35		54	44

a From rating curve extended above 45,000 ft³/s on basis of slope-area computation at gage height 30.26 ft.

b From floodmarks.

e Estimated.

CODORUS CREEK BASIN

01574500 CODORUS CREEK AT SPRING GROVE, PA

LOCATION.--Lat 39°52'43", long 76°51'13", York County, Hydrologic Unit 02050306, on right bank 15 ft downstream from abutments of dismantled county highway bridge on Township Route 452, 0.1 mi downstream from small left-bank tributary, 0.3 mi downstream from east boundary of Spring Grove, and 7.0 mi southwest of York.

DRAINAGE AREA.--75.5 mi².

PERIOD OF RECORD.--May 1929 to September 1964, November 1965 to current year. October 1962 to September 1968, published as West Branch Codorus Creek at Spring Grove.

REVISED RECORDS.--WSP 1302: 1929-30. WSP 1502: 1932(M), 1933, 1935(M), 1940, 1942(M), 1943, 1944-46(M), 1951(M), 1955(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.86 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 18, 1930, nonrecording gage, Jan. 18, 1930, to Sept. 9, 1941, water-stage recorder at site 0.9 mi upstream, and Sept. 10, 1941, to Sept. 30, 1964, water-stage recorder at site 0.8 mi upstream, all at datum 5.64 ft higher. Nov. 1 to Dec. 20, 1965, nonrecording gage about 40 ft downstream at unknown datum, Dec. 21, 1965, to Mar. 31, 1966, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Daily discharges include water diverted around station by waste treatment plant of P.H. Glatfelter Company. Flow regulated by dam on Lake Marburg (station 01574390) about 20 miles upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records of change in lake contents and daily diversion furnished by P.H. Glatfelter Company.

AVERAGE DISCHARGE.--61 years (1929-64, 1966-92), 77.9 ft³/s, 14.01 in/yr, adjusted for diversion since March 1961, and for storage since 1966.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	50	47	34	41	36	67	54	48	44	43	47
2	46	47	75	38	37	35	63	53	51	44	43	49
3	46	45	276	40	38	42	56	51	46	49	46	49
4	49	45	78	57	38	42	52	45	47	54	53	48
5	49	45	53	55	36	41	51	46	64	45	49	50
6	58	46	49	43	35	42	46	45	56	45	47	103
7	44	46	42	44	37	72	45	42	55	45	47	82
8	51	45	39	42	44	52	46	50	49	46	48	58
9	48	45	56	44	40	42	45	71	48	47	50	75
10	47	44	163	45	42	43	43	47	47	46	45	47
11	52	50	57	40	42	184	48	45	43	50	48	79
12	57	46	51	39	37	80	54	42	49	51	52	42
13	51	43	52	39	40	58	42	40	46	47	49	49
14	49	42	52	48	44	49	41	42	47	31	49	51
15	52	42	44	36	60	45	40	45	48	30	49	51
16	64	41	41	40	74	41	39	61	47	29	49	47
17	85	40	38	45	50	40	39	45	49	34	50	48
18	81	41	41	44	56	39	39	44	49	45	52	46
19	58	46	38	39	55	52	41	46	87	32	56	47
20	49	48	37	46	50	43	42	45	60	46	50	46
21	51	49	47	47	43	53	64	45	51	44	46	46
22	50	130	44	45	40	49	170	47	50	48	50	49
23	48	102	46	45	40	53	75	50	50	47	47	58
24	47	60	36	50	40	48	65	52	54	48	49	49
25	44	51	34	46	40	45	71	53	83	73	50	56
26	52	47	51	52	70	125	116	60	76	46	50	117
27	52	43	37	47	45	742	88	60	51	43	46	55
28	53	40	34	48	40	194	72	51	46	43	49	50
29	53	36	89	46	36	120	62	49	46	40	55	47
30	49	43	54	46	---	91	56	64	44	38	48	44
31	44	---	39	41	---	82	---	126	---	44	47	---
TOTAL	1629	1498	1840	1371	1290	2680	1778	1616	1587	1374	1512	1685
MEAN	52.5	49.9	59.4	44.2	44.5	86.5	59.3	52.1	52.9	44.3	48.8	56.2
MAX	85	130	276	57	74	742	170	126	87	73	56	117
MIN	44	36	34	34	35	35	39	40	43	29	43	42
MEAN $\frac{1}{2}$	27.5	33.0	84.4	43.2	46.2	135	91.6	75.8	24.8	23.8	11.9	28.4
CFSM $\frac{1}{2}$	.36	.44	1.12	.57	.61	1.79	1.21	1.00	.33	.32	.16	.38
IN. $\frac{1}{2}$	.42	.49	1.29	.66	.66	2.06	1.35	1.15	.37	.37	.18	.42

$\frac{1}{2}$ Adjusted for change in contents in Lake Marburg.

CODORUS CREEK BASIN

01574500 CODORUS CREEK AT SPRING GROVE, PA--Continued

REMARKS.--Daily and monthly discharge figures include diversion by P.H. Gladfelter Co. All figures unadjusted for storage unless otherwise indicated. Instantaneous data reflect actual discharge past gage.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	65.0	57.3	71.4	83.2	103	105	112	89.6	90.8	62.4	53.8	64.9
MAX	269	136	170	255	269	263	264	171	699	185	77.7	360
(WY)	1980	1976	1973	1976	1971	1978	1984	1975	1972	1970	1990	1975
MIN	18.1	15.8	16.9	19.5	25.7	33.0	31.2	28.8	21.4	17.4	17.1	19.2
(WY)	1967	1966	1966	1966	1969	1969	1969	1969	1966	1966	1966	1966

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1966 - 1992

ANNUAL TOTAL	26811		19860									
ANNUAL MEAN	73.5	§86.1	54.3	§56.2						81.2		
HIGHEST ANNUAL MEAN										163		1972
LOWEST ANNUAL MEAN										33.6		1969
HIGHEST DAILY MEAN	423	Jan 16	742	Mar 27					11000		Jun 22	1972
LOWEST DAILY MEAN	21	Jul 18	29	Jul 16					.60		Sep 4	1966
ANNUAL SEVEN-DAY MINIMUM	31	Jul 15	35	Jul 14					10		Sep 1	1966
INSTANTANEOUS PEAK FLOW			1470	Mar 27					a19400		Jun 22	1972
INSTANTANEOUS PEAK STAGE			6.44	Mar 27					b15.57		Jun 22	1972
ANNUAL RUNOFF (CFSM)	.97	§1.14	.72	§.74					1.08			
ANNUAL RUNOFF (INCHES)	13.21	§15.49	9.79	§10.14					14.61			
10 PERCENT EXCEEDS	127		70						145			
50 PERCENT EXCEEDS	53		47						53			
90 PERCENT EXCEEDS	44		40						30			

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1964, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.4	52.7	64.4	87.4	114	144	125	86.1	55.6	38.7	44.0	41.7
MAX	151	148	164	223	244	360	326	206	165	157	321	424
(WY)	1943	1938	1951	1949	1951	1936	1952	1952	1946	1945	1933	1934
MIN	8.76	11.9	18.1	19.5	27.3	50.1	41.3	26.6	19.6	9.09	11.9	8.93
(WY)	1942	1937	1959	1942	1932	1959	1947	1963	1959	1954	1935	1941

SUMMARY STATISTICS

WATER YEARS 1929 - 1964

ANNUAL MEAN	74.1											
HIGHEST ANNUAL MEAN	127											1933
LOWEST ANNUAL MEAN	31.4											1959
HIGHEST DAILY MEAN	3920			Sep 16	1934							
LOWEST DAILY MEAN	.80			Oct 26	1947							
ANNUAL SEVEN-DAY MINIMUM	5.0			Jul 9	1959							
INSTANTANEOUS PEAK FLOW	a11200			Aug 23	1933							
INSTANTANEOUS PEAK STAGE	11.84			Aug 23	1933							
INSTANTANEOUS LOW FLOW	.00			Oct 26	1947							
ANNUAL RUNOFF (CFSM)	.98											
ANNUAL RUNOFF (INCHES)	13.34											
10 PERCENT EXCEEDS	151											
50 PERCENT EXCEEDS	42											
90 PERCENT EXCEEDS	14											

§ Adjusted for change in contents in Lake Marburg.

a From rating curve extended above 1,400 ft³/s on basis of computation of peak discharge at dam at gage height 6.80 ft and at peak flow.

b From floodmark in gage.

CODORUS CREEK BASIN

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°55'14", long 76°44'57", York County, Hydrologic Unit 02050306, on right bank 100 ft downstream from dam at pumping station of York Water Co., 200 ft upstream from Conrail bridge, 0.5 mi upstream from mouth, and 3.0 mi southwest of York.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--October 1927 to current year. May 1925 to September 1927 (gage heights and discharge measurements only), in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1302: 1931. WSP 1502: 1932-33, 1941, 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 373.03 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 21, 1928, nonrecording gage at site 180 ft upstream at datum 5.00 ft higher. June 22, 1972, to Jan. 12, 1973, nonrecording gage at present site.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation at low flow by pumping station upstream which diverts water for municipal supply of city of York. Some regulation during entire period of record by reservoirs of York Water Co., combined capacity, 8,092 acre-ft. Several measurements of water temperature were made during the year.

COOPERATION.--Records of diversion provided by York Water Co.

AVERAGE DISCHARGE.--65 years, 134 ft³/s, 15.55 in/yr, adjusted for diversion, and since October 1966, for storage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.9	38	59	48	62	197	78	141	36	19	19
2	10	15	70	60	45	64	164	76	98	30	10	16
3	8.2	12	618	61	42	54	153	74	87	35	11	14
4	9.9	7.0	202	82	38	57	141	63	77	59	22	15
5	8.3	9.0	116	104	42	52	126	66	121	42	13	14
6	24	8.0	100	79	38	55	114	84	146	28	11	54
7	11	8.2	89	69	40	84	105	66	90	25	14	59
8	9.0	9.0	80	67	42	80	103	71	75	21	15	22
9	7.3	15	87	67	42	66	93	94	71	23	17	21
10	9.1	22	350	73	29	61	92	76	63	20	17	17
11	11	30	153	67	32	127	100	67	60	11	14	53
12	22	19	123	62	33	93	94	59	50	27	15	16
13	18	21	118	57	35	79	79	54	53	28	14	23
14	17	14	125	91	44	76	72	52	51	20	17	20
15	15	12	98	81	64	72	77	54	48	13	13	21
16	14	15	81	63	119	64	73	86	38	10	19	20
17	63	13	77	62	69	63	74	69	40	22	20	13
18	105	12	74	55	72	63	75	61	38	72	18	16
19	39	12	60	61	84	93	84	53	70	32	25	15
20	30	13	60	53	76	86	74	43	82	25	16	14
21	20	14	64	52	66	92	79	43	50	8.9	15	14
22	19	136	63	50	62	83	195	38	43	17	15	14
23	13	266	64	58	60	88	108	38	35	18	16	24
24	13	74	70	85	62	83	88	41	46	32	19	7.4
25	13	50	62	53	57	78	93	52	115	76	17	20
26	15	37	55	56	101	147	131	54	93	51	22	145
27	20	36	51	52	84	1330	121	63	52	39	24	44
28	16	35	51	48	77	e800	94	46	44	26	25	39
29	11	36	111	48	63	e400	78	40	37	22	41	14
30	9.7	35	102	49	---	e300	56	52	36	13	11	13
31	7.3	---	66	50	---	e250	---	528	---	13	18	---
TOTAL	598.8	995.1	3478	1974	1666	5102	3133	2341	2050	894.9	543	796.4
MEAN	19.3	33.2	112	63.7	57.4	165	104	75.5	68.3	28.9	17.5	26.5
MAX	105	266	618	104	119	1330	197	528	146	76	41	145
MIN	7.3	7.0	38	48	29	52	56	38	35	8.9	10	7.4
(†)	28.7	27.7	27.8	29.5	29.4	28.5	27.9	29.0	30.2	29.9	29.7	29.2
MEAN‡	48.0	60.9	150	93.2	86.8	194	132	104	98.5	58.8	38.7	63.1
CFSM‡	.41	.52	1.28	.80	.74	1.66	1.13	.89	.84	.50	.33	.54
IN.‡	.47	.58	1.48	.92	.80	1.91	1.26	1.03	.94	.58	.38	.60

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

‡ Adjusted for diversion and change in reservoir contents.

e Estimated

CODORUS CREEK BASIN

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	58.8	72.3	104	130	168	193	188	139	101	60.9	56.3	62.3
MAX	489	195	354	486	440	501	552	461	1097	291	686	921
(WY)	1980	1938	1984	1978	1971	1936	1983	1989	1972	1970	1933	1975
MIN	.37	6.94	7.79	4.52	41.7	67.9	50.6	20.6	8.48	1.00	.016	2.79
(WY)	1964	1965	1981	1981	1932	1931	1967	1969	1966	1966	1966	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1928 - 1992	
ANNUAL TOTAL	28340.8		23572.2		111	
ANNUAL MEAN	77.6		64.4		234	
HIGHEST ANNUAL MEAN	#108		#93.4		1972	
LOWEST ANNUAL MEAN					36.5	
HIGHEST DAILY MEAN	618	Dec 3	1330	Mar 27	16000	Jun 22 1972
LOWEST DAILY MEAN	6.6	Aug 3	7.0	Nov 4	.00	Jul 13 1959
ANNUAL SEVEN-DAY MINIMUM	8.1	Aug 24	9.7	Oct 31	.00	Aug 1 1966
INSTANTANEOUS PEAK FLOW			3190	Mar 27	a26700	Jun 22 1972
INSTANTANEOUS PEAK STAGE			6.43	Mar 27	b22.62	Jun 22 1972
INSTANTANEOUS LOW FLOW			.40	Sep 24	No flow at times	
ANNUAL RUNOFF (CFSM)	.66	#.92	.55	#.80	.95	
ANNUAL RUNOFF (INCHES)	9.01	#12.48	7.49	#10.86	12.88	
10 PERCENT EXCEEDS	180		105		232	
50 PERCENT EXCEEDS	43		51		67	
90 PERCENT EXCEEDS	8.4		13		10	

Adjusted for diversion and change in reservoir contents.

a From rating curve extended above 6,300 ft³/s on basis of contracted-opening measurement at gage height 17.97 ft, and contracted-opening and flow-over-road measurement at peak flow.

b From floodmark.

CODORUS CREEK BASIN

01575500 CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°56'46", long 76°45'20", York County, Hydrologic Unit 02050306, on left bank 0.5 mi upstream from bridge on Richland Avenue (SR 3054), 2.0 mi downstream from South Branch Codorus Creek, and 2.0 mi southwest of York.

DRAINAGE AREA.--222 mi².

PERIOD OF RECORD.--August 1940 to current year. October 1915 to August 1923, and August 1926 to September 1932 (gage heights and discharge measurements only), in reports of Pennsylvania Department of Forests and Waters. Published as "at York" 1915-32.

REVISED RECORDS.--WDR PA-83-2: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 356.39 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Sept. 30, 1932, nonrecording gage at site 1.6 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation at low flows by mills and pumping station of York Water Co. Diversion upstream for municipal supply of city of York. Flood flows regulated by Indian Rock Dam (station 01574700) and by 3 reservoirs, combined capacity, 65,650 acre-ft. U.S. Army Corps of Engineers satellite and landline telemeters at station.

COOPERATION.--Records of diversion provided by York Water Co.

AVERAGE DISCHARGE.--52 years, 242 ft³/s, 14.80 in/yr, adjusted for storage and diversion.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	66	91	130	111	118	332	157	232	84	68	e70
2	67	74	129	129	103	124	285	148	162	77	57	e70
3	60	69	1060	132	100	114	263	145	149	91	59	69
4	65	65	414	162	96	121	243	124	134	129	76	68
5	64	66	228	221	98	112	220	127	184	95	68	68
6	92	66	198	168	88	114	201	148	243	76	62	154
7	70	66	175	151	91	188	188	122	169	76	64	192
8	65	66	158	149	98	180	184	128	144	70	64	91
9	65	70	165	143	100	143	170	193	134	74	70	109
10	64	76	670	157	78	129	168	143	123	68	66	73
11	72	89	299	144	95	386	178	125	114	62	64	188
12	93	80	229	131	88	253	190	112	107	89	71	68
13	80	78	220	124	86	192	149	103	106	87	66	71
14	75	69	232	162	110	169	139	102	104	62	70	72
15	75	67	191	164	130	156	142	100	103	47	66	73
16	97	70	163	128	258	137	133	167	89	46	71	69
17	147	68	152	119	153	131	137	130	91	54	75	62
18	252	66	151	130	150	130	140	116	91	127	77	66
19	112	71	129	101	184	185	153	108	170	67	93	63
20	91	74	123	123	164	183	139	93	177	65	74	62
21	78	77	141	125	139	196	148	93	109	57	68	e62
22	78	263	141	122	125	175	455	87	101	66	67	e68
23	73	515	139	126	120	188	239	90	88	70	69	e80
24	70	160	150	175	125	179	185	95	103	85	71	e68
25	67	120	123	118	117	165	193	109	208	156	72	e130
26	71	99	126	138	214	284	287	114	187	116	74	e250
27	78	89	118	117	180	2390	274	140	114	87	73	e80
28	76	86	113	125	154	1020	205	104	96	75	80	e68
29	73	81	225	117	130	549	175	94	89	68	111	e60
30	71	84	220	119	---	442	136	115	84	55	66	e56
31	65	---	152	114	---	395	---	692	---	58	69	---
TOTAL	2570	2990	6825	4264	3685	9248	6051	4324	4005	2439	2201	2680
MEAN	82.9	99.7	220	138	127	298	202	139	133	78.7	71.0	89.3
MAX	252	515	1060	221	258	2390	455	692	243	156	111	250
MIN	60	65	91	101	78	112	133	87	84	46	57	56
(†)	28.7	27.7	27.8	29.5	29.4	28.5	27.9	29.0	30.2	29.9	29.7	29.2
MEAN‡	86.6	110	273	166	158	375	262	192	135	88.1	55.3	98.1
CFSM‡	.39	.50	1.23	.75	.71	1.69	1.18	.86	.61	.40	.25	.44
IN.‡	.45	.56	1.42	.86	.77	1.95	1.32	.99	.68	.46	.29	.49

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

‡ Adjusted for diversion and change in reservoir contents.

e Estimated.

CODORUS CREEK BASIN

01575500 CODORUS CREEK NEAR YORK, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	118	146	208	261	329	375	346	263	204	130	107	116
MAX	837	392	584	781	849	884	961	643	2047	604	457	1172
(WY)	1980	1944	1973	1979	1971	1978	1952	1989	1972	1970	1955	1975
MIN	19.2	28.0	27.8	38.4	84.3	143	102	58.3	31.5	18.1	17.9	21.1
(WY)	1964	1965	1966	1966	1969	1981	1969	1969	1966	1966	1966	1941

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1940 - 1992

ANNUAL TOTAL	63922		51282									
ANNUAL MEAN	175	‡192	140	‡167						216		
HIGHEST ANNUAL MEAN										466		1972
LOWEST ANNUAL MEAN										84.3		1966
HIGHEST DAILY MEAN	1070	Jan 17	2390	Mar 27						16000	Jun 22	1972
LOWEST DAILY MEAN	32	Jul 19	46	Jul 16						3.6	Sep 18	1966
ANNUAL SEVEN-DAY MINIMUM	42	Jul 17	63	Jul 28						9.5	Sep 5	1966
INSTANTANEOUS PEAK FLOW			3210	Mar 27						a30000	Jun 22	1972
INSTANTANEOUS PEAK STAGE			1.84	Jul 16						b26.36	Jun 22	1972
INSTANTANEOUS LOW FLOW			41	Jul 16						c3.0	Oct 25	1966
ANNUAL RUNOFF (CFSM)	.79	‡.86	.63	‡.75						.97		
ANNUAL RUNOFF (INCHES)	10.71	‡11.71	8.59	‡10.24						13.21		
10 PERCENT EXCEEDS	353		216							442		
50 PERCENT EXCEEDS	118		113							128		
90 PERCENT EXCEEDS	61		66							39		

‡ Adjusted for diversion and change in reservoir contents.

a From rating curve extended above 6,600 ft³/s on basis of slope-area measurement at gage height 20.11 ft.

b From floodmark in gage.

c Result of upstream shutoff.

CODORUS CREEK BASIN

RESERVOIRS IN CODORUS CREEK BASIN

01574390 LAKE MARBURG.--Lat 39°48'26", long 76°52'58", York County, Hydrologic Unit 02050306, at dam on West Branch Codorus Creek, 0.7 mi upstream from Codorus Creek, and 4.5 mi south of Spring Grove. DRAINAGE AREA, 23.2 mi². PERIOD OF RECORD, October 1972 to current year in reports of Geological Survey; July 1972 to September 1974 in files of P. H. Glatfelter Co., Spring Grove. Records for period December 1966 to June 1972 were lost in the flood of June 1972. GAGE, Nonrecording. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by earthfill dam with two bascule spillway gates. Each is 7 ft high and 106.50 ft long. Elevation of top of gates is 623.00 ft. Top of dam is at elevation 627.00 ft. Storage began in December 1966. The capacity at elevation 627.00 ft is 53,210 acre-ft, and at normal pool elevation of 623.00 ft the capacity is 47,680 acre-ft. At the spillway crest the elevation is 616.00 ft and the capacity is 39,430 acre-ft. The lake is used for water supply and recreation. An average of about 3,380 acre-ft is diverted from Codorus Creek into the lake each year.

COOPERATION.--Records provided by P.H. Glatfelter Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 47,680 acre-ft many days most years, elevation, 623.00 ft; minimum, 32,190 acre-ft, Feb. 13, 14 15, 1989, elevation, 608.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,630 acre-ft, June 6, elevation, 619.00 ft; minimum, 35,520 acre-ft, Nov. 21, elevation, 612.20 ft.

01574700 INDIAN ROCK DAM.--Lat 39°55'22", long 76°45'14", York County, Hydrologic Unit 02050306, at dam on Codorus Creek, 0.1 mi upstream from mouth of South Branch Codorus Creek, 0.3 mi west of York Water Co. pumping station, and 3.0 mi southwest of York. DRAINAGE AREA, 93.7 mi². PERIOD OF RECORD, September 1962 to current year in reports of Geological Survey, September 1942 to August 1962 in files of Baltimore District, U.S. Army Corps of Engineers. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 435.00 ft. Reservoir completed in June 1942; storage began in June 1946. Capacity at elevation 435.00 ft is 28,000 acre-ft. No dead storage. Reservoir is used for flood control. Figures given herein represent total contents. Flood storage is regulated by three vertical-lift tractor gates. Water is stored only during high flows and released when downstream conditions warrant. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 30,200 acre-ft, June 23, 1972, elevation, 436.44 ft; minimum, no storage many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,110 acre-ft, Mar. 27, elevation, 392.64 ft; minimum, 9.2 acre-ft, Oct. 1, elevation, 372.05 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)
01574390 LAKE MARBURG				01574700 INDIAN ROCK DAM		
Sept. 30.....	614.77	38,130	--	372.05	9.2	--
Oct. 31.....	613.25	36,590	-25.0	372.83	11.5	+ 0.04
Nov. 30.....	612.25	35,580	-16.9	373.26	12.8	+ 0.02
Dec. 31.....	613.77	37,120	+25.0	372.87	11.6	- 0.02
CAL YR 1991.....	--	--	-12.7	--	--	- 0.85
Jan. 31.....	613.73	37,080	- 1.0	372.90	11.7	0
Feb. 29.....	613.83	37,180	+ 1.7	373.01	12.0	+ 0.01
Mar. 31.....	616.70	40,180	+48.8	374.21	16.9	+ 0.08
Apr. 30.....	618.50	42,100	+32.3	373.19	12.6	- 0.07
May 31.....	619.87	43,560	+23.7	374.36	18.2	+ 0.09
June 30.....	618.30	41,890	-28.1	372.77	11.3	- 0.12
July 31.....	617.12	40,630	-20.5	373.23	12.7	+ 0.02
Aug. 31.....	615.00	38,360	-36.9	373.20	12.6	0
Sept. 30.....	613.36	36,700	-27.8	373.92	14.8	+ 0.04
WTR YR 1992.....	--	--	- 1.97	--	--	+ 0.01

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA

LOCATION.--Lat 40°03'16", long 76°31'52", Lancaster County, Hydrologic Unit 02050306, on left bank 420 ft upstream from Chickies Creek, and 1.0 mi downstream from Marietta. Records include flow of Chickies Creek.

DRAINAGE AREA.--25,990 mi², approximately, includes that of Chickies Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 1502: 1937.

GAGE.--Water-stage recorder. Datum of gage is 200.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 16 flood-control reservoirs which have a combined capacity of 1,599,000 acre-ft. Some diurnal fluctuation below 8,000 ft³/s caused by hydroelectric plant 9.7 mi upstream. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 58.2 ft, from floodmark, discharge, about 630,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6200	5460	18100	17400	25600	40300	103000	54700	24600	10100	23200	e29900
2	6040	5320	16400	19400	22900	40100	92300	47800	31500	9370	30200	e34000
3	5730	5090	20000	23400	19100	41300	86800	44100	46900	9000	56300	e27700
4	5480	5130	25700	23300	20000	39300	81400	40000	57500	9500	54400	e19000
5	5530	4980	44300	23600	18800	35700	73100	39700	50500	8930	41800	e16100
6	6610	4980	47500	23700	17000	32800	63400	46400	46300	9240	33700	e14500
7	6800	4980	45100	26900	15900	32200	55600	48100	46400	9540	28400	e14900
8	6230	5220	37800	32800	15600	39100	49600	44900	44500	9180	23900	e15200
9	6120	4690	31300	33000	14500	43200	45500	42800	38600	9370	20700	e14800
10	9020	4960	29800	30200	12100	47900	43300	45500	35300	9120	18600	14900
11	7570	5420	27100	27400	10700	60200	44400	47900	31400	10300	20000	15300
12	6150	5160	24900	25100	11700	82100	45800	45800	27200	10600	26000	16300
13	5520	5210	24500	23700	11400	93700	44600	40900	23900	10700	24000	19500
14	5430	5240	25400	23100	9400	89600	48900	36800	20700	10900	21000	19400
15	5370	5460	24800	22700	9740	78600	56700	34000	18400	11500	18000	19700
16	5900	5500	24800	26400	12200	65400	52800	33000	16500	13600	17000	18200
17	6120	5370	25900	30800	14700	54400	46100	32000	14400	23300	16500	16300
18	7220	5400	27900	37300	16700	47100	41700	28800	13400	42700	16100	14900
19	7910	5910	26300	28100	18500	43400	43000	27600	13200	38800	16500	13400
20	7830	6500	23200	20500	20900	40900	64100	26100	13800	44900	17700	12300
21	8370	6520	21800	19000	24100	38900	79800	24500	13100	39200	17100	11300
22	8010	8050	19900	19100	25200	37500	89500	23100	12600	35400	15900	11000
23	7600	12600	18600	19100	28700	36300	94900	21500	12300	31700	14500	11300
24	6830	21800	18400	22500	31600	35100	87900	19700	11700	28200	13300	11000
25	6440	33200	17700	22500	29300	33000	78300	18100	11900	28700	13000	15100
26	6390	33300	17300	24000	31500	32800	74900	17100	11600	31400	12100	29500
27	6170	33100	16700	27800	43700	77700	77300	16600	12100	26900	11400	34600
28	6160	28400	15900	27800	48200	139000	76800	15500	11000	26100	10800	32100
29	5830	23500	15500	29800	43900	169000	70500	15400	11100	28000	11500	30400
30	5850	20300	16500	28600	---	153000	62600	14900	10900	29100	11600	35200
31	5730	---	16400	27100	---	120000	---	17500	---	27500	18200	---
TOTAL	202260	326750	765500	786100	623640	1919600	1974600	1010800	733300	642850	673400	587800
MEAN	6525	10890	24690	25360	21500	61920	65820	32610	24440	20740	21720	19590
MAX	9020	33300	47500	37300	48200	169000	103000	54700	57500	44900	56300	35200
MIN	5370	4690	15500	17400	9400	32200	41700	14900	10900	8930	10800	11000
CFSM	.25	.42	.95	.98	.83	2.38	2.53	1.25	.94	.80	.84	.75
IN.	.29	.47	1.10	1.13	.89	2.75	2.83	1.45	1.05	.92	.96	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

MEAN	17480	28840	38510	38530	45100	75820	77490	49290	28920	15900	11800	12470
MAX	81330	71930	106800	99470	109300	229100	202000	103400	190700	61480	39700	78650
(WY)	1977	1978	1973	1937	1984	1936	1940	1989	1972	1972	1933	1975
MIN	2699	3041	8147	6635	10730	28120	22450	14240	7993	3957	3627	2296
(WY)	1964	1965	1961	1981	1934	1960	1946	1941	1991	1965	1966	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1932 - 1992	
ANNUAL TOTAL	10105120			10246600				
ANNUAL MEAN	27690			28000			36610	
HIGHEST ANNUAL MEAN							59900	1972
LOWEST ANNUAL MEAN							19060	1965
HIGHEST DAILY MEAN	198000	Mar	6	169000	Mar	29	1040000	Jun 24 1972
LOWEST DAILY MEAN	3200	Aug	6	4690	Nov	9	1380	Sep 26 1932
ANNUAL SEVEN-DAY MINIMUM	3550	Sep	7	4990	Nov	4	1720	Sep 26 1932
INSTANTANEOUS PEAK FLOW				172000	Mar	29	1080000	Jun 23 1972
INSTANTANEOUS PEAK STAGE				44.71	Mar	29	a64.54	Jun 23 1972
INSTANTANEOUS LOW FLOW				4220	Nov	9	b618	Sep 26 1932
ANNUAL RUNOFF (CFSM)	1.07			1.08			1.41	
ANNUAL RUNOFF (INCHES)	14.46			14.67			19.14	
10 PERCENT EXCEEDS	65400			51200			83600	
50 PERCENT EXCEEDS	15500			23000			21700	
90 PERCENT EXCEEDS	4350			6220			6010	

a From floodmarks.

b York Haven powerplant shut down to obtain current-meter measurements of low flow.

e Estimated.

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-74, 1976, 1987 to current year.

REMARKS.--Samples collected from bridge on State Highway 30, 1.5 miles downstream from gage.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission (SRBC) and analyzed by the Pennsylvania Department of Environmental Resources. Suspended-sediment samples analyzed by SRBC.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT										
09...	1245	5690	410	8.3	18.0	0.770	0.770	0.040	0.020	0.28
NOV										
20...	1330	6340	474	8.1	14.0	1.14	1.14	0.080	0.080	0.16
DEC										
11...	1130	27100	241	7.5	6.0	1.58	1.58	--	--	--
FEB										
06...	1215	17600	240	8.1	2.0	1.14	1.14	0.070	0.070	--
MAR										
18...	1200	46800	160	--	8.0	1.23	1.23	0.080	0.080	0.20
26...	1015	31900	225	--	7.5	1.47	1.47	0.060	0.060	0.16
27...	1030	72300	210	6.9	10.0	1.72	1.67	0.110	0.030	1.8
29...	1230	172000	187	7.1	10.0	1.65	1.65	0.050	0.030	1.3
30...	1615	146000	180	7.0	7.0	1.47	1.43	0.080	0.030	1.0
31...	1045	120000	160	6.8	10.0	1.28	1.28	0.060	0.050	0.48
APR										
02...	1110	92300	157	6.9	10.0	1.43	1.43	0.060	0.060	0.32
06...	1320	62500	155	6.8	10.0	1.25	1.25	0.070	0.070	0.25
MAY										
04...	1250	39800	180	8.2	13.0	0.480	0.480	0.020	0.020	0.21
JUN										
01...	1130	24800	250	8.0	20.0	1.10	1.10	0.030	0.030	0.43
03...	0855	44800	240	7.8	20.0	1.14	1.12	0.050	0.040	0.50
05...	1215	50200	185	7.9	20.0	0.840	0.840	0.090	0.030	0.56
18...	1030	13200	225	8.5	24.0	0.330	0.330	0.020	0.020	0.55
JUL										
09...	1130	8890	270	7.6	--	0.920	0.880	0.020	0.020	0.45
17...	1045	20400	235	7.6	26.0	0.880	0.880	0.030	0.030	0.51
18...	1100	44100	200	7.4	26.0	0.880	0.880	0.030	0.030	0.69
19...	1045	36900	180	7.6	26.0	0.750	0.750	0.040	0.040	0.53
AUG										
06...	0900	34900	220	7.3	21.0	0.680	--	0.030	0.030	0.42
20...	1200	17500	256	7.7	24.0	0.660	0.660	0.030	0.020	0.23
SEP										
17...	1300	16100	267	7.6	24.0	0.790	0.730	<0.020	<0.020	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)
OCT										
09...	0.17	0.32	0.19	1.1	0.96	0.050	0.030	0.010	0.03	--
NOV										
20...	0.16	0.24	0.24	1.4	1.4	0.040	0.040	0.020	0.06	20
DEC										
11...	--	0.34	0.27	1.9	1.8	0.080	0.040	0.010	0.03	40
FEB										
06...	--	<0.20	<0.20	--	--	0.030	0.020	--	--	20
MAR										
18...	0.13	0.28	0.21	1.5	1.4	0.060	0.020	--	--	20
26...	0.16	0.22	0.22	1.7	1.7	0.050	0.020	0.010	0.03	20
27...	0.49	1.9	0.52	3.7	2.2	0.470	0.040	0.010	0.03	50
29...	0.49	1.4	0.52	3.0	2.2	0.280	0.020	0.010	0.03	30
30...	0.34	1.1	0.37	2.6	1.8	0.230	0.020	0.010	0.03	30
31...	--	0.54	<0.20	1.8	--	0.130	0.020	0.010	0.03	40
APR										
02...	0.16	0.38	0.22	1.8	1.7	0.080	0.020	--	--	20
06...	0.15	0.32	0.22	1.6	1.5	0.050	0.020	--	--	20
MAY										
04...	0.19	0.23	0.21	0.71	0.69	0.060	0.020	--	--	40
JUN										
01...	0.15	0.46	0.18	1.6	1.3	0.070	0.030	--	--	--
03...	--	0.55	<0.20	1.7	--	0.090	0.020	--	--	--
05...	0.50	0.65	0.53	1.5	1.4	0.120	0.020	--	--	--
18...	0.25	0.57	0.27	0.90	0.60	0.050	0.020	0.010	0.03	--
JUL										
09...	0.27	0.47	0.29	1.4	1.2	0.040	0.030	0.010	0.03	--
17...	0.30	0.54	0.33	1.4	1.2	0.060	0.030	--	--	--
18...	0.36	0.72	0.39	1.6	1.3	0.110	0.030	0.010	0.03	--
19...	0.42	0.57	0.46	1.3	1.2	0.090	0.030	0.010	0.03	--
AUG										
06...	0.23	0.45	0.26	1.1	--	0.090	0.040	0.020	0.06	--
20...	--	0.26	<0.20	0.92	--	0.040	0.010	--	--	--
SEP										
17...	--	0.27	0.24	1.1	0.97	0.050	0.040	--	--	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC TOTAL (µG/L AS AS) (01002)	CADMIUM TOTAL RECOVER -ABLE (µG/L) (01113)	CHRO- MIUM, TOTAL RECOVER -ABLE (µG/L) (01118)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)	COPPER, TOTAL RECOVER -ABLE (µG/L) (01119)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	LEAD, TOTAL RECOVER -ABLE (µG/L) (01114)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	MERCURY TOTAL RECOVER -ABLE (µG/L) (71901)
OCT 09...	--	--	--	--	--	--	--	--	--
NOV 20...	--	<1	1	1	4	3	2	<1	<0.20
DEC 11...	1	<1	3	2	4	4	2	1	<0.20
FEB 06...	<1	<1	<1	<1	1	1	<1	<1	0.20
MAR 18...	1	<1	1	<1	3	1	2	<1	0.43
26...	1	<1	1	<1	3	2	1	<1	0.20
27...	2	<1	7	<1	19	10	16	<1	0.20
29...	3	<1	3	<1	23	16	13	1	0.20
30...	2	<1	4	<1	11	2	8	<1	0.20
31...	1	<1	1	<1	5	3	4	<1	0.20
APR 02...	--	<1	1	<1	4	2	2	<1	0.20
06...	<1	<1	1	<1	3	1	1	<1	0.20
MAY 04...	1	--	1	1	3	2	1	<1	0.20
JUN 01...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NICKEL, TOTAL RECOVER- ABLE (μ G/L) (01074)	NICKEL, DIS- SOLVED (μ G/L) AS NI (01065)	SELE- NIUM, TOTAL (μ G/L) AS SE (01147)	SILVER, TOTAL RECOVER- ABLE (μ G/L) (01079)	ZINC, TOTAL RECOVER- ABLE (μ G/L) (01094)	ZINC, DIS- SOLVED (μ G/L) AS ZN (01090)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT									
09...	--	--	--	--	--	--	3.2	2	31
NOV									
20...	3	3	1	<1	8	5	3.3	1	17
DEC									
11...	6	4	<1	<1	20	7	3.3	15	1100
FEB									
06...	5	4	2	<1	6	4	2.0	4	190
MAR									
18...	5	3	1	<1	20	6	2.3	22	2780
26...	5	4	<1	<1	10	6	2.2	12	1030
27...	11	3	1	<1	50	10	4.0	341	66600
29...	16	3	<1	<1	60	9	3.2	211	98000
30...	13	3	1	<1	50	5	3.8	203	80000
31...	9	3	<1	<1	30	14	3.0	109	35300
APR									
02...	6	3	1	<1	20	9	2.3	40	9970
06...	7	4	<1	<1	20	8	1.9	22	3710
MAY									
04...	4	2	1	<1	10	2	2.2	22	2360
JUN									
01...	--	--	--	--	--	--	3.3	31	2080
03...	--	--	--	--	--	--	3.1	50	6050
05...	--	--	--	--	--	--	3.6	62	8400
18...	--	--	--	--	--	--	3.8	14	499
JUL									
09...	--	--	--	--	--	--	2.7	6	144
17...	--	--	--	--	--	--	4.6	13	716
18...	--	--	--	--	--	--	2.2	48	5720
19...	--	--	--	--	--	--	2.5	36	3590
AUG									
06...	--	--	--	--	--	--	3.9	41	3860
20...	--	--	--	--	--	--	2.8	10	473
SEP									
17...	--	--	--	--	--	--	2.9	5	217

< Actual value is known to be less than the value shown.

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 WATER (DEG C) (00010)	ALA- CHLOR TOTAL RECOVER (μ G/L) (77825)	ALDRIN, TOTAL (μ G/L) (39330)	ALPHA BHC DIS- SOLVED (μ G/L) (34253)	ATRA- ZINE WATER UNFLTRD REC (μ G/L) (39630)	CHLOR- DANE, TOTAL (μ G/L) (39350)
OCT										
09...	1245	5690	--	8.3	18.0	ND	ND	--	0.19	ND
NOV										
20...	1330	6340	--	8.1	14.0	ND	ND	--	ND	ND
DEC										
26...	1330	--	--	--	--	ND	ND	--	ND	ND
FEB										
06...	1215	17600	--	8.1	2.0	ND	ND	--	ND	ND
MAR										
27...	1030	72300	--	6.9	10.0	<0.53	ND	--	ND	ND
29...	1230	172000	--	7.1	10.0	ND	ND	--	ND	ND
31...	1045	120000	--	6.8	10.0	ND	ND	--	ND	ND
JUN										
01...	1130	24800	--	8.0	20.0	0.14	<0.008	--	0.74	<0.008
03...	0855	44800	--	7.8	20.0	<0.10	<0.008	0.008	0.36	<0.008
05...	1215	50200	--	7.9	20.0	<0.10	<0.008	--	<0.32	<0.008
17...	1100	13600	220	8.2	25.0	<0.08	<0.008	--	<0.32	<0.008
JUL										
09...	1130	8890	--	7.6	--	<0.04	<0.004	--	<0.32	<0.004
17...	1045	20400	--	7.6	26.0	<0.08	<0.008	--	0.21	<0.004
18...	1100	44100	--	7.4	26.0	<0.08	<0.008	--	0.26	<0.004
19...	1045	36900	--	7.6	26.0	<0.08	<0.008	--	0.27	<0.004
SEP										
25...	1100	12900	271	8.0	--	<0.08	<0.008	--	<0.32	<0.040

DATE	CYAN- AZINE TOTAL (μ G/L) (81757)	DI- AZINON, TOTAL (μ G/L) (39570)	DI- ELDRIN TOTAL (μ G/L) (39380)	MALA- THION, TOTAL (μ G/L) (39530)	METOLA- CHLOR WATER WHOLE TOT_REC (μ G/L) (82612)	PRO- PAZINE TOTAL (μ G/L) (39024)	SIMA- ZINE TOTAL (μ G/L) (39055)	TOX- APHENE, TOTAL (μ G/L) (39400)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT										
09...	ND	ND	ND	ND	ND	0.30	ND	ND	2	31
NOV										
20...	ND	--	ND	ND	ND	0.40	ND	ND	1	17
DEC										
26...	ND	ND	ND	ND	ND	0.28	ND	ND	--	--
FEB										
06...	ND	ND	ND	ND	ND	0.24	ND	ND	4	190
MAR										
27...	ND	ND	ND	ND	ND	ND	ND	ND	341	66600
29...	ND	ND	ND	ND	ND	ND	ND	ND	211	98000
31...	ND	ND	ND	ND	ND	ND	ND	ND	109	35300
JUN										
01...	<0.50	0.21	<0.016	<0.2	0.64	<0.40	<0.40	<0.8	31	2080
03...	<0.50	<0.13	<0.016	<0.2	<0.20	<0.40	<0.40	<0.8	50	6050
05...	<0.50	<0.08	<0.016	<0.2	<0.20	<0.40	<0.40	<0.8	62	8400
17...	<0.40	--	<0.016	<0.2	<0.20	<0.32	<0.40	<0.8	12	441
JUL										
09...	<0.20	--	<0.008	<0.1	<0.10	0.19	<0.32	<0.4	6	144
17...	<0.20	--	<0.008	<0.1	<0.10	<0.16	<0.32	<0.4	13	716
18...	<0.20	--	<0.008	<0.1	<0.10	<0.16	<0.32	<0.4	48	5720
19...	<0.20	--	<0.008	<0.1	<0.10	0.23	<0.32	<0.4	36	3590
SEP										
25...	<0.40	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	--	--

< Actual value is known to be less than the value shown.
ND Material specifically analyzed for but not detected.

CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA

LOCATION.--Lat 40°08'41", long 75°59'20", Lancaster County, Hydrologic Unit 02050306, on left bank 40 ft upstream from bridge on Smoketown Road (Township Route 773), 0.2 mi upstream from small right-bank tributary, and 1.6 mi northwest of Churchtown.

DRAINAGE AREA.--5.82 mi², excluding unnamed right-bank spring tributary 25 ft downstream.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-83-2: 1982(P).

GAGE.--Water-stage recorder and wooden control. Elevation of gage is 410 ft above National Geodetic Vertical Datum of 1929, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 16, 1982, reached a stage of 8.25 ft, from floodmarks, discharge, 1,210 ft³/s, from rating curve extended as explained on next page. Flood of June 1972 reached a stage of about 9.8 ft, discharge not determined, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.1	2.2	e2.5	e2.1	3.7	7.5	3.2	5.4	2.4	1.6	.61
2	.91	1.2	6.7	e2.4	e2.0	3.6	6.9	3.1	4.6	2.2	1.4	.56
3	.86	1.1	26	e2.4	e1.9	3.5	6.6	2.9	4.2	2.5	1.4	.56
4	.77	1.1	9.2	4.4	e1.9	3.5	6.2	2.6	3.7	2.8	1.5	.56
5	.70	1.1	5.5	3.9	e1.8	3.3	5.6	2.7	9.3	2.4	1.5	.52
6	1.2	1.1	4.8	3.4	e1.8	3.3	5.3	2.6	6.8	2.0	1.4	1.3
7	.73	1.1	4.2	3.1	e1.8	7.5	5.4	2.4	4.8	1.6	1.2	1.6
8	.70	1.1	3.9	2.9	e1.7	5.4	5.2	11	4.3	1.6	1.2	.75
9	.70	1.1	7.2	3.6	e1.7	4.5	4.9	11	3.5	1.6	1.3	.90
10	.70	1.3	20	3.6	e1.5	4.6	4.8	6.5	3.2	1.6	1.2	.65
11	.89	1.8	7.0	3.2	e1.4	10	5.0	5.6	2.9	1.6	25	.80
12	1.1	1.3	5.9	2.9	e1.7	6.1	4.6	5.0	2.6	1.5	2.8	.54
13	.92	1.3	5.8	2.9	e1.7	5.3	4.2	4.8	2.4	1.6	1.3	.51
14	.76	1.2	7.1	5.8	e1.9	e4.8	4.1	4.4	2.4	1.7	1.2	.52
15	.70	1.1	5.5	3.8	5.4	e4.2	4.0	4.1	2.4	1.6	1.1	.52
16	.96	1.1	4.6	e2.8	5.9	e3.6	4.1	5.0	2.3	3.2	1.2	.49
17	9.9	1.1	4.3	e2.5	3.5	e3.3	4.5	3.9	2.2	3.2	1.7	.43
18	3.2	1.1	3.9	e2.3	3.7	e3.5	4.4	4.3	2.0	2.3	1.5	.46
19	2.0	1.1	3.3	e1.9	4.5	e3.8	4.1	3.5	2.4	1.8	1.2	.43
20	1.7	1.1	e2.7	e1.7	4.0	6.7	3.9	3.1	4.9	1.7	.98	.37
21	1.5	1.3	e2.2	e1.6	3.6	6.2	3.9	3.0	2.5	1.6	.88	.39
22	1.5	19	e2.0	e1.6	3.4	5.8	5.1	3.0	2.4	1.8	.73	1.0
23	1.4	7.7	e2.3	e3.0	3.5	6.0	4.1	3.1	2.3	1.8	.72	1.9
24	1.3	3.5	e2.8	4.8	3.6	5.6	3.6	3.1	2.5	1.7	.63	.65
25	1.3	2.7	e2.5	3.4	3.5	5.5	3.7	3.5	2.7	1.7	.62	2.1
26	1.3	2.3	e2.3	e3.0	7.3	13	4.5	3.6	2.1	1.6	.59	14
27	1.3	2.1	e2.5	e2.7	4.9	37	3.8	3.6	2.0	1.7	.53	5.3
28	1.3	2.0	e2.2	e2.5	4.4	14	3.5	3.1	1.9	1.6	1.0	2.8
29	1.2	1.9	e3.8	e2.4	3.9	11	3.5	2.9	2.0	1.5	2.0	1.5
30	1.2	1.8	e3.4	e2.3	---	9.1	3.3	3.1	2.2	1.5	.79	1.2
31	1.1	---	e2.8	e2.2	---	8.5	---	12	---	1.5	.70	---
TOTAL	44.79	67.8	168.6	91.5	90.0	215.9	140.3	135.7	98.9	58.9	60.87	43.92
MEAN	1.44	2.26	5.44	2.95	3.10	6.96	4.68	4.38	3.30	1.90	1.96	1.46
MAX	9.9	19	26	5.8	7.3	37	7.5	12	9.3	3.2	25	14
MIN	.70	1.1	2.0	1.6	1.4	3.3	3.3	2.4	1.9	1.5	.53	.37
CFSM	.25	.39	.93	.51	.53	1.20	.80	.75	.57	.33	.34	.25
IN.	.29	.43	1.08	.58	.58	1.38	.90	.87	.63	.38	.39	.28

e Estimated.

CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.82	5.56	8.06	6.62	10.2	8.71	8.78	9.47	5.78	6.71	2.87	4.08
MAX	6.54	10.1	27.4	12.1	19.8	16.1	27.7	23.6	20.8	21.0	5.03	20.3
(WY)	1990	1984	1984	1990	1984	1983	1983	1989	1989	1984	1990	1987
MIN	1.07	2.22	2.69	2.56	3.10	3.15	2.12	4.09	1.94	1.84	1.47	1.16
(WY)	1987	1983	1990	1985	1992	1985	1985	1991	1985	1983	1983	1986

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1982 - 1992

ANNUAL TOTAL	1544.91		1217.18		6.66	
ANNUAL MEAN	4.23		3.33		12.3	1984
HIGHEST ANNUAL MEAN					3.33	1992
LOWEST ANNUAL MEAN					259	Sep 8 1987
HIGHEST DAILY MEAN	27	Jan 12	37	Mar 27	.37	Sep 20 1992
LOWEST DAILY MEAN	.42	Sep 13	.37	Sep 20	.44	Sep 15 1992
ANNUAL SEVEN-DAY MINIMUM	.47	Sep 12	.44	Sep 15	a1520	Sep 8 1987
INSTANTANEOUS PEAK FLOW			362	Aug 11	8.83	Sep 8 1987
INSTANTANEOUS PEAK STAGE			4.95	Aug 11	b.08	Feb 5 1992
INSTANTANEOUS LOW FLOW			b.08	Feb 5	1.14	
ANNUAL RUNOFF (CFSM)	.73		.57		15.55	
ANNUAL RUNOFF (INCHES)	9.87		7.78		12	
10 PERCENT EXCEEDS	8.7		5.9		3.7	
50 PERCENT EXCEEDS	2.9		2.4		1.1	
90 PERCENT EXCEEDS	.78		.87			

a From rating curve extended above 230 ft³/s on basis of slope-conveyance study and contracted-opening measurement at gage height 8.25 ft.

b Result of freezeup.

CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: August 1982 to September 1983 (discontinued).

INSTRUMENTATION.--Automatic sediment pumping sampler August 1982 to September 1991.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories. Suspended-sediment samples analyzed by U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 WATER (DEG C) (00010)	ALA- CHLOR TOTAL RECOVER (μ G/L) (77825)	ALDRIN, TOTAL (μ G/L) (39330)	ATRA- ZINE WATER UNFLTRD REC (μ G/L) (39630)	CHLOR- DANE, TOTAL (μ G/L) (39350)	CYAN- AZINE TOTAL (μ G/L) (81757)
FEB										
06...	1220	2.7	545	8.1	2.0	ND	<0.004	0.87	<0.004	ND
MAR										
26...	0920	7.0	491	7.3	6.5	ND	<0.004	<0.21	<0.004	ND
26...	2400	70	276	7.4	7.0	ND	ND	<0.80	ND	ND
28...	0930	14	474	7.6	--	ND	<0.004	0.32	<0.004	ND
MAY										
04...	1400	3.0	449	7.7	14.0	<0.10	<0.008	<0.40	<0.008	<0.50
31...	0500	5.0	406	7.9	14.5	0.12	<0.008	1.4	<0.008	<0.50
31...	0800	30	379	7.4	15.0	<0.10	<0.008	11	<0.008	0.69
31...	0801	--	--	--	--	0.12	<0.008	15	<0.008	1.1
JUN										
01...	1000	5.0	482	8.1	15.5	0.22	<0.008	2.9	<0.008	1.1
05...	1230	14	398	7.4	17.5	<0.10	<0.008	7.6	<0.008	<0.50
17...	1230	3.0	501	8.2	23.0	<0.08	<0.008	0.80	<0.008	<0.40
JUL										
09...	1150	3.0	470	7.8	25.0	<0.04	<0.004	0.41	<0.004	<0.20
AUG										
11...	1700	105	223	7.0	21.0	<0.08	<0.008	2.2	<0.080	0.55
11...	1701	--	--	--	--	0.31	<0.008	1.8	<0.080	0.55
11...	1702	--	--	--	--	<0.20	--	1.2	--	<0.20
11...	1745	48	242	6.9	21.5	0.17	<0.008	1.5	<0.080	<0.40
SEP										
24...	0940	0.28	515	7.8	13.5	<0.08	0.030	0.56	<0.040	<0.40
26...	0130	47	298	7.1	13.5	<0.08	<0.008	<0.32	<0.040	<0.40
26...	0131	--	--	--	--	<0.08	<0.008	<0.32	<0.040	<0.40
26...	0615	14	327	7.6	13.5	<0.08	<0.008	<0.32	<0.040	<0.40

DATE	DI- AZINON, TOTAL (μ G/L) (39570)	DI- ELDRIN TOTAL (μ G/L) (39380)	MALA- THION, TOTAL (μ G/L) (39530)	METOLA- CHLOR WATER WHOLE TOT.REC (μ G/L) (82612)	PRO- PAZINE TOTAL (μ G/L) (39024)	SIMA- ZINE TOTAL (μ G/L) (39055)	TOX- APHENE, TOTAL (μ G/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
FEB									
06...	ND	<0.008	<0.1	<0.1	<0.21	<0.21	<0.4	7	0.05
MAR									
26...	ND	<0.008	<0.1	<0.1	<0.21	<0.21	<0.4	34	0.64
26...	ND	ND	ND	ND	2.0	0.78	ND	2660	503
28...	ND	<0.008	<0.1	<0.1	<0.21	1.6	<0.4	49	1.9
MAY									
04...	<0.08	<0.016	<0.2	<0.2	0.73	0.89	<0.8	31	0.25
31...	<0.08	<0.016	<0.2	1.1	<0.40	<0.40	<0.8	537	7.2
31...	<0.08	<0.016	<0.2	4.6	1.7	<0.40	<0.8	760	62
31...	<0.08	<0.016	<0.2	5.0	1.7	0.42	<0.8	--	--
JUN									
01...	<0.08	<0.016	<0.2	2.0	<0.40	0.77	<0.8	20	0.27
05...	<0.08	<0.016	<0.2	1.7	<0.40	<0.40	<0.8	173	6.5
17...	--	<0.016	<0.2	<0.20	<0.32	0.48	<0.8	406	3.3
JUL									
09...	--	<0.008	<0.1	<0.10	0.69	0.24	<0.4	79	0.64
AUG									
11...	--	<0.016	<0.2	<0.20	2.4	<0.32	<0.8	1970	558
11...	--	<0.016	<0.2	<0.20	2.6	<0.32	<0.8	1960	--
11...	--	--	--	0.80	<0.10	<0.10	--	--	--
11...	--	<0.016	<0.2	<0.20	2.3	<0.32	<0.8	1130	146
SEP									
24...	--	<0.016	<0.2	<0.20	<0.32	0.46	<0.8	--	--
26...	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	1020	129
26...	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	--	--
26...	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	319	12

< Actual value is known to be less than the value shown.

ND Material specifically analyzed for but not detected.

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA

LOCATION.--Lat 40°03'00", long 76°16'39", Lancaster County, Hydrologic Unit 02050306, on left bank at Penn Central Railroad bridge, 50 ft downstream from small right-bank tributary, 500 ft downstream from diversion dam at city water plant, and 0.7 mi east of Lancaster.

DRAINAGE AREA.--324 mi².

PERIOD OF RECORD.--October 1928 to March 1932; August, September 1932; April 1933 to current year. Prior to October 1973, published as Conestoga Creek at Lancaster.

REVISED RECORDS.--WSP 1202: Drainage area. WSP 1502: 1943(P). WDR PA-87-2: 1985-86(P) (monthly and yearly summaries) WDR PA-90-2: 1972(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 245.63 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1933, at site 600 ft upstream at different datum, excluding small tributary.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation at low flow by water plant and mill above station. Diversion upstream for municipal supply of city of Lancaster. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

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

AVERAGE DISCHARGE.--62 years, (1929-31, 1934-92), 402 ft³/s, 16.85 in/yr, adjusted for diversion.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	99	130	209	188	244	712	270	700	175	156	94
2	97	93	180	205	161	227	623	257	352	168	147	86
3	95	93	1250	205	171	222	550	247	287	181	141	94
4	96	93	856	210	167	219	507	241	251	238	143	93
5	89	93	426	311	158	208	477	243	416	208	156	89
6	114	91	325	259	158	208	447	258	922	517	143	96
7	124	85	283	219	151	311	412	234	694	272	128	142
8	101	85	258	203	149	484	395	270	687	197	114	151
9	90	85	282	198	142	317	380	862	425	183	119	123
10	86	85	905	259	131	275	368	425	361	185	120	116
11	88	90	545	233	135	554	383	323	321	237	151	151
12	106	122	383	210	136	487	368	287	297	193	344	131
13	117	119	342	199	131	345	347	270	278	197	169	101
14	107	108	386	317	136	299	315	260	265	241	142	95
15	99	105	386	453	154	287	307	246	252	234	135	90
16	93	98	307	269	468	278	302	273	239	260	136	87
17	297	94	275	e200	324	279	315	280	227	629	145	88
18	763	93	261	e170	251	280	343	261	218	540	165	82
19	275	92	233	e140	261	334	347	302	285	310	171	73
20	196	91	232	e170	276	419	341	245	364	238	149	70
21	163	88	227	197	239	443	301	215	270	208	127	75
22	143	237	226	192	218	406	368	206	229	192	118	79
23	134	1050	225	194	208	398	400	199	215	247	104	107
24	125	330	235	359	209	402	318	192	232	407	103	104
25	120	221	217	256	227	363	289	192	306	266	103	106
26	111	180	205	241	415	514	389	206	240	230	101	589
27	108	152	198	200	403	3200	385	237	211	242	92	345
28	107	140	190	201	295	1450	319	216	202	228	97	255
29	102	136	226	195	269	1020	287	210	192	197	138	179
30	100	130	362	190	---	859	272	220	183	177	128	138
31	99	---	270	191	---	814	---	747	---	163	105	---
TOTAL	4448	4578	10826	7055	6331	16146	11567	8894	10121	7960	4290	4029
MEAN	143	153	349	228	218	521	386	287	337	257	138	134
MAX	763	1050	1250	453	468	3200	712	862	922	629	344	589
MIN	86	85	130	140	131	208	272	192	183	163	92	70
(†)	10.3	8.6	8.3	8.0	9.6	9.4	8.9	10.5	11.4	11.0	13.7	13.1
MEAN‡	153	162	357	236	228	530	395	298	348	268	152	147
CFSM‡	.47	.50	1.10	.73	.70	1.64	1.22	.92	1.07	.83	.47	.45
IN.‡	.54	.56	1.27	.84	.75	1.89	1.36	1.06	1.19	.96	.54	.50

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

‡ Adjusted for diversion.

e Estimated.

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA--Continued

REMARKS.--All figures unadjusted unless otherwise indicated.

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	266	371	460	552	642	609	460	384	308	243	216
MAX	930	648	1300	1699	1191	1765	1710	1529	3286	944	1427	908
(WY)	1980	1976	1984	1979	1979	1936	1983	1989	1972	1984	1933	1987
MIN	33.2	41.1	71.0	61.3	166	159	166	148	92.0	63.4	30.3	40.9
(WY)	1931	1931	1931	1981	1931	1981	1985	1965	1965	1963	1957	1957

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL TOTAL	109006		96245									
ANNUAL MEAN	299	‡309	263	‡273					390			
HIGHEST ANNUAL MEAN									753			1972
LOWEST ANNUAL MEAN									143			1981
HIGHEST DAILY MEAN	1480	Jan 17	3200	Mar 27					47600		Jun 23	1972
LOWEST DAILY MEAN	52	Sep 16	70	Sep 20					7.0		Aug 11	1930
ANNUAL SEVEN-DAY MINIMUM	59	Aug 3	79	Sep 16					20		Aug 9	1930
INSTANTANEOUS PEAK FLOW			4810	Mar 27					a50300		Jun 23	1972
INSTANTANEOUS PEAK STAGE			8.69	Mar 27					b27.90		Jun 23	1972
ANNUAL RUNOFF (CFSM)	.92	‡.95	.81	‡.84					1.20			
ANNUAL RUNOFF (INCHES)	12.52	‡12.96	11.05	‡11.45					16.36			
10 PERCENT EXCEEDS	632		425						794			
50 PERCENT EXCEEDS	207		217						254			
90 PERCENT EXCEEDS	77		96						83			

‡ Adjusted for diversion.

a From rating curve extended above 13,000 ft³/s on basis of slope-area measurement at gage height 17.50 ft and contracted-opening measurement of peak flow.

b From floodmark.

CONESTOGA RIVER BASIN

01576520 MUDDY RUN AT WEAVERTOWN, PA

LOCATION.--Lat 40°02'51", long 76°09'43", Lancaster County, Hydrologic Unit 02050306, on left bank 200 feet upstream from bridge on North Harvest Road (Township Route 692), 0.9 mi northeast of Weavertown, 1.3 mi south of Mascot, 2.0 mi west of Intercourse, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--6.68 mi².

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

COOPERATION.--Agency collection codes: 1028 - U.S. Geological Survey. Agency analyzing codes: 80020 - U.S. Geological Survey.

REMARKS.--Operated as part of the Mill Creek project. Additional data may be found on pages 205-206, 222-226, and 334-337.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	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, 0.7 μM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	
MAY													
01...	1045	1028	80020	--	--	--	--	--	--	11.9	0.110	12.0	
JUN													
17...	0815	1028	80020	875	7.3	13.0	7.1	7600	2700	8.53	0.270	8.80	
19...	1300	1028	80020	--	--	--	--	--	--	8.27	0.230	8.50	
19...	2315	1028	80020	--	--	--	--	--	--	4.95	0.350	5.30	
20...	0030	1028	80020	--	--	--	--	--	--	1.17	0.130	1.30	
20...	0100	1028	80020	--	--	--	--	--	--	1.87	0.130	2.00	
20...	0130	1028	80020	--	--	--	--	--	--	1.75	0.150	1.90	
20...	0400	1028	80020	--	--	--	--	--	--	2.94	0.160	3.10	
20...	0645	1028	80020	--	--	--	--	--	--	5.43	0.270	5.70	
20...	0900	1028	80020	--	--	--	--	--	--	4.59	0.210	4.80	
22...	0915	1028	80020	--	--	--	--	--	--	--	--	--	
JUL													
17...	2130	1028	80020	--	--	--	--	--	--	7.12	0.380	7.50	
17...	2300	1028	80020	--	--	--	--	--	--	8.16	0.440	8.60	
17...	2315	1028	80020	--	--	--	--	--	--	7.37	0.630	8.00	
17...	2345	1028	80020	--	--	--	--	--	--	7.08	0.620	7.70	
18...	0115	1028	80020	--	--	--	--	--	--	4.90	0.400	5.30	
18...	0315	1028	80020	--	--	--	--	--	--	4.07	0.430	4.50	
20...	0950	1028	80020	650	7.6	20.5	9.3	28600	9600	8.70	0.300	9.00	
AUG													
18...	0900	1028	80020	--	--	--	--	--	--	8.54	0.260	8.80	
DATE		NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NH4 TOTAL (MG/KG AS N) (00611)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORG. TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/KG AS P) (00668)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)
MAY													
01...	--	0.090	--	0.31	0.40	--	12	0.100	0.100	--	--	--	--
JUN													
17...	--	0.050	--	0.45	0.50	--	9.3	0.100	0.070	--	--	--	--
19...	--	0.130	--	1.9	2.0	--	10	0.460	0.080	--	--	--	--
19...	--	0.410	--	2.3	2.7	--	8.0	0.520	0.240	--	--	--	--
20...	--	1.70	--	8.3	10	--	11	13.0	0.330	--	--	--	--
20...	--	1.50	--	2.1	3.6	--	5.6	18.0	0.330	--	--	--	--
20...	--	0.980	--	8.8	9.8	--	12	11.0	0.310	--	--	--	--
20...	--	0.690	--	2.5	3.2	--	6.3	4.40	1.10	--	--	--	--
20...	--	0.520	--	2.9	3.4	--	9.1	1.90	1.00	--	--	--	--
20...	--	0.730	--	3.6	4.3	--	9.1	2.80	1.10	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	<0.05	<0.05
JUL													
17...	--	0.140	--	2.1	2.2	--	9.7	0.500	0.110	--	--	--	--
17...	--	0.170	--	1.7	1.9	--	10	0.560	0.220	--	--	--	--
17...	--	0.320	--	3.4	3.7	--	12	1.80	0.550	--	--	--	--
17...	--	0.940	--	3.6	4.5	--	12	1.70	0.730	--	--	--	--
18...	--	1.20	--	4.3	5.5	--	11	2.70	1.60	--	--	--	--
18...	--	1.00	--	3.7	4.7	--	9.2	2.00	0.960	--	--	--	--
20...	--	0.340	--	0.96	1.3	--	10	0.260	0.190	--	--	<0.05	<0.05
AUG													
18...	13	0.320	170	0.98	1.3	2700	10	0.370	0.270	3700	<0.05	<0.05	

< Actual value is known to be less than the value shown.

CONESTOGA RIVER BASIN

01576520 MUDDY RUN AT WEAVERTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ATRA- ZINE, WATER, DISS, REC ($\mu\text{G/L}$) (39632)	CYANA- ZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04040)	DEISO- PROPYL ATRAZIN WATER, DISS, REC ($\mu\text{G/L}$) (04038)	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,WH REC,AS ATRAZIN ($\mu\text{G/L}$) (34757)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
22...	0.30	<0.20	0.25	<0.05	0.29	<0.05	0.11	<0.05	<0.05	0.11	--	--
JUL												
17...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
20...	0.16	<0.20	0.24	0.07	0.09	<0.05	0.11	<0.05	<0.05	0.08	--	--
AUG												
18...	0.17	0.30	0.24	0.11	0.30	<0.05	0.13	<0.05	<0.05	0.08	0.5	68

< Actual value is known to be less than the value shown.

CONESTOGA RIVER BASIN

01576540 MILL CREEK AT ESHELMAN MILL ROAD NEAR LYNDON, PA

LOCATION.--Lat 40°00'36", long 76°16'39", Lancaster County, Hydrologic Unit 02050306, at bridge on Eshelman Mill Road (Township Route 476), 0.8 mi east of Lyndon, 2.2 mi southeast of Lancaster, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--54.2 mi².

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

COOPERATION.--Agency collection codes: 1028 - U.S. Geological Survey. Agency analyzing codes: 9813 - Pennsylvania Department of Environmental Resources, 80020 - U.S. Geological Survey. Suspended-sediment samples analyzed by U.S. Geological Survey.

REMARKS.--Operated as part of the Mill Creek project. Additional data may be found on pages 203-204, 222-226, and 334-337.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	ALA- CHLOR TOTAL RECOVER (μG/L) (77825)	ALDRIN, TOTAL (μG/L) (39330)	ATRA- ZINE WATER UNFLTRD REC (μG/L) (39630)	CHLOR- DANE, TOTAL (μG/L) (39350)
FEB											
06...	1120	1028	9813	--	806	8.3	2.0	ND	<0.004	0.27	<0.004
MAR											
26...	1030	1028	9813	17	742	7.6	7.5	ND	<0.004	0.22	<0.004
27...	0400	1028	9813	160	442	7.2	7.0	ND	ND	<0.80	ND
28...	1020	1028	9813	35	535	7.5	--	ND	<0.004	<0.21	<0.004
MAY											
04...	1250	1028	9813	38	785	7.5	16.0	<0.10	<0.008	<0.40	<0.008
31...	0600	1028	9813	44	698	8.0	16.0	<0.10	<0.008	2.5	<0.008
31...	1145	1028	9813	54	705	8.2	16.5	<0.10	<0.008	0.89	<0.008
JUN											
01...	1130	1028	9813	41	780	8.2	17.0	<0.10	<0.008	0.48	<0.008
05...	1330	1028	9813	70	516	7.9	18.5	<0.40	<0.008	2.1	<0.008
17...	1100	1028	9813	29	550	7.7	19.5	<0.08	<0.008	0.39	<0.008
20...	0200	1028	9813	58	550	7.7	19.5	<0.04	<0.004	1.2	<0.004
20...	1430	1028	9813	70	1030	7.9	20.5	0.27	<0.004	2.0	<0.004
JUL											
09...	1340	1028	9813	26	771	8.1	24.5	<0.04	<0.004	0.24	<0.004
17...	0120	1028	9813	52	639	8.0	23.5	<0.04	<0.004	2.2	<0.004
17...	0121	1028	9813	--	--	--	--	<0.04	<0.004	0.14	<0.004
SEP											
24...	1115	1028	9813	25	1050	8.2	14.5	<0.08	<0.008	<0.32	<0.040
26...	0250	1028	9813	110	758	7.5	14.5	<0.08	<0.008	<0.32	<0.040
26...	0715	1028	9813	92	637	7.6	14.0	<0.08	<0.008	<0.32	<0.040

DATE	CYAN- AZINE TOTAL (μG/L) (81757)	DI- AZINON, TOTAL (μG/L) (39570)	DI- ELDRIN TOTAL (μG/L) (39380)	MALA- THION, TOTAL (μG/L) (39530)	METOLA- CHLOR WATER WHOLE TOT.REC (μG/L) (82612)	PRO- PAZINE TOTAL (μG/L) (39024)	SIMA- ZINE TOTAL (μG/L) (39055)	TOX- APHENE, TOTAL (μG/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
FEB										
06...	ND	ND	<0.008	<0.10	<0.10	0.29	0.30	<0.4	4	--
MAR										
26...	ND	ND	<0.008	<0.10	<0.10	<0.21	0.28	<0.4	7	0.32
27...	ND	ND	ND	ND	ND	ND	ND	ND	2200	950
28...	ND	ND	<0.008	<0.10	<0.10	<0.21	<0.84	<0.4	81	7.7
MAY										
04...	<0.50	<0.08	<0.016	<0.20	<0.20	<0.40	1.7	<0.8	24	2.5
31...	2.0	0.25	<0.016	<0.20	0.69	0.54	0.50	<0.8	86	10
31...	<0.50	0.11	<0.016	<0.20	0.55	0.82	0.87	<0.8	214	31
JUN										
01...	<0.50	<0.08	<0.016	<0.20	0.48	0.47	1.2	<0.8	57	6.3
05...	1.3	0.08	<0.016	<0.20	0.69	0.92	0.43	<0.8	550	104
17...	<0.40	--	<0.016	<0.20	<0.20	0.42	6.0	<0.8	34	2.7
20...	<0.20	--	<0.008	<0.10	0.27	<1.6	12	<0.4	952	149
20...	0.22	--	<0.008	<0.10	0.98	<1.6	3.1	<0.4	241	46
JUL										
09...	<0.20	--	<0.008	<0.10	<0.10	0.74	0.44	<0.4	22	1.5
17...	<0.20	--	<0.008	<0.10	<0.10	1.9	2.8	<0.4	276	39
17...	<0.20	--	<0.008	<0.10	<0.10	0.17	0.17	<0.4	--	--
SEP										
24...	<0.40	--	<0.016	<0.20	<0.20	<0.32	3.2	<0.8	21	1.4
26...	<0.40	--	<0.016	<0.20	<0.20	<0.32	0.52	<0.8	726	216
26...	<0.40	--	<0.016	<0.20	<0.20	<0.32	<0.32	<0.8	198	49

< Actual value is known to be less than the value shown.
ND Material specifically analyzed for but not detected.

CONESTOGA RIVER BASIN

01576540 MILL CREEK AT ESHELMAN MILL ROAD NEAR LYNDON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (000027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (000028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 μ M-MF (COLS./ 100 ML) (31625)
JUN											
17...	1135	1028	80020	29	816	8.1	21.5	764	8.6	97	K 800
22...	0945	1028	80020	--	--	--	--	--	--	--	--
JUL											
20...	1150	1028	80020	38	684	7.8	24.0	--	7.9	--	K 3400
AUG											
18...	1335	1028	80020	26	867	8.0	20.5	--	--	--	3600

DATE	STREP- TOCOC- FECAL, KF AGAR (COLS. PER 100 ML) (31673)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)
JUN										
17...	1300	6.67	0.030	6.70	--	0.040	--	0.46	0.50	--
22...	--	--	--	--	--	--	--	--	--	--
JUL										
20...	K 2000	5.33	0.070	5.40	--	0.120	--	0.98	1.1	--
AUG										
18...	4400	7.66	0.040	7.70	15	0.070	15	0.43	0.50	280

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ALA- CHLOR, WATER, DISS, REC, (μ G/L) (46342)	AMETRYN WATER, DISS, REC, (μ G/L) (38401)	ATRA- ZINE, WATER, DISS, REC, (μ G/L) (39632)	CYANA- ZINE, WATER, DISS, REC, (μ G/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (μ G/L) (04040)
JUN									
17...	7.2	0.220	0.180	--	--	--	--	--	--
22...	--	--	--	--	0.07	<0.05	2.9	1.4	0.72
JUL									
20...	6.5	0.420	0.340	--	<0.05	<0.05	0.32	0.20	0.20
AUG									
18...	8.2	0.230	0.210	920	<0.05	<0.05	0.14	<0.20	0.21

DATE	DEISO- PROPYL ATRAZIN WATER, DISS, REC (μ G/L) (04038)	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN WATER DISSOLV (μ G/L) (82630)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	PROP- AZINE WATER, DISS, REC (μ G/L) (38535)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUN										
17...	--	--	--	--	--	--	--	--	14	1.1
22...	0.45	3.6	<0.05	0.71	<0.05	<0.05	0.57	--	--	--
JUL										
20...	0.14	0.34	<0.05	0.70	<0.05	<0.05	0.14	--	25	2.6
AUG										
18...	0.13	0.07	<0.05	0.34	<0.05	<0.05	0.12	44	18	1.3

< Actual value is known to be less than the value shown.
K Results based on non-ideal colony count.

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA

LOCATION.--Lat 39°56'47", long 76°22'05", Lancaster County, Hydrologic Unit 02050306, on left bank on SR 3030, 1,500 ft downstream from Little Conestoga Creek, 1.0 mi west of Conestoga, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--470 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WDR PA-86-2: 1985(M).

GAGE.--Water-stage recorder. Datum of gage is 180.45 ft above National Geodetic Vertical Datum of 1929.

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 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	177	234	340	285	365	945	385	1200	234	249	164
2	186	177	292	311	271	338	843	376	534	227	232	148
3	174	167	1700	311	257	335	767	366	398	249	222	151
4	177	167	1520	340	270	327	707	354	345	394	225	161
5	167	167	700	402	255	320	661	378	676	293	225	154
6	276	167	501	388	253	317	627	427	1230	451	229	172
7	239	164	433	340	251	445	586	359	798	452	208	233
8	194	154	388	311	245	658	555	412	1080	268	190	246
9	164	161	412	311	242	468	538	968	608	238	190	250
10	154	161	1360	340	228	404	512	668	507	233	194	205
11	173	197	906	349	235	531	535	468	438	259	212	290
12	203	197	594	312	228	786	516	412	394	280	473	229
13	190	229	534	290	228	491	483	385	372	237	307	185
14	180	190	558	366	240	422	449	376	346	314	232	160
15	170	174	570	654	270	400	424	360	333	341	215	157
16	164	167	467	418	483	387	420	408	314	328	218	149
17	584	151	420	e330	496	378	424	406	296	637	229	143
18	1480	148	392	e290	378	373	450	380	287	755	218	143
19	510	144	366	e250	364	451	456	406	362	511	252	131
20	326	154	348	e290	388	547	449	379	561	357	239	117
21	273	161	348	356	357	551	426	336	404	311	211	116
22	246	443	344	296	328	520	519	311	315	307	197	129
23	232	1500	353	309	307	517	543	299	281	323	180	185
24	222	607	357	429	311	520	468	292	299	532	164	176
25	215	355	340	431	332	467	414	288	385	388	164	186
26	204	291	319	350	438	571	591	303	338	353	164	928
27	194	256	303	323	624	4450	572	348	281	323	158	718
28	194	238	299	309	428	2310	477	328	260	344	172	407
29	187	222	371	302	384	1430	413	291	249	299	293	315
30	180	225	480	293	---	1160	393	296	247	270	220	252
31	180	---	416	282	---	1060	---	635	---	256	190	---
TOTAL	8228	7711	16625	10623	9376	22299	16163	12400	14138	10764	6872	7000
MEAN	265	257	536	343	323	719	539	400	471	347	222	233
MAX	1480	1500	1700	654	624	4450	945	968	1230	755	473	928
MIN	154	144	234	250	228	317	393	288	247	227	158	116
CFSM	.56	.55	1.14	.73	.69	1.53	1.15	.85	1.00	.74	.47	.50
IN.	.65	.61	1.32	.84	.74	1.76	1.28	.98	1.12	.85	.54	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

	MEAN	354	504	604	682	820	720	615	798	500	534	376	436
MAX	651	717	1086	1119	1264	1060	814	2148	1277	1202	659	1252	
(WY)	1990	1987	1987	1991	1986	1986	1986	1989	1989	1988	1986	1987	
MIN	243	257	276	343	323	366	274	397	223	192	191	233	
(WY)	1987	1992	1990	1992	1992	1985	1985	1991	1991	1991	1987	1992	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1985 - 1992

ANNUAL TOTAL	164696		142199									
ANNUAL MEAN	451		389									
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	2360	Jan 17	4450	Mar 27	13500	Sep 9	1987					
LOWEST DAILY MEAN	96	Sep 3	116	Sep 21	89	Sep 23	1985					
ANNUAL SEVEN-DAY MINIMUM	108	Sep 7	133	Sep 16	106	Sep 20	1985					
INSTANTANEOUS PEAK FLOW			6040	Mar 27	19000	Sep 9	1987					
INSTANTANEOUS PEAK STAGE			6.75	Mar 27	14.37	Sep 9	1987					
INSTANTANEOUS LOW FLOW			107	Sep 20,21	82	Aug 22	1987					
ANNUAL RUNOFF (CFSM)	.96		.83									
ANNUAL RUNOFF (INCHES)	13.04		11.25									
10 PERCENT EXCEEDS	898		598		1020							
50 PERCENT EXCEEDS	326		323		420							
90 PERCENT EXCEEDS	147		169		204							

e Estimated.

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

WATER-QUALITY RECORDS

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

INSTRUMENTATION.--Automatic pumping sampler since October 1986.

REMARKS.--Monthly base-flow samples collected from bridge on River Road 1.6 miles downstream from gage.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission (SRBC) and analyzed by the Pennsylvania Department of Environmental Resources. Suspended-sediment samples analyzed by the SRBC.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE PER FIELD (μ S/CM) (00094)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT											
09...	1100	151	630	8.0	13.0	7.26	7.26	0.050	0.040	0.50	0.40
NOV											
20...	1230	164	776	8.2	11.0	6.78	6.78	0.040	0.040	0.58	0.44
DEC											
03...	0200	1170	--	--	--	6.53	6.53	0.200	0.200	0.94	0.58
03...	0400	1190	--	--	--	6.77	6.53	0.170	0.170	0.68	0.51
03...	0600	1160	--	--	--	6.53	6.53	0.200	0.200	0.91	0.56
03...	1000	1110	--	--	--	5.81	5.81	0.320	0.320	1.4	0.50
03...	1200	1560	--	--	--	6.05	6.05	0.230	0.230	0.84	0.38
03...	1430	2460	--	--	--	6.53	6.29	0.170	0.170	1.7	0.58
03...	1630	2410	--	--	--	6.05	6.05	0.240	0.240	1.9	0.62
03...	1830	2270	--	--	--	6.53	6.29	0.170	0.170	1.7	0.66
03...	2030	2130	--	--	--	6.53	6.29	0.240	0.240	1.7	0.51
03...	2230	2220	--	--	--	6.29	6.29	0.210	0.210	1.5	0.46
04...	0030	2310	--	--	--	5.57	5.32	0.220	0.220	1.8	0.52
04...	0230	2210	--	--	--	4.84	4.60	0.260	0.260	2.1	0.66
04...	0430	1930	--	--	--	4.60	4.60	0.370	0.340	2.0	0.80
04...	0630	1720	--	--	--	4.36	4.36	0.370	0.340	1.9	0.81
04...	0830	1620	--	--	--	4.36	4.36	0.300	0.280	1.6	0.77
04...	1030	1540	--	--	--	4.36	--	0.290	0.280	1.4	0.97
04...	1230	1410	--	--	--	4.60	4.36	0.280	0.260	1.2	1.0
04...	1430	1320	374	7.3	--	3.87	3.87	0.260	0.260	1.6	0.86
04...	1630	1230	352	7.5	--	3.87	3.87	0.260	0.260	1.3	0.51
04...	1830	1140	355	7.5	--	4.11	4.11	0.280	0.280	1.3	1.3
04...	2030	1050	360	7.6	--	4.36	4.36	0.240	0.230	1.4	0.52
04...	2230	965	365	7.6	--	4.36	4.36	0.250	0.250	1.3	1.1
05...	0030	916	371	7.7	--	4.11	4.11	0.240	0.240	1.0	0.61
26...	1140	299	665	8.1	3.0	10.6	10.6	0.070	0.070	0.33	0.33
FEB											
06...	1050	229	640	8.2	1.0	8.71	8.71	0.260	0.260	0.52	0.38
MAR											
18...	1100	349	550	8.2	10.0	9.24	8.71	0.110	0.110	0.34	0.34
26...	1300	472	550	7.4	9.0	7.30	7.30	0.140	0.140	0.86	0.39
26...	2300	1220	--	--	--	7.02	6.77	0.460	0.460	2.4	1.2
27...	0100	1970	--	--	--	6.53	6.53	0.480	0.480	3.2	1.3
27...	0300	2700	--	--	--	6.53	6.53	0.470	0.470	2.6	1.3
27...	0500	3130	--	--	--	6.05	5.81	0.410	0.410	2.7	1.3
27...	0700	3570	--	--	--	6.05	6.05	0.410	0.400	3.2	1.4
27...	0900	4510	--	--	--	6.05	5.81	0.490	0.490	5.7	1.2
27...	1100	5340	--	--	--	5.81	5.57	0.600	0.600	9.0	1.0
27...	1300	5830	--	--	--	5.32	5.32	0.610	0.600	6.1	1.5
27...	1400	5960	--	--	--	5.08	5.08	0.590	0.590	4.8	0.88
27...	1405	5960	--	--	--	5.08	5.08	0.550	0.550	10	0.80
27...	1500	6000	360	7.1	--	4.36	4.36	0.470	0.470	7.9	0.64
27...	1700	5990	--	--	--	3.87	3.87	0.550	0.550	8.2	0.82
27...	1900	5540	275	7.2	--	3.63	3.63	0.480	0.480	7.7	1.1
27...	2100	4820	255	7.2	--	3.87	3.87	0.400	0.400	4.9	1.0
27...	2300	4140	255	7.1	--	3.87	3.63	0.360	0.360	3.4	0.97
28...	0100	3520	257	7.1	--	4.11	3.87	0.410	0.410	3.4	1.1
28...	0300	3070	255	7.2	--	4.36	4.11	0.350	0.350	2.8	1.0
28...	0500	2780	263	7.3	--	4.36	4.36	0.340	0.340	1.6	0.74
28...	0700	2540	275	7.3	--	4.11	4.11	0.350	0.340	2.7	0.82
28...	0900	2340	275	7.3	--	4.60	4.36	0.340	0.340	1.7	0.74
28...	1100	2190	275	7.4	--	4.84	4.60	0.340	0.340	1.8	1.3
28...	1300	2080	280	7.4	--	4.84	4.84	0.280	0.280	1.6	0.91
28...	1500	1990	295	7.5	--	5.08	5.08	0.300	0.300	1.5	0.74
28...	1700	1860	310	7.5	--	5.32	5.08	0.250	0.240	1.4	0.70
28...	1900	1810	305	7.5	--	5.57	5.32	0.230	0.230	1.6	0.92
28...	2100	1780	310	7.6	--	5.57	5.57	0.250	0.240	1.4	0.82
28...	2300	1710	320	7.6	--	5.81	5.32	0.250	0.250	1.4	0.74
29...	0100	1650	320	7.6	--	5.81	5.81	0.180	0.180	1.3	0.65
29...	1130	1410	480	7.2	8.0	7.74	7.50	0.160	0.150	0.91	0.54
29...	1630	1350	325	7.7	--	7.26	7.26	0.110	0.110	0.85	0.61
30...	0230	1250	330	7.8	--	7.70	7.48	0.150	0.150	0.68	0.43
30...	1230	1140	330	7.9	--	8.71	7.74	0.150	0.150	0.50	0.44
30...	1500	1130	480	7.2	10.0	8.23	8.23	0.130	0.120	0.90	0.78
30...	1505	1130	480	7.1	10.0	8.71	8.47	0.090	0.070	0.61	0.62

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY) (80155)
OCT										
09...	0.55	0.44	7.8	7.7	0.340	0.320	0.280	3.5	2	0.82
NOV										
20...	0.62	0.48	7.4	7.3	0.150	0.130	0.090	4.1	2	0.89
DEC										
03...	1.1	0.78	7.7	7.3	0.350	0.220	0.180	19	115	362
03...	0.85	0.68	7.6	7.2	0.320	0.190	0.160	7.5	47	152
03...	1.1	0.76	7.6	7.3	0.310	0.190	0.170	5.9	50	156
03...	1.7	0.82	7.5	6.6	0.460	0.220	0.200	6.6	70	210
03...	1.1	0.61	7.1	6.7	0.450	0.180	0.150	5.1	83	349
03...	1.9	0.75	8.5	7.0	0.670	0.170	0.120	5.4	150	998
03...	2.1	0.86	8.2	6.9	0.790	0.190	0.130	5.7	221	1440
03...	1.9	0.83	8.5	7.1	0.710	0.180	0.130	5.7	219	1340
03...	1.9	0.75	8.5	7.0	0.690	0.210	0.160	6.0	181	1040
03...	1.7	0.67	8.0	7.0	0.700	0.200	0.160	5.9	196	1170
04...	2.0	0.74	7.6	6.1	0.840	0.230	0.170	6.8	253	1580
04...	2.4	0.92	7.3	5.5	0.900	0.290	0.230	10	250	1490
04...	2.4	1.1	7.0	5.7	0.960	0.360	0.280	11	240	1250
04...	2.3	1.2	6.7	5.5	0.890	0.360	0.290	11	202	940
04...	1.9	1.0	6.3	5.4	0.740	0.350	0.280	10	146	638
04...	1.7	1.2	6.1	--	0.700	0.340	0.280	11	139	576
04...	1.5	1.3	6.1	5.6	0.630	0.340	0.270	10	108	411
04...	1.9	1.1	5.8	5.0	0.620	0.340	0.280	9.1	99	353
04...	1.5	0.77	5.4	4.6	0.620	0.350	0.290	9.1	89	296
04...	1.6	1.6	5.7	5.7	0.580	0.350	0.310	8.9	81	249
04...	1.6	0.75	6.0	5.1	0.570	0.350	0.280	8.9	69	196
04...	1.6	1.3	5.9	5.7	0.520	0.350	0.290	8.7	56	146
05...	1.3	0.85	5.4	5.0	0.530	0.340	0.270	8.8	64	158
26...	0.40	0.40	11	11	0.110	0.110	0.080	2.2	3	2.4
FEB										
06...	0.78	0.64	9.5	9.3	0.130	0.100	0.080	3.0	7	4.3
MAR										
18...	0.45	0.45	9.7	9.2	0.090	0.060	0.030	2.8	8	7.5
26...	1.0	0.53	8.3	7.8	0.160	0.050	0.020	25	210	268
26...	2.9	1.7	9.9	8.5	0.890	0.300	0.150	8.0	--	--
27...	3.7	1.8	10	8.4	1.01	0.240	0.160	7.0	455	2420
27...	3.0	1.8	9.6	8.3	0.770	0.190	0.150	6.6	312	2270
27...	3.1	1.7	9.2	7.5	0.750	0.130	0.100	5.5	273	2300
27...	3.7	1.8	9.7	7.9	0.990	0.110	0.090	5.0	374	3600
27...	6.2	1.7	12	7.6	2.28	0.160	0.130	6.5	--	--
27...	9.6	1.6	15	7.2	3.84	0.140	0.110	6.9	1580	22700
27...	6.7	2.1	12	7.4	4.68	0.120	0.090	8.1	1860	29200
27...	5.4	1.5	10	6.6	4.80	0.120	0.080	7.4	2020	32500
27...	11	1.3	16	6.4	4.80	0.110	0.080	6.7	1900	30600
27...	8.4	1.1	13	5.5	2.52	0.100	0.060	23	2160	35100
27...	8.7	1.4	13	5.2	4.02	0.150	0.110	26	--	--
27...	8.2	1.6	12	5.2	3.24	0.100	0.060	22	1630	24400
27...	5.3	1.4	9.2	5.3	2.22	0.110	0.090	20	1210	15800
27...	3.8	1.3	7.6	5.0	1.92	0.120	0.080	14	887	9910
28...	3.8	1.5	7.9	5.4	1.86	0.120	0.080	19	680	6460
28...	3.2	1.4	7.5	5.5	1.26	0.120	0.090	10	546	4530
28...	2.0	1.1	6.3	5.4	1.20	0.120	0.090	12	441	3310
28...	3.1	1.2	7.2	5.3	0.820	0.110	0.070	14	298	2040
28...	2.1	1.1	6.7	5.4	0.560	0.100	0.080	8.4	256	1620
28...	2.2	1.7	7.0	6.3	0.600	0.130	0.100	8.4	256	1510
28...	1.8	1.2	6.7	6.0	0.480	0.100	0.070	7.8	163	915
28...	1.8	1.0	6.9	6.1	0.400	0.110	0.080	8.1	119	639
28...	1.7	0.94	7.0	6.0	0.440	0.110	0.080	7.3	157	790
28...	1.9	1.2	7.4	6.5	0.430	0.090	0.060	7.8	161	786
28...	1.6	1.1	7.2	6.6	0.420	0.110	0.090	7.4	145	696
28...	1.6	0.99	7.4	6.3	0.460	0.150	0.120	7.0	140	648
29...	1.5	0.83	7.3	6.6	0.340	0.100	0.080	6.4	145	646
29...	1.1	0.69	8.8	8.2	0.250	0.090	0.070	5.1	69	262
29...	0.96	0.72	8.2	8.0	0.210	0.080	0.060	5.1	107	390
30...	0.83	0.58	8.5	8.1	0.190	0.070	0.050	4.6	128	432
30...	0.65	0.59	9.4	8.3	0.130	0.070	0.060	4.2	62	191
30...	1.0	0.90	9.3	9.1	0.150	0.060	0.030	3.4	41	125
30...	0.70	0.69	9.4	9.2	0.130	0.060	0.030	3.6	--	--

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE FIELD (μS/CM) (00094)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED TOTAL (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED TOTAL (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED TOTAL (MG/L AS N) (00607)
MAY											
04...	1130	336	600	8.2	18.0	3.30	3.30	0.130	0.110	0.63	0.53
31...	1110	582	--	--	20.0	--	--	--	--	--	--
31...	2000	640	--	--	19.0	--	--	--	--	--	--
31...	2300	1400	480	7.9	--	5.57	5.57	0.220	0.220	1.5	0.64
JUN											
01...	0100	1840	--	--	--	--	--	--	--	--	--
01...	0300	1800	470	7.9	--	6.05	6.05	0.250	0.250	1.6	0.64
01...	0500	1690	465	7.9	--	6.29	6.05	0.280	0.280	1.5	0.60
01...	0700	1520	430	7.9	--	5.81	5.57	0.300	0.300	1.5	0.83
01...	0900	1320	400	7.9	--	4.84	4.84	0.300	0.280	1.3	0.62
01...	1030	1200	--	--	--	--	--	--	--	--	--
01...	1100	1180	400	7.8	--	5.32	5.08	0.130	0.130	1.2	0.70
01...	1300	1070	385	7.8	--	4.84	4.84	0.140	0.140	1.1	0.43
05...	1930	1180	--	--	--	--	--	--	--	--	--
17...	0940	307	454	8.0	22.0	--	--	--	--	--	--
18...	1000	303	610	8.1	22.0	7.99	7.99	0.080	0.080	0.58	0.50
20...	1930	613	--	--	--	--	--	--	--	--	--
JUL											
09...	1030	242	425	7.4	--	5.57	5.57	0.100	0.100	0.83	0.68
AUG											
06...	1100	180	638	8.5	23.0	7.02	6.29	0.040	0.040	1.1	1.1
SEP											
17...	1200	141	647	8.1	23.0	6.03	5.79	0.020	0.020	0.84	0.57

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAY										
04...	0.76	0.64	4.1	3.9	0.160	0.110	0.070	3.4	25	23
31...	--	--	--	--	--	--	--	--	172	270
31...	--	--	--	--	--	--	--	--	79	137
31...	1.7	0.86	7.3	6.4	0.360	0.130	0.090	4.7	116	438
JUN										
01...	--	--	--	--	--	--	--	--	--	--
01...	1.8	0.89	7.9	6.9	0.420	0.140	0.110	5.9	121	588
01...	1.8	0.88	8.1	6.9	0.370	0.140	0.090	4.8	112	511
01...	1.8	1.1	7.6	6.7	0.360	0.150	0.110	5.6	114	468
01...	1.6	0.90	6.4	5.7	0.330	0.150	0.110	5.3	96	342
01...	--	--	--	--	--	--	--	--	107	347
01...	1.3	0.83	6.6	5.9	0.310	0.130	0.080	4.1	105	335
01...	1.3	0.57	6.1	5.4	0.280	0.110	0.080	4.4	78	225
05...	--	--	--	--	--	--	--	--	188	599
17...	--	--	--	--	--	--	--	--	37	31
18...	0.66	0.58	8.6	8.6	0.230	0.150	0.140	3.1	24	20
20...	--	--	--	--	--	--	--	--	58	96
JUL										
09...	0.93	0.78	6.5	6.3	0.280	0.200	0.160	6.7	34	22
AUG										
06...	1.1	1.1	8.2	7.4	0.190	0.140	0.080	3.9	17	8.3
SEP										
17...	0.86	0.59	6.9	6.4	0.210	0.170	0.130	4.3	1	0.38

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 WATER (DEG C) (00010)	ALA- CHLOR TOTAL RECOVER (μ G/L) (77825)	ALDRIN, TOTAL (μ G/L) (39330)	ATRA- ZINE WATER UNFLTRD REC (μ G/L) (39630)	CHLOR- DANE, TOTAL (μ G/L) (39350)
FEB 06...	1055	229	640	8.2	1.0	ND	ND	0.30	ND
MAR 27...	0700	3570	--	--	--	ND	ND	0.28	<0.060
27...	1400	5960	--	--	--	ND	ND	ND	ND
29...	1130	1410	--	7.2	8.0	ND	ND	ND	ND
MAY 04...	1130	336	--	8.2	18.0	<0.10	<0.008	<0.40	<0.008
31...	1110	582	--	--	20.0	0.20	<0.008	0.76	<0.008
31...	2000	640	--	--	19.0	0.13	<0.008	0.71	<0.008
JUN 01...	0100	1840	--	--	--	<0.10	<0.008	0.62	<0.008
01...	1030	1200	400	--	20.0	<0.10	<0.008	0.52	<0.008
05...	1930	1180	--	--	--	0.27	<0.008	1.7	<0.008
17...	0940	307	--	8.0	22.0	<0.08	<0.008	0.76	<0.008
20...	1930	613	--	--	--	0.09	<0.004	<0.32	<0.004
JUL 09...	1030	242	--	7.4	--	0.08	<0.004	1.6	<0.004
SEP 24...	1330	154	784	8.1	--	<0.08	<0.008	0.48	<0.040

DATE	CYAN- AZINE TOTAL (μ G/L) (81757)	DI- AZINON, TOTAL (μ G/L) (39570)	DI- ELDRIN TOTAL (μ G/L) (39380)	MALA- THION, TOTAL (μ G/L) (39530)	METOLA- CHLOR WATER WHOLE TOT.REC (μ G/L) (82612)	PRO- PAZINE TOTAL (μ G/L) (39024)	SIMA- ZINE TOTAL (μ G/L) (39055)	TOX- APHENE, TOTAL (μ G/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
FEB 06...	ND	ND	ND	ND	ND	0.41	0.24	ND	--	--
MAR 27...	ND	ND	ND	ND	ND	0.65	0.61	ND	374	3600
27...	ND	ND	ND	ND	ND	<0.16	<0.16	ND	2020	32500
29...	ND	ND	ND	ND	ND	ND	ND	ND	69	262
MAY 04...	<0.50	ND	<0.016	<0.2	<0.20	0.40	0.95	<0.8	25	23
31...	<0.50	0.08	<0.016	<0.2	0.64	0.40	0.76	<0.8	172	270
31...	<0.50	0.10	<0.016	<0.2	0.46	0.41	0.85	<0.8	79	137
JUN 01...	<0.50	ND	<0.016	<0.2	0.37	0.60	0.80	<0.8	--	--
01...	<0.50	0.03	<0.016	<0.2	0.53	<0.40	0.84	<0.8	107	347
05...	<0.50	0.13	<0.016	<0.2	0.41	0.55	0.73	<0.8	188	599
17...	<0.40	--	<0.016	<0.2	<0.20	<0.32	0.61	<0.8	37	31
20...	<0.20	--	<0.008	<0.1	0.18	<0.16	<0.32	<0.4	58	96
JUL 09...	<0.20	--	<0.008	<0.1	0.51	0.31	0.48	<0.4	34	22
SEP 24...	<0.40	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	--	--

< Actual value is known to be less than the value shown.
ND Material specifically analyzed for but not detected.

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA

LOCATION.--Lat 39°54'21, long 76°19'43", Lancaster County, Hydrologic Unit 02050306, at bridge on State Highway 324 at Martic Forge, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--148 mi².

PERIOD OF RECORD.--February 1977 to May 1981, February 1992 to current year.

PERIOD OF DAILY RECORD.--

KJELDHAL NITROGEN DISCHARGE: February 1977 to March 1979.

NITRITE PLUS NITRATE DISCHARGE: February 1977 to March 1979.

PHOSPHORUS DISCHARGE: February 1977 to March 1979.

DISSOLVED ORGANIC CARBON DISCHARGE: February 1977 to March 1979.

SUSPENDED ORGANIC CARBON DISCHARGE: February 1977 to March 1979.

SUSPENDED SEDIMENT DISCHARGE: February 1977 to March 1979.

REMARKS.--Also operated as a miscellaneous site.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories. Suspended-sediment samples analyzed by U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	ALA- CHLOR TOTAL RECOVER (μG/L) (77825)	ALDRIN, TOTAL (μG/L) (39330)	ATRA- ZINE WATER UNFLTRD REC (μG/L) (39630)	CHLOR- DANE, TOTAL (μG/L) (39350)	CYAN- AZINE TOTAL (μG/L) (81757)
FEB										
06...	1030	82	466	8.1	0.5	ND	<0.004	<0.21	<0.004	ND
MAR										
26...	1100	500	446	7.7	7.5	ND	<0.004	<0.21	<0.004	ND
27...	0515	1850	248	7.1	7.0	ND	ND	<0.80	ND	ND
28...	1100	740	310	7.5	--	ND	<0.004	<0.21	<0.004	ND
MAY										
04...	1205	460	455	7.4	17.5	<0.10	<0.008	<0.40	<0.008	<0.50
31...	0700	560	406	8.0	15.5	<0.10	<0.008	<0.40	<0.008	<0.50
31...	1230	640	399	8.3	16.5	<0.10	<0.008	<0.40	<0.008	<0.50
JUN										
01...	1230	550	415	8.1	17.5	<0.20	<0.008	1.1	<0.008	<0.50
05...	1430	580	382	8.2	18.5	<0.20	<0.008	0.49	<0.008	<0.50
05...	1830	890	369	8.0	18.5	<0.10	<0.008	3.0	<0.008	<0.50
17...	1015	100	439	8.2	21.0	<0.08	<0.008	<0.32	<0.008	<0.40
20...	0315	610	--	8.1	20.0	<0.08	<0.008	4.0	<0.008	<0.40
20...	0630	1250	640	8.0	20.0	0.09	<0.004	3.2	<0.004	<0.20
20...	1530	1850	277	7.4	19.0	0.15	<0.004	3.3	<0.004	0.21
20...	1531	--	--	--	--	<0.04	<0.004	<0.16	<0.004	<0.20
20...	1532	--	--	--	--	0.30	<0.040	5.4	0.100	1.4
JUL										
09...	1415	420	469	8.0	24.5	<0.04	<0.004	0.45	<0.004	<0.20
SEP										
24...	1200	230	434	7.9	16.0	<0.08	<0.008	<0.32	<0.040	<0.40
26...	0430	610	371	7.7	14.0	<0.08	<0.008	<0.32	<0.040	<0.40
26...	1320	680	369	7.7	14.5	<0.08	<0.008	0.34	<0.040	<0.40

DATE	DI- AZINON, TOTAL (μG/L) (39570)	DI- ELDRIN, TOTAL (μG/L) (39380)	MALA- THION, TOTAL (μG/L) (39530)	METOLA- CHLOR WATER WHOLE TOT.REC (μG/L) (82612)	PRO- PAZINE TOTAL (μG/L) (39024)	SIMA- ZINE TOTAL (μG/L) (39055)	TOX- APHENE, TOTAL (μG/L) (39400)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
FEB									
06...	ND	<0.008	<0.1	<0.1	<0.21	<0.21	<0.4	2	0.44
MAR									
26...	ND	<0.008	<0.1	<0.1	<0.21	<0.21	<0.4	3	4.1
27...	ND	ND	ND	ND	ND	ND	ND	1470	7340
28...	ND	<0.008	<0.1	<0.1	<0.21	<0.21	<0.4	160	320
MAY									
04...	<0.08	<0.016	<0.2	<0.2	<0.40	2.2	<0.8	13	16
31...	<0.08	<0.016	<0.2	<0.2	<0.40	<0.40	<0.8	90	136
31...	<0.08	<0.016	<0.2	0.72	<0.40	<0.40	<0.8	116	200
JUN									
01...	<0.08	<0.016	<0.2	0.69	<0.40	0.58	<0.8	75	111
05...	<0.08	<0.016	<0.2	<0.25	<0.40	0.63	<0.8	140	219
05...	0.08	<0.016	<0.2	1.7	0.53	0.66	<0.8	407	978
17...	--	<0.016	<0.2	<0.20	<0.32	0.49	<0.8	39	11
20...	--	<0.016	<0.2	<0.20	<0.32	30	<0.8	73	120
20...	--	<0.008	<0.1	0.68	<1.6	2.6	<0.4	1450	4890
20...	--	<0.008	<0.1	2.3	<0.16	<0.16	<0.4	3520	17600
20...	--	<0.008	<0.1	1.1	<0.16	<0.16	<0.4	--	--
20...	--	<0.020	--	6.1	0.10	0.40	<2.0	--	--
JUL									
09...	--	<0.008	<0.1	<0.10	0.70	0.46	<0.4	26	29
SEP									
24...	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	3	1.9
26...	--	<0.016	<0.2	<0.20	<0.32	<0.32	<0.8	207	341
26...	--	<0.016	<0.2	<0.20	<0.32	0.40	<0.8	158	290

< Actual value is known to be less than the value shown.
ND Material specifically analyzed for but not detected.

POTOMAC RIVER BASIN

TONOLOWAY CREEK BASIN

01613050 TONOLOWAY CREEK NEAR NEEDMORE, PA

LOCATION.--Lat 39°53'54", long 78°07'57", Fulton County, Hydrologic Unit 02070004, on left bank 10 ft downstream from bridge on SR 3008, 0.2 mi upstream from Foster Creek, and 3.5 mi north of Needmore.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1963-65. October 1965 to current year.

REVISED RECORDS.--WSP 2103: 1966-68(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Control was destroyed June 8 during bridge construction. Datum of gage is 688.94 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1965, crest-stage gage at same site at datum 2.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair, and June 8 to Sept. 30, which is poor. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.21	.45	e3.0	e.60	11	21	10	3.1	5.4	4.3	.35
2	.00	.23	1.4	e1.5	e.54	8.8	18	9.0	2.4	4.0	3.3	.27
3	.00	.21	12	e2.0	e.47	7.3	16	9.5	2.0	8.1	2.8	.35
4	.00	.21	5.3	e2.8	e.60	6.2	14	7.7	2.0	11	2.7	.58
5	.00	.21	2.7	e3.5	e.43	5.5	12	7.2	16	7.1	2.0	.37
6	.21	.21	2.1	2.8	e.33	5.2	10	6.3	16	5.0	1.6	3.7
7	.15	.23	1.7	2.5	e.25	25	8.9	5.5	12	3.6	1.3	2.5
8	.08	.24	1.2	2.1	e.20	26	8.2	7.8	9.2	2.8	2.8	1.7
9	.05	.24	1.2	2.2	e.16	21	7.4	16	6.4	2.5	4.2	2.2
10	.05	.27	2.9	2.4	e.14	18	6.8	13	5.1	2.0	2.1	2.9
11	.07	.39	2.0	1.9	e.12	20	7.3	12	4.5	1.9	3.3	3.4
12	.11	.39	1.5	1.4	e.11	17	6.4	11	4.1	1.5	3.2	1.9
13	.12	.36	1.5	1.1	e.10	e14	5.4	12	3.5	1.6	2.2	1.4
14	.12	.38	1.8	5.6	e.15	e12	5.0	12	3.2	1.2	2.0	1.2
15	.13	.32	1.6	6.4	3.4	e10	4.7	9.4	2.9	1.1	1.7	1.1
16	.21	.27	1.3	e4.5	9.5	e9.5	4.7	8.5	2.4	1.8	1.8	.95
17	.25	.28	e.90	e2.5	5.7	e9.0	5.0	7.5	2.2	.88	1.6	.88
18	.17	.27	e.60	e1.8	4.6	e9.0	5.4	6.9	2.0	.73	1.4	.84
19	.15	.28	e.40	e1.4	5.8	e15	4.7	6.0	2.9	.45	1.2	.79
20	.15	.27	e.35	e1.1	5.7	20	4.4	5.2	2.9	.34	1.2	.58
21	.15	.40	e.40	e1.0	4.3	29	20	4.5	2.2	.28	.75	1.3
22	.16	6.5	e.38	e2.5	3.6	32	74	4.0	1.7	.29	.61	2.0
23	.17	4.2	e.35	e5.0	3.5	27	51	3.7	1.4	1.9	.65	1.5
24	.17	1.1	e.40	6.5	4.6	23	36	3.9	1.8	3.9	.45	.77
25	.17	.52	e.38	3.8	7.1	23	28	3.6	2.4	12	.38	.90
26	.18	.42	e.35	e2.0	48	75	21	3.6	4.5	8.5	.30	3.2
27	.18	.40	e.31	e1.3	35	111	17	3.2	4.3	22	.27	2.1
28	.19	.44	e.30	e1.0	22	63	14	2.7	2.2	13	2.4	1.7
29	.18	.40	11	e.90	16	41	12	2.3	1.6	9.0	2.5	1.2
30	.17	.40	8.5	e.80	---	31	11	2.9	5.4	6.6	.97	.89
31	.19	---	5.9	e.70	---	28	---	5.1	---	5.5	.55	---
TOTAL	3.93	20.25	71.17	78.00	183.00	752.5	459.3	222.0	132.3	145.97	56.53	43.52
MEAN	.13	.67	2.30	2.52	6.31	24.3	15.3	7.16	4.41	4.71	1.82	1.45
MAX	.25	6.5	12	6.5	48	111	74	16	16	22	4.3	3.7
MIN	.00	.21	.30	.70	.10	5.2	4.4	2.3	1.4	.28	.27	.27
CFSM	.01	.06	.21	.24	.59	2.27	1.43	.67	.41	.44	.17	.14
IN.	.01	.07	.25	.27	.64	2.62	1.60	.77	.46	.51	.20	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	6.45	9.97	14.2	12.3	21.9	24.4	22.4	17.6	10.3	4.34	2.18	2.85
MEAN	6.45	9.97	14.2	12.3	21.9	24.4	22.4	17.6	10.3	4.34	2.18	2.85
MAX	37.7	40.7	41.3	33.2	59.5	49.2	53.8	51.5	85.6	39.7	9.93	16.4
(WY)	1991	1986	1973	1991	1986	1978	1970	1988	1972	1989	1989	1975
MIN	.13	.65	1.35	.54	3.89	5.44	5.19	3.53	.38	.065	.000	.002
(WY)	1992	1983	1981	1981	1980	1990	1968	1976	1991	1966	1966	1991

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1966 - 1992

ANNUAL TOTAL	3090.17	2168.47	12.2
ANNUAL MEAN	8.47	5.92	21.5
HIGHEST ANNUAL MEAN			1972
LOWEST ANNUAL MEAN			1966
HIGHEST DAILY MEAN	138 Jan 17	111 Mar 27	868 Jun 22 1972
LOWEST DAILY MEAN	.00 Jul 19	.00 Oct 1-5	.00 Jun 25 1966 ^a
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 21	.05 Oct 1	.00 Jul 1 1966
INSTANTANEOUS PEAK FLOW		132 Mar 27	b1300 Jun 22 1972
INSTANTANEOUS PEAK STAGE		c4.56 Jul 26,27	9.17 Jun 22 1972
INSTANTANEOUS LOW FLOW		.00 Oct 1-6	.00 Jul 18 1991 ^a
ANNUAL RUNOFF (CFSM)	.79	.55	1.14
ANNUAL RUNOFF (INCHES)	10.74	7.54	15.49
10 PERCENT EXCEEDS	24	15	31
50 PERCENT EXCEEDS	.52	2.2	4.9
90 PERCENT EXCEEDS	.00	.21	.33

^a No flow many days throughout period of record.

^b From rating curve extended above 540 ft³/s on basis of contracted-opening measurement of peak flow.

^c Backwater from temporary causeway.

^e Estimated.

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 1992

Station name and number	Location and drainage area	Period of Record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN								
CHEMUNG RIVER BASIN								
Crooked Creek below Catlin Hollow at Middlebury Center, Pa. (01518420)	Lat 41°50'33", long 77°16'25", Tioga County, Hydrologic Unit 02050104, at single- span bridge on Township Route 586 at Middlebury Center. Drainage area is 74.3 mi ² .	1986-92	7-31-92	46.01	3,680	10-23-90	48.56	7,530
Cowanesque River at Elkland, Pa. (01519200)	Lat 41°59'15", long 77°18'09", Tioga County, Hydrologic Unit 02050104, at single- span steel-truss bridge on State Highway 49 at Elkland. Drainage area is 235 mi ² .	1980-92	8-29-92	22.00	4,920	10-11-90	25.69	13,400
TOWANDA CREEK BASIN								
South Branch Towanda Creek at New Albany, Pa. (01532200)	Lat 41°35'23", long 76°25'58", Bradford County, Hydrologic Unit 02050106, at bridge on Township Route 381, 0.1 mi below French Creek, 0.7 mi above Beaver Run, and 0.8 mi south of New Albany. Drain- age area is 13.3 mi ² .	1963-92	3-27-92	4.44	399	6-22-72	9.86	2,850
TUSCARORA CREEK BASIN								
Tuscarora Creek near Silvara, Pa. (01533250)	Lat 41°42'25", long 76°07'10", Bradford County, Hydrologic Unit 02050106, at single-span bridge on Township Route 510, 1.0 mi northeast of Silvara, 1.1 mi above Mill Creek, and 4.6 mi upstream from mouth. Drainage area is 11.8 mi ² .	1963-92	3-11-92	^a 5.07	345	6-22-72	13.07	1,610
WEST BRANCH SUSQUEHANNA RIVER BASIN								
Wilson Run at Pen- field, Pa. (01542720)	Lat 41°12'58", long 78°35'00", Clearfield County, Hydro- logic Unit 02050201, at wood- en bridge 200 ft north of State Highway 153, 0.7 mi upstream from mouth, and 0.8 mi northwest of Penfield. Drainage area is 8.3 mi ² .	1962-92	7-15-92	^a 2.97	224	3-10-64	4.39	592
First Fork Sinne- mahoning Creek at Wharton, Pa. (01543700)	Lat 41°31'08", long 78°01'40", Potter County, Hydrologic Unit 02050202, 50 ft up- stream from bridge on State Highway 872, and 0.8 mi southwest of Wharton. Drainage area is 182 mi ² .	1968-80* 1982* 1984-92	7-15-92	9.21	4,390	2-14-84	12.16	9,810

* Operated as a low-flow partial-record station.

^a Using auxilliary gage.

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 1992--Continued

Station name and number	Location and drainage area	Period of Record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued								
WEST BRANCH SUSQUEHANNA RIVER BASIN--Continued								
West Branch Susquehanna River at Lock Haven, Pa. (01545800)	Lat 41°08'17", long 77°26'32", Clinton County, Hydrologic Unit 02050203, on right bank 50 ft downstream from Jay Street bridge, and 2.3 mi upstream from Bald Eagle Creek. Drainage area is 3,345 mi ² .	1975-92	7-16-92	^b 13.0	33,000	9-26-75	22.92	91,500
Muncy Creek near Muncy, Pa. (01553005)	Lat 41°12'27", long 76°45'09", Lycoming County, Hydrologic Unit 02050206, 1,900 ft downstream from Little Muncy Creek, 2,300 ft upstream from bridge on State Highway 405, and 2.2 mi east of Muncy. Drainage area is 209 mi ² .	1989-92	3-27-92	12.95	10,900	5-07-89	12.98	11,000
White Deer Hole Creek near Elims- port, Pa. (01553050)	Lat 41°07'08", long 77°04'02", Lycoming County, Hydrologic Unit 02050206, at bridge on SR 2002, 2.5 mi west of Elims- port, and 12.5 mi upstream from mouth. Datum of gage is 650.84 ft above NGVD of 1929. Drainage area is 18.2 mi ² .	1961-92	3-27-92	^a 4.26	362	6-22-72	11.83	4,200
JUNIATA RIVER BASIN								
Aughwick Creek near Shirleys- burg, Pa. (01564512)	Lat 40°16'55", long 77°53'27", Huntingdon County, Hydrologic Unit 02050304, on left bank 0.2 mi upstream from Sugar Run, and 1.2 mi southwest of Shirleysburg. Drainage area is 301 mi ² .	1990-92	3-27-92	8.18	3,550	10-24-90	10.65	7,150
Juniata River at Lewistown, Pa. (01564895)	Lat 40°35'40", long 77°34'58", Mifflin County, Hydrologic Unit 02050304, on left bank 1200 ft upstream from bridge on U.S. Highway 103, and 0.4 mi upstream from Kishaco- quillas Creek. Drainage area is 2519 mi ² .	1989-92	3-28-92	^c 11.62	14,100	7-21-89	18.43	31,900
Kishacoquillas Creek at Reedsville, Pa. (01565000)	Lat 40°39'17", long 77°35'00", Mifflin County, Hydrologic Unit 02050304, on left bank 150 ft downstream from bridge on old U.S. Highway 322, and 1.0 mi southeast of Reeds- ville. Datum of gage is 551.23 ft above NGVD of 1929. Drainage area is 164 mi ² .	1940-70 [‡] 1984-85 [‡] 1982-87* 1989-92	3-27-92	6.23	1,280	11-25-50	13.12	^d 9,830
CONODOGUINET CREEK BASIN								
Newburg Run at Newburg, Pa. (01569340)	Lat 40°07'40", long 77°32'50", Cumberland County, Hydrologic Unit 02050305, at concrete bridge on State Highway 696, 0.4 mi upstream from mouth, and 0.8 mi south of Newburg. Drainage area is 5.29 mi ² .	1964-92	4-21-92	^a 3.84	180	7-27-69	8.6	5,000

[‡] Operated as a continuous-record station.

^{*} Operated as a low-flow partial-record station.

^a Using auxilliary gage.

^b Peak gage-height from observers staff gage readings during levee construction.

^c From floodmark.

^d Flood of 1936 reached a stage of about 14.1 ft, discharge, 11,500 ft³/s; flood of June 23, 1972 reached 16.17 ft from floodmarks, discharge, 16,400 ft³/s.

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 1992--Continued

Station name and number	Location and drainage area	Period of Record	Water year 1992 maximum		Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
<u>SUSQUEHANNA RIVER BASIN--Continued</u>								
PAXTON CREEK BASIN								
Paxton Creek near Pen- brook, Pa. (01571000)	Lat 40°18'30", long 76°51'00", Dauphin County, Hydrologic Unit 02050305, on right bank 90 ft upstream from bridge on North Progress Avenue, 0.3 mi north of Interstate Highway 81, and 2.0 mi north of Pen- brook. Drainage area is 11.2 mi ² .	1940-50 [‡] 1874-84 1985-89 [‡] 1990-91 ^f				9-26-75	13.25	4,600
CONESTOGA RIVER BASIN								
Stony Run at Reamstown, Pa. (01576320)	Lat 40°12'44", long 76°07'30", Lancaster County, Hydrologic Unit 02050306, at single-span bridge on SR 1051, 0.1 mi southeast of U.S. Highway 222, 0.1 mi northwest of Reamstown, and 0.7 mi up- stream from mouth. Drainage area is 3.55 mi ² .	1964-92	8-11-92	^g 3.7	^g 310	6-16-82	7.80	1,220
CONOWINGO CREEK BASIN								
Conowingo Creek near Buck, Pa. (01578200)	Lat 39°50'35", long 76°11'45", Lancaster County, Hydrologic Unit 02050306, at concrete bridge on SR 3008, 2.0 mi upstream from Jackson Run, and 2.5 mi southeast of Buck. Drainage area is 8.71 mi ² .	1963-92	---	^h <5.10	<210	7-01-84	ⁱ 13.50	6,200

[‡] Operated as a continuous-record station.

< Actual value is known to be less than the value shown.

^f Discontinued as a low-flow partial-record station; established as a continuous-record station 10-01-91.^g About.^h Farm pond failure July 5, 1992 produced a stage of 5.69 ft, discharge, 346 ft³/s.ⁱ From floodmark; farm pond failure upstream.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN						
WEST BRANCH SUSQUEHANNA RIVER BASIN						
SUGAR CREEK BASIN						
01531490 Sugar Creek	West Branch Susquehanna River	Lat 41°47'27", long 76°27'45", Bradford County, Hydrologic Unit 02050106, at steel-truss bridge in North Towanda, and 0.8 mi upstream from mouth.	188	1989-91	3-09-92 6-09-92 7-14-92	321 134 9.0
WYALUSING CREEK BASIN						
01532950 Wyalusing Creek	West Branch Susquehanna River	Lat 41°41'49", long 76°13'52", Bradford County, Hydrologic Unit 02050106, at concrete bridge on State Highway 706, 2.8 mi north of Wyalusing, and 3.0 mi upstream from mouth.	215	1989-91	3-09-92 6-09-92	443 239
SUSQUEHANNA RIVER BASIN						
FISHING CREEK BASIN						
01539700 Little Fishing Creek	Fishing Creek	Lat 41°02'25", long 76°29'01", Columbia County, Hydrologic Unit 02050107, 100 ft upstream from covered bridge on Township Route 493, 1.6 mi upstream from mouth, and 2.8 mi northwest of Bloomsburg.	66.5	1991*	10-08-91	7.7
WEST BRANCH SUSQUEHANNA RIVER BASIN						
SINNEMAHONING CREEK BASIN						
01542790 Bennett Branch	Sinnemahoning Creek	Lat 41°20'02", long 78°08'10", Cameron County, Hydrologic Unit 02050202, at bridge on Township Route 343 at Drift- wood and 1000 ft upstream from mouth.	365	1975-91	1-30-92 3-05-92 9-16-92	476 692 300
BALD EAGLE CREEK BASIN						
01548075 Fishing Creek	Bald Eagle Creek	Lat 41°04'31", long 77°28'40", Clinton County, Hydrologic Unit 02050204, at bridge on SR 2004, 1,700 ft south of Cedar Springs (Hill St.), and 4.5 mi upstream from mouth.	137	1989-91	12-12-91 4-02-92 8-26-92	61 460 52
01548085 Bald Eagle Creek	West Branch Susquehanna River	Lat 41°07'35", long 77°26'00", Clinton County, Hydrologic Unit 02050204, at steel-truss bridge on SR 2012 at Castanea, and 1.8 mi upstream from mouth.	768	1988-89 1991	12-12-91 4-02-92 8-26-92	499 3,230 372
PINE CREEK BASIN						
01548248 Pine Creek	West Branch Susquehanna River	Lat 41°44'37", long 77°26'03", Tioga County, Hydrologic Unit 02050205, at concrete bridge on forest road at Ansonia, 1,500 ft upstream from mouth, and 7.0 mi west of Wellsboro.	274	1989-91	10-08-91 4-10-92 5-29-92	27 1,230 114
01548351 Marsh Creek	Pine Creek	Lat 41°44'48", long 77°25'40", Tioga County, Hydrologic Unit 02050205, at bridge on State Highway 6 at Ansonia, 1,300 ft upstream from mouth, and 7.0 mi west of Wellsboro.	81.6	1989-91	10-08-91 4-10-92 5-29-92	7.8 164 25
01549590 Little Pine Creek	Pine Creek	Lat 41°21'06", long 77°21'18", Lycoming County, Hydrologic Unit 02050205, at bridge at Little Pine State Park campground, 0.2 mi downstream from Little Pine Dam, and 3.4 mi upstream from mouth.	172	1987-90	6-09-92 7-13-92 8-12-92	433 94 83

* Operated as a low-flow partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
WHITE DEER CREEK BASIN						
01553150 White Deer Creek	West Branch Susquehanna River	Lat 41°04'29", long 76°52'22", Union County, Hydrologic Unit 02050206, at concrete bridge on SR 1011 at White Deer, and 0.5 mi upstream from mouth.	46.9	1945 1989-91	12-12-91 3-27-92 6-10-92 7-13-92 7-13-92	30 517 124 26 24
PENNS CREEK BASIN						
01555207 Middle Creek	Penns Creek	Lat 40°47'27", long 76°55'24", Snyder County, Hydrologic Unit 02050301, at double-span concrete bridge on Creek Road (T-460), 1.8 mi north of Kantz, and 2.2 mi northeast of Freeburg.	155	1989-91	11-21-91 4-07-92 7-02-92	20 217 65
JUNIATA RIVER BASIN						
01555858 Beaverdam Branch Juniata River	Frankstown Branch Juniata River	Lat 40°25'27", long 78°23'37", Blair County, Hydrologic Unit 02050302, at bridge on Plank Road in Hollidaysburg, 1.5 mi downstream from Blair Gap Run, and 2.2 mi upstream from mouth.	83.0	1982-91	3-02-92 3-23-92 6-04-92	167 137 35
01566000 Tuscarora Creek	Juniata River	Lat 40°30'55", long 77°25'10", Juniata County, Hydrologic Unit 02050304, at single-span bridge on SR 3008, 2.0 mi southwest of Port Royal, and 3.5 mi upstream from mouth. Datum of gage is 420.47 ft above NGVD of 1929.	214	1911-58‡, 1982-91* ^a , 1988-90 ^b ,	10-07-91 2-25-92 4-05-92 5-27-92	18 166 206 100
CONODOGUINET CREEK BASIN						
01569500 Conodo- guinet Creek	Susquehanna River	Lat 40°11'59", long 77°21'57", Cumber- land County, Hydrologic Unit 02050305, at bridge on Bridge Road (T-409), 2.6 mi east of Newville.	291	---	4-16-92 4-22-92 6-16-92	167 3160 113
01570280 Conodo- guinet Creek	Susquehanna River	Lat 40°16'38", long 76°57'00", Cumber- land County, Hydrologic Unit 02050305, at bridge on Oyster Mill Road at Enola, 0.2 mi downstream from Holtz Run, and 4.7 mi upstream from mouth.	501	1989-91	11-19-91 6-16-92	99 237
CHICKIES CREEK BASIN						
01575900 Chickies Creek	Susquehanna River	Lat 40°03'46", long 76°30'57", Lancaster County, Hydrologic Unit 02050306, at double-span concrete bridge on State Highway 23, 400 feet downstream from Little Chickies Creek, and 1.2 mi east of Marietta.	108	1989-91	6-17-92 7-28-92 9-10-92	83 93 49
PEQUEA CREEK BASIN						
01576787 ^c Pequea Creek	Susquehanna River	Lat 39°54'21", long 76°19'43", Lancaster County, Hydrologic Unit 02050306, at concrete bridge on State Highway 324 at Martic Forge, and 3.4 mi upstream from mouth. Datum of gage is 209.25 feet above NGVD of 1929.	148	1977-81‡ 1989-91	1-10-92 3-03-92 3-04-92 6-02-92	92 86 109 109
MUDDY CREEK BASIN						
01577500* Muddy Creek	Susquehanna River	Lat 39°46'21", long 76°18'58", York County, Hydrologic Unit 02050306, at bridge on Paper Mill Road (SR 2024), 0.8 mi northeast of Castle Fin, 1.1 mi east of the intersection of SR 2024 and State Highway 74, and 3.4 mi up- stream from mouth.	133	1929-38‡ 1968-71‡ 1983-91	1-10-92 3-03-92 4-09-92	116 106 142

‡ Operated as a continuous-record gaging station.

* Also a low-flow partial-record station.

^a Most years during period.^b Operated as a crest-stage partial-record station.^c Also a water-quality station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
<u>SUSQUEHANNA RIVER BASIN--Continued</u>						
OCTORARO CREEK BASIN						
01578475 Octoraro Creek	Susquehanna River	Lat 39°42'24", long 76°06'56", Cecil County, Hydrologic Unit 02050306, at single-span steel-truss bridge on New Bridge Road, 1.0 mi south of PA-MD state line, 1.3 mi northeast of Rich- ardsmere, and 2.5 mi east of Rock Springs, Md.	177	1989-91	1-07-92	44
					3-02-92	50
					4-09-92	139
					5-26-92	44
<u>POTOMAC RIVER BASIN</u>						
WILLS CREEK BASIN						
01600700* Little Wills Creek	Wills Creek	Lat 39°55'35", long 78°39'40", Bedford County, Hydrologic Unit 02070002, at double-span concrete bridge on State Highway 96 at Bard, 2.5 mi upstream from Wolf Camp Run, 9.5 mi upstream from mouth, and 11 mi southwest of Bedford.	10.2	1961-81a 1970-91	1-13-92	1.5
					3-24-92	19
					6-03-92	1.9
					<u>LICKING CREEK BASIN</u>	
01613500* Licking Creek	Potomac River	Lat 39°43'23", long 78°03'38", Franklin County, Hydrologic Unit 02070004, at bridge on State Highway 456, 200 feet north of PA-MD state line, 3.0 mi southwest of Sylvan, and 10 mi up- stream from mouth.	158	1930-41‡ 1983-91	1-10-92	23
					3-24-92	250
					6-03-92	88
<u>MONOCACY RIVER BASIN</u>						
01638950 Rock Creek	Monocacy River	Lat 39°46'20", long 77°12'32", Adams County, Hydrologic Unit 02070009, at double-span concrete bridge on Town- ship Route 411 (Solomon Road), 1.2 mi west of the intersection of State Highway 134 and U.S. Highway 15, and near Barlow.	23.5	1989-91	1-08-92	29
					5-21-92	7.3
					7-07-92	5.6

‡ Operated as a continuous-record gaging station.

* Also a low-flow partial-record station.

a Operated as a crest-stage partial-record station.

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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L) (00900)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)
OCTORARO CREEK BASIN										
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)									
OCT 1991 24...	0900	4.8	299	7.3	13.0	0.70	8.0	110	26	11
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)									
OCT 1991 24...	1100	3.6	311	7.5	13.5	1.5	9.6	120	32	9.7
DATE		SODIUM, DIS-SOLVED (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L) (00935)	ALKA-LINITY WAT WH TOT FET FIELD (MG/L) (00410)	SULFATE DIS-SOLVED (MG/L) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) (00940)	SILICA, DIS-SOLVED (MG/L) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)									
OCT 1991 24...	11	17	0.5	2.6	40	21	28	15	177	0.24
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)									
OCT 1991 24...	11	16	0.4	4.0	67	29	22	11	184	0.25
DATE		NITRO-GEN, NITRATE DIS-SOLVED (MG/L) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L) (00623)	PHOS-PHORUS TOTAL (MG/L) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L) (00666)
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)									
OCT 1991 24...	8.64	0.060	8.70	0.040	0.36	0.50	0.40	9.1	0.110	0.060
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)									
OCT 1991 24...	5.44	0.060	5.50	0.100	0.30	0.50	0.40	5.9	0.180	0.160

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

OCTORARO CREEK BASIN--Continued

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	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)
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)									
OCT 1991 24...	0.060	<10	--	--	--	--	--	--	--	40
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)									
OCT 1991 24...	0.120	10	1	51	<0.5	<1.0	10	<3	<10	45
DATE	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO) (01060)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SILVER, DIS- SOLVED (µG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (µG/L AS V) (01085)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)									
OCT 1991 24...	--	--	22	--	--	--	--	--	--	--
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)									
OCT 1991 24...	<10	6	23	10	<0.1	<10	<1.0	140	<6	4

< Actual value is known to be less than the value shown.

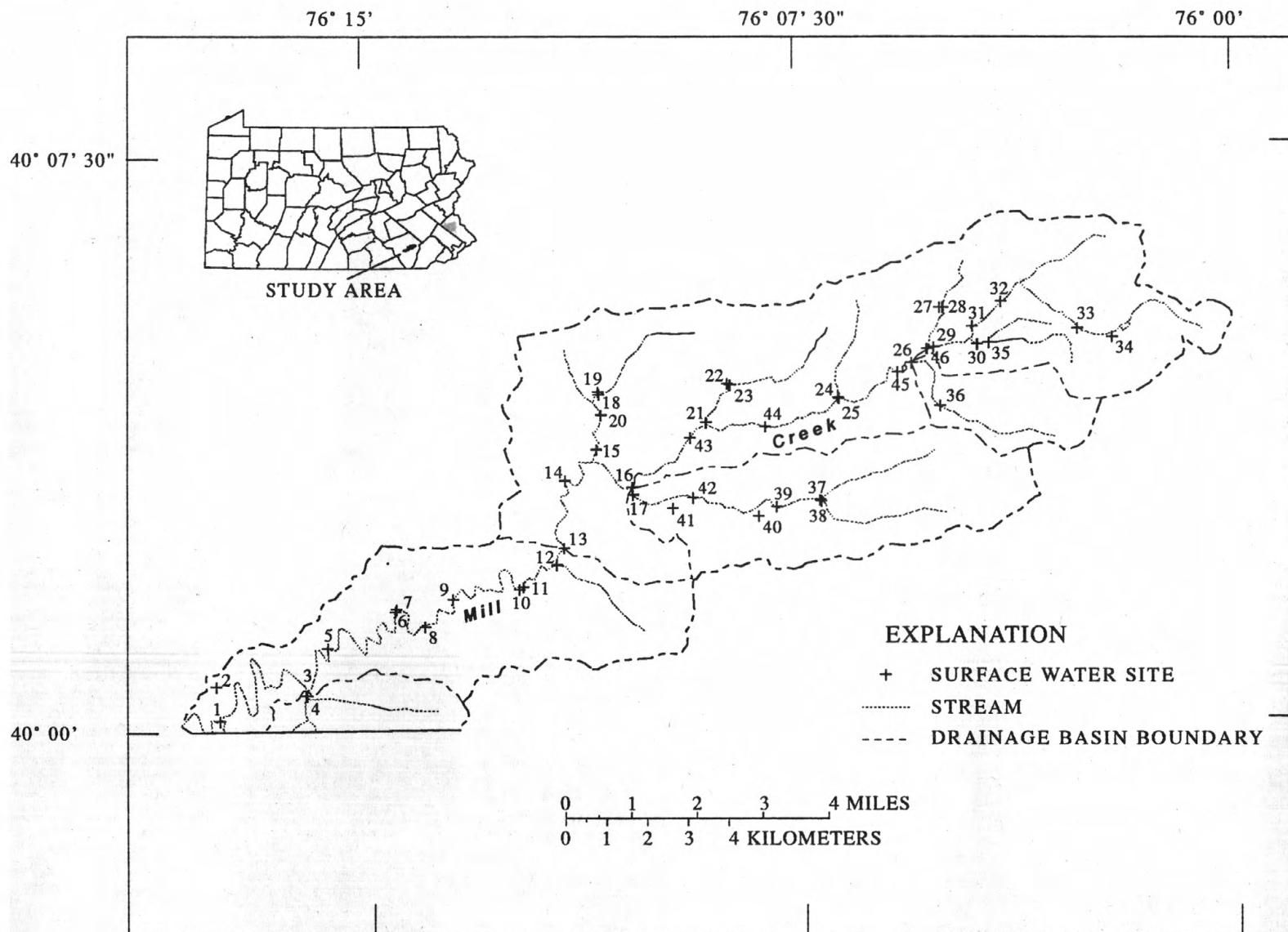


Figure 10.--Location of streamflow sampling sites for the Mill Creek project, Lancaster County, Pa.

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

REMARKS.--The data presented on the next four pages contain data collected at miscellaneous streamflow sites as part of the Mill Creek project. Additional data collected for this project may be found on pages 203-206 and 334-337.

STATION	NUMBER	LOCAL IDENT- I- FIER	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE PER SECOND (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (000400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
LANCASTER COUNTY												
400009076173701		1	08-18-92	1215	26	871	8.1	21.0	8.7	--	--	--
400028076160701		3	08-18-92	1520	1.6	657	8.2	19.5	--	--	8.53	0.070
400028076160601		4	08-18-92	1410	0.13	658	8.2	22.0	--	--	6.16	0.040
400105076154401		5	08-19-92	0930	20	879	8.0	19.5	--	--	7.36	0.040
400133076143301		6	08-19-92	1530	19	848	7.9	21.5	--	--	7.81	0.090
400135076143201		7	08-19-92	1600	0.14	894	8.0	20.5	--	--	5.78	0.020
400121076140201		8	08-20-92	0840	0.14	761	7.7	15.5	--	--	7.84	0.260
400142076133301		9	08-20-92	0915	18	820	7.8	19.5	--	43	7.28	0.120
400149076122401		10	08-18-92	1350	23	650	8.0	20.5	8.8	--	8.16	0.140
400151076122001		11	08-18-92	1310	0.34	630	7.6	18.5	8.9	--	--	<0.010
400208076114501		12	08-18-92	1220	0.40	800	7.8	21.5	7.4	--	8.73	0.570
400221076113701		13	08-18-92	1050	20	840	8.0	19.0	7.8	--	7.86	0.140
400314076113501		14	08-17-92	1440	14	950	8.1	19.0	--	--	--	--
400338076110201		15	08-17-92	1330	0.84	>1000	8.3	19.0	19.0	--	7.36	0.140
400308076102501		16	08-18-92	0940	14	850	8.0	20.0	8.0	--	8.34	0.160
400302076102401		17	08-18-92	0830	3.5	600	8.0	19.0	7.6	--	7.62	0.280
400421076105901		18	08-19-92	1100	0.27	679	7.9	22.0	7.2	--	5.13	0.370
400423076110001		19	08-19-92	1135	0.99	514	8.6	22.0	10.6	--	9.83	0.170
400405076105701		20	08-19-92	1000	0.62	2030	8.2	20.0	11.6	--	6.63	0.270
400358076090701		21	08-19-92	1250	0.98	684	8.5	22.5	9.4	30	12.8	0.240
400428076084501		22	08-19-92	1515	0.23	824	8.0	21.0	8.0	--	17.4	0.600
400427076084201		23	08-19-92	1455	0.32	779	7.9	19.0	7.9	--	13.6	0.450
400416076065001		24	08-20-92	1110	0.65	614	8.2	18.0	8.8	--	9.95	0.050
400415076064901		25	08-20-92	1045	7.1	1320	8.4	19.5	10.2	41	7.70	0.100
400442076053301		26	08-18-92	1040	1.0	475	8.3	22.0	--	31	3.75	0.250
400525076050001		28	08-19-92	1210	0.16	590	8.1	23.0	8.6	--	7.57	0.330

< Actual value is known to be less than the value shown.

> Actual value is known to be greater than the value shown.

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

LOCAL IDENT I- FIER	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	TRIAZIN SCREEN (ELISA) WAT, WH REC, AS ATRAZIN (µG/L) (34757)
LANCASTER COUNTY												
1	--	--	--	--	--	--	--	--	--	--	--	1
3	8.60	--	0.050	--	0.35	0.40	--	9.0	0.170	0.140	--	--
4	6.20	--	0.030	--	0.37	0.40	--	6.6	0.090	0.040	--	--
5	7.40	--	0.050	--	0.35	0.40	--	7.8	0.230	0.200	--	--
6	7.90	--	0.130	--	0.47	0.60	--	8.5	0.250	0.210	--	--
7	5.80	--	0.030	--	--	<0.20	--	--	0.020	0.020	--	--
8	8.10	--	0.540	--	1.4	1.9	--	10	0.580	0.290	--	0.7
9	7.40	13	0.120	2.7	0.78	0.90	420	8.3	0.280	0.210	1300	1
10	8.30	--	0.190	--	0.71	0.90	--	9.2	0.340	0.240	--	0.5
11	7.30	--	<0.010	--	--	<0.20	--	--	0.050	0.040	--	0.3
12	9.30	--	0.830	--	5.0	5.8	--	15	0.790	0.340	--	--
13	8.00	--	0.270	--	0.53	0.80	--	8.8	0.270	0.240	--	--
14	--	--	--	--	--	--	--	--	--	--	--	0.9
15	7.50	--	0.070	--	0.53	0.60	--	8.1	0.100	0.070	--	--
16	8.50	--	0.210	--	0.89	1.1	--	9.6	0.520	0.470	--	--
17	7.90	--	0.610	--	0.79	1.4	--	9.3	0.170	0.120	--	--
18	5.50	--	0.510	--	1.9	2.4	--	7.9	0.250	0.190	--	--
19	10.0	--	0.060	--	1.2	1.3	--	11	0.150	0.090	--	4
20	6.90	--	0.130	--	0.87	1.0	--	7.9	0.140	0.090	--	2
21	13.0	4.0	0.040	16	0.76	0.80	700	14	0.270	0.170	1600	0.5
22	18.0	--	0.400	--	1.5	1.9	--	20	0.240	0.170	--	--
23	14.0	--	0.040	--	0.46	0.50	--	15	0.230	0.190	--	--
24	10.0	--	0.060	--	0.24	0.30	--	10	0.150	0.100	--	--
25	7.80	<2.0	0.060	40	0.94	1.0	2100	8.8	0.950	0.790	1500	0.5
26	4.00	<2.0	0.130	17	0.77	0.90	660	4.9	0.620	0.370	480	--
28	7.90	--	0.150	--	0.65	0.80	--	8.7	0.250	0.170	--	0.9

< Actual value is known to be less than the value shown.

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

STATION	NUMBER	LOCAL IDENT I- FIER	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)	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
LANCASTER COUNTY												
400454076051001		29	08-19-92	1135	4.3	1200	8.2	24.0	--	--	3.42	0.080
400456076042501		30	08-18-92	1310	0.80	180	8.2	19.5	--	--	2.18	0.020
400510076043001		31	08-18-92	1215	2.2	460	8.3	20.5	--	30	--	--
400529076040001		32	08-18-92	1125	2.1	435	8.1	19.0	--	--	4.13	0.070
400507076024101		33	08-17-92	1130	0.48	91	7.3	12.0	9.9	--	--	<0.010
400500076020501		34	08-17-92	1253	0.79	85	6.9	11.5	--	--	--	<0.010
400457076041301		35	08-18-92	1340	0.15	300	8.2	20.5	9.3	--	5.08	0.020
400408076050401		36	08-19-92	1230	0.84	442	8.3	26.0	--	--	3.48	0.420
400256076071001		37	08-19-92	1015	0.27	691	6.8	21.0	--	--	8.49	0.510
400255076070901		38	08-19-92	1100	3.4	502	7.8	18.0	--	--	9.25	0.150
400251076075501		39	08-18-92	1035	3.2	650	7.9	17.0	6.3	--	8.37	0.230
400244076081401		40	08-18-92	1245	0.35	800	7.8	18.0	7.0	--	14.9	0.120
400259076092201		42	08-18-92	0945	3.7	745	7.8	18.0	--	--	8.24	0.260
400346076092401		43	08-17-92	1145	6.0	700	7.8	19.0	--	--	6.33	0.170
400354076080601		44	08-20-92	0930	6.5	1300	8.2	18.0	8.8	--	8.09	0.110
400435076054801		45	08-19-92	1415	6.4	1270	8.3	23.5	--	--	7.11	0.090
400453076051701		46	08-20-92	1200	0.44	1200	7.7	24.5	--	29	30.3	0.700

< Actual value is known to be less than the value shown.

ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

LOCAL IDENT- IFIER	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	TRIAZIN SCREEN (ELISA) WAT, WH REC, AS ATRAZIN (µG/L) (34757)
LANCASTER COUNTY												
29	3.50	--	0.080	--	0.82	0.90	--	4.4	0.810	0.770	--	--
30	2.20	--	0.070	--	0.23	0.30	--	2.5	0.060	0.040	--	--
31	--	230	--	820	--	--	760	--	--	--	750	0.3
32	4.20	--	0.090	--	0.51	0.60	--	4.8	0.150	0.120	--	--
33	0.510	--	0.030	--	--	<0.20	--	--	0.050	0.030	--	--
34	0.300	--	0.030	--	--	<0.20	--	--	<0.010	<0.010	--	--
35	5.10	--	0.100	--	0.20	0.30	--	5.4	0.040	0.020	--	0.2
36	3.90	--	0.140	--	1.1	1.2	--	5.1	0.430	0.320	--	--
37	9.00	--	0.200	--	0.90	1.1	--	10	0.310	0.240	--	0.2
38	9.40	--	0.080	--	0.42	0.50	--	9.9	0.100	0.090	--	--
39	8.60	--	0.200	--	0.70	0.90	--	9.5	0.210	0.170	--	--
40	15.0	--	0.040	--	0.26	0.30	--	15	0.080	0.070	--	0.7
42	8.50	--	0.450	--	0.85	1.3	--	9.8	0.220	0.170	--	--
43	6.50	--	0.350	--	1.2	1.6	--	8.1	0.500	0.410	--	0.5
44	8.20	--	0.120	--	0.68	0.80	--	9.0	0.730	0.680	--	--
45	7.20	--	0.070	--	0.83	0.90	--	8.1	0.830	0.770	--	--
46	31.0	8.0	0.150	38	3.0	3.2	610	34	7.10	5.50	900	0.9

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

LOCAL IDENT- IFIER	STATION	NUMBER	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC, (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC, (µG/L) (04041)
25	400415076064901		08-20-92	1045	7.1	<0.05	<0.05	0.13	<0.20
	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DEISO- PROPYL ATRAZIN WATER, DISS, REC (µG/L) (04038)	METO- LACHLOR WATER DISSOLV (µG/L) (39415)	PRO- METON, WATER, DISS, REC (µG/L) (04037)	PRO- METRYN, WATER, DISS, REC (µG/L) (04036)	PROP- AZINE WATER DISS, REC (µG/L) (38535)	SI- MAZINE, WATER, DISS, REC (µG/L) (04035)	TRIAZIN SCREEN (ELISA) WAT, WH REC, AS ATRAZIN (µG/L) (34757)	
	0.21	0.15	<0.05	0.20	<0.05	<0.05	0.12	0.5	

< Actual value is known to be less than the value shown.

GROUND-WATER-LEVEL AND GROUND-WATER-QUALITY STATION RECORDS

227

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

NOTE.--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.

GROUND-WATER-LEVEL AND GROUND-WATER-QUALITY STATION RECORDS

229

ADAMS COUNTY

395846077040601. Local number, AD 146.

LOCATION.--Lat 39°58'46", long 77°04'06", Hydrologic Unit 02050306, at State Game Land No. 249, and near York Springs.

Owner: U.S. Geological Survey.

AQUIFER.--Gettysburg Formation, Late Triassic age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 100 ft, cased to 17 ft, open hole.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.

DATUM.--Elevation of land surface is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water-quality records for 1973-75 are available in files of the District Office.

PERIOD OF RECORD.--January 1968 to current year.

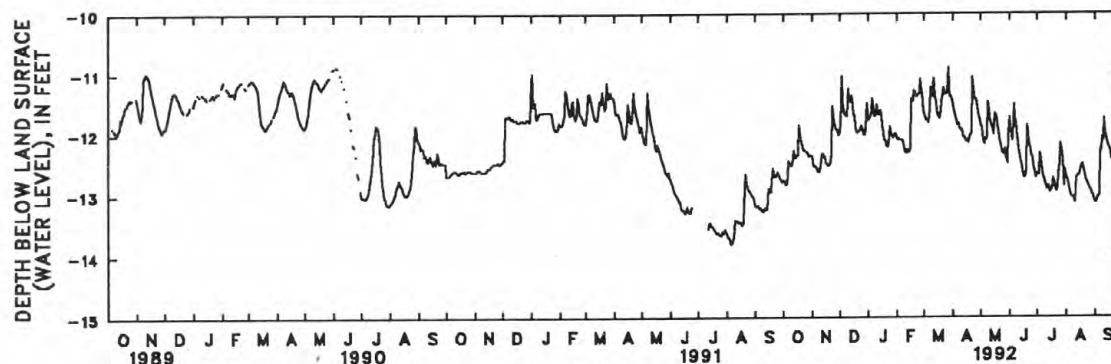
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.87 ft below land-surface datum, June 21, 1972; lowest, 14.02 ft below land-surface datum, July 16-18, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.75	12.35	11.97	11.76	12.07	11.63	11.50	11.86	11.72	12.65	12.69	13.11
2	12.75	12.45	11.82	11.74	12.09	11.70	11.59	11.88	11.88	12.64	12.72	13.13
3	12.78	12.49	11.03	11.72	12.07	11.75	11.66	12.00	12.00	12.67	12.77	13.10
4	12.82	12.53	11.45	11.63	12.08	11.77	11.71	12.10	12.11	12.31	12.85	13.04
5	12.80	12.52	11.55	11.40	12.09	11.78	11.80	12.16	12.06	12.41	12.93	13.05
6	12.67	12.55	11.66	11.56	12.10	11.81	11.85	12.07	11.51	12.52	12.99	13.00
7	12.43	12.57	11.68	11.68	12.10	11.59	11.82	12.09	11.73	12.67	13.04	12.26
8	12.48	12.61	11.70	11.69	12.15	11.22	11.90	12.04	11.82	12.71	13.04	12.28
9	12.49	12.61	11.70	11.66	12.26	11.35	11.91	11.47	11.96	12.77	13.04	12.06
10	12.51	12.58	11.24	11.51	12.30	11.37	11.94	11.60	12.13	12.81	13.11	12.10
11	12.49	12.43	11.41	11.62	12.25	11.07	11.92	11.74	12.26	12.89	13.12	11.74
12	12.27	12.32	11.45	11.67	12.31	11.21	12.04	11.82	12.36	12.90	12.71	11.91
13	12.35	12.32	11.47	11.68	12.25	11.38	12.06	11.88	12.43	12.85	12.71	12.03
14	12.38	12.37	11.36	11.60	12.30	11.47	12.04	11.91	12.51	12.92	12.67	12.09
15	12.37	12.36	11.52	11.68	12.23	11.61	12.11	12.00	12.60	12.95	12.68	12.18
16	12.34	12.45	11.66	11.86	11.41	11.69	12.12	11.65	12.69	12.91	12.65	12.20
17	12.34	12.48	11.70	11.96	11.47	11.70	12.09	11.68	12.71	12.91	12.54	12.25
18	11.84	12.49	11.88	12.08	11.43	11.74	12.14	11.71	12.70	12.72	12.51	12.29
19	12.00	12.51	11.96	12.10	11.27	11.62	12.03	11.85	12.59	12.77	12.49	12.38
20	12.07	12.50	11.97	12.15	11.29	11.47	12.01	11.96	11.85	12.84	12.57	12.43
21	12.13	12.48	11.95	12.19	11.36	11.34	11.98	12.05	12.00	12.91	12.65	12.47
22	12.19	12.33	11.94	12.20	11.37	11.23	11.05	12.13	12.13	12.94	12.71	12.41
23	12.26	11.53	11.92	12.16	11.36	11.31	11.27	12.20	12.21	12.88	12.75	12.33
24	12.26	11.70	11.85	11.88	11.34	11.34	11.35	12.29	12.25	12.65	12.80	12.39
25	12.28	11.80	11.92	11.92	11.32	11.32	11.41	12.32	12.34	12.49	12.82	12.39
26	12.29	11.88	11.95	12.01	11.08	11.32	11.42	12.33	12.38	12.15	12.88	12.05
27	12.29	11.92	12.00	12.01	11.29	10.89	11.48	12.23	12.51	12.20	12.91	11.53
28	12.34	11.93	12.00	12.05	11.33	11.22	11.63	12.37	12.59	12.32	12.92	11.62
29	12.36	11.98	11.91	12.01	11.61	11.37	11.71	12.42	12.65	12.43	12.99	11.77
30	12.34	12.01	11.48	11.98	---	11.38	11.77	12.48	12.71	12.85	13.00	11.82
31	12.35	---	11.65	12.01	---	11.41	---	11.98	---	12.57	13.08	---
MEAN	12.39	12.30	11.70	11.84	11.78	11.45	11.78	12.01	12.25	12.68	12.82	12.31
MAX	12.82	12.61	12.00	12.20	12.31	11.81	12.14	12.48	12.71	12.95	13.12	13.13
MIN	11.84	11.53	11.03	11.40	11.08	10.89	11.05	11.47	11.51	12.15	12.49	11.53

WTR YR 1992: HIGHEST 10.89, MARCH 27; LOWEST 13.13, SEPTEMBER 2.

Gap indicates missing record.



3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

BEDFORD COUNTY

400217078281901. Local number, BD 150.

LOCATION.--Lat 40°02'17", long 78°28'19", Hydrologic Unit 02050303, at Bedford.

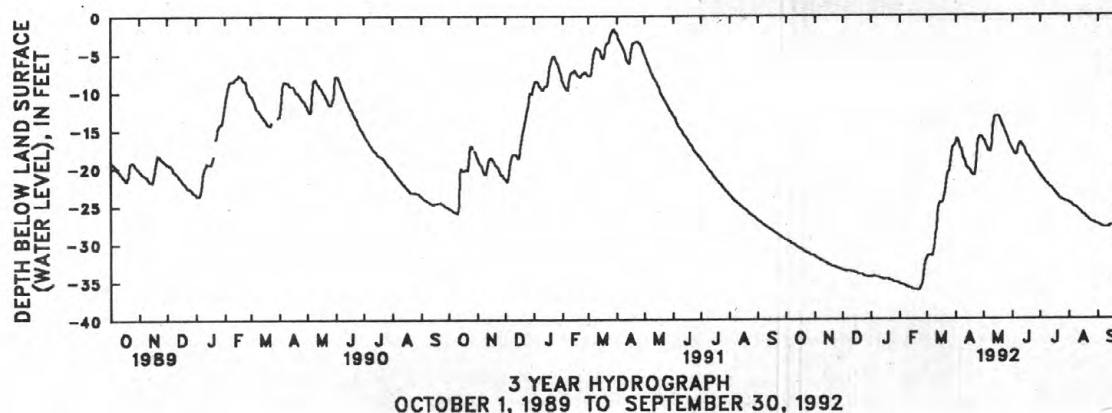
Owner: U.S. Geological Survey.

AQUIFER.--Onondaga Formation, Middle Devonian age.**WELL CHARACTERISTICS.**--Drilled observation artesian well, diameter 6 in., depth 150 ft, cased to 47 ft, open hole.**INSTRUMENTATION.**--Continuous strip-chart recorder.**DATUM.**--Elevation of land surface is 1,160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.1 ft above land-surface datum.**PERIOD OF RECORD.**--July 1965 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 2.02 ft above land-surface datum, July 28, 1989; lowest, 41.42 ft below land-surface datum, Feb. 12, 13, 1966.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.43	31.60	33.44	34.39	35.33	31.95	16.57	16.41	17.62	20.94	24.66	27.57
2	29.50	31.74	33.46	34.34	35.35	31.63	16.20	16.55	17.87	21.15	24.70	27.60
3	29.59	31.83	33.45	34.30	35.38	31.56	16.23	16.87	18.10	21.28	24.73	27.65
4	29.68	31.89	33.60	34.28	35.45	31.55	16.51	17.11	18.24	21.46	24.88	27.77
5	29.73	31.94	33.61	34.30	35.51	31.56	17.08	17.38	18.26	21.54	25.06	27.85
6	29.80	32.01	33.55	34.37	35.51	31.60	17.42	17.75	18.12	21.79	25.18	27.85
7	29.90	32.09	33.55	34.41	35.56	31.59	17.62	17.91	17.48	22.02	25.25	27.91
8	29.97	32.18	33.55	34.43	35.70	31.04	18.16	17.90	16.95	22.07	25.28	27.90
9	30.03	32.19	33.56	34.44	35.78	29.92	18.53	17.82	16.67	22.20	25.36	27.91
10	30.07	32.20	33.63	34.49	35.79	28.80	18.93	16.65	16.67	22.32	25.43	27.86
11	30.12	32.34	33.64	34.56	35.83	28.05	19.18	14.69	16.92	22.52	25.55	27.86
12	30.25	32.38	33.64	34.58	35.89	26.45	19.73	13.72	17.10	22.58	25.74	27.87
13	30.35	32.46	33.63	34.58	35.88	25.39	19.97	13.22	17.26	22.69	25.82	27.86
14	30.38	32.53	33.74	34.73	35.97	24.76	20.00	13.26	17.48	22.81	25.99	27.70
15	30.48	32.58	33.79	34.75	35.97	24.53	20.17	13.25	17.84	22.93	26.07	27.71
16	30.56	32.69	33.84	34.70	36.12	24.65	20.22	13.22	18.17	23.13	26.20	27.71
17	30.63	32.75	33.87	34.65	36.13	24.55	20.42	13.23	18.37	23.24	26.27	27.70
18	30.72	32.80	34.01	34.70	36.12	24.51	20.70	13.41	18.42	23.42	26.34	27.72
19	30.81	32.86	34.02	34.70	36.12	24.05	20.93	13.76	18.54	23.57	26.48	27.86
20	30.89	32.91	34.02	34.70	36.16	23.55	21.02	14.13	18.82	23.69	26.62	27.92
21	30.95	33.00	34.01	34.80	36.12	22.60	21.03	14.35	19.11	23.83	26.74	27.97
22	31.03	33.01	34.02	34.83	36.07	21.63	20.54	14.60	19.33	23.98	26.85	28.07
23	31.11	33.02	34.13	34.83	35.85	20.71	18.85	14.79	19.41	24.04	26.97	28.29
24	31.12	33.13	34.20	35.02	35.62	20.59	17.39	15.15	19.53	24.17	27.06	28.38
25	31.18	33.14	34.28	35.01	35.31	20.32	16.43	15.52	19.79	24.25	27.14	28.43
26	31.23	33.21	34.32	35.06	34.60	19.47	16.10	15.82	19.96	24.26	27.22	28.44
27	31.32	33.23	34.35	35.07	33.18	18.18	15.89	16.22	20.23	24.30	27.21	28.55
28	31.42	33.26	34.36	35.10	32.49	17.54	15.81	16.63	20.44	24.44	27.20	28.61
29	31.47	33.34	34.37	35.13	32.07	17.25	15.92	16.95	20.61	24.45	27.38	28.73
30	31.49	33.39	34.36	35.13	---	17.12	16.18	17.14	20.76	24.48	27.40	28.79
31	31.58	---	34.36	35.23	---	17.01	---	17.31	---	24.50	27.49	---
MEAN	30.54	32.59	33.88	34.70	35.41	24.97	18.32	15.57	18.47	23.03	26.14	28.00
MAX	31.58	33.39	34.37	35.23	36.16	31.95	21.03	17.91	20.76	24.50	27.49	28.79
MIN	29.43	31.60	33.44	34.28	32.07	17.01	15.81	13.22	16.67	20.94	24.66	27.57

WTR YR 1992: HIGHEST 13.22, MAY 13, 16; LOWEST 36.16, FEBRUARY 20.

Gap Indicates missing record.



BLAIR COUNTY

402452078271301. Local number, BA 74.

LOCATION.--Lat 40°24'52", long 78°27'13", Hydrologic Unit 02050302, southwest of Duncansville.

Owner: U.S. Geological Survey.

AQUIFER.--Brallier Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 150 ft, cased to 14 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--August 1969 to current year.

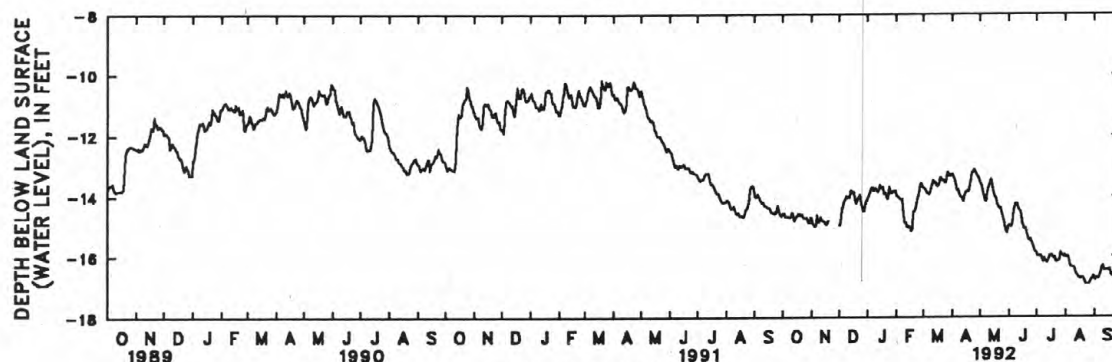
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.65 ft below land-surface datum, May 11, 1989; lowest, 18.65 ft below land-surface datum, Oct. 29, 30, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.58	14.73	14.96	14.07	13.98	13.74	13.26	13.57	14.95	15.88	16.02	16.74
2	14.55	14.83	14.96	13.97	14.01	13.74	13.34	13.62	14.97	15.98	16.03	16.80
3	14.58	14.91	14.71	13.92	14.02	13.77	13.40	13.70	15.01	15.96	16.00	16.72
4	14.69	14.96	14.38	13.78	14.04	13.83	13.47	13.81	14.98	15.99	16.02	16.72
5	14.69	14.99	14.40	13.72	14.09	13.90	13.68	13.98	14.90	15.97	16.23	16.76
6	14.68	14.96	14.18	13.71	14.11	13.92	13.82	14.14	14.49	15.99	16.32	16.72
7	14.67	14.63	14.16	13.81	14.09	13.94	13.78	14.18	14.38	16.12	16.36	16.63
8	14.70	14.81	14.05	13.82	14.36	13.91	13.88	14.08	14.23	16.17	16.34	16.48
9	14.70	14.85	13.98	13.74	14.78	13.71	13.94	13.86	14.23	16.06	16.34	16.36
10	14.65	14.82	14.06	13.75	14.86	13.67	14.02	13.71	14.27	16.15	16.38	16.30
11	14.53	14.69	14.05	13.85	14.86	13.48	14.02	13.64	14.39	16.18	16.40	16.41
12	14.58	14.79	14.05	13.86	15.01	13.51	14.12	13.53	14.47	16.19	16.56	16.45
13	14.75	14.79	13.86	13.75	14.97	13.56	14.17	13.43	14.50	16.12	16.61	16.44
14	14.80	14.83	13.79	13.63	15.05	13.55	14.03	13.65	14.61	16.08	16.67	16.43
15	14.72	14.83	13.84	13.72	15.03	13.65	13.91	13.81	14.86	15.96	16.72	16.46
16	14.67	14.87	13.91	13.74	15.13	13.69	13.87	13.97	15.00	15.96	16.71	16.46
17	14.64	14.94	13.86	13.70	15.18	13.64	13.81	14.03	15.08	15.95	16.74	16.41
18	14.58	14.92	14.10	13.93	15.07	13.62	13.87	14.07	15.07	16.01	16.71	16.41
19	14.58	14.82	14.24	13.90	14.52	13.40	13.80	14.23	15.06	16.05	16.70	16.60
20	14.64	---	14.21	13.88	14.51	13.37	13.62	14.33	15.24	16.02	16.71	16.66
21	14.62	---	14.05	13.98	14.45	13.49	13.44	14.39	15.36	16.09	16.80	16.66
22	14.59	---	14.04	14.09	14.41	13.46	13.24	14.42	15.44	16.17	16.85	16.54
23	14.68	---	13.95	14.07	14.16	13.49	13.21	14.39	15.48	16.16	16.91	16.69
24	14.72	---	14.09	13.70	14.04	13.57	13.16	14.53	15.41	16.15	16.93	16.77
25	14.73	---	14.34	13.79	13.93	13.56	13.13	14.65	15.48	16.13	16.92	16.78
26	14.72	---	14.36	13.89	13.75	13.38	13.20	14.75	15.60	16.04	16.92	16.69
27	14.70	---	14.50	13.89	13.58	13.20	13.27	14.94	15.66	15.87	16.90	16.57
28	14.81	---	14.49	13.84	13.58	13.31	13.34	15.10	15.77	15.95	16.81	16.54
29	14.88	---	14.29	13.82	13.72	13.34	13.36	15.20	15.83	15.97	16.75	16.51
30	14.86	---	14.13	13.81	---	13.33	13.45	15.22	15.85	16.02	16.73	16.50
31	14.71	---	14.15	13.81	---	13.28	---	15.03	---	15.95	16.64	---
MEAN	14.68	14.84	14.20	13.84	14.39	13.58	13.62	14.19	15.02	16.04	16.57	16.57
MAX	14.88	14.99	14.96	14.09	15.18	13.94	14.17	15.22	15.85	16.19	16.93	16.80
MIN	14.53	14.63	13.79	13.63	13.58	13.20	13.13	13.43	14.23	15.87	16.00	16.30

WTR YR 1992: HIGHEST 13.13, APRIL 25; LOWEST 16.93, AUGUST 24.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

BRADFORD COUNTY

414330076280501. Local number, BR 92.

LOCATION.--Lat 41°43'30", long 76°28'05", Hydrologic Unit 02050106, at Monroeton.

Owner: U.S. Geological Survey.

AQUIFER.--Lock Haven Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 117 ft, cased to 55 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.0 ft above land-surface datum.

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

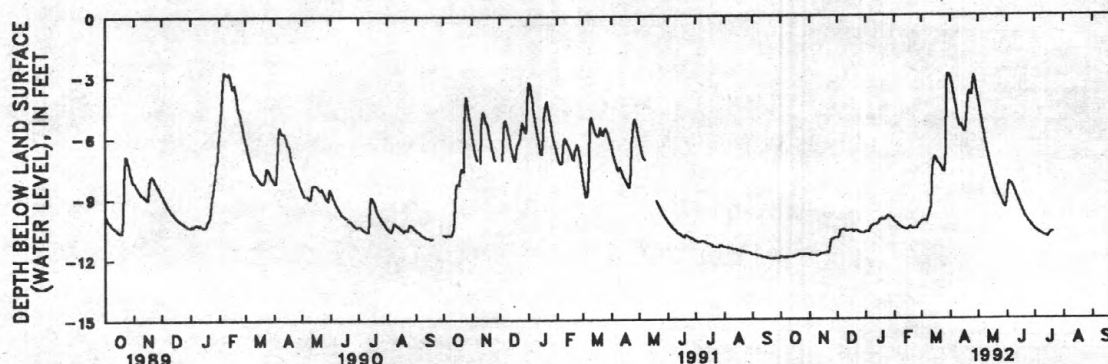
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.33 ft below land-surface datum, Apr. 6, 1984; lowest, 11.99 ft below land-surface datum, Sept. 20, 24, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.87	11.78	10.95	10.66	10.17	10.17	3.07	4.18	8.96	10.53		
2	11.88	11.81	10.96	10.66	10.21	10.15	3.22	4.46	8.44	10.58		
3	11.89	11.81	10.88	10.66	10.23	10.14	3.48	4.66	8.21	10.61		
4	11.91	11.81	10.66	10.65	10.26	10.13	3.76	4.94	8.25	10.66		
5	11.89	11.83	10.60	10.58	10.34	10.12	4.04	5.25	8.30	10.69		
6	11.91	11.83	10.55	10.45	10.37	10.14	4.29	5.51	8.32	10.73		
7	11.90	11.83	10.55	10.37	10.40	10.11	4.53	5.78	8.40	10.75		
8	11.91	11.84	10.54	10.36	10.43	9.99	4.81	6.00	8.51	10.78		
9	11.89	11.85	10.56	10.33	10.47	9.78	5.06	6.22	8.64	10.81		
10	11.89	11.84	10.59	10.29	10.49	9.62	5.28	6.47	8.76	10.83		
11	11.89	11.81	10.63	10.29	10.50	9.47	5.48	6.71	8.91	10.87		
12	11.89	11.79	10.62	10.30	10.53	8.33	5.49	6.92	9.02	10.88		
13	11.89	11.74	10.61	10.31	10.54	7.51	5.39	7.11	9.12	10.92		
14	11.88	11.73	10.60	10.26	10.55	7.16	5.50	7.37	9.24	10.92		
15	11.87	11.72	10.59	10.23	10.54	6.99	5.67	7.57	9.38	10.94		
16	11.86	11.72	10.59	10.08	10.49	7.02	5.76	7.77	9.49	10.86		
17	11.84	11.72	10.57	10.06	10.46	7.14	5.76	7.96	9.57	10.78		
18	11.81	11.71	10.64	10.08	10.41	7.18	5.48	8.15	9.66	10.73		
19	11.81	11.71	10.66	10.06	10.49	7.30	4.70	8.30	9.75	10.70		
20	11.79	11.68	10.58	10.08	10.54	7.33	4.03	8.42	9.91	10.68		
21	11.77	11.69	10.61	10.06	10.50	7.41	3.83	8.53	9.96	---		
22	11.76	11.67	10.60	10.04	10.51	7.48	3.75	8.67	10.02	---		
23	11.77	11.51	10.63	9.99	10.50	7.61	3.84	8.79	10.08	---		
24	11.76	11.12	10.66	9.91	10.50	7.70	3.93	8.92	10.14	---		
25	11.76	11.06	10.70	9.90	10.49	7.74	3.49	9.02	10.22	---		
26	11.77	11.01	10.70	9.93	10.41	7.72	2.99	9.11	10.26	---		
27	11.77	11.00	10.73	9.93	10.35	6.70	3.06	9.23	10.34	---		
28	11.77	10.97	10.73	9.96	10.27	3.49	3.36	9.35	10.39	---		
29	11.78	10.95	10.73	10.02	10.21	2.93	3.63	9.43	10.43	---		
30	11.77	10.95	10.73	10.04	---	2.92	3.93	9.48	10.48	---		
31	11.78	---	10.70	10.11	---	2.97	---	9.47	---	---		
MEAN	11.84	11.58	10.66	10.21	10.42	7.76	4.35	7.41	9.37	10.76		
MAX	11.91	11.85	10.96	10.66	10.55	10.17	5.76	9.48	10.48	10.94		
MIN	11.76	10.95	10.54	9.90	10.17	2.92	2.99	4.18	8.21	10.53		

WTR YR 1992: HIGHEST 2.92, MARCH 30, LOWEST 11.91, OCTOBER 4, 6, 8.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

412732078034201. Local number, CM 13.

LOCATION.--Lat 41°27'32", long 78°03'42", Hydrologic Unit 02050202, at Sinnemahoning State Park.

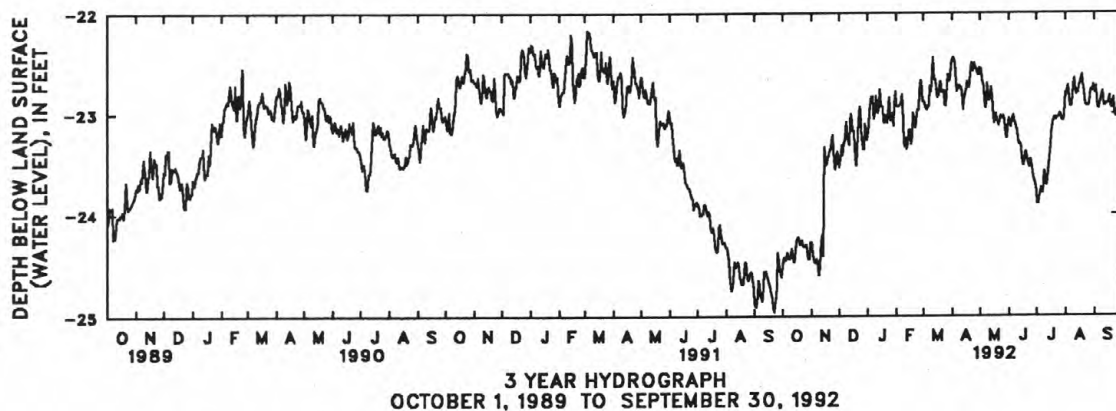
Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.**WELL CHARACTERISTICS.**--Drilled observation well, diameter 6 in., depth 102 ft, cased to 57 ft, open hole.**INSTRUMENTATION.**--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.**DATUM.**--Elevation of land surface is 1,010 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.1 ft above land-surface datum.**PERIOD OF RECORD.**--October 1967 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 18.53 ft below land-surface datum, Feb. 16, 1984; lowest, 25.98 ft below land-surface datum, Sept. 10, 1972.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.52	24.28	23.53	23.22	22.92	22.88	22.46	22.62	23.04	23.77	22.79	22.76
2	24.45	24.32	23.49	23.11	22.93	22.88	22.44	22.55	23.08	23.89	22.80	22.79
3	24.42	24.40	23.39	22.98	22.93	22.92	22.46	22.68	23.13	23.89	22.75	22.73
4	24.46	24.46	23.31	22.88	22.92	22.95	22.50	22.68	23.07	23.84	22.72	22.87
5	24.44	24.48	23.41	22.83	22.91	22.96	22.69	22.74	23.05	23.79	22.85	22.93
6	24.38	24.45	23.29	22.83	22.91	22.92	22.78	22.87	23.01	23.73	22.92	22.95
7	24.40	24.44	23.29	22.97	22.81	22.92	22.72	22.94	23.07	23.77	22.93	22.90
8	24.44	24.52	23.17	23.05	22.92	22.73	22.72	22.88	23.09	23.79	22.91	22.85
9	24.44	24.60	23.08	22.97	23.27	22.78	22.72	22.70	23.14	23.57	22.73	22.83
10	24.40	24.60	23.23	22.82	23.33	22.70	22.76	22.82	23.17	23.59	22.67	22.78
11	24.34	24.39	23.26	22.97	23.24	22.44	22.74	22.87	23.25	23.70	22.65	22.86
12	24.41	24.28	23.31	22.99	23.35	22.56	22.86	22.82	23.30	23.71	22.78	22.92
13	24.46	24.20	23.08	22.93	23.30	22.66	22.96	22.74	23.29	23.58	22.81	22.92
14	24.47	24.41	23.00	22.76	23.17	22.66	22.86	22.83	23.33	23.52	22.77	22.90
15	24.36	23.33	23.07	22.91	23.16	22.74	22.80	22.95	23.44	23.44	22.79	22.90
16	24.28	23.40	23.17	22.93	23.23	22.84	22.78	23.09	23.51	23.31	22.73	22.90
17	24.24	23.51	23.17	22.93	23.30	22.76	22.68	23.04	23.51	23.20	22.69	22.85
18	24.23	23.49	23.33	23.07	23.22	22.82	22.72	23.00	23.45	23.09	22.66	22.82
19	24.27	23.43	23.51	23.09	22.99	22.68	22.74	23.07	23.37	23.07	22.61	22.92
20	24.30	23.41	23.51	23.01	23.04	22.68	22.68	23.08	23.39	23.03	22.70	22.94
21	24.28	23.35	23.21	23.04	23.14	22.79	22.54	23.12	23.47	23.03	22.78	22.91
22	24.26	23.35	23.07	23.09	23.14	22.78	22.49	23.08	23.49	23.06	22.85	22.84
23	24.30	23.27	22.93	23.01	23.00	22.77	22.58	23.02	23.53	23.03	22.91	22.97
24	24.32	23.21	22.97	22.84	22.96	22.91	22.53	23.03	23.45	23.03	22.92	23.03
25	24.32	23.37	23.25	22.94	22.96	22.92	22.49	23.04	23.45	23.03	22.91	23.00
26	24.30	23.52	23.27	23.07	22.78	22.82	22.54	23.02	23.53	22.99	22.92	22.94
27	24.30	23.55	23.35	23.07	22.67	22.61	22.55	23.06	23.59	23.00	22.90	22.81
28	24.40	23.41	23.35	22.99	22.68	22.66	22.60	23.15	23.65	23.04	22.77	22.80
29	24.44	23.37	23.10	23.12	22.88	22.68	22.62	23.24	23.67	23.07	22.76	22.85
30	24.44	23.40	23.19	22.91	---	22.64	22.54	23.23	23.69	23.07	22.77	22.87
31	24.28	---	23.26	22.78	---	22.51	---	23.14	---	23.01	22.71	---
MEAN	24.37	23.87	23.24	22.97	23.04	22.76	22.65	22.94	23.34	23.38	22.79	22.88
MAX	24.52	24.60	23.53	23.22	23.35	22.96	22.96	23.24	23.69	23.89	22.93	23.03
MIN	24.23	23.21	22.93	22.76	22.67	22.44	22.44	22.55	23.01	22.99	22.61	22.73

WTR YR 1992: HIGHEST 22.44, MARCH 11, APRIL 2; LOWEST 24.60, NOVEMBER 9, 10.

Gap indicates missing record.



CENTRE COUNTY

404518077575501. Local number, CE 118.

LOCATION.--Lat 40°45'18", long 77°57'55", Hydrologic Unit 02050302, at State Game Land No. 176, and near Fairbrook.

Owner: U.S. Geological Survey.

AQUIFER.--Gatesburg Formation, Late Cambrian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 130 ft, cased to 40 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.9 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to June 1981, July 1984 to current year.

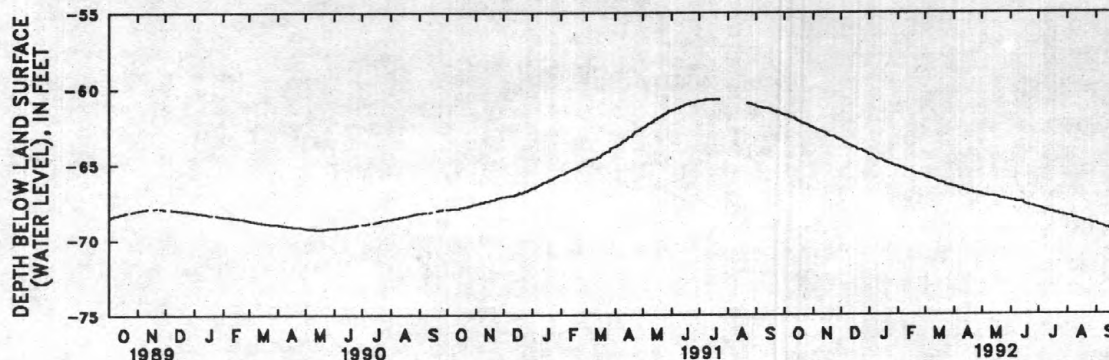
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 51.91 ft below land-surface datum, Sept. 8, 12, 16, 1978; lowest, 80.14 ft below land-surface datum, March 26, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

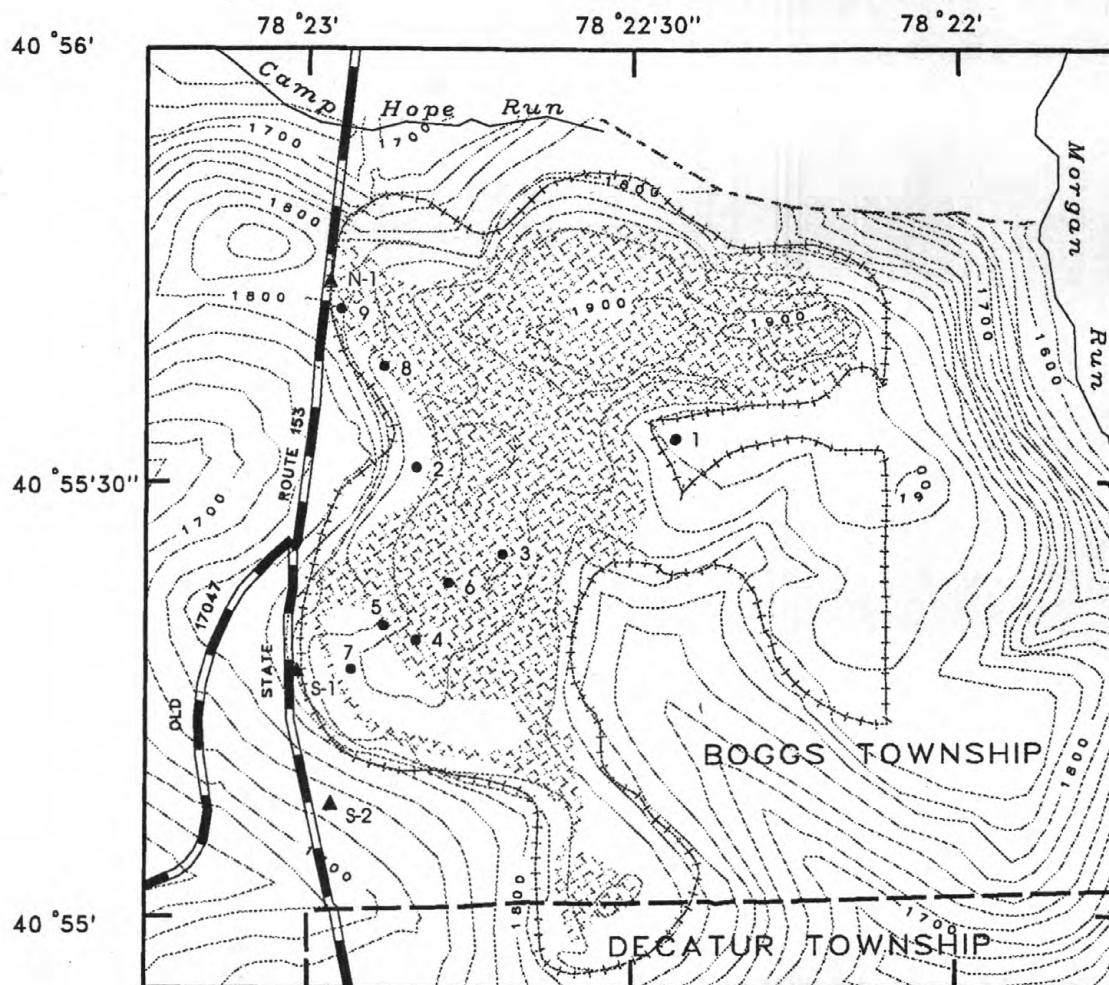
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61.72	62.58	63.39	64.35	65.17	65.82	66.46	66.98	67.39	67.90	68.44	68.95
2	61.75	62.61	63.45	64.36	65.18	65.84	66.48	66.99	67.41	67.91	68.45	69.01
3	61.75	62.64	63.48	64.36	65.20	65.87	66.50	67.01	67.41	67.94	68.46	69.07
4	61.75	62.67	63.51	64.39	65.23	65.89	66.51	67.03	67.41	67.95	68.47	69.10
5	61.79	62.69	63.55	64.45	65.26	65.91	66.56	67.04	67.41	67.97	68.47	69.09
6	61.81	62.71	63.58	64.49	65.27	65.93	66.57	67.04	67.45	67.98	68.48	69.11
7	61.85	62.73	63.61	64.54	65.29	65.95	66.58	67.05	67.46	68.01	68.63	69.12
8	61.88	62.78	63.64	64.57	65.34	65.98	66.59	67.10	67.46	68.03	68.59	69.13
9	61.90	62.81	63.68	64.60	65.38	66.00	66.61	67.08	67.47	68.06	68.59	69.16
10	61.91	62.81	63.71	64.63	65.39	66.02	66.64	67.08	67.48	68.08	68.59	69.19
11	61.91	62.83	63.74	64.65	65.42	66.05	66.66	67.09	67.48	68.10	68.61	69.21
12	61.95	62.86	63.76	64.67	65.44	66.08	66.68	67.09	67.48	68.12	68.64	69.23
13	62.00	62.89	63.79	64.67	65.46	66.11	66.71	67.10	67.49	68.15	68.65	69.26
14	62.03	62.92	63.82	64.71	65.48	66.14	66.71	67.12	67.49	68.15	68.65	69.27
15	62.07	62.94	63.83	64.72	65.50	66.16	66.73	67.14	67.62	68.15	68.69	69.29
16	62.11	63.00	63.87	64.77	65.52	66.16	66.77	67.15	67.63	68.16	68.71	69.30
17	62.14	63.04	63.88	64.80	65.55	66.18	66.76	67.15	67.65	68.18	68.72	69.32
18	62.18	63.08	63.96	64.85	65.59	66.19	66.80	67.17	67.68	68.20	68.73	69.33
19	62.22	63.11	64.01	64.87	65.63	66.20	66.80	67.19	67.68	68.22	68.76	69.36
20	62.23	63.11	64.03	64.89	65.67	66.22	66.82	67.25	67.70	68.26	68.81	69.38
21	62.26	63.12	64.04	64.91	65.68	66.25	66.85	67.25	67.71	68.26	68.81	69.45
22	62.27	63.14	64.04	64.93	65.68	66.25	66.87	67.25	---	68.26	68.81	69.46
23	62.28	63.14	64.03	64.93	65.68	66.33	66.87	67.26	---	68.28	68.83	69.46
24	62.33	63.17	64.05	64.96	65.70	66.34	66.88	67.27	67.77	68.30	68.85	69.47
25	62.34	63.22	64.16	65.00	65.72	66.35	66.91	67.29	67.79	68.30	68.87	69.47
26	62.37	63.27	64.16	65.03	65.72	66.36	66.89	67.31	67.81	68.31	68.88	69.47
27	62.39	63.29	64.19	65.06	65.74	66.37	66.89	67.33	67.82	68.33	68.90	69.48
28	62.46	63.30	64.22	65.09	65.74	66.40	66.93	67.33	67.87	68.35	68.94	69.61
29	62.49	63.34	64.24	65.13	65.80	66.41	66.95	67.36	67.87	68.37	68.94	69.62
30	62.52	63.38	64.29	65.12	---	66.43	66.96	67.36	67.87	68.38	68.94	69.63
31	62.55	---	64.34	65.13	---	66.45	---	67.37	---	68.41	68.95	---
MEAN	62.10	62.97	63.87	64.76	65.50	66.15	66.73	67.17	67.60	68.16	68.71	69.30
MAX	62.55	63.38	64.34	65.13	65.80	66.45	66.96	67.37	67.87	68.41	68.95	69.63
MIN	61.72	62.58	63.39	64.35	65.17	65.82	66.46	66.98	67.39	67.90	68.44	68.95

WTR YR 1992: HIGHEST 61.72, OCTOBER 1; LOWEST 69.63, SEPTEMBER 30.

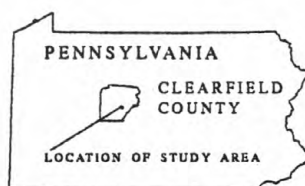
Gap Indicates missing record.



3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992



Digital base from U.S. Geological Survey
Glen Richey and Wallaceeton, Pennsylvania
7.5-minute quadrangle maps.



0 0.1 0.2 0.3 0.4 MILES
0 0.1 0.2 0.3 0.4 KILOMETERS

EXPLANATION

- | | |
|--|---------------------------------|
| SEWAGE-SLUDGE-TREATED AREA | ROAD |
| MINE BOUNDARY | TOWNSHIP BOUNDARY |
| TOPOGRAPHIC CONTOUR
INTERVAL 20 FEET
DATUM SEA LEVEL | STREAM |
| WATERSHED BOUNDARY | MONITOR-WELL NEST
AND NUMBER |
| | SEEP AND NUMBER |

Figure 11.--Water-quality sampling locations at the reclaimed surface coal mine in Boggs Township, Clearfield County, Pa.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT

REMARKS.--All samples were collected from a monitoring network to evaluate effects on water quality from coal mining and subsequent reclamation with or without sewage sludge as specified for each site. All field measurements performed by U.S. Geological Survey, and all laboratory analyses conducted by Pennsylvania Department of Environmental Resources, Bureau of Laboratories. Data collection has been discontinued.

LOCAL IDENTIFIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE-CIFIC CON-DUCT-ANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)
WELL 1C UNMINED/UNSLUDGED	405533078222601	324CLRN	10-15-91	1020	95.30	145.00	1877	1300	6.2
		324CLRN	11-12-91	1015	98.48	145.00	1877	1270	6.1
		324CLRN	12-10-91	0945	88.25	145.00	1877	1270	7.2
WELL 1K UNMINED/UNSLUDGED	405533078222602	324KNNG	11-12-91	1000	79.67	86.00	1878	284	6.4
		324KNNG	12-10-91	0930	73.42	86.00	1878	246	7.6
WELL 2C UNMINED/UNSLUDGED	405531078225001	324CLRN	10-16-91	1400	88.91	146.00	1851	2830	4.7
		324CLRN	11-13-91	a0005	89.86	146.00	1851	2840	4.1
		324CLRN	11-13-91	1230	89.86	146.00	1851	2820	4.1
		324CLRN	12-11-91	1100	87.43	146.00	1851	2960	4.2
WELL 2K MINED/UNSLUDGED	405531078225002	--	10-16-91	1415	66.85	75.00	1851	1730	4.4
		--	11-13-91	1215	67.16	75.00	1851	1620	4.1
		--	12-11-91	1110	65.77	75.00	1851	1480	4.0
LYSIM 2 MINED/UNSLUDGED	405531078225003	--	10-16-91	0800	--	10.00	1850	--	--
		--	11-13-91	0855	--	10.00	1850	752	--
WELL 3C UNMINED/SLUDGED	405525078224201	324CLRN	10-15-91	1630	113.14	144.00	1873	1190	6.6
		324CLRN	11-12-91	1430	114.34	144.00	1873	1220	6.4
		324CLRN	12-10-91	1505	113.31	144.00	1873	1220	5.8
WELL 3K MINED/SLUDGED	405525078224202	--	10-15-91	1745	68.52	73.00	1873	1760	4.7
		--	12-10-91	1445	69.07	73.00	1873	1670	4.3
LYSIM 3 MINED/SLUDGED	405525078224203	--	10-16-91	0805	--	4.50	1872	--	--
WELL 4C UNMINED/SLUDGED	405519078225001	324CLRN	10-15-91	1800	81.65	145.00	1863	3960	5.4
		324CLRN	11-12-91	1630	83.65	145.00	1863	3950	4.7
		324CLRN	12-10-91	1700	81.66	145.00	1863	3840	4.8
WELL 4K MINED/SLUDGED	405519078225002	--	10-15-91	1815	61.32	74.00	1863	3150	4.2
		--	11-12-91	1615	60.91	74.00	1863	2940	3.7
		--	12-10-91	1645	61.05	74.00	1863	2410	3.7
LYSIM 4 MINED/SLUDGED	405519078225003	--	10-16-91	0810	--	10.00	1863	--	--
		--	11-13-91	0930	--	10.00	1863	492	--
		--	12-10-91	1535	--	10.00	1863	572	--
WELL 5C UNMINED/UNSLUDGED	405520078225301	324CLRN	10-16-91	a0005	65.31	92.00	1819	1770	6.6
		324CLRN	10-16-91	0830	65.31	92.00	1819	1790	6.6
		324CLRN	11-13-91	0830	65.34	92.00	1819	1890	6.2
WELL 5K MINED/UNSLUDGED	405520078225302	--	10-16-91	1000	20.61	31.00	1817	2150	3.6
		--	11-13-91	0920	20.60	31.00	1817	2110	3.2
		--	12-11-91	0830	21.14	31.00	1817	2180	3.4
LYSIM 5 MINED/UNSLUDGED	405520078225303	--	10-16-91	0815	--	8.00	1820	--	--
		--	11-13-91	0845	--	8.00	1820	1550	--
		--	12-11-91	1030	--	8.00	1820	1610	--

a Sample split for quality assurance check. Actual time is same as following sample.

GEOLOGIC UNIT (AQUIFER)

324CLRN - Clarion Formation.

324KNNG - Kittanning Formation.

Geologic Unit not specified for wells and lysimeters completed in mine spoil.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	OXID- ATION RED- UCTION POTEN- TIAL (MV) (00090)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ACIDITY TOTAL HEATED (MG/L AS CACO3) (70508)	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CACO3) (00436)	THIOBA- CILLUS FERRO- OXIDANS (BACTERIA MPN/ 100 ML) ()	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)
WELL 1C	271	9.5	0.6	610	162	0	70	180	39	7.0	2	0.1
	377	9.0	1.4	480	164	0	<20	130	38	5.0	2	0.1
	367	9.0	0.8	480	170	0	230	130	37	6.1	3	0.1
WELL 1K	--	9.0	--	110	0.0	0	23000	27	9.1	0.61	1	0.0
	--	9.0	0.2	96	0.0	0	1700	26	7.7	0.66	1	0.0
WELL 2C	490	9.5	0.2	1500	464	0	800	260	210	6.3	1	0.1
	509	9.5	3.6	1500	460	0	80	260	200	5.3	1	0.1
	509	9.5	3.6	1400	478	0	170	200	210	6.3	1	0.1
	527	9.5	0.2	1600	600	0	3000	300	210	6.3	1	0.1
WELL 2K	555	10.0	2.8	890	196	0	13000	140	130	7.1	2	0.1
	577	10.0	2.1	800	174	28	3000	130	120	5.1	1	0.1
	597	10.0	3.3	680	176	0	3000	100	100	9.6	3	0.2
LYSIM 2	--	--	--	230	--	--	--	41	30	18	14	0.5
	--	--	--	230	--	0	--	42	31	15	12	0.4
WELL 3C	346	10.0	--	650	38	0	23000	200	37	3.4	1	0.1
	313	9.5	1.8	640	42	0	230	190	38	2.6	1	0.0
	451	--	--	620	30	0	500	190	36	2.5	1	0.0
WELL 3K	--	9.5	--	960	144	0	23000	180	130	6.2	1	0.1
	--	--	--	870	154	0	30000	150	120	5.7	1	0.1
LYSIM 3	--	--	--	200	--	--	--	39	25	74	44	2
WELL 4C	466	9.5	0.5	2200	762	0	3000	430	280	7.2	1	0.1
	463	9.5	0.4	2100	762	0	40	360	290	6.6	1	0.1
	548	9.5	0.8	2200	800	0	17000	460	270	7.3	1	0.1
WELL 4K	561	9.5	0.4	1700	770	14	5000	220	270	7.3	1	0.1
	547	9.5	0.3	1300	582	46	300	150	230	6.5	1	0.1
	656	9.5	0.2	1100	418	15	7000	160	180	5.9	1	0.1
LYSIM 4	--	--	--	230	--	--	--	49	25	1.7	2	0.0
	--	--	--	270	--	0	--	58	31	1.7	1	0.0
	--	--	--	240	30	0	--	46	30	2.4	2	0.1
WELL 5C	366	9.0	0.3	980	142	0	80	300	56	2.0	0	0.0
	366	9.0	0.3	950	142	0	20	290	57	2.1	1	0.0
	321	9.0	3.4	900	166	0	20	260	61	1.9	1	0.0
WELL 5K	621	9.5	6.9	990	460	50	230	170	140	5.1	1	0.1
	410	9.5	6.8	860	504	112	20	140	120	4.8	1	0.1
	--	--	--	860	364	36	700	160	110	4.7	1	0.1
LYSIM 5	--	--	--	790	--	--	--	110	130	23	6	0.4
	--	--	--	850	--	0	--	110	140	17	4	0.3
	--	--	--	930	112	0	--	100	160	34	7	0.5

> Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	ALKA- LINITY WAT WH TOT FET LAB (MG/L AS CACO3) (00417)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, TOTAL (MG/L AS F) (00951)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	OSMOTIC PRESS- URE (mOsm/kg) (82550)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)
WELL 1C	4.7 4.5 3.9	25 36 34	22 19 15	0.1 <0.1 <0.1	820 800 740	3.0 <1.0 <1.0	<0.2 <0.2 <0.2	16 15 14	17 16 13	1180 -- --	1.61 -- --	<0.040 <0.040 <0.040
WELL 1K	1.2 1.0	145 71	112 68	<0.1 <0.1	95 66	2.0 2.0	<0.2 <0.2	6.2 7.1	4 2	232 154	0.32 0.21	<0.040 <0.040
WELL 2C	3.7 3.4 3.3 3.6	1 -- -- --	9 8 8 6	<0.1 <0.1 <0.1 <0.1	2100 2000 2000 2100	3.0 3.0 3.0 2.0	0.8 0.8 0.8 0.7	40 41 40 39	34 31 33 31	2830 -- -- --	3.86 -- -- --	<0.040 <0.040 <0.040 <0.040
WELL 2K	4.1 3.7 3.8	0 -- --	3 0 3	<0.1 <0.1 <0.1	1100 1000 880	2.0 2.0 2.0	0.5 0.4 0.4	29 27 27	20 17 16	-- -- --	-- -- --	<0.040 <0.040 0.210
LYSIM 2	9.0 8.1	-- --	-- 1	-- --	-- 400	-- <1.0	-- 0.9	44 43	-- 9	-- --	-- --	-- 0.570
WELL 3C	3.2 2.4 3.0	95 37 34	30 28 26	<0.1 <0.1 <0.1	740 720 690	2.0 2.0 1.0	<0.2 <0.2 <0.2	8.1 7.5 8.2	15 11 11	1080 1030 980	1.47 1.39 1.33	<0.040 <0.040 <0.040
WELL 3K	9.4 8.9	2 --	5 4	<0.1 --	1100 1000	4.0 3.0	1 1.2	38 36	21 17	1480 --	2.02 --	1.84 1.62
LYSIM 3	4.8	--	--	--	--	--	--	75	--	--	--	--
WELL 4C	3.9 4.0 4.0	20 2 15	15 15 15	<0.1 <0.1 <0.1	3500 3000 3200	<1.0 2.0 2.0	0.6 0.7 0.6	21 24 24	46 42 44	-- 4090 4360	-- 5.57 5.94	<0.040 <0.040 <0.040
WELL 4K	4.5 4.5 4.9	0 -- --	0 0 0	<0.1 <0.1 <0.1	2700 2000 1600	3.0 3.0 3.0	1.3 1.2 0.8	66 58 50	40 32 28	-- -- --	-- -- --	0.100 0.170 0.830
LYSIM 4	6.5 5.5 5.2	-- -- --	-- 9 8	-- -- --	-- 230 300	-- <1.0 <1.0	-- 0.5 0.6	27 27 26	-- 5 --	-- -- --	-- -- --	-- 0.280 0.220
WELL 5C	4.1 4.0 3.6	72 72 26	26 26 22	<0.1 <0.1 <0.1	1200 1200 1200	2.0 2.0 2.0	<0.2 <0.2 <0.2	8.6 6.4 8.3	22 22 18	1710 1690 1610	2.32 2.30 2.18	<0.040 <0.040 <0.040
WELL 5K	6.4 4.9 6.5	0 -- --	0 0 0	<0.1 <0.1 <0.1	1300 1300 1300	3.0 2.0 2.0	0.7 0.9 0.7	89 87 77	26 22 22	-- -- --	-- -- --	<0.040 <0.040 <0.040
LYSIM 5	14 12 12	-- -- 2	-- 3 --	-- -- --	-- 970 1000	-- 8.0 6.0	-- 0.6 0.6	51 51 48	-- 16 --	-- -- 1460	-- -- 1.99	-- 0.850 0.730

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH ₄) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)	ARSENIC DIS- SOLVED (MG/L AS AS) (01000)	BARIUM, DIS- SOLVED (MG/L AS BA) (01005)	CADMIUM DIS- SOLVED (MG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (MG/L AS CR) (01030)	COPPER, DIS- SOLVED (MG/L AS CU) (01040)
WELL 1C	0.006 0.004 0.008	0.480 0.400 0.990	0.62 0.52 1.3	0.0 0.24 0.0	0.48 0.64 0.42	0.090 0.200 0.040	<130 260 <130	<4 <4 <4	15 18 18	0.3 0.3 0.3	<50 <50 <50	11 <10 13
WELL 1K	0.006 0.022	0.110 0.060	0.14 0.08	31 0.86	31 0.92	8.80 0.680	270 <130	<4 <4	32 54	0.3 <0.2	<50 <50	<10 10
WELL 2C	0.006 <0.004 <0.004 0.008	1.00 0.740 0.880 1.43	1.3 0.95 1.1 1.8	0.26 0.27 0.14 0.0	1.3 1.0 1.0 1.2	0.150 0.070 0.060 0.090	17000 15000 18000 19000	<4 <4 <4 <4	14 14 14 15	1.7 1.7 1.6 1.8	<50 <50 <50 <50	44 48 39 30
WELL 2K	0.006 0.004 0.010	0.460 0.390 0.160	0.59 0.50 0.21	0.40 1.2 0.39	0.86 1.6 0.55	0.140 0.540 0.150	12000 8400 10000	<4 <4 <4	17 16 19	1.9 1.7 2.5	<50 <50 <50	48 50 70
LYSIM 2	-- <0.004	-- 0.080	-- 0.10	-- --	-- <0.20	-- 0.020	11000 10000	<4 <4	18 14	4.2 5.1	<50 <50	76 70
WELL 3C	0.010 0.006 0.012	0.440 0.460 0.450	0.57 0.59 0.58	0.58 0.99 0.39	1.0 1.5 0.84	0.450 0.790 0.370	190 170 310	<4 <4 <4	18 14 16	1.0 0.3 0.5	<50 <50 <50	20 16 20
WELL 3K	0.032 0.012	0.350 1.26	0.45 1.6	2.8 6.4	3.1 7.7	1.01 5.34	7000 7900	<4 <4	22 21	5.7 5.9	<50 <50	73 78
LYSIM 3	--	--	--	--	--	--	220	<4	49	0.4	<50	84
WELL 4C	0.006 0.004 0.010	1.26 1.24 0.900	1.6 1.6 1.2	0.32 0.21 0.55	1.6 1.5 1.5	0.080 0.060 0.060	12000 12000 11000	<4 <4 <4	18 16 16	2.5 2.0 2.3	<50 <50 <50	13 <10 <10
WELL 4K	0.006 0.004 0.004	0.850 0.640 0.260	1.1 0.82 0.33	0.07 0.22 0.53	0.92 0.86 0.79	0.020 0.030 0.040	64000 52000 42000	<4 <4 <4	12 12 13	10 8.5 8.4	<50 <50 <50	55 46 51
LYSIM 4	-- <0.004 <0.004	-- 0.080 0.490	-- 0.10 0.63	-- -- 0.0	-- <0.20 0.25	-- 0.020 0.020	750 950 980	<4 <4 <4	37 39 38	1.5 1.7 1.8	<50 <50 <50	16 18 18
WELL 5C	0.006 0.006 0.004	0.790 0.830 0.830	1.0 1.1 1.1	0.04 0.0 0.26	0.83 0.83 1.1	0.770 0.840 2.88	170 200 260	<4 <4 <4	16 16 16	0.4 0.4 <0.2	<50 <50 <50	25 28 <10
WELL 5K	0.012 0.004 0.010	0.590 0.740 0.520	0.76 0.95 0.67	0.33 0.18 0.90	0.92 0.92 1.4	0.040 0.080 0.250	35000 29000 28000	<4 <4 <4	19 17 18	4.0 2.8 4.1	<50 <50 <50	190 140 140
LYSIM 5	-- 0.004 <0.004	-- 0.090 0.080	-- 0.12 0.10	-- -- 0.22	-- <0.20 0.30	-- 0.020 0.020	2400 2400 4100	<4 <4 <4	19 18 19	4.6 6.1 6.9	<50 <50 <50	94 83 100

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- IFIER	IRON, DIS- SOLVED (µG/L AS FE) (01046)	IRON, FERROUS DIS- SOLVED (µG/L AS FE) (01047)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	CARBON, TOTAL (INORG + ORG) (MG/L AS C) (00690)	CARBON, INORG + ORGANIC DIS- SOLVED (MG/L AS C) (00682)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)
WELL 1C	93000 75000 88000	98000 110000 110000	<4 <4 <4	11000 8600 9800	210 190 190	600 630 600	150 160 150	-- 3.9 --	4.8 3.6 12	<1.0 1.0 <1.0	<1.0 2.4 6.5	1.1 2.9 2.6
WELL 1K	470 150	150000 5700	<4 <4	3000 1100	<25 <25	93 85	19 21	8.0 12	4.9 12	1.1 1.0	2.4 1.4	6.9 11
WELL 2C	160000 170000 140000 170000	190000 220000 210000 96000	5 5 5 4	75000 74000 62000 71000	2000 1900 1800 2100	480 480 520 500	2600 2500 2500 2700	8.6 4.9 11 8.2	10 8.4 7.6 20	1.7 1.4 1.4 1.2	2.1 3.1 1.8 2.8	6.9 3.5 9.4 7.0
WELL 2K	30000 26000 10000	35000 33000 120000	5 5 6	44000 40000 32000	1200 950 1000	340 310 310	1700 1400 1500	6.5 3.7 --	5.0 6.9 7.2	1.2 1.0 <1.0	1.1 2.8 2.7	5.3 2.7 2.3
LYSIM 2	86 170	30 60	11 10	10000 10000	650 610	220 220	2100 1700	-- --	-- --	-- --	-- --	-- --
WELL 3C	28000 29000 27000	41000 63000 42000	<4 <4 <4	4900 4700 5500	66 66 94	600 640 580	120 68 130	-- 5.1 --	8.6 4.5 8.7	<1.0 1.0 <1.0	1.3 1.0 3.1	1.6 4.1 4.9
WELL 3K	7900 6800	36000 --	5 6	48000 41000	1600 1500	490 440	2900 2700	-- 3.0	6.0 --	1.3 1.1	3.0 --	<1.0 1.9
LYSIM 3	630	10	<4	19	<25	180	130	--	--	--	--	--
WELL 4C	340000 270000 330000	370000 380000 390000	<8 <4 <4	90000 76000 88000	2800 2500 2800	610 640 610	3200 3000 3200	12 13 12	19 5.4 18	1.1 1.4 1.1	2.4 2.5 5.3	10 12 10
WELL 4K	88000 51000 42000	110000 77000 50000	<4 5 4	90000 66000 63000	3500 2600 2300	540 530 430	5900 4600 3900	7.2 5.8 5.2	9.0 2.8 9.5	1.5 1.6 1.7	2.0 1.7 5.9	5.7 4.2 3.5
LYSIM 4	64 57 120	10 30 --	<4 <4 <4	3800 4800 4000	340 360 350	200 240 250	790 820 820	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
WELL 5C	84000 85000 77000	100000 95000 220000	<4 <4 <4	8700 8900 7900	43 39 53	1300 1300 1400	50 53 54	4.0 7.0 --	7.8 7.5 2.8	1.2 1.0 <1.0	1.6 1.5 1.2	2.8 6.0 3.7
WELL 5K	55000 85000 60000	62000 220000 72000	19 19 14	54000 43000 53000	1700 1500 1500	420 390 390	2300 2100 2100	3.2 3.8 --	5.7 2.4 6.3	1.0 1.0 <1.0	1.1 1.3 2.5	2.2 2.8 4.0
LYSIM 5	620 1200 910	70 220 --	15 14 16	32000 34000 35000	1100 1100 1200	400 420 530	2100 2100 2300	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENTIFIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPECIFIC CONDUCTANCE (μS/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
WELL 6C UNMINED/SLUDGED	405523078224701	324CLRN	10-15-91	1700	98.90	137.00	1857	2810	4.6
		324CLRN	11-12-91	1500	99.61	137.00	1857	2910	5.5
		324CLRN	12-10-91	1600	98.47	137.00	1857	3050	5.3
WELL 6K MINED/SLUDGED	405523078224702	--	10-15-91	1730	55.22	67.00	1857	4340	3.7
		--	11-12-91	1530	54.88	67.00	1857	4810	3.4
		--	12-10-91	1545	54.60	67.00	1857	5200	3.4
LYSIM 6 MINED/SLUDGED	405523078224703	--	10-16-91	0820	--	10.00	1857	--	--
		--	11-13-91	0915	--	10.00	1857	473	--
		--	12-10-91	1500	--	10.00	1857	472	--
LYSIM 6A MINED/SLUDGED	405523078224704	--	10-16-91	0825	--	15.00	1857	--	--
		--	11-13-91	0910	--	15.00	1857	535	--
WELL 7C UNMINED/UNSLUDGED	405517078225601	324CLRN	10-16-91	1215	105.35	151.00	1875	2540	6.3
		324CLRN	11-13-91	1050	105.36	151.00	1875	2660	5.8
		324CLRN	12-11-91	1000	104.51	151.00	1875	2650	6.6
WELL 7K MINED/UNSLUDGED	405517078225602	--	10-16-91	1145	58.55	73.00	1875	1930	4.4
		--	11-13-91	1100	58.05	73.00	1875	1960	3.7
		--	12-11-91	a0005	57.67	73.00	1875	1960	3.6
		--	12-11-91	0930	57.67	73.00	1875	1950	3.6
WELL 8H UNMINED/SLUDGED	405538078225303	324HMWD	10-15-91	1300	121.36	150.00	1850	1560	4.4
		324HMWD	11-12-91	1230	121.84	150.00	1850	1610	3.8
		324HMWD	12-10-91	1130	121.50	150.00	1850	1480	4.1
WELL 8C UNMINED/SLUDGED	405538078225302	324CLRN	10-15-91	1315	97.26	124.00	1850	2970	6.0
		324CLRN	11-12-91	1300	97.97	124.00	1850	2930	5.1
		324CLRN	12-10-91	1145	97.93	124.00	1850	2970	5.6
WELL 8K MINED/SLUDGED	405538078225301	--	12-10-91	1115	65.07	71.00	1850	3280	3.5
WELL 9H UNMINED/SLUDGED	405542078225703	324HMWD	10-16-91	1430	90.63	127.00	1810	3090	4.7
		324HMWD	11-13-91	1330	104.42	127.00	1810	3010	3.9
		324HMWD	12-10-91	1330	99.67	127.00	1810	3190	4.3
WELL 9C UNMINED/SLUDGED	405542078225702	324CLRN	10-15-91	1215	60.04	85.00	1810	2950	5.5
		324CLRN	11-12-91	1400	60.93	85.00	1810	2940	5.3
		324CLRN	12-10-91	1345	60.20	85.00	1810	3050	6.0
WELL 9K MINED/SLUDGED	405542078225701	--	10-16-91	1200	33.60	37.00	1810	2210	4.5
		--	12-10-91	1315	33.63	37.00	1810	1510	4.1
SEEP N1 UNMINED/UNSLUDGED	405544078225801	324KNNG	10-16-91	1445	--	--	1805	2930	3.8
		324KNNG	11-13-91	1130	--	--	1805	2940	3.3
		324KNNG	12-11-91	1230	--	--	1805	3160	3.3
SEEP S1 UNMINED/UNSLUDGED	405517078230101	324KNNG	10-16-91	1500	--	--	1800	2030	3.5
		324KNNG	12-11-91	1245	--	--	1800	1690	3.3

a Sample split for quality assurance check. Actual time is same as following sample.

GEOLOGIC UNIT (AQUIFIER)

324CLRN - Clarion Formation

324HMWD - Homewood Formation

324KNNG - Kittanning Formation

Geologic Unit not specified for wells and lysimeters completed in mine spoil.

CLEARFIELD COUNTY

COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	OXID- ATION RED- UCTION POTEN- TIAL (MV) (00090)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ACIDITY TOTAL HEATED (MG/L AS CACO3) (70508)	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CACO3) (00436)	THIOBA- CILLUS FERRO- OXIDANS (BACTERIA MPN/ 100 ML) ()	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)
WELL 6C	511 370 459	9.0 9.0 8.5	1.8 4.0 5.3	1500 1500 1700	340 390 394	0 0 0	3000 300 1300	390 340 410	140 150 160	48 56 54	6 8 7	0.5 0.6 0.6
WELL 6K	604 -- --	9.5 -- --	2.7 -- --	2400 2600 2800	704 1280 1140	46 206 112	50000 500000 >1000000	340 310 410	380 430 440	18 16 16	2 1 1	0.2 0.1 0.1
LYSIM 6	-- -- --	-- -- --	-- -- --	160 170 160	-- 0.0 0.0	-- 0 0	-- -- --	37 39 36	17 18 18	24 22 25	23 20 23	0.8 0.7 0.8
LYSIM 6A	-- --	-- --	-- --	200 200	-- --	-- 0	-- --	36 37	26 27	10 12	9 11	0.3 0.4
WELL 7C	354 378 483	10.0 9.0 9.0	0.6 1.6 3.6	1500 1400 1500	386 366 390	0 0 0	130 20 <20	380 330 400	120 130 120	3.7 3.5 3.8	1 1 1	0.0 0.0 0.0
WELL 7K	608 529 639 639	10.0 9.5 9.0 9.0	5.5 5.3 4.4 4.4	1100 970 1000 1000	136 140 116 114	7 24 9 9	2300 40 700 1300	180 140 170 170	150 150 140 150	6.9 6.2 6.9 6.2	1 1 1 1	0.1 0.1 0.1 0.1
WELL 8H	568 627 635	10.5 8.5 10.5	2.7 8.6 9.0	740 750 630	46 50 70	4 7 0	300 <20 230	210 210 170	52 53 51	54 51 43	13 13 13	0.9 0.8 0.7
WELL 8C	424 409 437	10.0 10.5 10.0	2.6 2.0 1.2	1700 1600 1500	322 314 360	0 0 24	2200 500 900	350 310 320	190 190 160	20 11 19	3 1 3	0.2 0.1 0.2
WELL 8K	565	10.5	3.6	2000	506	19	80000	370	250	12	1	0.1
WELL 9H	369 -- 589	10.0 9.5 --	0.3 0.3 --	1700 1500 1400	524 488 580	0 90 68	23000 3000 90000	410 350 370	160 150 130	15 9.9 5.7	2 1 1	0.2 0.1 0.1
WELL 9C	445 379 466	10.0 10.0 10.0	1.7 2.7 5.0	1500 1500 1600	514 544 540	14 0 0	8000 300 230	370 320 400	150 160 150	7.1 6.1 6.2	1 1 1	0.1 0.1 0.1
WELL 9K	365 --	10.0 --	0.9 --	1200 710	240 142	7 8	500 13000	260 150	140 81	4.6 3.7	1 1	0.1 0.1
SEEP N1	-- -- --	11.5 4.0 8.0	-- -- --	1700 1600 2000	254 -- 380	19 -- 56	13000 1300 --	350 300 440	200 220 230	6.2 6.2 6.3	1 1 1	0.1 0.1 0.1
SEEP S1	-- --	11.5 10.0	-- --	1100 760	230 162	26 22	5000 >1000000	170 130	150 110	5.3 4.4	1 1	0.1 0.1

> Actual value is known to be greater than the value shown.

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	ALKA- LITY WAT WH TOT FET LAB (MG/L AS CACO3) (00417)	SULFIDE TOTAL (MG/L AS S) (00745)	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) (00951)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	OSMOTIC PRESS- URE (mOsm/kg) (82550)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)
WELL 6C	6.0 4.7 5.3	1 57 24	9 22 18	<0.1 <0.1 <0.1	2000 2000 1900	2.0 2.0 2.0	<0.2 <0.2 <0.2	14 15 21	33 31 35	2830 2870 2820	3.85 3.90 3.83	<0.040 <0.040 <0.040
WELL 6K	6.9 6.5 7.3	0 -- --	0 0 0	<0.1 -- <0.1	3600 4000 4600	3.0 2.0 2.0	1.3 1.5 1.4	72 81 78	54 56 66	-- -- --	-- -- --	<0.040 <0.040 <0.040
LYSIM 6	12 9.9 9.5	-- -- --	-- 28 26	-- -- --	-- 150 150	-- 3.0 2.0	-- <0.2 <0.2	33 32 28	-- 6 5	-- -- --	-- -- --	-- 15.9 14.0
LYSIM 6A	11 9.9	-- --	-- 7	-- --	-- 200	-- 3.0	-- <0.2	21 20	-- 7	-- --	-- --	-- 17.6
WELL 7C	4.9 4.5 5.2	31 28 42	26 24 30	<0.1 <0.1 <0.1	1800 1800 1900	3.0 2.0 2.0	<0.2 <0.2 <0.2	13 13 15	30 26 30	2600 2530 2750	3.53 3.45 3.74	<0.040 <0.040 <0.040
WELL 7K	9.3 8.5 9.3 9.1	0 -- -- --	0 0 0 0	<0.1 <0.1 <0.1 <0.1	1200 1100 1200 1300	3.0 2.0 2.0 2.0	0.4 0.5 0.4 0.5	32 32 33 34	23 18 20 21	-- -- -- --	-- -- -- --	<0.040 <0.040 <0.040 <0.040
WELL 8H	4.8 4.5 5.4	0 -- --	0 0 2	<0.1 <0.1 <0.1	960 960 850	3.0 2.0 2.0	<0.2 <0.2 <0.2	13 12 13	19 17 15	-- -- --	-- -- --	0.240 0.260 0.300
WELL 8C	4.9 4.1 4.4	35 90 18	4 4 0	<0.1 <0.1 <0.1	2100 2000 2000	3.0 3.0 2.0	0.6 1.0 0.7	28 31 24	34 31 34	2920 2770 2740	3.98 3.77 3.73	<0.040 <0.040 <0.040
WELL 8K	6.4	--	0	<0.1	2300	2.0	1.0	44	36	--	--	<0.040
WELL 9H	7.6 8.8 5.9	4 -- --	2 0 0	<0.1 -- <0.1	2300 2100 2200	4.0 2.0 2.0	<0.2 <0.2 <0.2	20 34 14	36 31 32	3190 -- --	4.34 -- --	<0.040 <0.040 0.210
WELL 9C	4.7 4.1 4.2	62 85 23	0 12 6	<0.1 <0.1 <0.1	2100 2100 2200	3.0 2.0 2.0	<0.2 <0.2 <0.2	15 14 13	36 29 31	3030 2920 3070	4.12 3.98 4.17	<0.040 <0.040 <0.040
WELL 9K	3.8 3.0	0 --	0 0	<0.1 --	1400 860	3.0 2.0	0.4 0.3	34 24	27 15	-- --	-- --	<0.040 0.070
SEEP N1	4.7 5.0 4.7	-- -- --	0 0 0	-- -- <0.1	2200 2000 2300	2.0 3.0 2.0	0.5 0.6 0.5	37 35 41	35 31 36	-- -- --	-- -- --	<0.040 0.040 <0.040
SEEP S1	7.0 3.5	-- --	0 0	<0.1 <0.1	1300 990	4.0 2.0	0.6 0.4	51 44	23 17	-- --	-- --	0.260 0.400

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- IFIER	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH ₄) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	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)	CADMIUM DIS- SOLVED (μG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (μG/L AS CR) (01030)	COPPER, DIS- SOLVED (μG/L AS CU) (01040)
WELL 6C	0.008 0.006 0.010	1.00 1.26 2.64	1.3 1.6 3.4	0.38 0.60 0.0	1.4 1.9 2.1	0.040 0.300 0.210	670 280 6800	<4 <4 <4	27 18 24	1.0 0.4 2.2	<50 <50 <50	25 <10 23
WELL 6K	0.012 0.006 0.012	1.54 2.16 1.98	2.0 2.8 2.5	1.6 4.8 2.3	3.1 7.0 4.3	0.080 0.790 0.470	42000 57000 62000	<4 <4 <4	19 24 20	12 12 18	<50 60 60	77 120 110
LYSIM 6	-- 0.008 <0.004	-- 0.070 0.020	-- 0.09 0.03	-- 0.36 0.31	-- 0.43 0.33	-- 0.020 0.020	<130 310 <130	<4 <4 <4	49 47 38	0.3 0.3 <0.2	<50 <50 <50	21 20 18
LYSIM 6A	-- <0.004	-- 0.070	-- 0.09	-- 0.25	-- 0.32	-- 0.020	310 430	<4 <4	25 19	1.3 1.5	<50 <50	14 13
WELL 7C	0.008 0.004 0.008	0.680 0.920 0.220	0.88 1.2 0.28	0.66 0.41 1.2	1.3 1.3 1.4	0.090 0.140 0.100	230 340 1400	<4 <4 <4	24 21 53	2.0 0.3 0.5	<50 <50 <50	<10 <10 <10
WELL 7K	0.012 0.004 0.010 0.010	0.480 0.470 0.300 0.450	0.62 0.61 0.39 0.58	0.50 1.4 0.61 0.55	0.98 1.9 0.91 1.0	0.130 0.500 0.230 0.270	6700 6400 8200 8400	<4 <4 <4 <4	21 17 21 21	2.7 2.1 2.4 2.4	<50 20 <50 <50	64 65 63 60
WELL 8H	0.060 <0.004 0.008	0.320 0.370 0.240	0.41 0.48 0.31	0.54 0.27 1.3	0.86 0.64 1.5	0.120 0.130 0.330	1700 1400 2400	<4 <4 <4	21 24 22	0.8 0.7 1.6	<50 <50 <50	48 37 63
WELL 8C	0.004 <0.004 0.008	0.890 0.690 0.900	1.1 0.89 1.2	0.49 0.70 0.64	1.4 1.4 1.5	0.140 0.160 0.240	330 1000 680	<4 <4 <4	19 24 19	0.2 0.6 0.4	<50 <50 <50	12 18 <10
WELL 8K	0.008	0.580	0.75	0.14	0.72	0.030	27000	<4	19	3.2	<50	44
WELL 9H	0.004 0.008 0.010	1.14 0.880 0.300	1.5 1.1 0.39	0.84 1.1 3.4	2.0 2.0 3.7	0.310 0.320 1.02	3400 5900 760	<4 <4 <4	41 87 20	0.4 1.6 0.7	<50 <50 <50	23 33 26
WELL 9C	0.006 0.004 0.006	0.980 0.860 0.440	1.3 1.1 0.57	0.16 0.27 0.60	1.1 1.1 1.0	0.080 0.130 0.080	360 280 320	<4 <4 <4	22 18 17	0.9 <0.2 <0.2	<50 <50 <50	<10 <10 <10
WELL 9K	0.006 0.012	0.500 0.680	0.64 0.88	0.34 0.26	0.84 0.94	0.060 0.140	6900 2900	<4 <4	31 24	3.0 1.2	<50 <50	27 23
SEEP N1	<0.004 <0.004 <0.004	0.690 0.750 0.460	0.89 0.97 0.59	0.41 1.2 0.51	1.1 1.9 0.97	0.020 0.020 0.040	15000 17000 23000	<4 <4 <4	14 13 13	1.5 1.5 2.5	<50 <50 <50	50 53 83
SEEP S1	<0.004 <0.004	0.470 0.300	0.61 0.39	0.17 0.29	0.64 0.59	0.030 0.020	22000 17000	<4 <4	11 12	3.2 3.8	<50 <50	89 110

< Actual value is known to be less than the value shown.

CLEARFIELD COUNTY
COAL HYDROLOGY SLUDGE PROJECT--Continued

LOCAL IDENT- I- FIER	IRON, DIS- SOLVED (μ G/L AS FE) (01046)	IRON, FERROUS DIS- SOLVED (μ G/L AS FE) (01047)	LEAD, DIS- SOLVED (μ G/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (μ G/L AS MN) (01056)	NICKEL, DIS- SOLVED (μ G/L AS NI) (01065)	STRON- TIUM, DIS- SOLVED (μ G/L AS SR) (01080)	ZINC, DIS- SOLVED (μ G/L AS ZN) (01090)	CARBON, TOTAL (INORG + ORG) (MG/L AS C) (00690)	CARBON, INORG + ORGANIC DIS- SOLVED (MG/L AS C) (00682)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)
WELL 6C	160000 180000 190000	190000 220000 240000	<4 <4 6	46000 47000 61000	910 850 1300	1500 1700 1500	1200 650 1600	-- 8.7 6.5	11 7.9 11	1.5 1.3 1.2	1.6 3.3 1.9	<1.0 7.4 5.3
WELL 6K	120000 180000 190000	150000 200000 220000	29 38 26	150000 170000 180000	4500 5000 5400	780 830 800	7600 8300 9300	-- 2.5 3.1	4.8 2.6 --	<1.0 1.3 1.0	1.9 2.0 --	<1.0 1.2 2.1
LYSIM 6	39 370 45	10 20 --	<4 <4 <4	90 97 14	43 46 51	160 180 170	110 110 86	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
LYSIM 6A	20 57	40 40	<4 <4	10000 11000	320 310	130 140	380 370	-- --	-- --	-- --	-- --	-- --
WELL 7C	200000 180000 200000	230000 260000 240000	<4 <4 <4	30000 27000 31000	600 610 600	1000 1100 1000	660 570 580	7.6 6.2 5.5	12 3.3 7.4	1.7 1.2 1.2	2.6 2.0 2.0	5.9 5.0 4.3
WELL 7K	16000 16000 11000 8800	22000 27000 12000 11000	14 12 12 12	45000 37000 44000 45000	1200 1000 1200 1100	450 490 460 440	1500 1300 1500 1500	-- -- 2.6 3.1	4.1 2.0 4.2 5.0	1.2 <1.0 1.1 1.1	1.3 1.3 2.5 3.3	<1.0 3.0 1.5 2.0
WELL 8H	2300 2900 3300	5500 5200 7500	14 14 15	13000 13000 11000	150 130 180	1000 1000 1100	280 240 410	7.7 -- 5.3	10 1.3 14	1.0 <1.0 1.4	1.5 <1.0 9.5	6.7 2.1 3.9
WELL 8C	140000 140000 140000	180000 170000 180000	<4 <4 <4	55000 56000 48000	990 980 850	720 690 640	920 1100 940	8.8 6.7 8.0	15 8.7 13	1.1 1.6 1.2	1.2 1.4 2.6	7.7 5.1 6.8
WELL 8K	84000	100000	9	44000	1200	720	1600	2.9	5.2	1.3	1.6	1.6
WELL 9H	250000 220000 200000	280000 230000 290000	5 9 5	46000 45000 39000	460 480 460	850 820 670	150 340 390	7.5 3.0 --	4.5 3.8 8.4	1.1 1.5 <1.0	2.0 3.1 2.2	6.4 1.5 4.3
WELL 9C	250000 260000 250000	270000 200000 300000	<4 <4 <4	49000 47000 48000	750 730 720	600 640 600	760 580 580	9.6 9.6 --	9.3 7.1 7.9	1.0 1.1 <1.0	1.3 2.9 2.2	8.6 8.5 4.3
WELL 9K	81000 52000	1900 67000	5 4	39000 23000	990 580	430 270	1300 750	4.6 3.4	6.9 --	1.1 1.1	2.2 --	3.5 2.3
SEEP N1	50000 42000 48000	10000 45000 62000	4 5 <4	49000 43000 52000	990 990 1200	660 730 700	1300 1400 1700	6.4 8.0 3.6	-- -- 4.9	2.5 5.6 1.2	-- -- 1.9	3.9 2.4 2.4
SEEP S1	2100 1800	1000 700	<4 <4	52000 38000	1500 1300	390 330	2100 2000	-- --	1.9 2.7	1.5 1.3	1.7 2.1	<1.0 <1.0

< Actual value is known to be less than the value shown.

CLINTON COUNTY

411424077462201. Local number, CN 1.

LOCATION.--Lat 41°14'24", long 77°46'22", Hydrologic Unit 02050203, at Sproul State Forest, and at State Camp.
 Owner: Commonwealth of Pennsylvania.

AQUIFER.--Huntley Mountain Formation, Early Mississippian-Late Devonian age.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 78 ft, cased to 38 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder and digital recorder with 60-minute recording interval.

DATUM.--Elevation of land surface is 2,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of platform, 3.2 ft above land-surface datum.

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

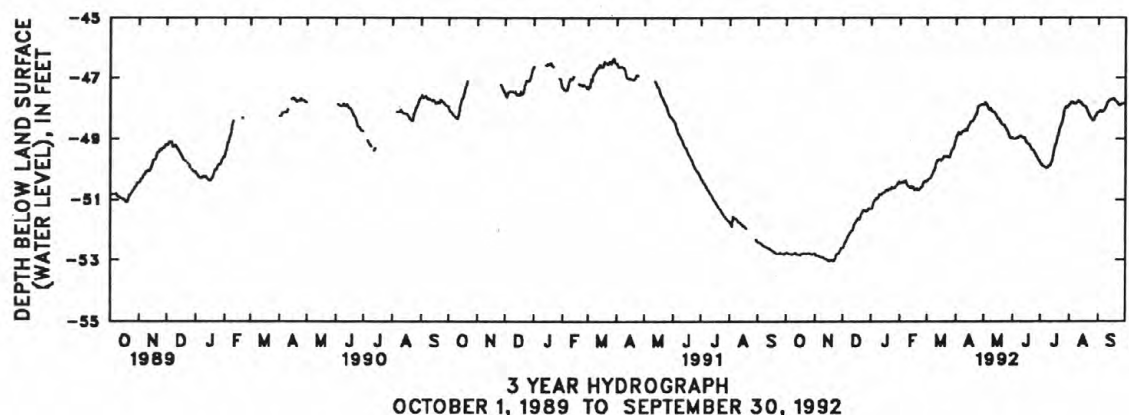
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.00 ft below land-surface datum, Jan. 13, 1951; lowest, 57.24 ft below land-surface datum, Dec. 21, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.73	52.76	52.60	51.30	50.46	50.35	49.00	47.88	48.99	49.79	47.88	48.13
2	52.74	52.82	52.58	51.29	50.45	50.35	48.91	47.81	49.00	49.84	47.83	48.12
3	52.76	52.83	52.42	51.11	50.44	50.32	48.85	47.84	49.01	49.87	47.77	48.07
4	52.78	52.84	52.40	51.04	50.39	50.29	48.78	47.85	49.00	49.91	47.77	48.11
5	52.77	52.84	52.38	51.01	50.43	50.26	48.84	47.93	48.99	49.91	47.81	48.12
6	52.77	52.86	52.27	50.94	50.40	50.21	48.85	48.01	48.95	49.94	47.84	48.11
7	52.80	52.88	52.20	50.97	50.36	50.15	48.77	48.05	48.96	49.97	47.85	48.07
8	52.81	52.91	52.17	50.97	50.44	50.03	48.75	48.00	48.92	49.96	47.83	48.03
9	52.79	52.91	52.08	50.86	50.57	50.01	48.73	48.02	48.90	49.92	47.79	47.98
10	52.76	52.88	52.07	50.81	50.57	49.88	48.74	48.09	48.91	49.90	47.75	47.86
11	52.73	52.93	52.02	50.85	50.59	49.74	48.68	48.12	48.94	49.89	47.73	47.82
12	52.78	52.95	51.99	50.84	50.62	49.73	48.72	48.12	48.95	49.82	47.80	47.79
13	52.81	52.95	51.87	50.77	50.55	49.70	48.72	48.13	48.95	49.73	47.79	47.74
14	52.80	52.99	51.80	50.78	50.62	49.67	48.60	48.22	48.99	49.66	47.85	47.71
15	52.80	52.98	51.75	50.78	50.59	49.68	48.57	48.28	49.10	49.47	47.87	47.71
16	52.82	53.03	51.72	50.73	50.69	49.72	48.51	48.34	49.14	49.27	47.90	47.70
17	52.80	53.04	51.63	50.67	50.70	49.67	48.44	48.36	49.16	49.22	47.93	47.67
18	52.79	53.00	51.64	50.71	50.65	49.68	48.44	48.42	49.16	49.11	47.92	47.67
19	52.79	53.02	51.66	50.69	50.62	49.57	48.41	48.46	49.19	48.96	47.97	47.73
20	52.78	53.00	51.59	50.64	50.69	49.57	48.37	48.51	49.25	48.85	48.04	47.76
21	52.75	53.03	51.46	50.65	50.70	49.60	48.30	48.54	49.31	48.73	48.11	47.77
22	52.76	53.02	51.43	50.67	50.67	49.57	48.22	48.55	49.37	48.65	48.17	47.82
23	52.77	52.96	51.34	50.58	50.62	49.58	48.17	48.54	49.38	48.54	48.25	47.89
24	52.78	52.82	51.35	50.62	50.59	49.62	48.05	48.62	49.41	48.49	48.30	47.91
25	52.75	52.79	51.39	50.61	50.56	49.61	47.94	48.67	49.48	48.34	48.35	47.90
26	52.75	52.78	51.37	50.63	50.41	49.56	47.91	48.72	49.51	48.19	48.41	47.84
27	52.76	52.75	51.38	50.59	50.39	49.38	47.89	48.80	49.60	48.04	48.42	47.84
28	52.80	52.68	51.34	50.55	50.38	49.37	47.89	48.90	49.64	47.99	48.34	47.83
29	52.80	52.64	51.28	50.51	50.42	49.34	47.87	48.95	49.68	47.95	48.26	47.82
30	52.77	52.59	51.31	50.44	---	49.24	47.86	48.99	49.73	47.97	48.22	47.83
31	52.78	---	51.31	50.40	---	49.13	---	48.97	---	47.91	48.14	---
MEAN	52.78	52.88	51.80	50.77	50.54	49.76	48.46	48.34	49.19	49.15	48.00	47.88
MAX	52.82	53.04	52.60	51.30	50.70	50.35	49.00	48.99	49.73	49.97	48.42	48.13
MIN	52.73	52.59	51.28	50.40	50.36	49.13	47.86	47.81	48.90	47.91	47.73	47.67

WTR YR 1992: HIGHEST 47.67, SEPTEMBER 17, 18; LOWEST 53.04, NOVEMBER 17.

Gap Indicates missing record.



CUMBERLAND COUNTY

400209077183301. Local number, CU 2.

LOCATION.--Lat 40°02'09", long 77°18'33", Hydrologic Unit 02050305, at Michaux State Forest, and at Pine Grove Furnace.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Metarhyolite, Precambrian age.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 37 ft, cased to 19 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 955 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.5 ft above land-surface datum.

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

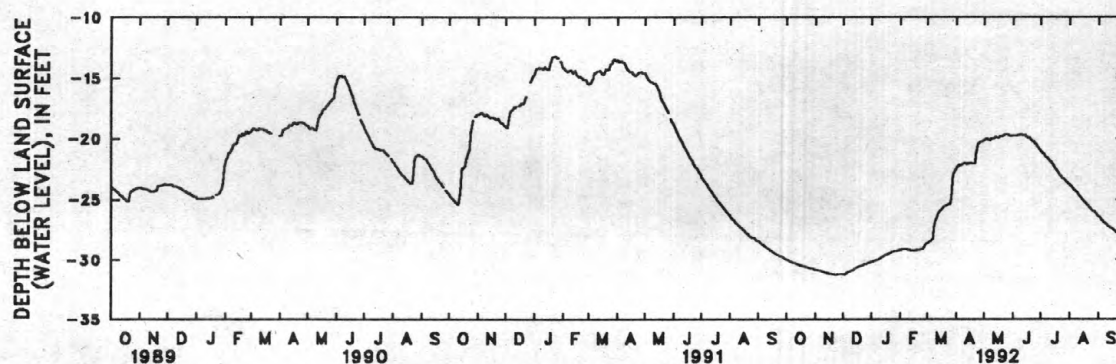
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.51 ft below land-surface datum, Apr. 18, 1961; lowest, 33.50 ft below land-surface datum, Feb. 3, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.95	30.80	31.21	30.15	29.12	28.61	22.48	20.15	19.73	20.94	23.77	26.43
2	30.00	30.82	31.22	30.12	29.12	28.53	22.35	20.06	19.76	21.06	23.83	26.50
3	30.03	30.84	31.20	30.08	29.11	28.49	22.27	20.00	19.76	21.12	23.90	26.57
4	30.08	30.86	31.15	30.06	29.11	28.44	22.18	20.00	19.76	21.23	24.01	26.68
5	30.12	30.87	31.09	30.03	29.11	28.37	22.22	20.08	19.73	21.27	24.13	26.76
6	30.15	30.89	31.04	30.00	29.10	28.32	22.21	20.13	19.70	21.42	24.21	26.84
7	30.17	30.93	31.00	29.97	29.09	28.25	22.10	20.16	19.71	21.54	24.28	26.91
8	30.21	30.95	30.97	29.95	29.10	27.29	22.08	20.07	19.68	21.55	24.35	26.97
9	30.23	30.97	30.94	29.90	29.15	26.92	22.06	19.98	19.67	21.69	24.43	27.05
10	30.26	30.99	30.90	29.85	29.15	26.69	22.03	20.01	19.66	21.77	24.52	27.08
11	30.30	31.02	30.89	29.80	29.14	26.50	22.00	20.02	19.69	21.89	24.62	27.15
12	30.34	31.04	30.80	29.77	29.16	26.31	22.12	19.97	19.71	21.92	24.75	27.22
13	30.36	31.05	30.75	29.71	29.16	26.16	22.13	19.86	19.68	22.04	24.82	27.28
14	30.39	31.07	30.69	29.65	29.17	26.02	22.02	19.90	19.71	22.12	24.92	27.34
15	30.42	31.09	30.67	29.62	29.16	25.91	22.04	19.92	19.84	22.24	25.02	27.40
16	30.45	31.11	30.63	29.57	29.18	25.86	22.01	19.94	19.91	22.38	25.09	27.44
17	30.47	31.13	30.58	29.55	29.20	25.77	22.00	19.91	19.94	22.47	25.18	27.50
18	30.48	31.15	30.54	29.50	29.17	25.70	22.04	19.82	19.91	22.59	25.24	27.56
19	30.52	31.17	30.51	29.48	29.14	25.56	22.05	19.86	19.92	22.70	25.33	27.60
20	30.53	31.18	30.50	29.45	29.14	25.54	22.05	19.82	20.05	22.78	25.42	27.69
21	30.55	31.21	30.46	29.38	29.14	25.52	22.02	19.77	20.14	22.89	25.52	27.76
22	30.57	31.22	30.44	29.33	29.14	25.47	21.34	19.74	20.22	23.02	25.62	27.81
23	30.59	31.22	30.41	29.29	29.09	25.38	20.80	19.66	20.24	23.10	25.70	27.86
24	30.62	31.22	30.37	29.27	29.08	25.41	20.59	19.63	20.28	23.20	25.78	27.94
25	30.65	31.19	30.35	29.27	29.06	25.38	20.39	19.65	20.40	23.26	25.86	28.03
26	30.67	31.19	30.33	29.25	28.97	25.28	20.33	19.64	20.45	23.27	25.95	28.09
27	30.69	31.19	30.29	29.25	28.80	24.35	20.30	19.69	20.60	23.36	25.96	28.12
28	30.71	31.19	30.26	29.22	28.73	23.33	20.28	19.76	20.69	23.45	26.05	28.14
29	30.73	31.19	30.23	29.20	28.63	22.96	20.23	19.79	20.76	23.52	26.16	28.34
30	30.75	31.20	30.20	29.17	---	22.76	20.14	19.81	20.83	23.60	26.23	28.38
31	30.77	---	30.17	29.13	---	22.60	---	19.74	---	23.68	26.33	---
MEAN	30.41	31.07	30.67	29.61	29.08	26.05	21.63	19.89	20.00	22.36	25.06	27.41
MAX	30.77	31.22	31.22	30.15	29.20	28.61	22.48	20.16	20.83	23.68	26.33	28.38
MIN	29.95	30.80	30.17	29.13	28.63	22.60	20.14	19.63	19.66	20.94	23.77	26.43

WTR YR 1992: HIGHEST 19.63, MAY 24; LOWEST 31.22, NOVEMBER 22-24, DECEMBER 2.

Gap Indicates missing record.



3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

DAUPHIN COUNTY

402118076462201. Local number, DA 350.

LOCATION.--Lat 40°21'18", long 76°46'22", Hydrologic Unit 02050305, at R. D. 1, Linglestown.

Owner: William R. Miller.

AQUIFER.--Hamburg sequence, Early-Middle Ordovician age.**WELL CHARACTERISTICS.**--Drilled unused well, diameter 6 in., depth 225 ft, cased to 19 ft, open hole.**INSTRUMENTATION.**--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.**DATUM.**--Elevation of land surface is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

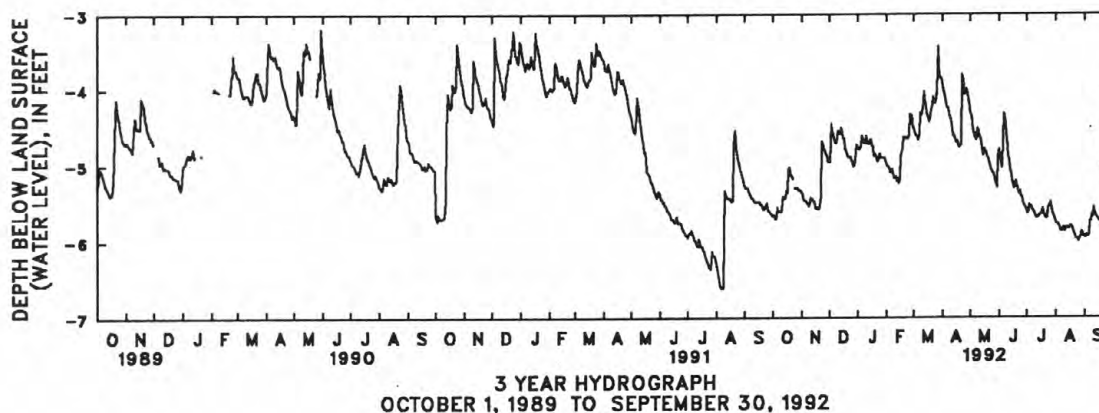
Measuring point: Top of casing, 1.3 ft above land-surface datum.

PERIOD OF RECORD.--September 1964 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 1.15 ft below land-surface datum, June 22, 1972; lowest, 6.95 ft below land-surface datum, Sept. 11, 1966.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.66	5.35	4.96	4.76	4.98	4.49	3.94	4.33	4.79	5.59	5.74	5.93
2	5.65	5.36	4.95	4.79	5.01	4.54	4.01	4.35	4.87	5.63	5.77	5.95
3	5.67	5.42	4.45	4.79	5.01	4.59	4.07	4.45	4.95	5.61	5.77	5.91
4	5.70	5.45	4.55	4.75	5.03	4.61	4.13	4.51	5.03	5.51	5.77	5.93
5	5.67	5.46	4.56	4.61	5.09	4.63	4.21	4.59	4.99	5.55	5.81	5.93
6	5.55	5.46	4.64	4.64	5.09	4.67	4.25	4.63	4.32	5.53	5.85	5.91
7	5.60	5.49	4.68	4.68	5.05	4.60	4.25	4.67	4.35	5.59	5.87	5.73
8	5.61	5.50	4.71	4.71	5.11	4.31	4.34	4.63	4.45	5.59	5.85	5.73
9	5.61	5.53	4.70	4.71	5.17	4.35	4.36	4.51	4.59	5.63	5.81	5.65
10	5.61	5.52	4.54	4.61	5.17	4.31	4.42	4.55	4.75	5.65	5.85	5.67
11	5.57	5.42	4.56	4.71	5.14	4.17	4.46	4.62	4.87	5.69	5.87	5.55
12	5.40	5.44	4.58	4.72	5.21	4.03	4.58	4.64	4.95	5.69	5.81	5.61
13	5.42	5.44	4.54	4.72	5.17	4.14	4.62	4.70	5.06	5.67	5.83	5.65
14	5.44	5.47	4.50	4.66	5.23	4.21	4.60	4.80	5.10	5.66	5.81	5.67
15	5.42	5.47	4.56	4.66	5.18	4.31	4.68	4.86	5.20	5.65	5.83	5.69
16	5.33	5.53	4.64	4.74	4.87	4.37	4.70	4.78	5.26	5.64	5.83	5.71
17	5.35	5.56	4.65	4.75	4.85	4.39	4.68	4.81	5.30	5.64	5.79	5.73
18	5.05	5.55	4.78	4.87	4.77	4.43	4.74	4.82	5.28	5.56	5.79	5.73
19	5.02	5.57	4.80	4.85	4.63	4.35	4.76	4.88	5.20	5.62	5.82	5.77
20	5.10	5.56	4.84	4.87	4.63	4.27	4.74	4.90	5.26	5.66	5.86	5.81
21	5.12	5.54	4.89	4.90	4.65	4.21	4.74	4.94	5.30	5.68	5.90	5.81
22	5.14	5.40	4.88	4.95	4.65	4.10	3.80	4.98	5.36	5.70	5.92	5.77
23	5.17	4.69	4.88	4.93	4.63	4.18	3.88	5.04	5.38	5.68	5.96	5.45
24	---	4.72	4.88	4.85	4.65	4.19	3.95	5.06	5.34	5.56	5.96	5.47
25	5.29	4.76	4.95	4.85	4.60	4.11	4.07	5.10	5.40	5.52	5.98	5.49
26	5.30	4.80	4.95	4.90	4.33	4.03	4.01	5.10	5.42	5.52	6.00	4.61
27	5.29	4.83	5.01	4.90	4.35	3.43	3.99	5.16	5.48	5.48	5.95	4.63
28	5.30	4.86	5.00	4.90	4.35	3.69	4.07	5.22	5.52	5.56	5.93	4.67
29	5.33	4.92	4.92	4.90	4.51	3.83	4.13	5.25	5.54	5.62	5.87	4.77
30	5.32	4.95	4.73	4.90	---	3.85	4.23	5.29	5.55	5.66	5.89	4.81
31	5.33	---	4.74	4.96	---	3.85	---	4.87	---	5.69	5.93	---
MEAN	5.40	5.30	4.74	4.79	4.87	4.23	4.31	4.81	5.10	5.61	5.86	5.56
MAX	5.70	5.57	5.01	4.96	5.23	4.67	4.76	5.29	5.55	5.70	6.00	5.95
MIN	5.02	4.69	4.45	4.61	4.33	3.43	3.80	4.33	4.32	5.48	5.74	4.61

WTR YR 1992: HIGHEST 3.43, MARCH 27; LOWEST 6.00, AUGUST 26.

Gap Indicates missing record.



FRANKLIN COUNTY

394731077411701. Local number, FR 332.

LOCATION.--Lat 39°47'31", long 77°41'17", Hydrologic Unit 02070004, near Greencastle.

Owner: Borough of Greencastle.

AQUIFER.--Stonehenge Formation, Early Ordovician age.**WELL CHARACTERISTICS.**--Drilled unused well, diameter 8 in., depth 296 ft, cased to 92 ft, open hole.**INSTRUMENTATION.**--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.**DATUM.**--Elevation of land surface is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map.

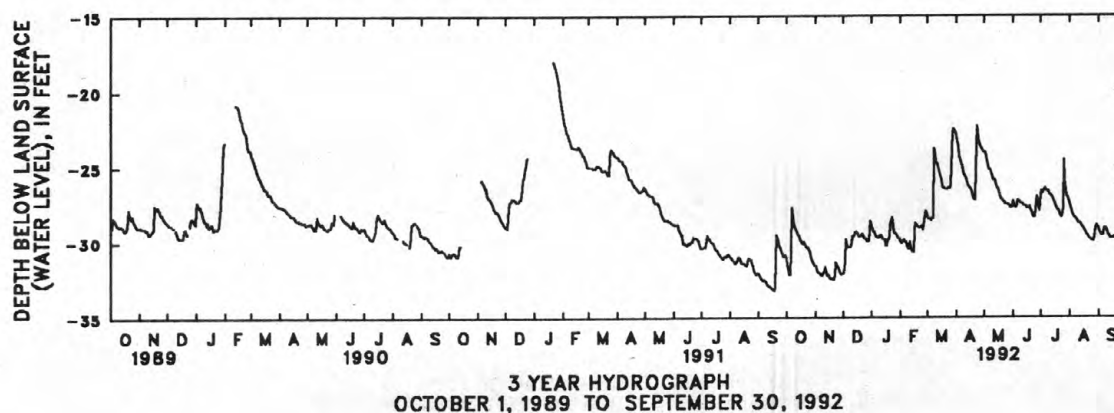
Measuring point: Top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--March 1975 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 12.30 ft below land-surface datum, Sept. 27, 1975; lowest, 36.68 ft below land-surface datum, Sept. 6, 1976.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.05	31.59	32.07	28.95	30.02	28.23	22.93	23.99	27.27	26.90	27.47	29.12
2	31.49	31.58	32.05	29.19	30.10	28.44	23.25	24.07	27.55	26.60	27.69	29.39
3	31.82	31.83	31.27	29.35	29.91	28.44	23.61	24.32	27.67	26.75	27.94	29.45
4	32.16	32.02	29.81	29.35	29.93	28.44	24.36	24.59	27.71	26.59	28.11	29.59
5	32.18	32.02	30.11	29.49	29.83	28.58	24.48	24.93	27.67	26.48	28.27	29.59
6	30.62	32.03	30.33	29.69	30.02	28.42	24.74	25.15	27.24	26.42	28.37	29.57
7	27.70	32.22	30.37	29.69	29.99	28.42	24.96	25.15	27.28	26.60	28.45	29.15
8	28.19	32.24	30.37	29.71	30.26	23.75	25.25	25.27	27.31	26.60	28.49	29.25
9	28.70	32.12	30.37	29.69	30.49	24.10	25.42	25.45	27.43	26.57	28.63	29.15
10	29.04	32.06	30.11	29.55	30.39	24.72	25.57	25.71	27.45	26.79	28.72	29.32
11	29.13	31.93	29.61	29.57	29.99	24.74	25.66	25.87	27.45	26.88	28.77	29.45
12	29.33	31.65	29.58	29.69	30.43	24.84	25.92	25.87	27.57	26.92	28.75	29.56
13	29.44	31.99	29.59	29.79	30.65	25.12	26.07	25.93	27.61	27.06	28.85	29.67
14	29.51	32.26	29.39	29.79	30.67	25.42	26.24	26.30	27.61	27.09	28.98	29.74
15	29.64	32.15	29.34	29.81	30.67	25.60	26.33	26.42	27.65	27.30	29.07	29.74
16	29.83	32.23	29.38	30.26	29.25	25.94	26.41	26.46	27.79	27.45	29.11	29.76
17	29.93	32.43	29.46	30.25	28.73	26.27	26.49	26.73	27.67	27.63	29.23	29.78
18	30.11	32.45	29.62	29.85	28.97	26.36	26.73	27.01	27.72	27.79	29.34	29.68
19	30.11	32.44	29.62	29.81	28.97	26.39	27.07	27.15	27.65	27.90	29.45	29.71
20	29.98	32.52	29.60	29.71	29.05	26.46	27.18	27.20	27.89	27.94	29.57	29.74
21	30.15	32.52	29.46	28.81	29.08	26.47	27.24	27.26	27.99	28.08	29.65	29.81
22	30.25	32.24	29.48	28.59	29.03	26.46	25.02	27.33	28.21	28.25	29.75	29.81
23	30.35	31.36	29.70	28.37	29.01	26.40	22.28	27.40	28.35	28.36	29.79	29.90
24	30.35	31.44	29.76	28.97	28.95	26.44	22.65	27.46	28.37	28.32	29.87	29.95
25	30.45	31.67	29.78	29.38	29.20	26.43	23.13	27.46	28.33	27.80	29.93	29.97
26	30.61	31.72	29.84	29.41	28.86	26.15	23.47	27.50	27.48	24.53	29.90	29.92
27	30.80	31.92	29.96	29.47	28.24	23.85	23.64	27.54	26.98	25.87	29.95	29.47
28	31.13	32.07	29.96	29.51	27.96	22.74	23.75	27.62	27.46	26.56	29.47	29.48
29	31.24	32.15	29.88	29.73	28.08	22.45	23.91	27.74	27.72	26.89	29.15	29.48
30	31.42	32.11	28.60	29.77	---	22.58	24.00	27.74	27.96	27.08	28.92	29.64
31	31.53	---	28.76	29.77	---	22.63	---	27.67	---	27.15	29.08	---
MEAN	30.27	32.03	29.91	29.52	29.54	25.85	24.93	26.33	27.67	27.07	28.99	29.59
MAX	32.18	32.52	32.07	30.26	30.67	28.58	27.24	27.74	28.37	28.36	29.95	29.97
MIN	27.70	31.36	28.60	28.37	27.96	22.45	22.28	23.99	26.98	24.53	27.47	29.12

WTR YR 1992: HIGHEST 22.28, APRIL 23; LOWEST 32.52, NOVEMBER 20, 21.

Gap Indicates missing record.



FULTON COUNTY

400302078090401. Local number, FU 93.

LOCATION.--Lat 40°03'02", long 78°09'04", Hydrologic Unit 02050304, at Buchanan State Forest, and near Wells Tannery.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Pocono Formation, Early Mississippian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 191 ft, cased to 45 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

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

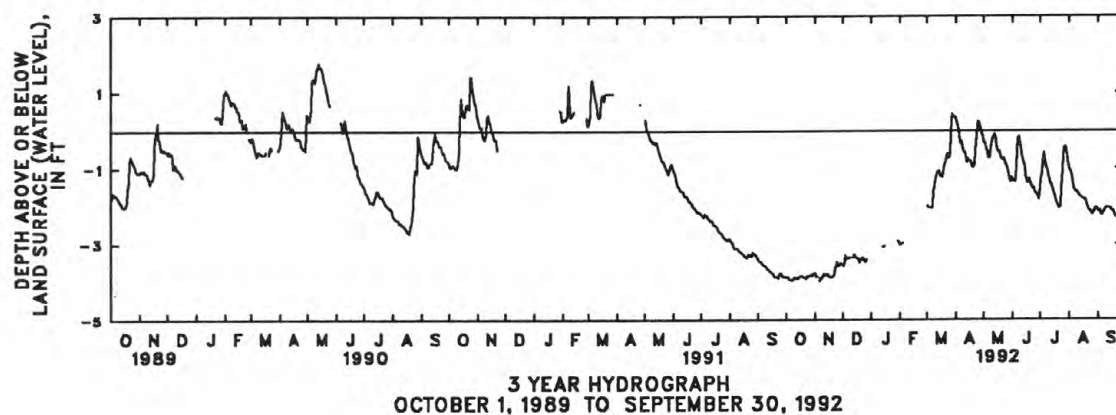
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.00 ft above land-surface datum, Feb. 22, 1971; lowest, 4.46 ft below land-surface datum, Sept. 12, 1966.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-3.86	-3.77	-3.57	---	-3.03	---	.33	-0.32	-1.26	-1.51	-0.97	-2.11
2	-3.87	-3.84	-3.58	---	-3.00	-1.99	.22	-0.30	-1.33	-1.27	-1.04	-2.15
3	-3.89	-3.86	-3.52	---	-2.99	-2.02	.11	-0.38	-1.35	-1.15	-1.09	-2.11
4	-3.94	-3.86	-3.31	---	-2.98	-2.04	.01	-0.48	-1.36	-0.83	-1.16	-2.19
5	-3.94	---	-3.41	---	---	-2.05	-0.23	-0.55	-1.26	-0.57	-1.35	-2.25
6	-3.94	-3.99	-3.35	---	---	-2.06	-0.34	-0.71	-0.56	-0.74	-1.50	-2.23
7	-3.97	-3.90	-3.36	---	---	-2.00	-0.29	-0.73	-0.20	-0.91	-1.59	-2.19
8	-3.95	-3.91	-3.37	---	---	-1.61	-0.43	-0.63	-0.15	-0.98	-1.60	-2.13
9	-3.93	-3.86	-3.35	---	---	-1.45	-0.50	-0.46	-0.27	-1.08	-1.60	-2.10
10	-3.89	-3.86	-3.35	---	---	-1.29	-0.57	-0.24	-0.45	-1.20	-1.64	-2.05
11	-3.88	-3.80	-3.36	---	---	-1.16	-0.56	-0.18	-0.62	-1.30	-1.68	-2.04
12	-3.91	-3.83	-3.36	---	---	-1.10	-0.76	-0.13	-0.77	-1.40	-1.72	-2.05
13	-3.92	-3.80	-3.34	-3.07	---	-1.09	-0.84	-0.08	-0.85	-1.42	-1.74	-2.05
14	-3.92	-3.82	-3.28	-3.08	---	-1.06	-0.73	-0.24	-0.95	-1.48	-1.78	-2.06
15	-3.86	-3.80	-3.34	-3.06	---	-1.17	-0.80	-0.42	-1.16	-1.56	-1.79	-2.08
16	-3.86	-3.86	-3.35	---	---	-1.22	-0.80	-0.54	-1.30	-1.69	-1.80	-2.13
17	-3.85	-3.87	-3.40	---	---	-1.19	-0.79	-0.55	-1.37	-1.74	-1.81	-2.13
18	-3.85	-3.86	-3.38	---	---	-1.23	-0.91	-0.54	-1.36	-1.85	-1.82	-2.15
19	-3.87	-3.88	-3.50	---	---	-1.02	-0.98	-0.68	-1.27	-1.93	-1.84	-2.19
20	-3.88	-3.86	-3.43	---	---	-0.91	-0.97	-0.73	-1.35	-1.98	-1.93	-2.29
21	-3.89	-3.86	-3.41	---	---	-0.82	-0.88	-0.76	-1.43	-2.06	-2.02	-2.29
22	-3.88	-3.82	-3.36	---	---	-0.69	-0.54	-0.73	-1.48	-2.05	-2.08	-2.31
23	-3.91	-3.62	-3.37	---	---	-0.61	-0.13	-0.72	-1.53	-2.00	-2.12	-2.26
24	-3.84	-3.60	-3.42	---	---	-0.73	.10	-0.83	-1.50	-1.52	-2.13	-2.40
25	-3.86	-3.47	-3.47	---	---	-0.70	.24	-0.91	-1.58	-1.06	-2.17	-2.45
26	-3.85	-3.58	-3.47	---	---	-0.56	.21	-0.94	-1.68	-0.69	-2.23	-2.44
27	-3.83	-3.58	-3.41	---	---	.29	.13	-1.06	-1.66	-0.46	-2.22	-2.36
28	-3.82	-3.53	---	---	---	.44	.02	-1.19	-1.73	-0.42	-2.14	-2.28
29	-3.85	-3.52	---	---	---	.37	-0.09	-1.30	-1.77	-0.48	-2.06	-2.33
30	-3.81	-3.54	---	-2.92	---	.38	-0.13	-1.35	-1.82	-0.65	-2.05	-2.40
31	-3.78	---	---	-2.95	---	.35	---	-1.23	---	-0.81	-2.06	---
MEAN	-3.88	-3.77	-3.40	-3.02	-3.00	-1.00	-0.36	-0.64	-1.18	-1.25	-1.77	-2.21
MAX	-3.78	-3.47	-3.28	-2.92	-2.98	.44	.33	-0.08	-0.15	-0.42	-0.97	-2.04
MIN	-3.97	-3.99	-3.58	-3.08	-3.03	-2.06	-0.98	-1.35	-1.82	-2.06	-2.23	-2.45

WTR YR 1992: HIGHEST 0.44, MARCH 28; LOWEST -3.99 NOVEMBER 6.

Gap indicates missing record.



HUNTINGDON COUNTY

401843078075401. Local number, HU 301.

LOCATION.--Lat 40°18'43", long 78°07'54", Hydrologic Unit 02050303, at Trough Creek State Park, and near Newburg.
 Owner: U.S. Geological Survey.

AQUIFER.--Pocono Formation, Early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 105 ft, cased to 18 ft, open hole.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.

DATUM.--Elevation of land surface is 970 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 3.6 ft above land-surface datum.

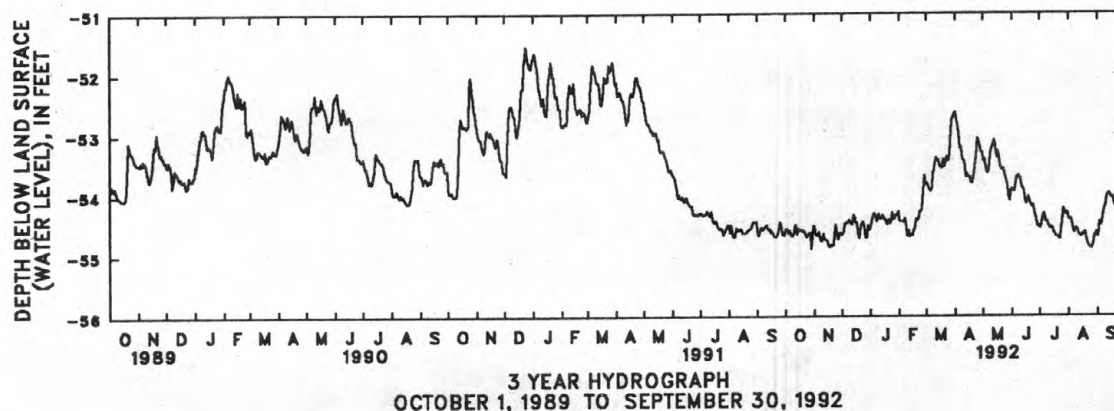
PERIOD OF RECORD.--August 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.82 ft below land-surface datum, June 23, 1972; lowest, 55.96 ft below land-surface datum, Aug. 28, 30, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54.57	54.51	54.66	54.53	54.42	53.82	52.63	53.44	53.90	54.51	54.39	54.69
2	54.55	54.60	54.64	54.44	54.43	53.80	52.72	53.40	53.94	54.55	54.41	54.68
3	54.55	54.65	54.58	54.37	54.43	53.85	52.82	53.44	53.94	54.49	54.39	54.45
4	54.63	54.67	54.47	54.31	54.43	53.90	52.88	53.54	53.94	54.39	54.41	54.49
5	54.59	54.67	54.47	54.30	54.43	53.92	53.10	53.62	53.86	54.33	54.51	54.51
6	54.59	54.60	54.45	54.35	54.45	53.94	53.22	53.64	53.72	54.31	54.57	54.47
7	54.64	54.67	54.46	54.38	54.38	53.90	53.20	53.58	53.70	54.41	54.63	54.35
8	54.68	54.75	54.44	54.43	54.45	53.64	53.33	53.48	53.68	54.45	54.59	54.25
9	54.68	54.76	54.40	54.35	54.65	53.58	53.39	53.32	53.72	54.43	54.55	54.23
10	54.63	54.73	54.45	54.31	54.68	53.48	53.43	53.22	53.73	54.49	54.57	54.15
11	54.53	54.64	54.47	54.39	54.59	53.38	53.45	53.20	53.81	54.53	54.57	54.03
12	54.49	54.73	54.49	54.39	54.69	53.40	53.64	53.14	53.89	54.55	54.67	54.01
13	54.57	54.72	54.37	54.37	54.66	53.42	53.71	53.08	53.89	54.53	54.67	53.99
14	54.65	54.74	54.33	54.33	54.66	53.41	53.65	53.18	53.93	54.55	54.69	53.97
15	54.55	54.74	54.39	54.37	54.67	53.50	53.71	53.30	54.05	54.55	54.69	54.01
16	54.58	54.79	54.46	54.41	54.58	53.54	53.71	53.38	54.15	54.63	54.65	54.05
17	54.58	54.84	54.45	54.41	54.59	53.52	53.71	53.28	54.15	54.63	54.67	54.03
18	54.57	54.86	54.60	54.48	54.51	53.56	53.79	53.38	54.09	54.67	54.63	54.05
19	54.57	54.82	54.70	54.49	54.39	53.40	53.81	53.50	54.03	54.69	54.61	54.11
20	54.60	54.84	54.71	54.43	54.42	53.54	53.77	53.56	54.09	54.69	54.69	54.19
21	54.59	54.81	54.51	54.41	54.41	53.52	53.67	53.58	54.15	54.69	54.77	54.11
22	54.61	54.83	54.49	54.47	54.39	53.42	53.54	53.58	54.17	54.73	54.81	54.13
23	54.65	54.64	54.43	54.45	54.27	53.36	53.37	53.56	54.21	54.73	54.85	54.27
24	54.69	54.49	54.45	54.29	54.27	53.44	53.21	53.64	54.17	54.57	54.87	54.33
25	54.67	54.57	54.58	54.35	54.25	53.42	53.05	53.72	54.23	54.47	54.87	54.31
26	54.65	54.69	54.67	54.39	54.08	53.32	53.11	53.76	54.33	54.29	54.89	54.27
27	54.61	54.73	54.71	54.38	53.80	52.94	53.15	53.84	54.35	54.23	54.85	54.19
28	54.61	54.65	54.69	54.33	53.68	52.78	53.23	53.98	54.47	54.29	54.77	54.21
29	54.88	54.62	54.50	54.33	53.82	52.74	53.30	54.08	54.51	54.31	54.67	54.21
30	54.66	54.63	54.57	54.31	---	52.70	53.29	54.10	54.53	54.33	54.67	54.25
31	54.51	---	54.57	54.28	---	52.64	---	53.94	---	54.29	54.61	---
MEAN	54.61	54.70	54.52	54.38	54.40	53.44	53.35	53.53	54.04	54.49	54.65	54.23
MAX	54.88	54.86	54.71	54.53	54.69	53.94	53.81	54.10	54.53	54.73	54.89	54.69
MIN	54.49	54.49	54.33	54.28	53.68	52.64	52.63	53.08	53.68	54.23	54.39	53.97

WTR YR 1992: HIGHEST 52.63, APRIL 1; LOWEST 54.89, AUGUST 26.



JUNIATA COUNTY

402411077374801. Local number, JU 351.

LOCATION.--Lat 40°24'11", long 77°37'48", Hydrologic Unit 02050304, at State Game Land No. 215, and near Reeds Gap.

Owner: U.S. Geological Survey.

AQUIFER.--Brallier and Harrell Formations, undivided, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 110 ft, cased to 18 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of plywood cover, 3.6 ft above land-surface datum.

REMARKS.--This well shows significant response to Earth tide effects.

PERIOD OF RECORD.--June 1968 to current year.

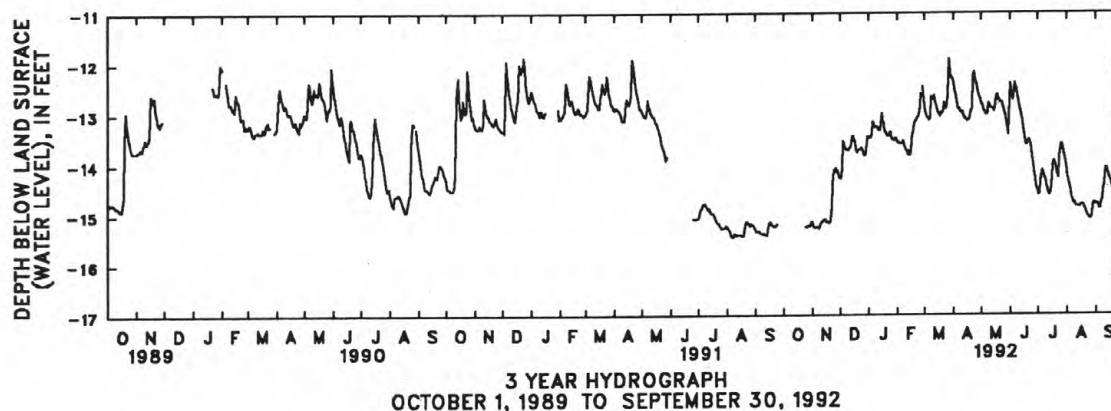
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.20 ft below land-surface datum, May 15, 1978; lowest, 15.44 ft below land-surface datum, Oct. 8, 10, 1983, Aug. 7, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	15.13	14.27	13.44	13.57	12.83	12.37	12.81	12.39	14.53	14.12	14.79
2	---	15.20	14.27	13.46	13.56	12.94	12.49	12.81	12.51	14.61	14.24	14.79
3	---	15.24	14.09	13.46	13.58	13.02	12.59	12.88	12.64	14.58	14.34	14.78
4	---	15.25	13.53	13.39	13.57	13.07	12.66	12.93	12.72	14.33	14.41	14.81
5	---	15.24	13.56	13.15	13.58	13.08	12.82	12.96	12.66	14.18	14.53	14.88
6	---	15.23	13.64	13.17	13.58	13.13	12.90	13.01	12.38	14.11	14.64	14.88
7	---	15.24	13.67	13.25	13.53	13.08	12.88	13.01	12.46	14.18	14.71	14.75
8	---	15.26	13.70	13.25	13.59	12.65	12.94	12.94	12.52	14.26	14.77	14.70
9	---	15.22	13.71	13.25	13.67	12.70	12.96	12.78	12.63	14.28	14.74	14.52
10	---	15.19	13.70	13.24	13.71	12.67	12.98	12.81	12.74	14.42	14.79	14.40
11	---	15.13	13.66	13.29	13.70	12.63	12.95	12.86	12.86	14.49	14.83	14.21
12	---	15.13	13.64	13.32	13.80	12.70	13.05	12.88	12.95	14.57	14.82	14.08
13	---	15.10	13.57	13.32	13.72	12.78	13.08	12.88	13.03	14.61	14.84	14.08
14	---	15.08	13.45	13.19	13.82	12.85	13.07	12.90	13.13	14.58	14.84	14.14
15	---	15.07	13.43	12.99	13.74	12.95	13.13	12.95	13.27	14.55	14.84	14.21
16	---	15.11	13.52	13.12	13.50	12.98	13.14	12.80	13.41	14.27	14.81	14.26
17	---	15.14	13.53	13.19	13.42	13.01	13.11	12.66	13.54	14.02	14.81	14.33
18	---	15.13	13.68	13.34	13.29	13.05	13.12	12.62	13.61	13.94	14.80	14.38
19	---	15.15	13.76	13.35	13.19	12.96	13.00	12.68	13.60	13.97	14.82	14.47
20	---	15.14	13.70	13.38	13.13	13.00	12.95	12.72	13.54	14.02	14.86	14.53
21	---	15.10	13.69	13.43	13.12	12.95	12.89	12.75	13.51	14.12	14.91	14.60
22	---	14.83	13.69	13.43	13.08	12.77	12.26	12.75	13.54	14.18	14.96	14.60
23	---	14.38	13.67	13.42	13.05	12.83	12.16	12.76	13.61	14.26	15.00	14.71
24	---	14.10	13.66	13.34	13.03	12.90	12.22	12.82	13.69	13.87	15.04	14.78
25	15.22	14.10	13.72	13.39	12.85	12.79	12.34	12.90	13.86	13.67	15.06	14.79
26	15.24	14.06	13.77	13.49	12.59	12.62	12.43	12.97	14.00	13.59	15.08	14.56
27	15.21	14.13	13.82	13.48	---	11.89	12.51	13.05	14.11	13.59	15.08	14.27
28	15.20	14.10	13.80	13.52	12.46	11.98	12.60	13.17	14.27	13.68	15.01	14.21
29	15.23	14.18	13.71	13.52	12.71	12.21	12.66	13.30	14.41	13.77	14.83	14.22
30	15.18	14.24	13.44	13.47	---	12.29	12.71	13.40	14.46	13.89	14.75	14.22
31	15.12	---	13.45	13.50	---	12.27	---	13.03	---	13.95	14.76	---
MEAN	15.20	14.89	13.69	13.34	13.36	12.76	12.77	12.90	13.27	14.16	14.78	14.50
MAX	15.24	15.26	14.27	13.52	13.82	13.13	13.14	13.40	14.46	14.61	15.08	14.88
MIN	15.12	14.06	13.43	12.99	12.46	11.89	12.16	12.62	12.38	13.59	14.12	14.08

WTR YR 1992: HIGHEST 11.89, MARCH 27; LOWEST 15.26, NOVEMBER 8.

Gap Indicates missing record.



LANCASTER COUNTY

400506076235201. Local number, LN 514.

LOCATION.--Lat 40°05'06", long 76°23'52", Hydrologic Unit 02050306, near Landisville.

Owner: Benjamin Landis.

AQUIFER.--Kinzers Formation, Early Cambrian age.**WELL CHARACTERISTICS.**--Drilled unused well, diameter 6 in., depth 260 ft, casing information not available.**INSTRUMENTATION.**--Continuous strip-chart recorder.**DATUM.**--Elevation of land surface is 415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

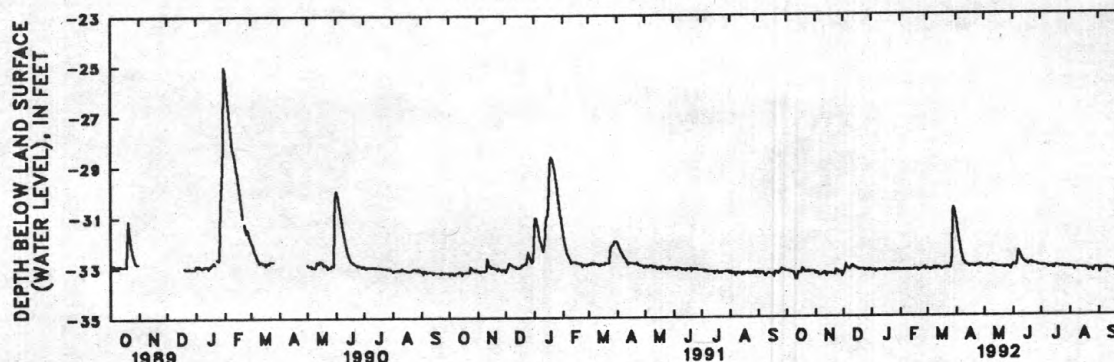
Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1964 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 16.92 ft below land-surface datum, Mar. 28, 1978; lowest, 35.47 ft below land-surface datum, Nov. 15, 1967.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.16	33.28	33.24	33.20	33.17	33.12	31.21	33.02	32.97	33.03	33.10	33.13
2	33.18	33.23	33.25	33.16	33.16	33.12	31.50	33.02	33.00	33.04	33.09	33.32
3	33.18	33.24	33.06	33.16	33.16	33.12	31.82	33.03	33.01	33.03	33.09	33.16
4	33.21	33.24	32.93	33.15	33.15	33.20	32.02	33.04	33.02	33.02	33.09	33.15
5	33.21	33.36	33.01	33.24	33.16	33.13	32.28	33.04	33.00	33.02	33.10	33.15
6	33.21	33.36	33.06	33.19	33.16	33.14	32.50	33.02	32.56	33.04	33.22	33.15
7	33.22	33.36	33.09	33.17	33.15	33.12	32.63	33.08	32.43	33.05	33.12	33.11
8	33.22	33.30	33.11	33.17	33.15	33.07	32.81	33.02	32.51	33.06	33.12	33.15
9	33.22	33.26	33.09	33.16	33.17	33.08	32.87	33.00	32.59	33.11	33.13	33.12
10	33.46	33.26	32.99	33.14	33.16	33.15	32.93	33.02	32.69	33.08	33.13	33.15
11	33.50	33.23	32.97	33.19	33.15	33.10	32.96	33.02	32.79	33.08	33.13	33.13
12	33.50	33.25	33.01	33.17	33.17	33.07	32.99	33.03	32.84	33.10	33.12	33.14
13	33.25	33.39	33.03	33.17	33.16	33.09	33.00	33.03	32.89	33.04	33.13	33.15
14	33.23	33.26	33.06	33.18	33.17	33.09	33.00	33.08	32.92	33.14	33.14	33.16
15	33.22	33.26	33.07	33.12	33.15	33.10	33.07	33.06	32.95	33.14	33.14	33.16
16	33.24	33.27	33.09	33.13	33.13	33.16	33.02	33.07	32.98	33.04	33.13	33.17
17	33.23	33.28	33.11	33.19	33.14	33.12	33.03	33.06	32.99	33.03	33.14	33.18
18	33.06	33.27	33.14	33.14	33.14	33.12	33.03	33.07	32.94	33.04	33.13	33.18
19	33.11	33.29	33.12	33.14	33.13	33.09	33.04	33.07	32.93	33.04	33.14	33.27
20	33.14	33.29	33.11	33.19	33.22	33.09	33.05	33.08	32.89	33.05	33.14	33.20
21	33.23	33.30	33.13	33.16	33.14	33.10	33.08	33.10	32.91	33.06	33.25	33.20
22	33.20	33.33	33.13	33.14	33.14	33.08	33.03	33.06	32.97	33.07	33.17	33.20
23	33.22	33.14	33.13	33.13	33.14	33.09	33.01	33.13	32.95	33.06	33.18	33.19
24	33.22	33.17	33.20	33.13	33.13	33.09	33.00	33.06	32.97	33.05	33.18	33.21
25	33.18	33.18	33.15	33.17	33.12	33.12	33.02	33.07	32.97	33.07	33.19	33.21
26	33.23	33.25	33.14	33.14	33.08	33.06	32.98	33.07	32.98	33.08	33.28	33.10
27	33.21	33.24	33.15	33.14	33.05	32.61	32.98	33.08	33.00	33.09	33.18	33.10
28	33.20	33.22	33.21	33.17	33.16	30.93	32.99	33.09	33.01	33.09	33.13	33.12
29	33.21	33.23	33.13	33.13	33.10	30.70	33.01	33.16	33.02	33.08	33.12	33.09
30	33.21	33.39	33.14	33.17	---	30.80	33.08	33.10	33.02	33.09	33.13	33.11
31	33.21	---	33.15	33.14	---	30.99	---	33.05	---	33.08	33.13	---
MEAN	33.23	33.27	33.10	33.16	33.15	32.80	32.76	33.06	32.89	33.06	33.14	33.16
MAX	33.50	33.39	33.25	33.24	33.22	33.20	33.08	33.16	33.02	33.14	33.28	33.32
MIN	33.06	33.14	32.93	33.12	33.05	30.70	31.21	33.00	32.43	33.02	33.09	33.09

WTR YR 1992: HIGHEST 30.70, MARCH 29; LOWEST 33.50, OCTOBER 11, 12.

Gap Indicates missing record.

3 YEAR HYDROGRAPH
OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

LANCASTER COUNTY

401149076105501. Local number, LN 1669.

LOCATION.--Lat 40°11'49", long 76°10'55", Hydrologic Unit 02050306, 1.6 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 100 ft, cased to 11 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 358 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 1.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.29 ft below land-surface datum, May 18, 1988; lowest, 19.61 ft below land-surface datum, Aug. 18, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.00	18.57	18.20	---	18.05	17.06	---	---	17.62	17.77	17.92	18.66'
2	18.12	18.63	18.12	---	18.05	17.13	---	---	17.65	17.82	17.97	18.66
3	18.22	18.68	16.53	---	18.05	17.22	---	---	17.74	17.85	18.06	18.65
4	18.34	18.75	16.16	---	18.07	17.28	---	---	17.81	17.75	18.17	18.63
5	18.42	18.83	---	---	18.07	17.35	---	---	17.81	17.70	18.24	18.65
6	18.44	18.87	---	---	18.09	17.39	---	---	17.10	17.72	18.29	18.65
7	18.44	18.89	---	---	18.10	17.39	---	---	16.86	17.82	18.30	18.56
8	18.56	18.93	---	---	18.14	17.21	---	---	15.26	17.85	18.39	18.47
9	18.61	18.94	---	---	18.26	17.07	---	---	14.95	17.89	18.39	18.48
10	18.63	18.94	---	---	18.37	17.07	---	---	15.21	17.93	18.49	---
11	18.65	18.95	---	---	18.37	17.06	---	---	15.65	17.93	18.53	18.45
12	18.65	18.94	---	---	18.40	16.93	---	---	16.01	17.88	18.53	18.42
13	18.68	18.94	---	---	18.40	16.83	---	---	16.26	17.90	18.47	18.42
14	18.68	18.94	---	---	18.37	---	---	18.09	16.50	17.93	18.49	18.48
15	18.69	18.93	---	---	18.31	---	---	18.02	16.66	17.91	18.51	18.53
16	18.72	18.93	---	17.77	17.83	---	---	18.02	16.81	17.93	18.53	18.57
17	18.74	18.96	---	17.77	17.74	---	---	18.02	16.94	17.83	18.52	18.62
18	18.36	18.98	---	17.85	17.69	---	---	18.04	17.05	17.51	18.52	18.67
19	17.70	18.99	---	17.94	17.56	---	---	18.06	17.06	17.18	18.49	18.70
20	17.69	18.98	---	17.94	17.53	---	---	18.10	16.81	17.26	18.53	18.69
21	17.82	18.97	---	17.94	17.55	---	---	18.14	16.84	17.49	18.55	18.70
22	17.94	18.93	---	17.95	17.56	---	---	18.17	17.00	---	18.42	18.71
23	18.03	18.48	---	17.95	17.56	---	---	18.20	17.13	---	18.41	18.70
24	18.11	18.33	---	17.92	17.56	---	---	18.26	17.17	---	18.50	18.67
25	18.14	18.47	---	17.94	17.56	---	---	18.29	17.11	17.25	18.58	18.66
26	18.22	18.61	---	17.95	17.51	---	---	18.30	17.12	17.23	18.63	18.50
27	18.27	18.43	---	17.96	17.16	---	---	18.32	17.24	17.34	18.65	17.69
28	18.36	18.22	---	18.03	17.06	---	---	18.37	17.38	17.46	18.68	17.55
29	18.45	18.23	---	18.05	17.05	---	---	18.40	17.49	17.59	18.67	17.70
30	---	18.23	---	18.06	---	---	---	18.41	17.68	17.73	18.64	---
31	---	---	---	18.05	---	---	---	18.21	---	17.86	18.63	---
MEAN	18.33	18.75	17.25	17.94	17.86	17.15	---	18.19	16.86	17.69	18.44	18.49
MAX	18.74	18.99	18.20	18.06	18.40	17.39	---	18.41	17.81	17.93	18.68	18.71
MIN	17.69	18.22	16.16	17.77	17.05	16.83	---	18.02	14.95	17.18	17.92	17.55

WTR YR 1992: HIGHEST 14.95, JUNE 9; LOWEST 18.99, NOVEMBER 19.

LANCASTER COUNTY

401149076105501. Local number, LN 1669--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.
COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1430	676	7.5	12.0	7.70
NOV					
27...	1510	624	7.4	11.0	6.00
DEC					
06...	1410	671	7.2	11.0	5.10
FEB					
28...	1405	688	7.2	11.5	6.80
MAR					
13...	1445	699	7.2	11.0	8.00
APR					
17...	1400	695	6.9	12.5	7.90
MAY					
08...	1220	696	6.9	12.0	8.20
JUN					
08...	1430	698	7.0	12.5	7.30
JUL					
21...	1430	693	--	13.0	8.00
AUG					
21...	1500	701	--	13.5	7.00
SEP					
30...	1400	695	7.4	11.5	5.00

LANCASTER COUNTY

401156076105701. Local number, LN 1670.

LOCATION.--Lat 40°11'56", long 76°10'57", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 75 ft, cased to 10 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 367 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 3.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to March 1992 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.05 ft below land-surface datum, Dec. 5, 1991; lowest, 19.70 ft below land-surface datum, Dec. 12, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.18	12.57	12.05	12.03	13.07	13.01						
2	11.23	12.74	12.02	12.17	13.14	12.76						
3	11.31	12.85	11.90	12.29	13.20	12.53						
4	11.37	12.97	8.30	12.41	13.21	12.40						
5	11.44	13.08	8.05	12.50	13.24	12.29						
6	11.51	13.19	8.41	12.62	13.38	12.25						
7	11.60	13.30	8.98	12.68	13.45	12.24						
8	11.69	13.42	9.48	12.70	13.58	12.17						
9	11.77	13.49	9.98	12.71	13.74	12.17						
10	11.84	13.54	10.27	12.78	13.77	12.13						
11	11.92	13.70	10.50	12.89	13.93	11.95						
12	12.01	13.82	---	12.92	14.01	11.90						
13	12.09	13.91	10.67	12.95	14.01	11.57						
14	12.17	14.04	10.79	13.03	14.15	---						
15	12.25	14.10	10.81	13.05	14.15	---						
16	12.48	14.33	10.79	13.08	14.31	---						
17	12.53	14.48	10.75	13.09	14.37	---						
18	12.51	14.55	10.79	13.08	14.20	---						
19	11.82	14.67	10.83	12.99	14.18	---						
20	11.61	14.70	10.83	12.83	14.19	---						
21	11.50	---	10.86	12.75	14.18	---						
22	11.44	---	10.92	12.73	14.14	---						
23	11.54	---	11.01	12.67	13.98	---						
24	11.62	---	11.16	12.72	13.92	---						
25	11.71	---	11.31	12.73	13.86	---						
26	11.82	---	11.36	12.80	13.72	---						
27	11.92	12.29	11.50	12.81	13.65	---						
28	12.11	12.26	11.54	12.88	13.49	---						
29	12.22	12.16	11.72	12.91	13.19	---						
30	12.29	12.11	11.95	12.90	---	---						
31	12.44	---	11.97	12.97	---	---						
MEAN	11.84	13.43	10.72	12.76	13.77	12.26						
MAX	12.53	14.70	12.05	13.09	14.37	13.01						
MIN	11.18	12.11	8.05	12.03	13.07	11.57						

WTR YR 1992: HIGHEST 8.05, DECEMBER 5; LOWEST 14.70, NOV 20.

LANCASTER COUNTY

401156076105701. Local number, LN 1670--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.**COOPERATION.**--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.**PERIOD OF RECORD.**--November 1984 to March 1992 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
DEC 06...	1245	1240	7.3	14.0	84.0
MAR 13...	1230	1290	7.2	13.5	95.0

LANCASTER COUNTY

401148076110301. Local number, LN 1673.

LOCATION.--Lat 40°11'48", long 76°11'03", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 46 ft, cased to 14 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 382 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 2.2 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.21 ft below land-surface datum, May 6, 1989; lowest, 11.90 ft below land-surface datum, Sept. 16, 17, 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.71	10.50	---	10.24	9.93	9.17	10.23	---	---	10.47	10.73
2	---	10.72	10.36	10.26	10.25	9.94	9.44	10.24	---	---	10.48	10.74
3	---	10.72	9.26	10.26	10.26	9.95	9.57	10.25	---	---	10.51	10.74
4	---	10.72	9.58	10.28	10.26	9.96	9.64	10.27	---	---	10.54	10.74
5	---	10.72	9.77	10.29	10.29	9.97	9.70	10.28	---	---	10.57	10.74
6	---	10.72	10.07	10.29	10.29	9.99	9.73	10.29	---	---	10.60	10.74
7	---	10.73	10.13	10.29	10.30	9.99	9.79	10.29	---	---	10.61	10.74
8	---	10.73	10.16	10.28	10.32	9.94	9.85	10.28	---	---	10.62	10.74
9	---	10.73	10.11	10.29	10.35	---	9.90	10.26	---	---	10.64	---
10	---	10.73	9.89	10.29	10.35	---	9.94	10.23	---	---	10.65	10.63
11	---	10.73	9.92	10.29	10.35	---	9.98	10.32	---	---	10.65	10.63
12	---	10.73	9.98	10.29	10.38	---	10.00	---	---	---	10.66	10.64
13	---	10.73	9.94	10.24	10.38	9.92	10.00	---	---	---	10.66	10.64
14	---	10.73	9.98	10.22	10.38	9.87	---	---	---	---	10.67	10.64
15	---	10.73	10.03	10.18	10.39	9.89	---	---	---	---	10.68	10.64
16	---	10.74	10.05	10.12	10.20	9.92	---	---	---	---	10.68	10.65
17	---	10.74	10.06	10.11	10.23	9.95	10.07	---	---	---	10.68	10.65
18	---	10.74	10.08	10.08	10.19	9.97	10.09	---	---	---	10.69	10.65
19	---	10.74	10.10	10.08	10.19	9.97	10.11	---	---	---	10.69	10.65
20	---	10.74	10.10	10.08	10.16	9.96	10.12	---	---	---	10.70	10.65
21	---	10.74	10.13	10.10	10.15	9.96	10.13	---	---	10.31	10.70	10.65
22	---	10.72	10.21	10.11	10.13	9.95	10.14	---	---	10.35	10.71	10.66
23	---	10.49	10.23	10.11	10.12	9.93	10.15	---	---	10.35	10.71	10.66
24	---	10.39	10.24	10.13	10.12	9.92	10.16	---	---	10.19	10.71	10.66
25	---	10.45	10.25	10.14	10.12	9.92	10.18	---	---	10.22	10.72	10.66
26	---	10.50	10.26	10.16	10.08	9.91	10.18	---	---	10.25	10.72	10.66
27	---	10.49	10.26	10.16	9.96	8.97	10.19	---	---	10.29	10.72	10.59
28	---	10.50	10.26	10.18	9.92	8.24	10.21	---	---	10.33	10.72	10.63
29	---	10.50	10.26	10.19	9.92	7.94	10.21	---	---	10.36	10.73	10.65
30	10.78	10.50	10.26	10.20	---	8.47	10.23	---	---	10.39	10.73	---
31	10.71	---	10.26	10.23	---	8.80	---	---	---	10.42	10.73	---
MEAN	10.74	10.66	10.09	10.20	10.22	9.67	9.96	10.27	---	10.31	10.66	10.67
MAX	10.78	10.74	10.50	10.29	10.39	9.99	10.23	10.32	---	10.42	10.73	10.74
MIN	10.71	10.39	9.26	10.08	9.92	7.94	9.17	10.23	---	10.19	10.47	10.59

WTR YR 1992: HIGHEST 7.94, MARCH 29; LOWEST 10.78, OCTOBER 30.

LANCASTER COUNTY

401148076110301. Local number, LN 1673--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

PERIOD OF RECORD.--November 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1300	975	7.5	12.0	36.0
NOV					
27...	1445	971	7.3	11.5	31.0
DEC					
06...	1340	985	7.2	12.0	39.0
13...	1410	1000	7.3	12.0	35.0
19...	1200	988	7.3	11.0	37.0
JAN					
29...	1400	1000	7.2	11.5	38.0
FEB					
28...	1400	1000	7.1	11.5	40.0
MAR					
05...	1325	1010	7.2	11.5	--
13...	1400	1000	--	11.5	44.0
APR					
17...	1415	1010	7.1	12.0	44.0
MAY					
08...	1255	1000	7.3	11.5	46.0
JUN					
08...	1415	1000	7.1	12.0	46.0
JUL					
21...	1400	1060	--	12.0	46.0
AUG					
21...	1400	1040	--	13.0	45.0
SEP					
30...	1200	1050	7.2	13.5	42.0

LANCASTER COUNTY

401152076110101. Local number, LN 1676.

LOCATION.--Lat 40°11'52", long 76°11'01", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 40 ft, cased to 9 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 367 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 1.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.05 ft below land-surface datum, May 8, 1989; lowest, 24.83 ft below land-surface datum, Sept. 17, 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.46	24.69	24.55	24.17	24.35	24.09	21.79	23.69	23.88	23.64	24.03	24.49
2	24.47	24.69	24.55	24.18	24.35	24.09	21.92	23.72	23.93	23.65	24.05	24.49
3	24.49	24.69	24.55	24.19	24.34	24.08	22.05	23.75	23.96	23.67	24.08	24.50
4	24.50	24.69	23.82	24.20	24.35	24.08	22.18	23.78	23.98	23.66	24.11	24.51
5	24.51	24.70	23.50	24.21	24.35	24.09	22.31	23.81	23.98	23.66	24.13	24.53
6	24.51	24.70	23.67	24.22	24.37	24.10	22.43	23.84	23.65	23.69	24.15	24.54
7	24.52	24.71	23.77	24.23	24.37	24.11	22.52	23.86	23.57	---	---	24.55
8	24.53	24.72	23.88	24.24	24.39	24.01	22.61	23.87	21.88	23.72	24.19	24.48
9	24.54	24.73	23.96	24.26	24.41	23.98	22.70	23.82	21.84	23.73	24.21	---
10	24.55	24.73	23.97	---	24.44	23.98	22.79	23.83	22.30	23.73	24.23	---
11	24.55	24.74	23.65	---	24.44	23.96	22.87	23.84	22.78	23.73	24.23	24.48
12	24.55	24.74	23.56	---	24.44	23.82	22.96	23.85	23.09	23.74	24.24	24.49
13	24.55	24.74	23.64	---	24.44	23.77	23.04	23.86	23.21	23.79	24.25	24.50
14	24.56	24.75	23.71	---	24.45	23.71	23.08	23.89	23.32	23.79	24.28	24.51
15	24.58	24.75	23.77	---	24.45	23.68	---	23.91	23.40	23.81	24.29	24.51
16	24.58	24.76	23.80	24.28	24.43	23.68	---	23.92	23.46	23.82	24.30	24.52
17	24.57	24.77	23.86	24.29	24.31	23.68	23.33	23.94	23.52	23.82	24.31	24.53
18	24.29	24.77	23.90	24.30	24.28	23.70	23.33	23.96	23.56	23.77	24.32	24.53
19	24.44	24.78	23.92	24.30	24.29	23.70	23.35	23.97	23.57	23.65	24.34	24.54
20	24.55	24.79	23.96	24.30	24.29	23.70	23.38	24.00	23.37	23.76	24.35	24.54
21	24.61	24.79	23.99	24.30	24.29	23.67	23.41	24.02	23.35	23.85	24.37	24.54
22	24.64	24.79	24.02	24.31	24.29	23.65	23.41	24.03	23.46	23.88	24.38	24.54
23	24.66	24.58	24.04	24.31	24.29	23.64	23.42	24.05	23.53	23.90	24.39	24.52
24	24.67	24.32	24.08	24.31	24.28	23.61	23.47	24.07	23.55	23.79	24.40	24.53
25	24.68	24.38	24.10	24.32	24.29	23.59	23.52	24.09	23.50	23.77	24.41	24.53
26	24.68	24.43	24.13	24.34	24.29	23.57	23.51	24.09	23.52	23.81	24.43	24.26
27	24.69	24.47	24.14	24.34	24.14	22.85	23.57	24.11	23.55	23.85	24.44	24.25
28	24.69	24.55	24.14	24.35	24.10	21.10	23.60	24.13	23.57	23.89	24.45	24.32
29	24.69	24.55	24.12	24.36	24.09	20.65	23.63	24.15	23.60	23.93	24.46	24.37
30	24.68	24.55	24.14	24.36	---	---	23.65	24.16	23.62	23.98	24.48	---
31	24.69	---	24.16	24.35	---	21.61	---	24.12	---	24.01	24.48	---
MEAN	24.57	24.67	23.97	24.28	24.33	23.45	22.99	23.94	23.38	23.78	24.29	24.49
MAX	24.69	24.79	24.55	24.36	24.45	24.11	23.65	24.16	23.98	24.01	24.48	24.55
MIN	24.29	24.32	23.50	24.17	24.09	20.65	21.79	23.69	21.84	23.64	24.03	24.25

WTR YR 1992: HIGHEST 20.65, MARCH 29; LOWEST 24.79, NOVEMBER 20-22.

LANCASTER COUNTY

401152076110101. Local number, LN 1676--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.
 COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1600	1180	7.0	12.0	35.0
NOV					
27...	1430	1110	6.9	12.0	35.0
DEC					
06...	1330	1130	6.8	12.0	39.0
13...	1430	1210	6.9	12.0	33.0
19...	1220	1130	6.7	11.0	36.0
JAN					
29...	1315	1130	7.0	11.5	34.0
FEB					
28...	1445	1320	6.9	12.0	38.0
MAR					
27...	1030	1170	--	11.5	--
APR					
17...	1445	1170	6.8	12.0	43.0
MAY					
11...	1245	1160	7.1	12.0	44.0
JUN					
08...	1500	1160	7.0	12.0	44.0
JUL					
21...	1345	1170	--	11.5	43.0
AUG					
21...	1430	1350	--	14.5	38.0
SEP					
30...	1350	1310	--	11.5	42.0

LANCASTER COUNTY

401156076110501. Local number, LN 1677.

LOCATION.--Lat 40°11'56", long 76°11'05", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 50 ft, casing 30 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 377 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 1.4 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.04 ft below land-surface datum, May 7, 1989; lowest, 32.99 ft below land-surface datum, Sept. 17, 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.14	32.29	32.24	---	31.86	31.38	28.28	30.65	31.21	30.84	31.34	32.03
2	32.18	32.30	32.24	---	31.87	31.37	28.55	30.69	31.22	30.90	31.37	32.04
3	32.20	32.31	32.03	---	31.89	31.37	28.78	30.73	31.26	30.96	31.40	32.05
4	32.22	32.32	31.02	---	31.89	31.38	28.98	30.76	31.30	30.96	31.43	32.06
5	32.23	32.33	31.01	---	31.91	31.39	29.13	30.79	31.32	30.99	31.46	32.06
6	32.23	32.34	31.14	---	31.93	31.40	29.26	30.82	31.15	31.05	31.49	32.06
7	32.23	32.35	31.29	---	31.94	31.40	29.34	30.84	---	31.10	31.57	32.07
8	32.25	32.37	31.42	---	31.96	31.26	29.43	30.85	28.26	31.10	31.60	---
9	32.27	32.37	31.44	---	31.98	31.24	29.52	30.72	28.54	31.12	31.62	---
10	32.28	32.38	31.17	---	32.00	31.20	29.58	30.78	29.03	31.14	31.64	---
11	32.29	32.38	31.01	---	32.01	31.06	29.66	30.83	29.49	31.10	31.66	32.06
12	32.27	32.39	30.93	---	32.02	30.94	29.72	30.86	29.80	31.15	31.67	32.08
13	32.28	32.39	---	---	32.03	30.88	29.78	30.90	30.02	31.17	31.69	32.10
14	32.30	32.40	---	---	32.04	30.86	29.81	30.95	30.21	31.16	31.72	32.12
15	---	32.41	---	---	32.05	30.84	---	31.03	30.34	31.19	31.74	32.13
16	---	32.42	---	31.94	32.00	30.85	---	31.07	30.46	31.18	31.76	32.15
17	---	32.43	---	31.73	---	30.86	30.09	31.09	30.53	31.13	31.78	32.16
18	---	32.44	---	31.73	31.76	30.88	30.12	31.12	30.55	31.02	31.79	32.17
19	---	32.45	---	31.73	31.76	30.88	30.16	31.16	30.55	30.96	31.80	32.19
20	---	32.45	---	31.73	31.76	30.85	30.20	31.19	30.26	31.05	31.83	32.20
21	---	32.45	---	31.74	31.75	30.84	30.24	31.22	30.37	31.12	31.85	32.22
22	---	32.44	---	31.76	31.75	30.80	30.29	31.25	30.51	31.18	31.87	32.23
23	---	32.04	---	31.76	31.74	30.77	30.31	31.29	30.57	31.19	31.89	32.22
24	---	31.96	---	31.74	31.74	30.76	30.36	31.33	30.59	31.05	31.91	32.23
25	---	32.03	---	31.76	31.74	30.77	30.41	31.36	30.58	31.07	31.93	32.24
26	---	32.08	---	31.78	31.72	---	30.44	31.38	30.56	31.11	31.94	32.11
27	---	32.17	---	31.79	31.57	---	30.49	31.41	30.64	31.14	31.96	31.88
28	---	32.19	---	31.81	31.50	27.49	30.53	31.44	30.69	31.20	31.97	31.93
29	---	32.21	---	31.83	31.40	27.30	30.56	31.48	30.74	31.24	31.98	31.98
30	32.26	32.23	---	31.83	---	27.60	30.60	31.51	30.79	31.28	31.99	---
31	32.28	---	---	31.84	---	27.98	---	31.50	---	31.31	32.01	---
MEAN	32.24	32.31	31.41	31.78	31.84	30.57	29.81	31.06	30.40	31.10	31.73	32.11
MAX	32.30	32.45	32.24	31.94	32.05	31.40	30.60	31.51	31.32	31.31	32.01	32.24
MIN	32.14	31.96	30.93	31.73	31.40	27.30	28.28	30.65	28.26	30.84	31.34	31.88

WTR YR 1992: HIGHEST 27.30, MARCH 29; LOWEST 32.45, NOVEMBER 19-21.

LANCASTER COUNTY

401156076110501. Local number, LN 1677--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1100	755	7.4	11.5	19.0
NOV					
27...	1110	747	7.2	11.0	18.0
DEC					
06...	1310	748	7.0	10.5	18.0
JAN					
29...	1130	740	7.2	11.5	18.0
FEB					
28...	1235	745	7.2	11.5	19.0
MAR					
13...	1200	748	7.2	10.5	22.0
APR					
17...	1200	848	7.0	11.5	26.0
MAY					
08...	1205	804	7.3	11.0	23.0
JUN					
09...	1150	903	7.2	11.5	--
JUL					
21...	1230	777	--	12.5	22.0
AUG					
21...	1150	742	--	13.0	17.0
SEP					
30...	1330	760	7.3	11.5	18.0

LANCASTER COUNTY

401152076105701. Local number, LN 1679.

LOCATION.--Lat 40°11'52", long 76°10'57", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian Age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 60 ft, cased to 13 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 364 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter platform, 2.6 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.39 ft below land-surface datum, May 7, 1989; lowest, 21.55 ft below land-surface datum, Sept. 3, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.21	21.24	21.25	20.84	20.94	20.69	18.82	20.18	20.46	20.24	20.69	21.19
2	21.23	21.24	21.25	20.85	20.95	20.68	19.02	20.21	20.53	20.26	20.71	21.20
3	21.25	21.25	20.97	20.85	20.95	20.68	19.15	20.25	20.57	20.27	20.74	21.20
4	21.26	21.26	20.23	20.89	20.95	20.69	19.23	20.27	20.60	20.27	20.76	21.20
5	21.28	21.27	20.28	20.91	20.97	20.70	19.31	20.29	20.60	20.27	20.78	21.21
6	21.28	21.28	20.32	20.93	20.98	20.71	19.38	20.33	20.27	20.27	20.80	21.21
7	21.27	21.29	20.44	20.95	21.00	20.71	19.42	20.38	20.22	20.29	---	21.19
8	21.29	21.31	20.53	20.95	21.01	20.57	19.46	20.39	19.63	20.34	20.86	21.20
9	21.30	21.32	20.58	20.93	21.04	20.56	19.52	20.30	---	---	20.87	21.17
10	21.31	21.32	20.29	20.97	21.07	20.56	19.55	20.30	---	20.54	20.91	21.20
11	21.31	21.32	20.18	20.97	21.09	20.55	19.59	20.35	19.45	20.40	20.92	21.23
12	21.31	21.33	20.22	20.98	21.09	20.40	19.65	20.38	19.67	20.47	20.92	21.23
13	21.31	21.33	20.30	20.94	21.09	20.33	19.69	20.40	19.80	20.49	20.94	21.22
14	21.31	21.35	20.33	20.89	21.09	20.31	19.71	20.44	19.90	20.43	20.95	21.22
15	21.33	21.35	20.38	20.90	21.09	20.29	---	20.48	19.99	20.53	20.98	21.23
16	21.34	21.37	20.43	20.90	21.08	20.29	---	20.49	20.06	20.55	20.99	21.24
17	21.34	21.37	20.47	20.90	20.87	20.30	19.80	20.52	20.11	20.43	21.01	21.24
18	20.92	21.38	20.53	20.92	20.89	20.31	19.80	20.54	20.16	20.35	21.01	21.25
19	21.03	21.40	20.59	20.90	20.89	20.31	19.82	20.55	20.17	20.42	21.02	21.26
20	21.10	21.41	20.61	20.92	20.89	20.28	19.85	20.58	20.03	20.50	21.04	21.26
21	21.15	21.40	20.65	20.92	20.89	20.25	19.88	20.61	19.95	20.54	21.07	21.27
22	21.19	21.35	20.67	20.92	20.89	20.24	19.89	20.63	20.06	20.52	21.08	21.28
23	21.21	20.87	20.71	20.93	20.89	20.23	19.95	20.65	20.13	20.54	21.09	21.27
24	21.23	21.01	20.74	20.92	20.89	20.20	19.98	20.67	20.16	20.39	21.11	21.28
25	21.23	21.06	20.76	20.89	20.89	20.19	20.02	20.69	20.15	20.42	21.12	21.28
26	21.24	21.11	20.79	20.93	20.88	20.17	20.02	20.69	20.12	20.46	21.13	20.93
27	21.25	21.26	20.81	20.96	20.82	19.43	20.06	20.71	20.15	20.49	21.15	20.98
28	21.26	21.23	20.79	20.98	20.74	18.13	20.11	20.74	20.17	20.54	21.16	21.07
29	21.28	21.24	20.77	20.98	20.69	17.89	20.13	20.77	20.20	20.59	21.16	21.13
30	21.30	21.25	20.80	20.96	---	18.20	20.17	20.78	20.22	20.63	21.16	---
31	21.23	---	20.82	---	---	18.60	---	20.76	---	20.66	21.17	---
MEAN	21.24	21.27	20.60	20.92	20.95	20.11	19.68	20.49	20.13	20.44	20.98	21.20
MAX	21.34	21.41	21.25	20.98	21.09	20.71	20.17	20.78	20.60	20.66	21.17	21.28
MIN	20.92	20.87	20.18	20.84	20.69	17.89	18.82	20.18	19.45	20.24	20.69	20.93

WTR YR 1992: HIGHEST 17.89, MARCH 29; LOWEST 21.41, NOVEMBER 20.

LANCASTER COUNTY

401152076105701. Local number, LN 1679--Continued

WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped.

COOPERATION.--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1200	799	7.3	12.5	23.0
NOV					
27...	1340	812	7.1	12.0	23.0
DEC					
06...	1215	789	6.9	12.0	22.0
JAN					
29...	1230	794	7.1	11.5	22.0
FEB					
28...	1215	793	7.1	12.0	22.0
MAR					
13...	1315	766	7.1	11.5	23.0
APR					
17...	1310	751	7.0	11.5	20.0
MAY					
08...	1220	752	7.0	12.0	22.0
JUN					
08...	1200	728	7.2	13.0	20.0
JUL					
21...	1315	755	--	13.5	25.0
AUG					
21...	1220	860	--	13.5	19.0
SEP					
30...	1310	765	7.2	12.0	21.0

LANCASTER COUNTY

401152076105301. Local number, LN SP 61.

LOCATION.--Lat 40°11'52", long 76°10'53", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: Aaron Stauffer.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.**DATUM.**--Elevation of land surface is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.**REMARKS.**--Abandoned spring once used for domestic supply.**COOPERATION.**--Chemical samples analyzed by Pennsylvania Department of Environmental Resources, Bureau of Laboratories.**PERIOD OF RECORD.**--September 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT					
30...	1230	713	7.4	12.0	16.0
NOV					
27...	1315	696	7.1	11.0	16.0
DEC					
06...	1200	742	6.9	11.0	19.0
JAN					
29...	1200	715	6.9	11.0	17.0
FEB					
28...	1205	733	7.0	11.0	17.0
MAR					
13...	1305	723	7.1	11.0	20.0
APR					
17...	1245	743	7.0	11.5	19.0
MAY					
08...	1120	730	7.1	11.0	18.0
JUN					
08...	1240	758	6.9	12.0	22.0
JUL					
21...	1330	722	--	12.5	18.0
AUG					
21...	1245	--	--	12.5	13.5
SEP					
30...	1300	698	7.3	11.5	15.0

LUZERNE COUNTY

411800076162501. Local number, LU 243.

LOCATION.--Lat 41°18'00", long 76°16'25", Hydrologic Unit 02050107, at Ricketts Glen Park, and near Red Rock.
 Owner: Commonwealth of Pennsylvania.

AQUIFER.--Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 160 ft, cased to 40 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,266 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.2 ft above land-surface datum.

REMARKS.--Well levels effected by nearby intermittent pumpage.

PERIOD OF RECORD.--November 1948 to July 1950, July 1955 to current year.

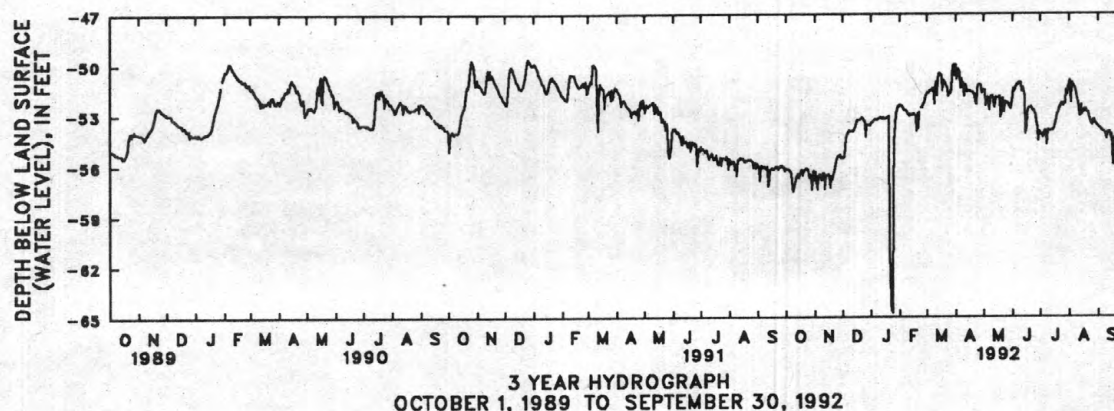
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.08 ft below land-surface datum, Mar. 31, 1950; lowest, 64.76 ft below land-surface datum, Jan. 24, 1992 (due to pumping near well).

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56.14	56.88	55.55	53.50	52.39	51.73	50.00	51.50	51.89	54.07	51.19	53.70
2	56.19	56.32	55.53	53.45	52.46	51.67	50.86	51.52	51.42	54.17	50.94	53.73
3	56.19	56.91	55.44	53.42	52.48	51.69	50.21	52.44	51.57	54.18	52.28	53.81
4	56.24	57.40	54.85	53.35	52.49	51.57	50.28	52.23	51.42	54.36	51.05	53.81
5	56.28	56.58	54.44	53.26	52.68	51.52	50.50	51.93	51.29	54.07	51.15	53.94
6	56.32	56.47	54.15	53.25	52.73	51.57	51.39	52.01	51.17	53.96	51.26	53.97
7	56.44	56.54	54.08	53.30	52.73	51.40	50.82	52.71	51.22	53.98	51.37	54.04
8	57.19	56.87	53.90	53.28	52.74	51.41	51.38	52.05	51.07	54.78	51.54	54.05
9	57.49	56.59	53.93	53.20	52.87	52.33	51.07	51.90	51.06	53.93	51.91	54.10
10	57.17	56.43	53.98	53.18	52.94	51.25	51.88	51.85	51.10	53.90	52.14	54.44
11	57.00	56.39	53.96	53.14	53.07	50.98	51.19	51.87	51.60	53.98	52.27	54.16
12	56.63	57.35	53.97	53.18	52.94	51.86	51.28	52.42	51.36	53.92	53.00	54.07
13	56.64	56.56	53.94	53.24	52.96	50.78	51.63	52.58	51.53	53.92	53.08	54.04
14	56.46	56.53	53.84	53.15	53.04	50.47	51.59	51.91	51.84	53.89	52.42	54.04
15	56.72	56.53	53.72	53.20	52.90	50.52	51.55	51.95	54.15	53.95	53.00	54.38
16	56.54	56.48	53.47	53.24	52.93	50.59	51.54	51.97	53.77	53.75	52.80	54.16
17	56.36	56.54	53.30	53.18	52.98	50.71	51.61	51.93	52.94	53.60	52.83	55.91
18	56.24	57.30	53.30	53.13	53.08	51.53	51.63	51.90	52.73	53.31	52.64	55.94
19	56.56	56.61	53.30	53.13	53.97	50.91	51.61	53.13	52.55	52.95	52.64	54.45
20	56.27	56.78	53.25	53.08	52.90	51.03	51.74	52.79	52.58	52.88	52.82	54.31
21	56.30	56.58	53.20	61.09	53.81	51.10	51.79	52.06	52.52	52.69	52.83	---
22	56.17	56.31	53.16	64.04	52.82	51.24	52.16	52.01	52.63	52.57	52.89	54.26
23	56.16	56.12	53.27	64.56	---	51.41	52.37	52.85	52.77	52.45	53.09	54.60
24	56.17	55.73	53.31	64.76	52.56	51.90	51.54	52.18	52.73	52.32	53.44	54.25
25	56.18	55.54	53.43	57.56	52.58	51.72	51.24	52.32	52.84	52.31	53.49	54.31
26	56.69	55.43	54.29	54.54	52.36	51.74	51.16	52.28	53.01	52.44	53.62	54.10
27	56.47	55.41	53.61	53.64	52.25	51.45	51.22	52.30	53.41	52.36	53.32	53.94
28	56.58	55.35	53.61	52.93	52.09	50.67	51.25	52.42	53.80	52.31	53.31	53.95
29	57.40	55.54	53.60	52.69	51.79	50.08	51.71	52.55	54.55	51.52	53.53	53.88
30	56.38	55.47	53.63	52.50	---	49.98	51.48	52.66	53.99	51.78	53.57	53.90
31	56.29	---	53.62	52.46	---	50.62	---	52.40	---	51.37	53.64	---
MEAN	56.51	56.38	53.89	54.70	52.77	51.21	51.32	52.21	52.35	53.28	52.55	54.22
MAX	57.49	57.40	55.55	64.76	53.97	52.33	52.37	53.13	54.55	54.78	53.64	55.94
MIN	56.14	55.35	53.16	52.46	51.79	49.98	50.00	51.50	51.06	51.37	50.94	53.70

WTR YR 1992: HIGHEST 49.98, MARCH 30; LOWEST 64.76, JANUARY 24.

Gap Indicates missing record.



LYCOMING COUNTY

412427076594401. Local number, LY 112.

LOCATION.--Lat 41°24'27", long 76°59'44", Hydrologic Unit 02050206, at State Game Land No. 133, and near Trout Run.

Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 200 ft, cased to 23 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood cover, 3.1 ft above land-surface datum.

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

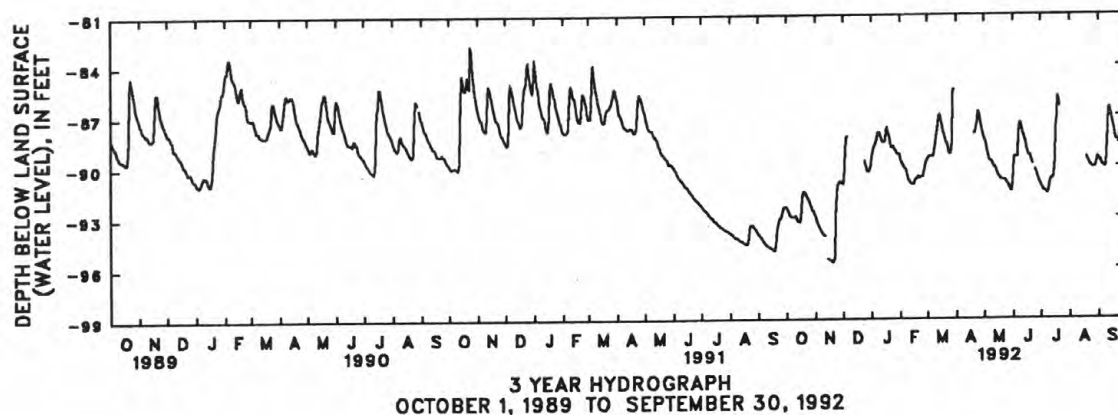
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.10 ft below land-surface datum, June 23, 1972; lowest, 95.63 ft below land-surface datum, November 20, 1991 (may have been caused by pumping).

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92.38	92.87	91.03	89.38	89.57	89.54	---	88.37	90.35	91.06	---	89.55
2	92.46	93.07	90.83	89.07	89.75	89.40	---	88.49	89.48	91.21	---	89.60
3	92.61	93.25	88.96	88.84	89.89	89.37	---	88.75	89.38	91.32	---	89.64
4	92.79	93.39	88.38	88.71	89.89	89.36	---	88.99	89.41	91.42	---	89.79
5	92.88	93.48	88.17	88.62	90.05	89.36	---	89.27	89.44	91.46	---	89.91
6	92.96	93.59	---	88.34	90.09	89.37	---	89.53	89.39	91.50	---	89.97
7	92.96	93.70	---	88.02	90.17	89.38	---	89.65	88.04	91.56	---	90.04
8	92.94	93.84	---	87.95	90.36	89.11	---	89.65	87.40	91.63	---	90.05
9	92.94	93.92	---	87.94	90.71	88.65	---	89.68	87.42	91.52	---	89.94
10	92.93	93.94	---	88.01	90.82	88.23	---	89.82	87.65	91.14	---	88.51
11	92.89	94.05	---	88.31	90.88	87.79	---	89.98	87.94	90.84	---	87.72
12	93.02	94.06	---	88.50	91.02	87.50	---	90.03	88.15	90.76	---	86.58
13	93.16	---	---	88.56	91.01	87.09	---	90.04	88.34	90.67	---	86.50
14	93.21	---	---	88.55	91.06	86.93	---	90.23	88.53	90.71	---	86.76
15	93.24	95.44	---	88.43	91.05	87.16	---	90.41	88.84	90.52	---	87.12
16	93.28	95.47	---	87.86	90.85	87.45	---	90.54	89.07	89.59	---	87.38
17	92.59	95.49	---	87.65	90.74	87.65	---	90.62	89.22	87.71	---	87.65
18	91.78	95.54	---	87.88	90.74	87.89	---	90.66	89.31	87.03	---	87.81
19	91.53	95.56	---	88.09	90.66	88.08	---	90.75	89.31	85.87	89.44	88.18
20	91.48	95.63	---	88.25	90.57	88.34	88.00	90.77	89.50	86.07	89.55	88.44
21	91.52	95.56	---	88.54	90.65	88.58	87.92	90.80	89.67	86.40	89.69	---
22	91.60	95.34	---	88.84	90.66	88.60	87.69	90.79	89.83	---	89.78	88.64
23	91.74	93.01	---	88.85	90.61	88.94	87.29	90.79	---	---	89.90	88.59
24	91.86	91.64	89.63	88.76	90.58	89.19	86.72	90.83	---	---	89.96	87.90
25	91.97	91.11	89.95	88.84	90.58	89.25	86.71	90.94	90.18	---	90.02	87.55
26	92.10	90.97	90.08	89.00	90.36	89.22	87.06	91.02	90.35	---	90.05	87.47
27	92.23	90.86	90.26	89.06	90.01	88.56	87.39	91.12	90.53	---	90.06	86.74
28	92.43	90.85	90.29	89.18	89.76	85.82	87.72	91.27	90.67	---	90.05	85.99
29	92.59	90.87	90.26	89.24	89.56	85.43	87.93	91.40	90.84	---	89.96	85.90
30	92.63	90.94	90.06	89.24	---	---	88.20	91.48	90.95	---	89.65	86.22
31	92.78	---	89.83	89.28	---	---	---	91.42	---	---	89.44	---
MEAN	92.50	93.48	89.83	88.57	90.44	88.32	87.51	90.26	89.26	90.00	89.81	88.14
MAX	93.28	95.63	91.03	89.38	91.06	89.54	88.20	91.48	90.95	91.63	90.06	90.05
MIN	91.48	90.85	88.17	87.65	89.56	85.43	86.71	88.37	87.40	85.87	89.44	85.90

WTR YR 1992: HIGHEST 85.43, MARCH 29; LOWEST 95.63, NOVEMBER 20.

Gap indicates missing record.



MIFFLIN COUNTY

404140077354001. Local number, MF 344.

LOCATION.--Lat 40°41'40", long 77°35'48", Hydrologic Unit 02050304, at Roseann.

Owner: Ira Huron.

AQUIFER.--Bellefonte Formation, Early-Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 200 ft, cased to 42 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 800 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter platform, 1.0 ft above land-surface datum.

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

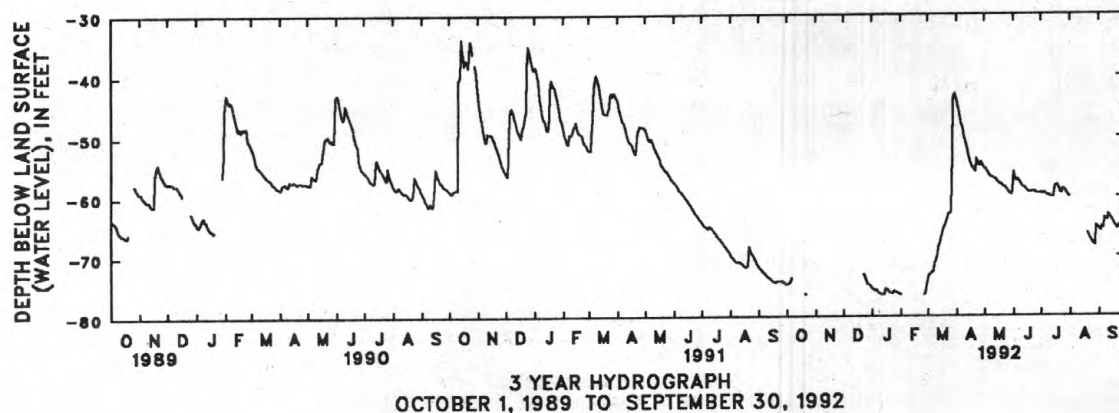
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.29 ft below land-surface datum, Feb. 15, 1984; lowest, 77.13 ft below land-surface datum, Oct. 11, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74.52		---	75.27	76.38	73.83	44.12	55.38	55.96	59.41	---	65.46
2	74.51		---	75.42	---	73.19	44.89	55.39	56.63	59.57	---	65.66
3	74.49		---	75.59	---	73.02	45.65	55.69	57.07	59.62	---	65.80
4	74.32		---	75.64	---	72.93	46.42	55.89	57.43	59.41	---	65.16
5	73.93		---	75.57	---	72.82	47.43	56.24	57.45	59.52	---	65.36
6	73.53		---	75.70	---	72.63	48.15	56.59	57.20	59.61	---	65.42
7	---		---	75.93	---	72.54	48.45	56.74	57.48	59.80	---	63.65
8	---		---	76.08	---	71.14	49.37	56.73	57.73	59.88	---	63.80
9	---		---	76.15	---	70.92	50.15	56.84	57.97	59.81	---	63.96
10	---		---	76.34	---	70.49	50.72	56.95	58.19	59.90	---	64.02
11	---		---	76.40	---	69.67	51.16	57.05	58.47	60.15	---	62.98
12	---		---	76.41	---	68.71	52.01	57.09	58.54	60.16	---	63.21
13	---		---	76.41	---	68.30	52.75	57.15	58.61	60.16	---	63.41
14	---		---	76.41	---	67.80	53.31	57.39	58.79	60.16	---	63.65
15	---		---	75.35	---	66.98	54.03	57.61	59.02	59.00	---	63.92
16	---		---	75.41	---	66.35	54.46	57.82	59.19	58.29	---	64.27
17	---		---	75.44	---	65.73	54.97	57.91	59.28	58.22	---	64.53
18	---		---	75.68	---	65.47	55.30	57.88	59.29	58.14	---	64.78
19	---		---	75.95	---	65.03	55.41	58.05	59.29	58.47	---	64.96
20	---		---	76.06	---	64.64	55.67	58.24	59.28	58.78	66.22	65.32
21	76.28		---	76.11	---	64.14	55.89	58.36	59.25	59.18	66.58	65.48
22	---		---	76.22	---	63.67	53.68	58.41	---	59.44	66.87	65.18
23	---		72.99	76.22	---	62.88	54.12	58.44	---	59.50	67.20	64.84
24	---		73.39	75.73	---	62.85	54.31	58.75	59.22	58.71	67.47	65.04
25	---		73.92	75.78	---	62.73	54.77	58.91	59.44	58.84	67.74	65.14
26	---		74.20	75.95	76.43	62.36	54.93	59.25	59.55	58.88	68.02	63.70
27	---		74.57	75.98	76.20	52.93	54.21	59.40	59.47	59.06	68.22	60.37
28	---		74.73	76.10	75.39	43.77	54.56	59.57	59.49	59.38	68.28	61.00
29	---		74.73	76.17	74.16	43.49	54.73	59.67	59.48	59.61	64.86	61.80
30	---		74.93	76.19	---	43.00	55.12	59.68	59.45	59.88	65.12	62.13
31	---		75.12	76.37	---	43.45	---	59.11	---	59.98	65.35	---
MEAN	74.51		74.29	75.94	75.71	64.43	52.02	57.68	58.51	59.37	66.83	64.13
MAX	76.28		75.12	76.41	76.43	73.83	55.89	59.68	59.55	60.16	68.28	65.80
MIN	73.53		72.99	75.27	74.16	43.00	44.12	55.38	55.96	58.14	64.86	60.37

WTR YR 1992: HIGHEST 43.00, MARCH 30; LOWEST 76.43, FEBRUARY 26.

Gap indicates missing record.



PERRY COUNTY

402339077074502. Local number, PE 518.

LOCATION.--Lat 40°23'39", long 77°07'45", Hydrologic Unit 02050305, at State Game Land No. 256, and near Mecks Corner.

Owner: U.S. Geological Survey.

AQUIFER.--Shermans Ridge member of Mahantango Formation, Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 138 ft, cased to 17 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of plywood cover, 3.0 ft above land-surface datum.

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

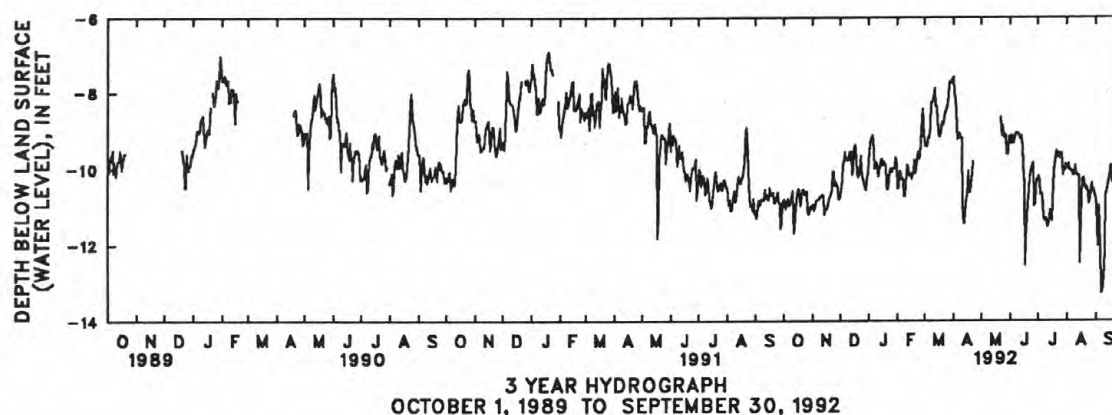
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.89 ft below land-surface datum, January 20, 1991; lowest, 19.51 ft below land-surface datum, Aug. 19, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.82	10.95	10.73	9.79	10.52	9.26	7.59	---	9.14	10.28	9.98	10.77
2	10.79	10.93	10.59	9.35	10.50	9.40	8.02	---	9.34	10.19	9.95	10.99
3	11.06	11.09	10.29	9.23	10.10	9.42	8.16	---	9.14	10.30	9.87	12.03
4	10.98	10.98	9.87	9.20	10.05	9.42	8.51	---	9.34	10.68	10.02	11.75
5	10.79	10.87	9.87	9.11	10.15	9.17	9.23	---	9.34	10.64	10.03	10.98
6	10.78	10.80	9.55	9.49	10.27	9.18	9.18	---	9.17	10.70	10.02	12.02
7	10.96	10.80	9.73	9.99	10.26	8.93	9.06	---	9.08	11.26	10.10	13.28
8	10.94	10.79	9.74	9.93	10.73	8.26	9.15	---	9.05	11.35	10.17	13.21
9	10.84	10.75	9.78	9.83	10.73	8.24	9.20	---	9.06	11.30	10.13	13.08
10	10.70	10.73	9.76	9.90	10.40	8.20	9.20	---	9.10	11.29	9.92	12.61
11	10.57	10.70	9.56	10.19	9.90	8.03	11.00	---	9.15	11.51	10.12	12.13
12	11.68	10.68	9.57	10.06	9.91	7.88	11.43	---	9.24	11.47	10.13	10.67
13	11.53	10.71	9.54	9.89	10.15	8.36	11.42	---	9.14	11.29	10.18	10.59
14	11.22	11.20	10.14	9.76	10.17	8.38	11.11	---	9.41	11.09	10.17	10.49
15	10.82	11.07	10.03	9.75	10.11	8.75	10.74	---	9.93	11.10	12.50	10.26
16	10.63	11.06	9.48	9.92	10.26	9.08	10.73	---	10.39	11.37	11.89	10.20
17	10.52	11.06	9.38	9.81	10.14	9.17	10.05	---	12.54	10.86	10.75	9.92
18	10.56	10.94	9.49	9.86	10.09	9.17	10.62	---	11.80	10.02	10.29	9.92
19	10.98	10.80	10.06	9.90	9.78	8.90	10.60	---	11.29	9.91	10.23	10.28
20	10.88	10.73	10.21	10.38	10.12	8.78	10.40	---	10.89	9.62	10.38	10.38
21	10.67	10.68	10.16	10.54	9.99	8.85	10.13	---	10.59	9.52	10.45	10.31
22	10.53	10.56	10.08	10.48	9.80	8.73	9.82	8.65	10.21	9.69	10.56	10.31
23	10.56	10.07	9.65	10.20	9.55	8.50	---	9.14	10.03	9.62	10.46	10.34
24	10.68	10.07	9.99	9.99	9.75	8.50	---	8.87	10.00	9.58	10.64	10.37
25	10.63	10.44	10.28	9.98	9.69	8.34	---	9.15	9.88	9.72	10.91	10.35
26	10.58	10.36	10.30	10.08	9.29	8.29	---	9.18	9.84	9.71	10.77	10.26
27	11.11	10.38	10.40	9.98	8.71	7.83	---	9.12	10.97	9.59	10.60	9.90
28	11.20	10.49	10.52	9.98	8.42	7.70	---	9.59	10.90	10.14	10.38	9.60
29	11.14	10.75	10.55	9.97	9.10	7.73	---	9.62	10.49	9.99	10.58	9.56
30	10.97	10.80	10.13	9.71	---	7.72	---	9.48	10.29	10.03	10.55	9.65
31	11.05	---	10.13	9.90	---	7.66	---	9.15	---	9.88	10.67	---
MEAN	10.88	10.74	9.99	9.88	9.95	8.58	9.79	9.20	9.96	10.44	10.43	10.87
MAX	11.68	11.20	10.73	10.54	10.73	9.42	11.43	9.62	12.54	11.51	12.50	13.28
MIN	10.52	10.07	9.38	9.11	8.42	7.66	7.59	8.65	9.05	9.52	9.87	9.56

WTR YR 1992: HIGHEST 7.59, APRIL 1; LOWEST 13.28, SEPTEMBER 7.

Gap Indicates missing record.



POTTER COUNTY

414640077493801. Local number, PO 72.

LOCATION.--Lat 41°46'40", long 77°49'38", Hydrologic Unit 02050205, at Denton Hill State Park, and near Walton.
 Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 110 ft, cased to 21 ft, open hole.

INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.

DATUM.--Elevation of land surface is 1,810 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood cover, 1.8 ft above land-surface datum.

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

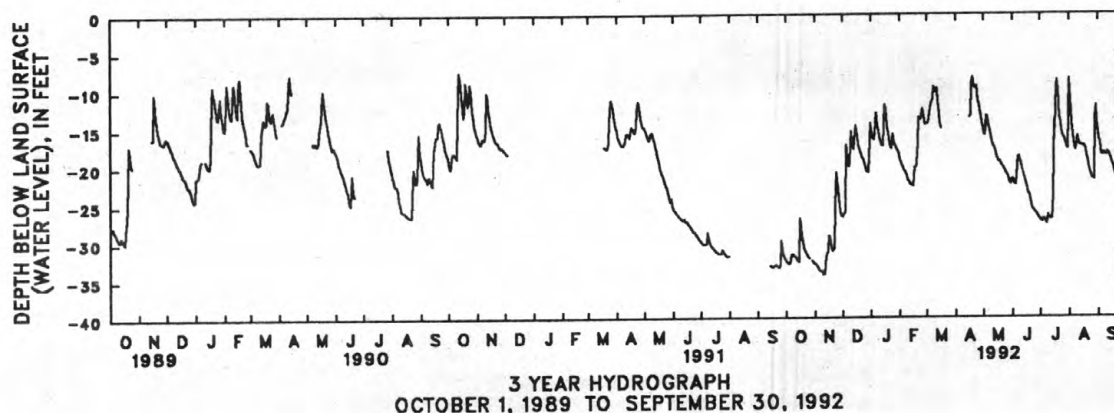
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.20 ft below land-surface datum, Mar. 23, 1968; lowest, 39.12 ft below land-surface datum, Dec. 11, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.34	32.80	26.66	15.08	19.08	14.36	---	15.52	21.57	27.02	8.47	15.50
2	32.57	32.92	26.31	15.93	19.50	14.35	---	15.83	21.99	27.28	10.08	16.42
3	32.69	33.02	26.14	16.35	19.82	13.86	---	14.86	22.31	27.35	12.66	16.93
4	32.78	33.17	25.93	16.41	19.94	12.80	---	13.29	22.45	26.98	14.34	17.80
5	32.75	33.40	17.15	15.38	20.37	11.89	---	13.47	22.44	26.99	15.77	18.43
6	32.16	33.62	18.68	12.87	20.55	11.50	---	14.29	19.97	27.06	16.85	18.55
7	31.54	33.74	19.75	13.62	20.71	11.14	---	14.97	18.80	27.41	17.65	18.18
8	31.43	33.76	20.00	14.67	20.97	9.55	---	15.46	18.64	27.60	17.84	18.34
9	31.59	33.76	19.26	15.23	21.56	9.88	---	16.02	19.12	26.49	16.89	18.54
10	31.77	34.15	15.29	15.97	21.94	10.18	---	16.71	19.66	26.80	16.02	18.55
11	31.81	34.17	16.75	16.68	22.04	9.65	---	17.18	20.25	26.81	16.48	18.12
12	32.05	34.12	17.44	17.11	22.32	9.97	---	17.47	20.75	26.99	17.16	18.24
13	32.33	31.76	17.69	17.24	22.34	11.47	---	17.69	21.12	27.00	17.32	18.41
14	32.48	31.58	16.43	17.24	22.53	13.02	---	18.19	21.56	25.74	17.19	18.70
15	32.56	31.12	14.46	11.86	22.63	14.20	---	18.68	22.12	23.73	17.40	19.11
16	26.79	29.10	15.27	11.81	21.36	14.93	13.48	19.09	22.61	13.94	17.34	19.56
17	27.89	29.12	16.06	13.34	20.10	---	13.28	19.35	23.02	15.05	17.28	19.94
18	29.11	29.95	17.09	14.70	20.03	---	9.26	19.32	23.61	9.63	17.48	20.26
19	29.78	30.44	17.69	15.53	19.65	---	8.30	19.59	23.69	8.66	17.91	20.72
20	30.42	31.08	17.97	16.21	16.89	---	9.02	19.89	24.13	10.04	18.54	21.26
21	30.84	30.94	18.34	17.02	13.46	---	9.71	19.96	24.93	11.84	19.24	21.40
22	31.17	30.75	18.80	17.56	13.62	---	9.66	20.19	25.51	13.52	19.86	20.97
23	31.41	24.93	18.96	17.63	13.82	---	9.41	20.41	25.74	14.31	20.42	9.03
24	31.65	20.76	19.31	15.70	13.28	---	10.35	20.58	25.77	15.23	20.97	10.10
25	31.87	21.82	19.95	16.26	12.32	---	11.33	20.87	25.99	15.95	21.28	12.36
26	32.04	22.90	20.27	16.87	12.86	---	11.83	21.04	26.19	16.16	21.60	13.23
27	---	24.10	20.68	17.20	13.94	---	12.60	21.38	26.31	16.29	21.78	13.52
28	---	25.77	20.75	17.45	14.37	---	13.48	21.88	26.54	16.81	21.84	---
29	32.38	26.32	20.75	17.79	14.27	---	14.22	22.23	26.76	17.11	13.69	---
30	32.57	26.58	16.59	17.99	---	---	14.85	22.33	26.90	17.67	11.97	---
31	32.69	---	14.26	18.40	---	---	---	21.95	---	17.67	14.25	---
MEAN	31.50	30.06	19.05	15.91	18.49	12.05	11.39	18.38	23.02	20.36	17.02	17.49
MAX	32.78	34.17	26.66	18.40	22.63	14.93	14.85	22.33	26.90	27.60	21.84	21.40
MIN	26.79	20.76	14.26	11.81	12.32	9.55	8.30	13.29	18.64	8.66	8.47	9.03

WTR YR 1992: HIGHEST 8.30, APRIL 19; LOWEST 34.17, NOVEMBER 11.

Gap Indicates missing record.



SNYDER COUNTY

403939076591001. Local number, SN 130.

LOCATION.--Lat 40°39'39", long 76°59'10", Hydrologic Unit 02050301, at State Game Land No. 194, and at Meiserville.

Owner: U.S. Geological Survey.

AQUIFER.--Irish Valley member of Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 100 ft, cased to 40 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of plywood cover, 3.6 ft above land-surface datum.

PERIOD OF RECORD.--June 1968 to current year.

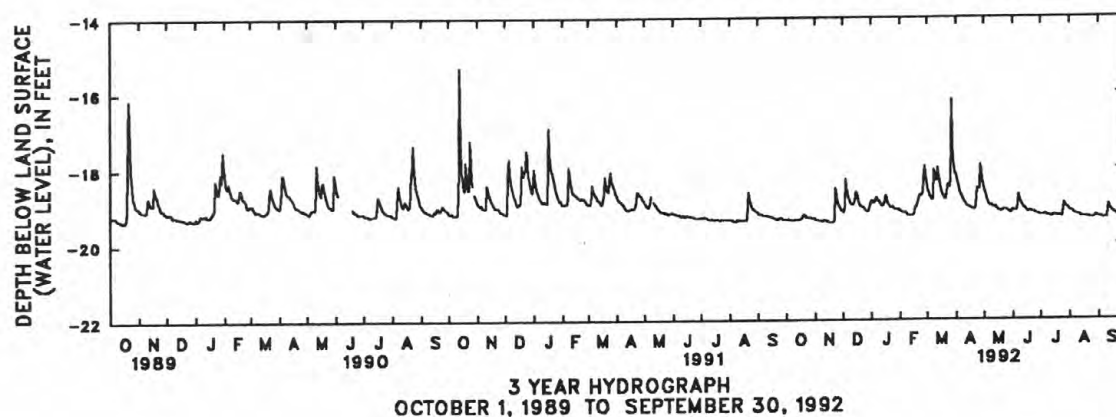
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.45 ft below land-surface datum, Sept. 26, 1975; lowest, 19.57 ft below land-surface datum, Nov. 23, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.34	19.32	19.14	18.85	19.13	18.50	18.19	18.59	19.10	19.24	19.12	19.30
2	19.34	19.36	19.16	18.88	19.15	18.61	18.32	18.67	19.12	19.25	19.13	19.31
3	19.33	19.37	19.05	18.90	19.16	18.69	18.43	18.74	19.13	19.25	19.14	19.30
4	19.36	19.37	18.28	18.89	19.17	18.76	18.54	18.82	19.13	19.25	19.15	19.31
5	19.36	19.38	18.50	18.85	19.17	18.80	18.67	18.89	19.12	19.24	19.18	19.33
6	19.34	19.38	18.65	18.77	19.18	18.84	18.72	18.96	19.01	19.22	19.22	19.34
7	19.36	19.38	18.76	18.81	19.17	18.83	18.76	18.99	18.71	19.25	19.23	19.33
8	19.36	19.40	18.84	18.85	19.19	18.05	18.83	18.98	18.82	19.27	19.23	19.33
9	19.36	19.40	18.91	18.86	19.24	18.24	18.87	18.98	18.87	19.26	19.23	19.33
10	19.36	19.39	18.95	18.91	19.24	18.32	18.90	19.00	18.94	19.27	19.24	19.33
11	19.34	19.37	18.96	18.96	19.24	18.31	18.93	19.02	18.99	19.28	19.24	19.12
12	19.34	19.38	18.96	18.99	19.24	17.97	18.99	19.03	19.04	19.29	19.25	18.97
13	19.35	19.38	18.93	18.99	19.24	18.17	19.01	19.01	19.06	19.29	19.29	19.03
14	19.36	19.40	18.89	18.96	19.24	18.33	19.01	19.04	19.08	19.27	19.29	19.09
15	19.35	19.39	18.62	18.86	19.23	18.49	19.03	19.08	19.11	19.27	19.29	19.13
16	19.35	19.42	18.67	18.73	19.19	18.61	19.04	19.11	19.15	19.25	19.29	19.16
17	19.34	19.43	18.75	18.81	19.02	18.69	19.05	19.12	19.16	19.26	19.30	19.18
18	19.30	19.43	18.88	18.91	19.02	18.73	19.07	19.12	19.15	19.27	19.29	19.18
19	19.24	19.43	18.98	18.95	18.96	18.78	19.08	19.15	19.13	19.28	19.29	19.22
20	19.21	19.43	18.99	18.98	18.85	18.83	19.09	19.11	19.14	19.28	19.31	19.24
21	19.23	19.41	19.01	19.02	18.78	18.81	19.08	19.11	19.16	19.26	19.29	19.21
22	19.23	19.38	19.02	19.02	18.73	18.63	19.01	19.10	---	19.28	19.30	19.21
23	19.29	18.52	19.03	19.03	18.73	18.44	18.54	19.10	---	19.27	19.32	19.26
24	19.29	18.70	19.06	19.00	18.72	18.50	18.55	19.10	19.17	19.29	19.33	19.28
25	19.29	18.84	19.11	19.04	18.66	18.48	18.55	19.11	19.20	19.11	19.32	19.28
26	19.30	18.95	19.12	19.07	18.32	18.28	18.53	19.13	19.22	18.92	19.33	19.24
27	19.30	18.99	19.15	19.07	17.95	16.20	17.91	19.14	19.22	18.95	19.32	18.60
28	19.31	19.04	19.14	19.08	18.17	17.35	18.13	19.16	19.22	19.00	19.29	18.71
29	19.33	19.08	19.11	19.09	18.39	17.80	18.32	19.19	19.22	19.03	19.26	18.83
30	19.33	19.12	18.98	19.07	---	18.05	18.47	19.19	19.25	19.06	19.26	18.91
31	19.31	---	18.90	19.09	---	18.16	---	19.13	---	19.08	19.29	---
MEAN	19.32	19.26	18.92	18.94	18.95	18.36	18.72	19.03	19.09	19.21	19.26	19.17
MAX	19.36	19.43	19.16	19.09	19.24	18.84	19.09	19.19	19.25	19.29	19.33	19.34
MIN	19.21	18.52	18.28	18.73	17.95	16.20	17.91	18.59	18.71	18.92	19.12	18.60

WTR YR 1992: HIGHEST 16.20, MARCH 27; LOWEST 19.43, NOVEMBER 17-20.

Gap indicates missing record.



SULLIVAN COUNTY

413026076352901. Local number, SU 34.

LOCATION.--Lat 41°30'26", long 76°35'29", Hydrologic Unit 02050206, near Forksville.

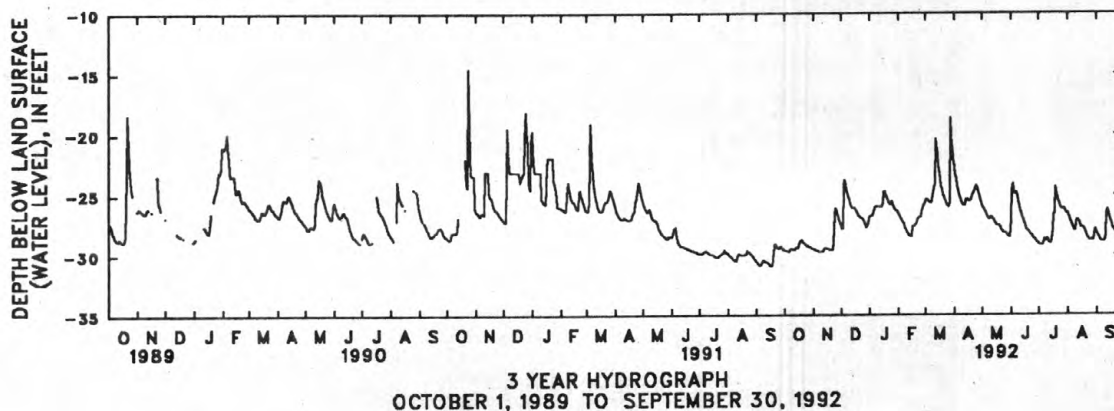
Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.**WELL CHARACTERISTICS.**--Drilled observation well, diameter 6 in., depth 50 ft, cased to 34 ft, open hole.**INSTRUMENTATION.**--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.**DATUM.**--Elevation of land surface is 1,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.7 ft above land-surface datum.**PERIOD OF RECORD.**--April 1965 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 7.42 ft below land-surface datum, June 23, 1972; lowest, 31.12 ft below land-surface datum, Sept. 4, 1966.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.59	29.49	27.49	26.77	26.57	25.54	22.74	25.96	27.11	29.04	26.48	28.09
2	29.61	29.51	27.83	26.74	26.73	25.40	23.28	26.10	24.67	29.14	26.68	28.28
3	29.65	29.55	27.75	26.72	26.85	25.40	23.76	26.20	24.14	29.20	26.94	28.42
4	29.67	29.59	24.33	26.72	26.95	25.52	24.22	26.30	24.66	29.20	27.12	28.52
5	29.69	29.63	23.79	26.41	27.11	25.62	24.66	26.48	24.90	29.18	27.41	28.69
6	29.71	29.67	24.19	26.11	27.27	25.70	25.00	26.68	24.90	29.04	27.52	28.80
7	29.54	29.69	24.57	26.01	27.41	25.70	25.24	26.86	24.82	28.66	27.78	28.86
8	29.45	29.71	24.93	25.99	27.77	25.45	25.50	26.98	25.12	28.80	27.96	28.89
9	29.49	29.73	25.19	25.99	27.85	24.83	25.68	27.00	25.56	28.80	27.96	28.87
10	29.55	29.73	25.45	25.98	28.09	24.43	25.84	26.88	26.00	28.62	27.40	28.68
11	29.57	29.73	25.73	25.99	28.19	24.16	25.90	26.82	26.26	28.78	27.09	28.31
12	29.57	29.65	25.95	26.03	28.31	20.41	25.90	26.90	26.54	28.96	27.10	26.60
13	29.38	29.45	26.09	26.03	28.39	20.91	25.62	27.00	26.82	29.02	27.20	26.22
14	29.35	29.41	26.09	26.03	28.44	21.73	25.38	27.14	27.04	29.04	27.34	26.38
15	29.41	29.41	26.09	25.71	28.43	22.57	25.36	27.36	27.26	28.73	27.70	26.81
16	29.41	29.45	26.15	24.78	27.61	23.22	25.50	27.44	27.54	27.96	27.70	27.10
17	28.99	29.47	26.21	24.69	27.59	23.80	25.56	27.58	27.78	26.72	27.72	27.36
18	28.79	29.51	26.33	24.99	27.59	24.26	25.56	27.58	27.90	26.46	27.78	27.60
19	28.69	29.54	26.61	25.19	27.51	24.62	25.44	27.58	27.99	24.38	27.88	27.83
20	28.73	29.57	26.71	25.37	27.38	24.94	25.15	27.68	28.00	25.04	28.04	27.79
21	28.85	29.57	26.81	25.53	27.14	25.18	24.93	27.82	28.14	25.18	28.25	28.00
22	28.95	29.57	26.85	25.77	26.97	25.40	24.82	27.92	28.24	25.50	28.42	28.07
23	29.03	28.92	26.91	25.81	26.86	25.66	24.50	28.00	28.36	25.72	28.56	27.99
24	29.11	26.65	26.95	25.67	26.83	25.86	24.34	28.14	28.40	25.92	28.67	27.17
25	29.17	26.15	27.07	25.53	26.81	25.98	24.28	28.12	28.52	26.10	28.75	26.89
26	29.21	26.29	27.21	25.79	26.38	26.00	24.54	28.18	28.66	26.18	28.77	26.75
27	29.27	26.57	27.41	26.01	26.09	25.72	24.82	28.24	28.66	26.18	28.71	25.25
28	29.31	26.87	27.69	26.17	25.88	18.68	25.14	28.34	28.80	26.10	28.77	24.21
29	29.37	27.09	27.63	26.27	25.73	20.28	25.46	28.40	28.88	26.18	28.73	24.83
30	29.41	27.31	27.34	26.31	---	21.34	25.74	28.48	28.96	26.40	27.98	25.33
31	29.47	---	26.96	26.40	---	22.04	---	28.48	---	26.50	27.88	---
MEAN	29.32	28.88	26.33	25.92	27.27	24.08	25.00	27.38	27.02	27.44	27.82	27.42
MAX	29.71	29.73	27.83	26.77	28.44	26.00	25.90	28.48	28.96	29.20	28.77	28.89
MIN	28.69	26.15	23.79	24.69	25.73	18.68	22.74	25.96	24.14	24.38	26.48	24.21

WTR YR 1992: HIGHEST 18.68, MARCH 28; LOWEST 29.73, NOVEMBER 9-11.

Gap Indicates missing record.



SUSQUEHANNA COUNTY

415323077451301. Local number, SQ 61.

LOCATION.--Lat 41°53'23", long 75°45'13", Hydrologic Unit 02050101, at State Game Land No. 175, and at New Milford.

Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 175 ft, cased to 80 ft, open hole.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval.

DATUM.--Elevation of land surface is 1,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--July 1972 to current year.

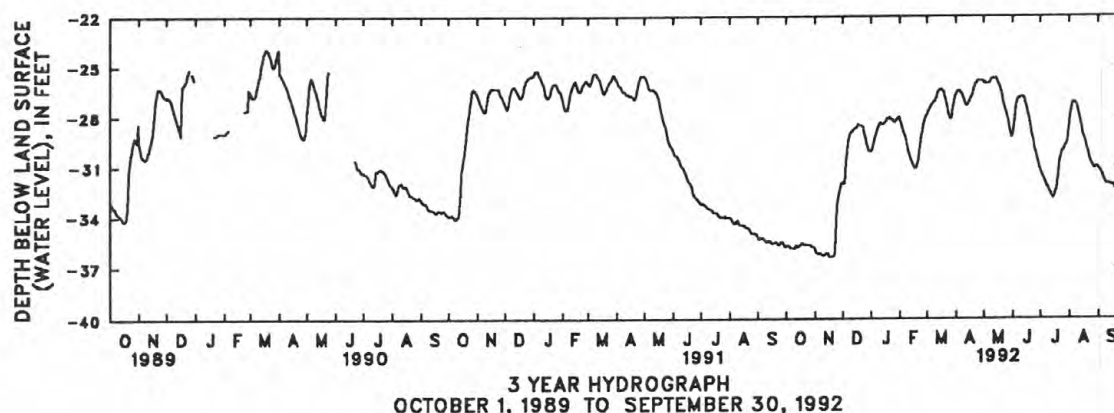
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.49 ft below land-surface datum, Apr. 3, 1978; lowest, 37.24 ft below land-surface datum, Aug. 30, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.79	35.89	31.95	30.06	28.21	27.91	26.67	25.93	29.10	31.21	28.46	31.06
2	35.71	36.05	32.02	29.93	28.38	27.75	26.53	25.94	28.74	31.35	27.96	31.16
3	35.71	36.17	31.99	29.70	28.60	27.62	26.45	26.01	28.18	31.49	27.58	31.21
4	35.72	36.18	31.45	29.45	28.69	27.50	26.42	25.99	27.68	31.61	27.30	31.30
5	35.77	36.18	30.69	29.22	28.92	27.40	26.49	25.97	27.33	31.74	27.16	31.37
6	35.84	36.17	30.03	29.02	29.06	27.31	26.60	25.98	27.05	31.88	27.14	31.53
7	35.86	36.16	29.55	28.86	29.22	27.24	26.61	25.98	26.93	32.04	27.16	31.67
8	35.87	36.22	29.21	28.70	29.49	27.12	26.73	25.90	26.94	32.19	27.22	31.85
9	35.87	36.26	29.02	28.57	29.83	27.10	26.86	25.80	26.87	32.26	27.33	31.99
10	35.88	36.29	28.92	28.41	30.08	27.00	27.03	25.73	26.84	32.40	27.52	32.07
11	35.78	36.29	28.88	28.39	30.25	26.83	27.18	25.72	26.83	32.49	27.72	32.07
12	35.69	36.24	28.84	28.44	30.50	26.64	27.33	25.68	26.86	32.64	28.01	32.00
13	35.79	36.19	28.76	28.46	30.60	26.51	27.35	25.66	26.87	32.77	28.24	32.05
14	35.81	36.15	28.70	28.44	30.81	26.42	27.30	25.69	27.04	32.81	28.52	32.09
15	35.75	36.15	28.67	28.38	30.95	26.36	27.16	25.79	27.26	32.89	28.82	32.12
16	35.70	36.23	28.63	28.33	31.07	26.36	27.05	25.90	27.49	32.73	29.07	32.14
17	35.67	36.39	28.55	28.24	31.12	26.36	26.90	26.06	27.72	32.52	29.24	32.11
18	35.57	36.38	28.44	28.09	31.12	26.49	26.80	26.19	27.91	32.38	29.39	32.12
19	35.54	36.37	28.51	28.13	30.93	26.52	26.61	26.37	28.17	32.07	29.63	32.26
20	35.61	36.36	28.51	28.08	30.74	26.70	26.35	26.59	28.49	31.43	29.85	32.39
21	35.61	36.34	28.52	28.04	30.47	26.99	26.15	26.85	28.86	30.93	30.02	32.49
22	35.62	36.29	28.56	28.12	30.02	27.21	26.01	27.11	29.17	30.62	30.19	32.54
23	35.64	35.97	28.65	28.18	29.48	27.51	25.98	27.35	29.40	30.35	30.46	32.48
24	35.67	34.30	28.94	28.18	29.16	27.80	25.91	27.57	29.61	30.12	30.66	32.33
25	35.66	33.35	29.22	28.26	28.83	28.03	25.84	27.77	29.92	29.98	30.79	32.21
26	35.66	32.91	29.39	28.33	28.51	28.15	25.83	27.97	30.12	29.99	30.91	32.16
27	35.67	32.65	29.64	28.30	28.24	28.10	25.82	28.22	30.30	29.84	31.02	31.94
28	35.74	32.35	29.87	28.22	28.10	27.86	25.83	28.57	30.62	29.71	31.11	31.72
29	35.79	32.13	29.99	28.14	27.93	27.44	25.84	28.86	30.76	29.67	31.07	31.52
30	35.77	31.98	30.06	28.08	---	27.13	25.84	29.13	31.00	29.48	31.00	31.41
31	35.83	---	30.07	28.04	---	26.85	---	29.24	---	29.06	30.99	---
MEAN	35.73	35.42	29.49	28.54	29.63	27.17	26.52	26.69	28.34	31.38	29.08	31.91
MAX	35.88	36.39	32.02	30.06	31.12	28.15	27.35	29.24	31.00	32.89	31.11	32.54
MIN	35.54	31.98	28.44	28.04	27.93	26.36	25.82	25.66	26.83	29.06	27.14	31.06

WTR YR 1992: HIGHEST 25.66, MAY 13; LOWEST 36.39, NOVEMBER 17.

Gap Indicates missing record.



TIOGA COUNTY

414513077333701. Local number, TI 100.

LOCATION.--Lat 41°45'13", long 77°33'37", Hydrologic Unit 02050205, at State Game Land No. 208, and at Gaines.
 Owner: U.S. Geological Survey.

AQUIFER.--Catskill Formation, Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 77 ft, cased to 67 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land surface is 1,310 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 4.0 ft above land-surface datum.

REMARKS.--Water-quality records for 1973-75 are available in files of District Office.

PERIOD OF RECORD.--July 1972 to current year.

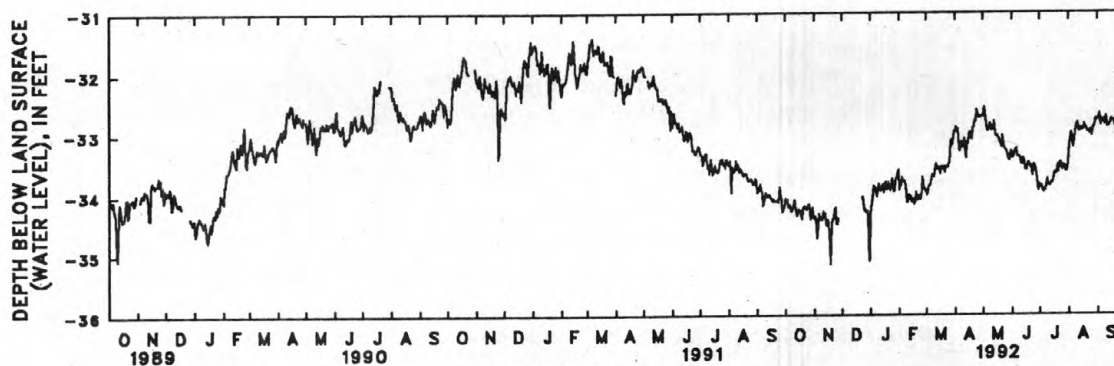
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.02 ft below land-surface datum, Mar. 27, 1978; lowest, 35.88 ft below land-surface datum, Oct. 11, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.05	34.38	---	34.31	33.92	33.92	32.96	32.71	33.31	33.83	33.35	32.76
2	34.10	34.34	---	34.13	33.81	34.00	32.87	32.55	33.39	33.85	33.16	32.76
3	34.07	34.36	---	34.07	33.85	33.91	32.92	32.65	33.35	33.84	33.04	32.66
4	34.19	34.71	---	33.85	33.71	33.84	32.92	32.74	33.28	33.91	32.98	32.78
5	34.16	34.66	---	33.88	33.78	33.84	33.23	32.91	33.28	33.96	33.13	32.85
6	34.16	34.30	---	33.89	33.76	33.80	33.28	32.95	33.23	33.92	33.22	32.76
7	34.25	34.36	---	33.95	33.78	33.67	33.12	32.93	33.37	33.93	33.11	32.76
8	34.27	34.41	---	34.02	33.84	33.68	33.18	32.86	33.36	33.85	32.98	32.76
9	34.22	34.36	---	33.90	34.13	33.71	33.21	32.82	33.36	33.74	32.85	32.84
10	34.14	34.42	---	33.81	34.13	33.61	33.17	32.94	33.41	33.84	32.82	32.71
11	34.08	34.27	---	33.92	33.99	33.49	33.07	32.94	33.50	33.85	32.81	32.77
12	34.24	34.35	---	33.93	34.07	33.52	33.31	32.92	33.50	33.86	32.96	32.89
13	34.29	34.30	---	33.88	34.01	33.58	33.39	32.79	33.39	33.80	32.92	32.87
14	34.34	34.51	---	33.82	34.12	33.54	33.13	32.99	33.45	33.79	32.90	32.86
15	34.23	34.39	---	33.96	34.06	33.55	33.16	33.03	33.58	33.80	32.95	32.82
16	34.28	34.41	---	33.82	34.10	33.66	33.00	33.02	33.59	33.70	32.94	32.76
17	34.25	34.46	---	33.78	34.16	33.53	32.97	33.06	33.59	33.63	32.93	32.78
18	34.32	34.84	---	33.91	34.11	33.58	33.04	33.09	33.48	33.66	32.83	32.77
19	34.39	35.15	---	33.89	33.95	33.53	33.08	33.14	33.46	33.64	32.89	32.78
20	34.23	34.49	---	33.78	34.08	33.53	32.92	33.17	33.49	33.51	32.90	32.88
21	34.19	34.39	---	33.86	34.09	33.63	32.86	33.21	33.55	33.63	32.96	32.84
22	34.18	34.38	---	33.93	34.00	33.53	32.78	33.02	33.52	33.50	32.97	32.77
23	34.23	34.26	34.03	33.86	34.01	33.53	32.79	33.17	33.69	33.46	32.95	32.95
24	34.24	34.20	34.14	33.73	34.08	33.55	32.59	33.24	33.56	33.46	33.00	32.94
25	34.21	34.48	34.26	33.79	33.94	33.48	32.64	33.25	33.50	33.59	32.93	32.74
26	34.15	34.49	34.24	33.94	33.71	33.48	32.71	33.27	33.54	33.56	33.03	32.56
27	34.16	34.38	34.28	33.94	33.90	33.13	32.73	33.35	33.57	33.51	32.96	32.60
28	34.39	---	34.26	33.74	33.89	33.10	32.72	33.39	33.74	33.53	32.88	32.60
29	34.36	---	34.35	33.72	33.94	33.18	32.71	33.44	33.86	33.62	32.88	32.61
30	34.21	---	35.10	33.65	---	33.07	32.70	33.38	33.93	33.61	32.75	32.65
31	34.32	---	35.08	33.58	---	32.96	---	33.28	---	33.57	32.78	---
MEAN	34.22	34.45	34.42	33.88	33.96	33.55	32.97	33.04	33.49	33.71	32.96	32.77
MAX	34.39	35.15	35.10	34.31	34.16	34.00	33.39	33.44	33.93	33.96	33.35	32.95
MIN	34.05	34.20	34.03	33.58	33.71	32.96	32.59	32.55	33.23	33.46	32.75	32.56

WTR YR 1992: HIGHEST 32.55, MAY 2; LOWEST 35.15, NOVEMBER 19.

Gap Indicates missing record.



3 YEAR HYDROGRAPH
 OCTOBER 1, 1989 TO SEPTEMBER 30, 1992

UNION COUNTY

405928077115501. Local number, UN 51.

LOCATION.--Lat 40°59'28", long 77°11'55", Hydrologic Unit 02050206, at Raymond B. Winter Park, and 5.5 mi east of Livonia.

Owner: U.S. Geological Survey.

AQUIFER.--Reedsville Formation, Late Ordovician age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 115 ft, cased to 91 ft, open hole.

INSTRUMENTATION.--Digital recorder with 60-minute recording interval. Pennsylvania Department of Environmental Resources satellite telemeter at station.

DATUM.--Elevation of land surface is 1,550 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood cover, 3.6 ft above land-surface datum.

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

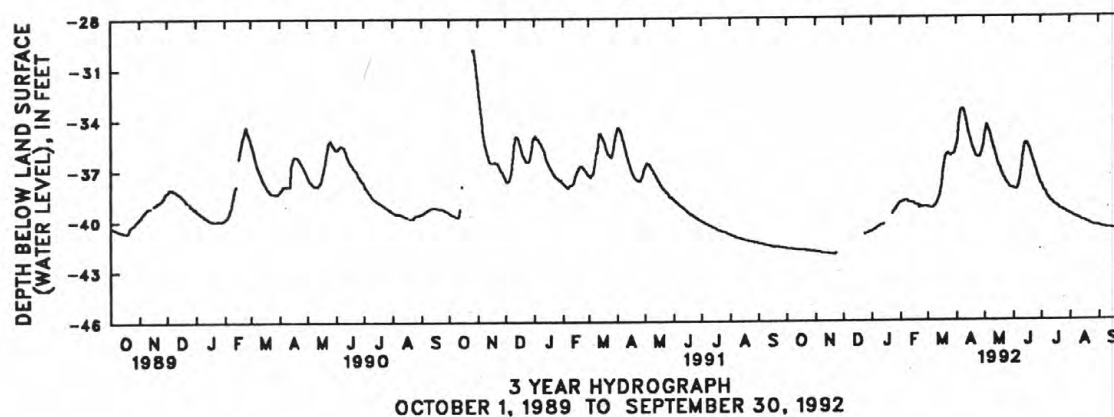
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.26 ft below land-surface datum, Apr. 10, 1978; lowest, 42.24 ft below land-surface datum, Jan. 29 to Feb. 1, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.64	41.85	---	40.62	38.92	39.20	35.55	35.07	38.13	37.91	39.67	40.41
2	41.64	41.87	---	40.60	38.90	39.22	35.47	34.73	38.13	37.91	39.69	40.42
3	41.67	41.87	---	40.56	38.88	39.24	34.61	34.47	38.15	38.13	39.71	40.43
4	41.66	41.87	---	40.54	38.86	39.26	34.07	34.41	38.15	38.22	39.75	40.46
5	41.68	41.87	---	40.50	38.84	39.28	33.67	34.55	38.15	38.29	39.79	40.47
6	41.68	41.89	---	40.44	38.82	39.28	33.50	34.72	38.05	38.33	39.83	40.48
7	41.68	41.89	---	40.40	38.79	39.28	33.46	34.87	37.87	38.55	39.87	40.49
8	41.69	41.91	---	40.38	38.82	39.16	33.45	35.02	37.63	38.61	39.89	40.50
9	41.70	41.91	---	40.34	38.91	39.14	33.51	35.25	37.29	38.71	39.91	40.51
10	41.70	41.91	---	40.30	38.92	39.08	33.73	35.50	36.85	38.78	39.93	40.52
11	41.70	41.91	---	40.28	38.92	38.94	33.95	35.72	36.33	38.87	39.95	40.52
12	41.72	41.91	---	40.28	38.96	38.86	34.31	35.87	35.91	38.92	39.99	40.53
13	41.73	41.93	---	40.26	38.94	38.72	34.53	36.12	35.61	38.99	40.03	40.53
14	41.73	41.93	---	40.22	38.98	38.52	34.78	36.33	35.47	39.01	40.05	40.53
15	41.75	41.95	---	---	38.98	38.20	35.01	36.53	35.43	39.07	40.07	40.54
16	41.74	41.95	---	---	39.04	37.90	35.18	36.73	35.52	39.13	40.09	40.55
17	41.74	41.95	---	---	39.06	37.36	35.42	36.85	35.62	39.15	40.11	40.55
18	41.75	41.95	---	---	39.06	36.98	35.63	36.97	35.73	39.19	40.13	40.55
19	41.76	41.97	---	---	39.06	36.56	35.80	37.18	35.87	39.23	40.17	40.58
20	41.76	41.99	---	---	39.12	36.30	35.91	37.30	36.09	39.27	40.20	40.59
21	41.76	42.01	---	---	39.25	36.14	36.09	37.41	36.28	39.33	40.22	40.60
22	41.77	41.99	---	---	39.16	36.08	36.23	37.49	36.47	39.37	40.25	40.61
23	41.77	41.93	---	39.62	39.18	36.05	36.27	37.57	36.63	39.39	40.28	40.65
24	41.79	---	40.80	39.46	39.22	36.14	36.29	37.69	36.81	39.43	40.30	40.65
25	41.79	---	40.78	39.44	39.20	36.17	36.29	37.77	36.93	39.45	40.32	40.65
26	41.81	---	40.78	39.34	39.19	36.19	36.27	37.85	37.15	39.45	40.34	40.65
27	41.81	---	40.74	39.30	39.18	36.13	36.17	37.93	37.33	39.51	40.36	40.61
28	41.81	---	40.74	39.20	39.18	36.13	36.01	38.01	37.49	39.53	40.37	40.59
29	41.81	---	40.68	39.12	39.22	36.09	35.79	38.08	37.64	39.59	40.38	40.55
30	41.83	---	40.66	39.04	---	36.03	35.49	38.11	37.75	39.61	40.38	40.55
31	41.83	---	40.66	38.95	---	35.81	---	38.11	---	39.63	40.39	---
MEAN	41.74	41.92	40.73	39.96	39.02	37.66	35.08	36.46	36.88	38.99	40.08	40.54
MAX	41.83	42.01	40.80	40.62	39.25	39.28	36.29	38.11	38.15	39.63	40.39	40.65
MIN	41.64	41.85	40.66	38.95	38.79	35.81	33.45	34.41	35.43	37.91	39.67	40.41

WTR YR 1992: HIGHEST 33.45, APRIL 8; LOWEST 42.01, NOVEMBER 21.

Gap indicates missing record.



YORK COUNTY

400320076451501. Local number, YO 180.

LOCATION.--Lat 40°03'20", long 76°45'15", Hydrologic Unit 02050306, near Zions View.

Owner: New York Wire Cloth Company.

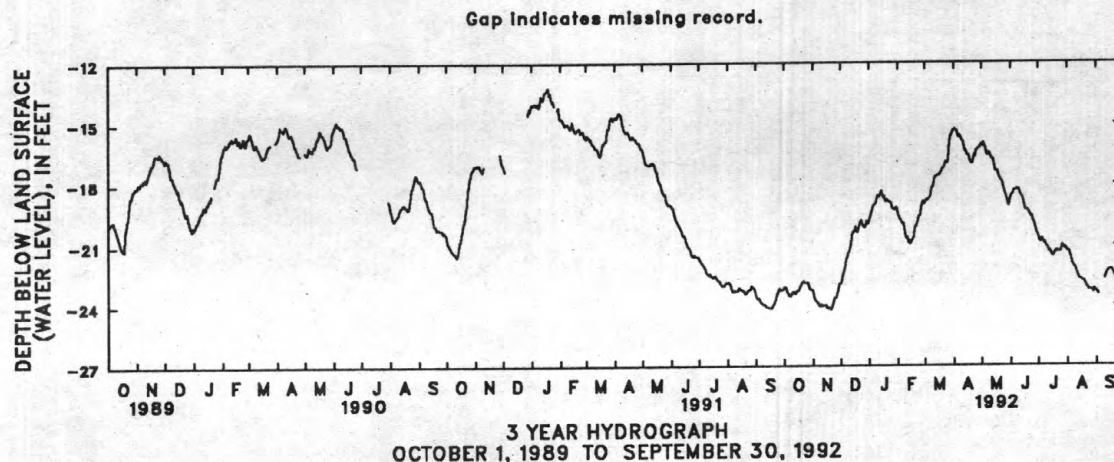
AQUIFER.--New Oxford Formation, Late Triassic age.**WELL CHARACTERISTICS.**--Drilled unused well, diameter 8 in., depth 490 ft, casing information not available.**INSTRUMENTATION.**--Continuous strip-chart recorder.**DATUM.**--Elevation of land surface is 360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land-surface datum.

REMARKS.--This well shows significant response to Earth tide effects.**PERIOD OF RECORD.**--March 1962 to current year.**EXTREMES FOR PERIOD OF RECORD.**--Highest water level, 13.18 ft below land-surface datum, January 19, 1991; lowest, 37.55 ft below land-surface datum, Nov. 3, 4, 1963.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.08	23.26	22.89	19.76	19.50	18.91	15.30	16.13	18.64	20.58	21.29	23.31
2	23.07	23.49	22.85	19.60	19.63	18.82	15.29	15.99	18.58	20.74	21.31	23.31
3	23.09	23.63	22.45	19.43	19.74	18.78	15.34	16.02	18.52	20.86	21.33	23.45
4	23.27	23.74	22.39	19.23	19.77	18.79	15.35	16.12	18.45	20.81	21.51	---
5	23.34	23.78	22.27	19.09	19.87	18.73	15.58	16.28	18.33	20.69	21.69	---
6	23.44	23.83	21.98	19.00	19.96	18.67	15.70	16.49	18.31	20.84	21.86	---
7	23.51	23.92	21.74	19.01	19.94	18.57	15.61	16.57	18.31	20.93	22.00	---
8	23.51	24.03	21.60	18.94	20.18	18.21	15.69	16.44	18.27	20.85	22.09	---
9	23.45	24.01	21.40	18.69	20.57	18.21	15.77	16.44	18.28	21.04	22.12	---
10	23.33	23.92	21.31	18.57	20.66	18.04	15.87	16.56	18.33	21.08	22.22	22.67
11	23.30	24.01	21.14	18.65	20.61	17.68	15.92	16.68	18.47	21.14	22.32	22.56
12	23.32	23.96	20.96	18.60	20.88	17.67	16.23	16.77	18.57	21.28	22.51	22.48
13	23.37	23.97	20.60	18.45	20.77	17.65	16.40	16.76	18.62	21.26	22.60	22.33
14	23.38	23.98	20.37	18.35	20.95	17.59	16.37	16.99	18.73	21.37	22.67	22.27
15	23.25	23.96	20.35	18.55	20.85	17.56	16.51	17.23	18.92	21.42	22.71	22.26
16	23.24	24.04	20.34	18.67	20.78	17.59	16.58	17.38	19.16	21.57	22.73	22.21
17	23.22	24.12	20.10	18.61	20.74	17.51	16.57	17.41	19.31	21.53	22.78	22.21
18	23.11	24.09	20.26	18.85	20.56	17.50	16.80	17.38	19.32	21.42	22.78	22.23
19	22.94	24.13	20.37	18.79	20.16	17.33	16.96	17.61	19.28	21.33	22.81	22.28
20	22.92	24.11	20.26	18.75	20.09	17.26	17.01	17.72	19.34	21.27	22.88	22.44
21	22.80	24.17	19.97	18.87	19.99	17.25	16.98	17.81	19.44	21.26	23.00	22.53
22	22.79	23.98	19.91	18.89	19.93	17.14	16.76	17.84	19.53	21.32	23.06	22.57
23	22.84	23.82	19.76	18.86	19.62	16.94	16.55	17.90	19.61	21.31	23.13	22.79
24	22.84	23.64	19.92	18.94	19.59	16.98	16.66	18.12	19.59	21.33	23.22	22.87
25	22.83	23.56	20.09	19.01	19.51	16.97	16.36	18.36	19.74	21.28	23.22	22.78
26	22.83	23.57	20.10	19.21	19.14	16.82	16.33	18.48	19.91	21.10	23.24	22.49
27	22.85	23.45	20.14	19.20	18.92	15.95	16.27	18.63	20.00	21.01	23.24	22.34
28	23.11	23.19	20.04	19.26	18.85	15.71	16.22	18.80	20.24	21.10	23.24	22.00
29	23.16	22.98	19.82	19.26	18.99	15.61	16.19	19.01	20.36	21.12	23.34	21.92
30	23.19	22.91	19.97	19.13	---	15.52	16.04	19.10	20.47	21.21	23.19	21.92
31	23.19	---	19.95	19.23	---	15.36	---	18.85	---	21.15	23.28	---
MEAN	23.15	23.78	20.82	18.95	20.03	17.46	16.17	17.35	19.09	21.14	22.56	22.51
MAX	23.51	24.17	22.89	19.76	20.95	18.91	17.01	19.10	20.47	21.57	23.34	23.45
MIN	22.79	22.91	19.76	18.35	18.85	15.36	15.29	15.99	18.27	20.58	21.29	21.92

WTR YR 1992: HIGHEST 15.29, APRIL 2; LOWEST 24.17, NOVEMBER 21.



ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS AND SPECIAL STUDY SITES

Ground-water miscellaneous sites are wells or springs where limited water-quality data are collected for use in hydrologic studies.

REMARKS.--Pequea-Mill Creek GIS Project--The data on pages 281 to 332 were collected as part of a study of ground-water conditions in the Pequea and Mill Creek watersheds in Lancaster and Chester Counties. Water samples from primarily domestic wells and springs were analyzed for nutrients (several forms of nitrogen and phosphorus) and triazine herbicides. The project is entitled "Development of Geographic Information Systems (GIS) Coverages for the Pequea and Mill Creek Watersheds, Lancaster and Chester Counties, Pennsylvania." Samples analyzed for radon were collected by the National Water-Quality Assessment (NAWQA) Program - The Lower Susquehanna River Basin study unit. All field measurements and triazine screen analyses were performed by USGS. The nutrient analyses were performed by Pennsylvania Department of Environmental Resources Bureau of Laboratories, and triazine herbicide and radon analyses by the USGS National Water-Quality Laboratory (NWQL).

Mill Creek Project--The data on pages 335 to 337 were collected as part of a study characterizing ground-water conditions in the Mill Creek - Muddy Run watersheds in Lancaster County. Water samples from primarily domestic wells were analyzed for nutrients and triazine herbicides. The project is titled "Baseline Characterization of Water-Quality in the Mill Creek Watershed. Data collected from this study and the GIS project discussed above are to be used to help establish 2 locations for 2 nutrient management cause and effect studies. All field measurements and triazine screen analyses were performed by USGS. Nutrient and herbicide analyses were performed by the USGS NWQL. Additional data collected as part of this study can be found on pages 203-206 and 222-226.

EXPLANATION OF PARAMETER CODE HEADINGS

DISS, REC--dissolved recoverable concentration.

ELISA--enzyme-linked immunosorbent assay.

WAT WH TOT FET,--fixed-endpoint titration of unfiltered water for alkalinity determination.

μ S/CM--microsiemens per centimeter at 25 degrees Celsius.

2 SIGMA--counting statistic that represents error in the reported radon value caused by variations in sample counting, background radiation, volume of sample, and decay since sample was collected.

The Geologic Unit codes listed with the miscellaneous data are identified below.

GEOLOGIC UNIT (aquifer):

Carbonate;

367CNSG - Conestoga Formation.
374ZKCR - Zooks Corner Formation.
377KZRS - Kinzers Formation.
377LDGR - Ledger Formation.
377VNTG - Vintage Formation.

Noncarbonate;

000GBBR - Gabbro and Gabbroic Gneiss.
000GRDR - Granodiorite.
000GRGS - Granite Gneiss.
000GRFC - Graphitic Gneiss.
000SRPN - Serpentine.
231DIBS - Diabase Dikes and Sills.
300WSCK - Wissahickon Formation.
300WSCKA - Wissahickon Formation, Albite Chlorite Schist.
377AMHP - Antietam, Harpers Formation.
377ANTM - Antietam Formation.
377CCKS - Chickies Formation.
400MFCGG - Mafic Gneiss, Granulite Facies.



Figure 12.--Location of water-quality sampling sites for the Pequea-Mill Creek GIS project.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

REMARKS.--Local identifier sites SP 62 through SP 71 are springs.

LOCAL IDENT- IFIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)
CHESTER COUNTY								
1272	400400075560901	400MFCGG	05-22-91	1500	183.00	810	157	
		400MFCGG	10-15-91	1638	183.00	810	--	
		400MFCGG	10-15-91	1640	183.00	810	208	
1364	400241075535201	377CCKS	05-20-91	1230	183.00	895	100	
4134	400046075560101	377CCKS	05-21-91	1310	275.00	670	28	
		377CCKS	10-17-91	0950	275.00	670	38	
4137	400205075554201	377AMHP	05-20-91	1620	69.00	670	63	
		377AMHP	10-15-91	1223	69.00	670	--	
		377AMHP	10-15-91	1225	69.00	670	101	
4138	400308075554001	377AMHP	05-23-91	1610	--	670	57	
4139	400258075545001	377CCKS	05-20-91	1420	--	895	97	
		377CCKS	10-16-91	1710	--	895	81	
4142	400142075544101	377AMHP	05-21-91	1015	200.00	790	52	
		377AMHP	10-16-91	0943	200.00	790	--	
		377AMHP	10-16-91	a0944	200.00	790	--	
		377AMHP	10-16-91	0945	200.00	790	60	
4143	400059075551702	377AMHP	05-21-91	1155	126.00	800	90	
		377AMHP	10-15-91	1338	126.00	800	--	
		377AMHP	10-15-91	1340	126.00	800	100	
		377AMHP	10-15-91	a1341	126.00	800	--	
LANCASTER COUNTY								
SP 62	395537076174901	367CNSG	05-22-91	1600	--	380	800	
		367CNSG	10-16-91	1550	--	380	560	
SP 63	395304076204901	300WSCKA	05-31-91	1455	--	480	200	
		300WSCKA	10-18-91	1615	--	480	280	
SP 64	395422076171501	300WSCKA	05-21-91	1445	--	460	67	
		300WSCKA	10-16-91	1325	--	460	56	
SP 65	395848076154901	367CNSG	05-24-91	0935	--	415	652	
		367CNSG	10-18-91	1205	--	415	--	
SP 66	400456076041201	377LDGR	05-22-91	1440	--	440	320	
		377LDGR	10-15-91	1545	--	440	320	
SP 67	400418076041401	377VNTG	05-23-91	1525	--	500	342	
		377VNTG	10-17-91	1125	--	500	339	
SP 68	395504076094301	367CNSG	05-28-91	1600	--	470	190	
		367CNSG	10-18-91	1300	--	470	180	

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
CHESTER COUNTY										
1272	6.1	12.0	9.8	39	4.70	0.008	0.120	0.15	0.38	0.50
	--	--	--	--	--	--	--	--	--	--
	5.9	12.0	7.9	59	4.10	<0.004	0.050	0.06	0.30	0.35
1364	4.5	13.0	8.5	2	1.80	0.008	0.160	0.21	0.35	0.51
4134	5.1	11.0	7.1	7	0.520	0.010	0.140	0.18	0.43	0.57
	5.4	11.0	5.3	1	0.460	<0.004	0.100	0.13	0.42	0.52
4137	5.0	13.0	9.4	42	4.40	0.014	0.140	0.18	0.41	0.55
	--	--	--	--	--	--	--	--	--	--
	5.1	14.0	6.0	8	5.80	0.004	0.060	0.08	0.34	0.40
4138	6.1	11.5	2.7	18	0.120	0.012	0.120	0.15	0.62	0.74
4139	5.0	12.0	12.0	3	1.30	0.012	0.150	0.19	0.42	0.57
	4.7	12.0	11.0	46	1.70	0.004	0.040	0.05	0.45	0.49
4142	6.2	11.5	9.6	16	0.100	0.008	0.130	0.17	0.25	0.38
	--	--	--	--	--	--	--	--	--	--
	6.1	11.0	9.6	30	0.070	<0.004	0.050	0.06	0.36	0.41
4143	4.9	12.0	9.3	4	5.40	0.012	0.150	0.19	0.44	0.59
	--	--	--	--	--	--	--	--	--	--
	4.9	13.0	7.4	6	4.80	<0.004	0.050	0.06	0.37	0.42
	--	--	--	--	4.80	<0.004	0.020	0.03	--	<0.20
LANCASTER COUNTY										
SP 62	7.2	13.0	10.0	280	12.0	0.006	0.080	0.10	0.62	0.70
	7.2	16.0	--	260	15.0	0.004	0.090	0.12	1.1	1.2
SP 63	5.8	13.0	9.4	10	12.0	<0.004	0.180	0.23	0.36	0.54
	5.8	12.0	9.7	16	5.40	0.004	0.110	0.14	0.50	0.61
SP 64	5.8	12.5	7.9	3	1.40	0.006	0.100	0.13	0.51	0.61
	6.0	13.5	--	18	0.770	<0.004	0.050	0.06	0.35	0.40
SP 65	7.0	12.0	6.9	230	10.0	0.006	0.120	0.15	0.49	0.61
	7.4	14.0	5.0	230	10.0	0.004	0.120	0.15	0.80	0.92
SP 66	8.0	12.0	7.8	92	6.50	0.010	0.110	0.14	0.21	0.32
	8.0	12.0	5.5	140	6.00	0.004	<0.020	--	--	<0.20
SP 67	7.6	13.0	12.0	100	5.90	0.006	0.110	0.14	0.35	0.46
	7.9	12.0	6.5	130	5.10	<0.004	0.050	0.06	0.27	0.32
SP 68	7.2	13.0	10.0	79	1.80	<0.004	0.130	0.17	0.71	0.84
	7.9	12.0	9.1	75	1.50	<0.004	0.090	0.12	0.36	0.45

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC, (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC, (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC, (μG/L) (04038)
CHESTER COUNTY									
1272	<0.020 -- 0.020	0.04 -- 0.05	0.012 -- 0.015	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1364	<0.020	--	<0.002	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
4134	0.060 0.020	-- 0.01	<0.002 0.004	-- --	-- --	-- --	-- --	-- --	-- --
4137	<0.020 -- <0.020	-- -- 0.01	<0.002 -- 0.003	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
4138	0.590	0.02	0.007	--	--	--	--	--	--
4139	<0.020 <0.020	-- 0.01	<0.002 0.004	-- --	-- --	-- --	-- --	-- --	-- --
4142	<0.020 -- <0.020	-- -- --	<0.002 -- <0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
4143	<0.020 -- <0.020 <0.020	-- -- 0.01 --	<0.002 -- 0.002 <0.002	-- -- <0.05 --	-- -- <0.05 --	-- -- <0.05 --	-- -- <0.20 --	-- -- 0.18 --	-- -- <0.05 --
LANCASTER COUNTY									
SP 62	<0.020 0.060	0.02 0.12	0.008 0.039	-- --	-- --	-- --	-- --	-- --	-- --
SP 63	0.030 0.030	0.07 0.03	0.024 0.011	-- --	-- --	-- --	-- --	-- --	-- --
SP 64	0.030 0.020	-- --	<0.002 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
SP 65	0.030 0.050	0.04 0.10	0.012 0.033	-- <0.05	-- <0.05	-- 0.18	-- <0.20	-- 0.64	-- 0.09
SP 66	<0.020 0.020	0.03 0.04	0.009 0.012	-- --	-- --	-- --	-- --	-- --	-- --
SP 67	0.030 0.030	0.05 0.04	0.015 0.012	-- --	-- --	-- --	-- --	-- --	-- --
SP 68	0.030 0.020	0.01 0.01	0.004 0.002	-- --	-- --	-- --	-- --	-- --	-- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (µG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (µG/L) (82630)	PROP- AZINE WATER DISS REC (µG/L) (38535)	PRO- METON, WATER, DISS, REC (µG/L) (04037)	PRO- METRYN, WATER, DISS, REC (µG/L) (04036)	SI- MAZINE, WATER, DISS, REC (µG/L) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN (µG/L) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
CHESTER COUNTY									
1272	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	40	1100
	--	--	--	--	--	--	<0.1	--	--
1364	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
4134	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
4137	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	42	4700
	--	--	--	--	--	--	<0.1	--	--
4138	--	--	--	--	--	--	<0.1	--	--
4139	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
4142	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	40	3400
	--	--	--	--	--	--	--	40	3300
	--	--	--	--	--	--	<0.1	--	--
4143	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	46	6500
	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	--	--	--
	--	--	--	--	--	--	<0.1	--	--
LANCASTER COUNTY									
SP 62	--	--	--	--	--	--	0.4	--	--
	--	--	--	--	--	--	0.6	--	--
SP 63	--	--	--	--	--	--	0.3	--	--
	--	--	--	--	--	--	0.3	--	--
SP 64	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
SP 65	--	--	--	--	--	--	1.0	--	--
	<0.05	<0.05	<0.05	0.19	<0.05	<0.05	0.7	--	--
SP 66	--	--	--	--	--	--	0.3	--	--
	--	--	--	--	--	--	0.2	--	--
SP 67	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
SP 68	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
SP 69	400129076090001	377LDGR	05-20-91	1550	--	375	830
		377LDGR	10-21-91	0935	--	375	826
SP 70	395702076155701	377VNTG	10-18-91	0825	--	365	207
SP 71	395226076205001	300WSCKA	10-18-91	1340	--	580	79
1298	400951076030301	231HMCK	10-17-91	1435	405.00	440	472
1428	395456076173001	300WSCK	05-22-91	0900	124.00	375	64
		300WSCK	10-16-91	0920	124.00	375	63
1431	400153075584301	377LDGR	05-20-91	1740	150.00	485	405
		377LDGR	10-16-91	1100	150.00	485	400
1491	395939076171201	367CNSG	05-20-91	1030	125.00	380	1080
1756	395535076174901	367CNSG	05-22-91	1310	50.00	380	710
		367CNSG	10-16-91	1448	50.00	380	--
		367CNSG	10-16-91	1450	50.00	380	685
1757	395809076182101	367CNSG	05-23-91	1230	310.00	430	320
		367CNSG	10-15-91	1515	310.00	430	380
1758	395726076184301	377AMHP	05-23-91	1505	150.00	425	400
		377AMHP	05-23-91	a1506	150.00	425	--
		377AMHP	10-15-91	1158	150.00	425	--
		377AMHP	10-15-91	1200	150.00	425	355
1759	395433076203601	367CNSG	05-23-91	1810	102.00	390	1100
1760	395727076193201	367CNSG	05-24-91	1050	136.00	430	380
		367CNSG	10-22-91	1658	136.00	430	--
		367CNSG	10-22-91	1700	136.00	430	365
1761	395556076195201	377AMHP	05-24-91	1255	200.00	280	200
		377AMHP	10-16-91	1340	200.00	280	155
1762	395627076194401	377AMHP	05-24-91	1545	475.00	510	170
		377AMHP	10-15-91	1653	475.00	510	--
		377AMHP	10-15-91	1655	475.00	510	185
1763	395542076185301	367CNSG	05-24-91	1820	250.00	435	850
		367CNSG	10-16-91	1703	250.00	435	--
		367CNSG	10-16-91	1705	250.00	435	750
1764	395407076211001	300WSCKA	05-31-91	1340	275.00	460	220
		300WSCKA	10-22-91	1343	275.00	460	--
		300WSCKA	10-22-91	1345	275.00	460	205
1765	395332076193801	300WSCKA	05-31-91	1630	235.00	560	220
		300WSCKA	05-31-91	a1631	235.00	560	--
		300WSCKA	10-18-91	1705	235.00	560	200

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
SP 69	6.8 7.1	11.0 13.0	6.0 8.1	310 330	17.0 15.0	0.006 <0.004	0.130 0.060	0.17 0.08	0.13 0.32	0.26 0.38
SP 70	6.3	11.5	7.7	47	6.50	0.004	0.120	0.15	0.58	0.70
SP 71	5.5	13.0	9.4	7	3.70	<0.004	0.070	0.09	--	<0.20
1298	7.7	12.5	5.8	150	5.60	0.004	0.080	0.10	0.38	0.46
1428	6.2 6.4	13.0 12.5	0.5 --	-- 30	<0.040 <0.040	0.006 <0.004	0.090 0.040	0.12 0.05	0.31 0.16	0.40 0.20
1431	7.8 8.0	12.5 12.5	1.6 10.0	130 130	12.0 10.0	0.012 <0.004	0.120 0.040	0.15 0.05	0.45 0.30	0.57 0.34
1491	7.0	13.5	8.2	280	12.0	0.008	0.100	0.13	0.51	0.61
1756	6.9 -- 6.9	18.5 -- 19.0	8.2 -- 3.9	240 -- 240	22.0 -- 19.0	0.006 -- <0.004	0.100 -- 0.060	0.13 -- 0.08	0.41 -- 0.32	0.51 -- 0.38
1757	7.0 --	13.0 14.0	6.5 6.9	96 110	14.0 12.0	0.010 0.004	0.100 0.020	0.13 0.03	0.46 0.34	0.56 0.36
1758	6.2 -- -- --	14.0 -- -- 13.0	6.5 -- -- 6.5	24 -- -- 16	28.0 28.0 -- 28.0	0.012 0.010 -- 0.008	0.040 0.110 -- 0.040	0.05 0.14 -- 0.05	-- 0.45 -- 0.41	<0.20 0.56 -- 0.45
1759	6.8	13.5	5.4	260	31.0	0.008	0.110	0.14	0.49	0.60
1760	6.9 -- 7.2	14.0 -- 13.5	8.6 -- 7.9	86 -- 150	5.30 -- 4.10	0.008 -- <0.004	0.100 -- 0.210	0.13 -- 0.27	0.44 -- 0.09	0.54 -- 0.30
1761	8.4 8.3	14.5 13.0	8.6 7.3	77 82	4.40 3.80	0.006 <0.004	0.100 0.040	0.13 0.05	0.46 0.42	0.56 0.46
1762	6.0 -- --	13.0 -- 13.0	7.8 -- 6.1	30 -- 47	1.90 -- 1.90	0.010 -- 0.004	0.110 -- 0.020	0.14 -- 0.03	0.19 -- 0.29	0.30 -- 0.31
1763	7.0 -- 7.1	14.5 -- 13.0	6.2 -- 6.8	240 -- 250	12.0 -- 12.0	0.010 -- <0.004	0.090 -- 0.050	0.12 -- 0.06	0.61 -- 0.46	0.70 -- 0.51
1764	7.1 -- 7.3	14.0 -- 13.0	0.9 -- 3.6	50 -- 48	3.20 -- 4.50	0.400 -- 0.310	0.160 -- 0.200	0.21 -- 0.26	0.15 -- 0.11	0.31 -- 0.31
1765	5.6 -- 5.2	12.5 -- 12.0	9.5 -- 8.2	7 -- 9	17.0 17.0 15.0	<0.004 <0.004 <0.004	0.170 0.180 0.100	0.22 0.23 0.13	0.16 0.13 0.46	0.33 0.31 0.56

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (µG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (µG/L) (04038)
LANCASTER COUNTY									
SP 69	<0.020 0.020	0.01 0.02	0.004 0.005	<0.05 --	<0.05 --	0.07 --	<0.20 --	0.14 --	<0.05 --
SP 70	0.070	0.14	0.047	--	--	--	--	--	--
SP 71	0.020	0.03	0.010	--	--	--	--	--	--
1298	0.120	0.31	0.100	<0.05	<0.05	<0.05	<0.20	0.08	<0.05
1428	<0.020 0.020	0.02 --	0.005 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1431	<0.020 0.020	-- 0.02	<0.002 0.006	-- --	-- --	-- --	-- --	-- --	-- --
1491	<0.020	0.01	0.003	--	--	--	--	--	--
1756	<0.020 -- 0.020	0.02 -- 0.03	0.006 -- 0.011	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1757	0.040 0.030	0.03 0.04	0.010 0.013	-- --	-- --	-- --	-- --	-- --	-- --
1758	0.040 0.040 -- 0.030	0.06 0.06 -- 0.08	0.021 0.020 -- 0.025	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.20 -- -- --	0.10 -- -- --	<0.05 -- -- --
1759	<0.020	0.03	0.009	--	--	--	--	--	--
1760	0.040 -- 0.040	0.09 -- 0.07	0.029 -- 0.023	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1761	0.040 0.040	0.09 0.09	0.030 0.029	-- --	-- --	-- --	-- --	-- --	-- --
1762	<0.020 -- 0.020	0.02 -- 0.05	0.007 -- 0.015	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1763	0.030 -- 0.030	0.05 -- 0.05	0.017 -- 0.016	-- -- <0.05	-- -- <0.05	-- -- 1.0	-- -- <0.20	-- -- 0.52	-- -- 0.20
1764	<0.020 -- 0.020	0.02 -- 0.01	0.006 -- 0.004	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1765	<0.020 0.020 0.020	0.02 0.02 0.02	0.007 0.007 0.005	<0.05 -- --	<0.05 -- --	0.42 -- --	<0.20 -- --	1.3 -- --	0.38 -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
SP 69	<0.05 --	<0.05 --	<0.05 --	1.2 --	<0.05 --	0.05 --	1.4 1.4	-- --	-- --
SP 70	--	--	--	--	--	--	<0.1	--	--
SP 71	--	--	--	--	--	--	0.5	--	--
1298	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	0.1	--	--
1428	-- --	-- --	-- --	-- --	-- --	-- --	-- <0.1	-- --	-- --
1431	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1491	--	--	--	--	--	--	<0.1	--	--
1756	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.1 -- 0.2	-- 28 --	-- 1000 --
1757	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1758	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.1 -- -- <0.1	-- -- 46 --	-- -- 5400 --
1759	--	--	--	--	--	--	2.2	--	--
1760	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 36 --	-- 2200 --
1761	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1762	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 42 --	-- 5100 --
1763	-- -- 1.5	-- -- <0.05	-- -- <0.05	-- -- 0.14	-- -- <0.05	-- -- 0.08	2.4 -- 1.9	-- 28 --	-- 1200 --
1764	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- 0.2	-- 35 --	-- 2300 --
1765	0.05 -- --	<0.05 -- --	<0.05 -- --	<0.05 -- --	<0.05 -- --	0.17 -- --	1.1 1.0 1.0	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1766	395644076181501	367CNSG	06-01-91	1145	110.00	290	560
1767	395302076182501	300WSCKA	06-01-91	1500	--	870	360
		300WSCKA	10-18-91	1215	--	870	350
1768	395405076180301	300WSCKA	06-01-91	1655	120.00	620	270
		300WSCKA	10-18-91	1110	120.00	620	265
1769	400130076064901	377LDGR	05-20-91	1055	40.00	380	734
		377LDGR	10-22-91	1310	40.00	380	790
1770	400225076072101	377LDGR	05-20-91	1255	100.00	420	794
		377LDGR	10-22-91	1100	100.00	420	800
1772	400106076055801	377LDGR	05-20-91	1425	135.00	415	745
		377LDGR	10-22-91	1408	135.00	415	--
		377LDGR	10-22-91	1410	135.00	415	700
1773	400023076051801	377VNTG	05-20-91	1525	100.00	470	615
		377VNTG	10-16-91	0938	100.00	470	--
		377VNTG	10-16-91	0940	100.00	470	425
1774	400208076055501	377LDGR	05-20-91	1715	100.00	440	856
		377LDGR	10-29-91	1343	100.00	440	--
		377LDGR	10-29-91	1345	100.00	440	850
1775	400046076025201	377KZRS	05-21-91	0950	250.00	480	729
		377KZRS	10-22-91	0858	250.00	480	--
		377KZRS	10-22-91	0900	250.00	480	710
1776	400109076034901	377LDGR	05-21-91	1100	125.00	390	876
		377LDGR	10-16-91	1103	125.00	390	--
		377LDGR	10-16-91	1105	125.00	390	950
1777	400241076035001	377LDGR	05-21-91	1255	220.00	460	618
		377LDGR	10-22-91	1008	220.00	460	--
		377LDGR	10-22-91	1010	220.00	460	700
1778	400144076020101	377ANTM	05-21-91	1425	60.00	515	452
		377ANTM	10-16-91	1403	60.00	515	--
		377ANTM	10-16-91	1405	60.00	515	420
1779	400101076001701	377LDGR	05-21-91	1600	125.00	445	671
		377LDGR	05-21-91	a1601	125.00	445	--
		377LDGR	10-16-91	1323	125.00	445	--
		377LDGR	10-16-91	1325	125.00	445	700
1780	400222076050101	377KZRS	05-22-91	1015	150.00	460	269
		377KZRS	10-29-91	1048	150.00	460	--
		377KZRS	10-29-91	1050	150.00	460	258
1781	400141076045601	377LDGR	05-22-91	1110	150.00	430	608
		377LDGR	10-22-91	1138	150.00	430	--
		377LDGR	10-22-91	1140	150.00	430	525
		377LDGR	10-22-91	a1141	150.00	430	--

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1766	7.0	15.5	4.4	150	31.0	0.010	0.170	0.22	0.14	0.31
1767	7.0	12.5	2.5	120	6.30	0.028	0.080	0.10	--	<0.20
	6.8	11.5	2.4	120	5.40	0.048	0.090	0.12	--	<0.20
1768	5.6	13.5	7.8	14	14.0	<0.004	0.180	0.23	0.13	0.31
	5.7	12.0	6.6	20	12.0	<0.004	0.120	0.15	0.33	0.45
1769	--	15.0	5.2	270	14.0	0.010	0.100	0.13	0.41	0.51
	--	14.5	7.5	270	15.0	0.004	0.170	0.22	0.20	0.37
1770	--	14.5	8.9	240	21.0	0.012	0.120	0.15	0.41	0.53
	--	12.0	8.5	280	17.0	<0.004	0.210	0.27	0.15	0.36
1772	--	13.0	9.4	370	20.0	0.006	0.110	0.14	0.21	0.32
	--	--	--	--	--	--	--	--	--	--
1773	--	13.5	9.3	300	19.0	<0.004	0.210	0.27	0.13	0.34
	--	--	--	--	--	--	--	--	--	--
1773	--	13.0	8.4	220	12.0	0.006	0.100	0.13	0.28	0.38
	--	--	--	--	--	--	--	--	--	--
1774	7.6	13.0	8.9	150	13.0	<0.004	0.070	0.09	0.31	0.38
	--	--	--	--	--	--	--	--	--	--
1774	--	13.5	1.0	180	16.0	0.006	0.130	0.17	0.19	0.32
	--	--	--	--	--	--	--	--	--	--
1775	7.3	13.0	0.6	280	15.0	0.010	0.200	0.26	0.17	0.37
	--	--	--	--	--	--	--	--	--	--
1775	7.2	12.0	6.2	180	21.0	0.012	0.130	0.17	0.29	0.42
	--	--	--	--	--	--	--	--	--	--
1776	--	12.5	7.0	180	20.0	0.016	0.200	0.26	0.12	0.32
	7.2	14.5	7.8	270	8.90	0.008	0.100	0.13	0.30	0.40
1776	--	--	--	--	--	--	--	--	--	--
	7.4	14.5	8.5	280	13.0	<0.004	0.080	0.10	0.41	0.49
1777	7.5	12.5	9.6	230	10.0	0.006	0.100	0.13	0.30	0.40
	--	--	--	--	--	--	--	--	--	--
1778	--	13.0	9.1	230	9.90	<0.004	0.200	0.26	0.04	0.24
	7.7	13.5	9.6	130	15.0	0.006	0.100	0.13	0.32	0.42
1778	--	--	--	--	--	--	--	--	--	--
	7.7	13.0	9.2	110	12.0	<0.004	0.050	0.06	0.38	0.43
1779	7.3	12.0	--	250	17.0	<0.004	0.100	0.13	0.35	0.45
	--	--	--	--	--	--	--	--	--	--
1780	--	--	--	--	--	--	--	--	--	--
	7.4	12.0	--	250	17.0	<0.004	0.070	0.09	0.32	0.39
1780	7.2	12.5	--	82	11.0	<0.004	0.110	0.14	0.21	0.32
	--	--	--	--	--	--	--	--	--	--
1781	7.3	11.0	--	80	9.20	<0.004	0.020	0.03	--	<0.20
	--	--	--	--	--	--	--	--	--	--
1781	7.4	12.5	--	220	12.0	0.006	0.120	0.15	0.26	0.38
	--	--	--	--	--	--	--	--	--	--
1781	--	12.5	--	220	11.0	<0.004	0.200	0.26	0.04	0.24
	--	--	--	--	11.0	<0.004	0.190	0.24	0.13	0.32

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC, (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC, (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC, (μG/L) (04038)
LANCASTER COUNTY									
1766	0.030	0.07	0.022	--	--	--	--	--	--
1767	<0.020 0.020	0.02 0.02	0.007 0.005	-- --	-- --	-- --	-- --	-- --	-- --
1768	<0.020 0.030	0.04 0.05	0.014 0.016	-- --	-- --	-- --	-- --	-- --	-- --
1769	<0.020 0.020	0.03 0.02	0.011 0.005	<0.05 --	<0.05 --	0.12 --	<0.20 --	0.11 --	<0.05 --
1770	<0.020 0.020	0.02 0.01	0.005 0.002	-- --	-- --	-- --	-- --	-- --	-- --
1772	<0.020 -- 0.020	0.02 -- 0.01	0.006 -- 0.003	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1773	<0.020 -- 0.020	0.02 -- 0.02	0.008 -- 0.008	-- -- <0.05	-- -- <0.05	-- -- 0.08	-- -- <0.20	-- -- 0.67	-- -- 0.18
1774	0.030 -- 0.130	0.04 -- 0.11	0.013 -- 0.035	-- -- <0.05	-- -- <0.05	-- -- 0.20	-- -- <0.20	-- -- 0.31	-- -- <0.05
1775	0.260 -- 0.020	0.04 -- 0.02	0.014 -- 0.007	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1776	<0.020 -- 0.020	0.01 -- 0.01	0.003 -- 0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1777	<0.020 -- 0.020	0.01 -- 0.01	0.004 -- 0.004	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1778	0.030 -- 0.030	0.04 -- 0.04	0.014 -- 0.012	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1779	0.030 -- 0.030	0.05 -- 0.05	0.018 -- 0.017	<0.05 -- --	<0.05 -- --	0.35 -- --	<0.20 -- --	0.37 -- --	0.12 -- --
1780	0.140 -- 0.280	0.31 -- 0.37	0.100 -- 0.120	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1781	<0.020 -- 0.020 -- 0.020	0.01 -- -- --	0.004 -- -- -- <0.002 -- -- 0.002	-- -- -- -- -- -- --	-- -- -- -- -- -- --	-- -- -- -- -- -- --	-- -- -- -- -- -- --	-- -- -- -- -- -- --	-- -- -- -- -- -- --

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (μ G/L) (82630)	PROP- AZINE WATER DISS REC (μ G/L) (38535)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN (μ G/L) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1766	--	--	--	--	--	--	0.2	--	--
1767	--	--	--	--	--	--	1.4 1.1	--	--
1768	--	--	--	--	--	--	0.1 <0.1	--	--
1769	<0.05 --	<0.05 --	<0.05 --	0.05 --	<0.05 --	<0.05 --	0.7 0.5	--	--
1770	--	--	--	--	--	--	0.9 0.5	--	--
1772	--	--	--	--	--	--	0.8 -- 0.7	-- 29	-- 300
1773	--	--	--	--	--	--	0.4 -- 0.2	-- 44	-- 1300
1774	--	--	--	--	--	--	0.9 -- 1.1	-- 25	-- 430
1775	--	--	--	--	--	--	0.2 -- 0.2	-- 39	-- 2500
1776	--	--	--	--	--	--	1.9 -- 1.9	-- 46	-- <80
1777	--	--	--	--	--	--	0.2 -- 0.3	-- 27	-- 200
1778	--	--	--	--	--	--	<0.1 -- 0.1	-- 36	-- 510
1779	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	0.10 --	1.0 1.0 0.9	-- 48	-- 270
1780	--	--	--	--	--	--	<0.1 -- <0.1	-- 36	-- 2600
1781	--	--	--	--	--	--	0.5 -- 0.4 --	-- 26	-- <80

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)
LANCASTER COUNTY								
1782	400220076001301	377LDGR	05-22-91	1315	250.00	485	848	
		377LDGR	10-16-91	1443	250.00	485	--	
		377LDGR	10-16-91	1445	250.00	485	900	
1783	400023076013201	377KZRS	05-22-91	1435	85.00	480	763	
		377KZRS	10-16-91	1153	85.00	480	--	
		377KZRS	10-16-91	1155	85.00	480	650	
1784	400017076062301	377VNTG	05-22-91	1645	250.00	380	948	
		377VNTG	10-22-91	1610	250.00	380	950	
1785	400235076020101	377LDGR	05-23-91	1015	70.00	455	702	
		377LDGR	10-17-91	0910	70.00	455	560	
1786	400140076003901	377KZRS	05-23-91	1120	--	450	829	
		377KZRS	10-17-91	0950	--	450	800	
1787	400025076034201	377KZRS	05-23-91	1300	300.00	565	275	
		377KZRS	10-22-91	1455	300.00	565	260	
1788	400054076014101	377KZRS	05-23-91	1425	140.00	455	1130	
		377KZRS	10-17-91	1035	140.00	455	--	
1789	400203076033701	377LDGR	05-23-91	1525	68.00	395	602	
		377LDGR	10-22-91	0935	68.00	395	575	
		377LDGR	10-22-91	a0936	68.00	395	--	
1790	395424076142501	300WSCKA	05-20-91	1100	130.00	605	238	
1791	395312076122801	300WSCKA	05-20-91	1340	300.00	670	222	
		300WSCKA	10-16-91	1320	300.00	670	245	
1792	395331076140201	300WSCKA	05-21-91	1045	325.00	840	197	
		300WSCKA	10-18-91	0945	325.00	840	170	
1793	395431076132501	300WSCKA	05-21-91	1445	--	560	63	
1795	395346076114801	300WSCKA	05-21-91	1345	500.00	500	64	
		300WSCKA	10-16-91	1233	500.00	500	--	
		300WSCKA	10-16-91	1235	500.00	500	60	
		300WSCKA	10-16-91	a1236	500.00	500	--	
1796	395830076134801	367CNSG	05-22-91	1100	25.00	360	817	
		367CNSG	10-16-91	1103	25.00	360	--	
		367CNSG	10-16-91	1105	25.00	360	787	
1797	395852076121301	367CNSG	05-22-91	1140	450.00	440	592	
		367CNSG	05-22-91	a1141	450.00	440	--	
1798	395652076134501	367CNSG	05-22-91	1325	200.00	410	201	
		367CNSG	10-17-91	1203	200.00	410	--	
		367CNSG	10-17-91	1205	200.00	410	320	

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1782	7.3 -- 7.2	13.0 -- 13.0	-- -- --	270 -- 290	16.0 -- 18.0	<0.004 -- <0.004	0.110 -- 0.070	0.14 -- 0.09	0.19 -- 0.36	0.30 -- 0.43
1783	7.2 -- 7.2	13.0 -- 13.0	8.5 -- 8.0	260 -- 270	26.0 -- 23.0	<0.004 -- <0.004	0.110 -- 0.070	0.14 -- 0.09	0.26 -- 0.28	0.37 -- 0.35
1784	7.2 --	14.5 13.5	4.0 3.8	280 290	15.0 11.0	0.008 <0.004	0.120 0.200	0.15 0.26	0.20 0.06	0.32 0.26
1785	7.2 7.4	13.0 12.5	-- --	270 260	11.0 21.0	0.006 <0.004	0.100 0.080	0.13 0.10	0.25 0.26	0.35 0.34
1786	7.2 --	13.5 12.5	-- --	270 320	24.0 21.0	0.006 <0.004	0.120 0.080	0.15 0.10	0.29 0.65	0.41 0.73
1787	6.3 --	12.0 13.0	7.4 8.0	48 5	12.0 9.40	0.006 <0.004	0.120 0.220	0.15 0.28	0.27 0.19	0.39 0.41
1788	7.0 6.5	12.5 12.0	-- --	360 390	21.0 24.0	0.010 <0.004	0.120 0.090	0.15 0.12	0.46 0.64	0.58 0.73
1789	7.4 -- --	13.0 12.5 --	-- -- --	230 270 --	12.0 13.0 13.0	0.008 <0.004 <0.004	0.130 0.220 0.220	0.17 0.28 0.28	0.22 0.10 0.08	0.35 0.32 0.30
1790	--	13.5	6.7	22	12.0	0.006	0.090	0.12	0.36	0.45
1791	6.3 --	14.0 13.0	7.6 7.8	32 26	2.60 2.60	<0.004 <0.004	0.100 0.050	0.13 0.06	0.31 0.37	0.41 0.42
1792	6.2 --	13.5 13.0	4.4 3.7	26 12	6.10 6.30	<0.004 <0.004	0.090 0.090	0.12 0.12	0.40 0.17	0.49 0.26
1793	5.8	15.5	6.8	10	2.90	<0.004	0.100	0.13	0.35	0.45
1795	7.1 -- -- --	13.5 -- 12.0 --	8.1 -- 8.3 --	42 -- 18 --	<0.040 -- 0.040 0.040	0.006 -- <0.004 <0.004	0.090 -- 0.060 0.060	0.12 -- 0.08 0.08	0.28 -- 0.38 0.38	0.37 -- 0.44 0.44
1796	7.2 -- --	15.0 -- 12.5	8.2 -- 8.1	230 -- 210	22.0 -- 19.0	0.006 -- <0.004	0.090 -- 0.060	0.12 -- 0.08	0.57 -- 0.42	0.66 -- 0.48
1797	7.6 --	14.5 --	0.4 --	190 --	0.750 0.750	<0.004 <0.004	0.090 0.090	0.12 0.12	0.28 0.34	0.37 0.43
1798	8.3 -- --	13.0 -- 13.5	8.1 -- 6.4	83 -- 120	2.90 -- 3.60	0.006 -- 0.004	0.080 -- 0.100	0.10 -- 0.13	0.33 -- 0.25	0.41 -- 0.35

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (μG/L) (04038)
LANCASTER COUNTY									
1782	<0.020 -- 0.020	0.01 -- --	0.003 -- <0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1783	0.030 -- 0.030	0.05 -- 0.05	0.016 -- 0.015	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1784	0.030 0.020	0.04 0.03	0.014 0.011	-- --	-- --	-- --	-- --	-- --	-- --
1785	0.030 0.030	0.05 0.04	0.018 0.013	-- --	-- --	-- --	-- --	-- --	-- --
1786	0.060 0.130	0.02 0.01	0.006 0.002	-- --	-- --	-- --	-- --	-- --	-- --
1787	0.030 0.030	0.05 0.06	0.017 0.020	-- --	-- --	-- --	-- --	-- --	-- --
1788	0.030 0.020	0.02 --	0.008 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1789	0.040 0.030 0.030	0.07 0.07 0.07	0.023 0.022 0.022	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1790	<0.020	0.04	0.014	--	--	--	--	--	--
1791	<0.020 0.020	0.04 0.01	0.012 0.002	-- --	-- --	-- --	-- --	-- --	-- --
1792	<0.020 0.030	0.04 0.04	0.014 0.012	-- <0.05	-- <0.05	-- 0.08	-- <0.20	-- 0.09	-- <0.05
1793	<0.020	0.02	0.007	--	--	--	--	--	--
1795	0.030 -- 0.030 0.030	0.06 -- 0.04 0.04	0.021 -- 0.013 0.012	<0.05 -- -- --	<0.05 -- -- --	<0.05 -- -- --	<0.20 -- -- --	<0.05 -- -- --	<0.05 -- -- --
1796	<0.020 -- 0.020	0.02 -- 0.01	0.007 -- 0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1797	<0.020 <0.020	0.02 0.02	0.007 0.006	-- --	-- --	-- --	-- --	-- --	-- --
1798	0.040 -- 0.040	0.09 -- 0.08	0.030 -- 0.027	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1782	--	--	--	--	--	--	1.7	--	--
	--	--	--	--	--	--	--	38	780
	--	--	--	--	--	--	1.1	--	--
1783	--	--	--	--	--	--	0.1	--	--
	--	--	--	--	--	--	--	38	360
	--	--	--	--	--	--	0.1	--	--
1784	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	0.1	--	--
1785	--	--	--	--	--	--	1.0	--	--
	--	--	--	--	--	--	0.8	--	--
1786	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	0.8	--	--
1787	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1788	--	--	--	--	--	--	1.2	--	--
	--	--	--	--	--	--	1.1	--	--
1789	--	--	--	--	--	--	0.5	--	--
	--	--	--	--	--	--	1.0	--	--
	--	--	--	--	--	--	--	--	--
1790	--	--	--	--	--	--	<0.1	--	--
1791	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1792	--	--	--	--	--	--	0.1	--	--
	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	--	--
1793	--	--	--	--	--	--	<0.1	--	--
1795	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
	--	--	--	--	--	--	--	57	1400
	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1796	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	31	1100
	--	--	--	--	--	--	<0.1	--	--
1797	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	--	--
1798	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	44	230
	--	--	--	--	--	--	0.1	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY								
1799	395927076130801		367CNSG	05-23-91	0950	350.00	345	2490
			367CNSG	10-16-91	1345	350.00	345	2810
1800	395714076122401		377AMHP	05-23-91	1115	250.00	360	427
			377AMHP	10-17-91	1058	250.00	360	--
			377AMHP	10-17-91	1100	250.00	360	439
1801	395558076115701		377AMHP	05-23-91	1150	210.00	390	387
1802	395516076120001		367CNSG	05-23-91	1330	--	450	150
1803	395536076141301		300WSCKA	05-23-91	1425	145.00	480	58
			300WSCKA	10-16-91	1445	145.00	480	--
1804	395814076142301		367CNSG	10-18-91	1040	240.00	405	540
1805	395842076092501		367CNSG	10-18-91	1145	30.00	435	413
1806	400607076061301		374ZKCR	10-17-91	0930	232.00	490	900
1807	395839076141601		367CNSG	10-18-91	1320	210.00	410	944
1808	395344076120601		300WSCKA	10-18-91	1430	123.00	525	55
1809	395358076124401		300WSCKA	10-21-91	1028	205.00	510	--
			300WSCKA	10-21-91	1030	205.00	510	108
1810	400008075584901		377LDGR	05-21-91	1535	135.00	500	497
1811	400039075583301		377LDGR	05-21-91	1650	78.00	450	861
1812	400046075591801		377LDGR	05-21-91	1730	--	420	477
			377LDGR	10-16-91	1145	--	420	457
1813	400324075565301		000GRPC	05-22-91	1250	100.00	625	326
			000GRPC	05-22-91	^a 1251	100.00	625	--
			000GRPC	10-15-91	1453	100.00	625	--
			000GRPC	10-15-91	1455	100.00	625	326
1814	400428075572801		000GRDR	05-22-91	1410	100.00	760	137
			000GRDR	10-15-91	1548	100.00	760	--
			000GRDR	10-15-91	1550	100.00	760	163
1815	400103075581701		377LDGR	10-17-91	1320	250.00	440	873
1816	400216075593601		377LDGR	05-22-91	1720	122.00	470	613
			377LDGR	10-16-91	1228	122.00	470	--
			377LDGR	10-16-91	1230	122.00	470	640

^a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1799	7.3 --	13.0 13.5	7.4 5.5	300 290	8.80 9.20	0.008 <0.004	0.110 0.080	0.14 0.10	0.49 0.40	0.60 0.48
1800	7.2 --	14.0 12.5	6.6 5.5	86 94	16.0 16.0	0.010 0.004	0.110 0.110	0.14 0.14	0.53 0.29	0.64 0.40
1801	6.7	12.5	5.6	100	10.0	0.008	0.060	0.08	0.48	0.54
1802	8.3	14.0	8.6	70	2.40	<0.004	0.060	0.08	0.44	0.50
1803	7.3 --	15.5 --	5.2 --	28 16	0.330 0.400	0.012 <0.004	0.140 0.090	0.18 0.12	0.58 0.39	0.72 0.48
1804	--	15.0	--	180	0.350	0.006	0.100	0.13	0.22	0.32
1805	--	14.5	--	--	20.0	0.004	0.120	0.15	0.19	0.31
1806	7.3	12.5	4.6	280	5.10	<0.004	0.080	0.10	0.32	0.40
1807	--	14.5	7.0	270	18.0	<0.004	0.110	0.14	0.53	0.64
1808	--	13.0	9.7	10	3.20	<0.004	0.110	0.14	0.24	0.35
1809	-- --	-- 14.0	-- 0.1	-- 9	-- <0.040	-- 0.010	-- 0.090	-- 0.12	-- 0.36	-- 0.45
1810	7.3	13.0	4.2	200	7.50	0.018	0.130	0.17	0.66	0.79
1811	7.0	13.0	3.8	320	17.0	0.016	0.130	0.17	0.54	0.67
1812	7.6 7.6	13.5 13.5	6.0 6.0	360 180	7.70 7.00	0.014 <0.004	0.130 0.050	0.17 0.06	0.21 0.43	0.34 0.48
1813	6.8 -- -- 6.7	12.5 -- -- 12.5	1.1 -- -- 2.5	81 -- -- 76	2.00 2.00 -- 2.80	0.046 0.046 -- 0.010	0.130 0.130 -- 0.020	0.17 0.17 -- 0.03	0.45 0.45 -- 0.44	0.58 0.58 -- 0.46
1814	6.1 -- 6.0	12.5 -- 12.0	9.2 -- 8.0	30 -- 30	2.20 -- 3.30	0.012 -- <0.004	0.120 -- 0.050	0.15 -- 0.06	0.30 -- 0.24	0.42 -- 0.29
1815	7.2	12.0	2.8	260	11.0	<0.004	0.130	0.17	0.33	0.46
1816	7.5 -- 7.5	13.0 -- 14.0	9.8 -- 8.5	240 -- 240	10.0 -- 9.70	0.008 -- <0.004	0.110 -- 0.070	0.14 -- 0.09	0.42 -- 0.39	0.53 -- 0.46

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (μG/L) (04038)
LANCASTER COUNTY									
1799	0.230 0.250	0.64 0.61	0.210 0.200	-- --	-- --	-- --	-- --	-- --	-- --
1800	<0.020 -- 0.020	0.03 -- 0.03	0.009 -- 0.009	<0.05 -- <0.05	<0.05 -- <0.05	0.07 -- 0.13	<0.20 -- <0.20	0.33 -- 0.55	0.11 -- 0.22
1801	0.040	0.08	0.027	--	--	--	--	--	--
1802	<0.020	0.03	0.009	--	--	--	--	--	--
1803	<0.020 0.020	0.02 --	0.005 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1804	<0.020	0.01	0.003	--	--	--	--	--	--
1805	0.060	0.09	0.030	--	--	--	--	--	--
1806	0.020	--	<0.002	--	--	--	--	--	--
1807	0.030	0.03	0.011	--	--	--	--	--	--
1808	<0.020	0.01	0.004	--	--	--	--	--	--
1809	-- 0.170	-- 0.12	-- 0.040	-- <0.05	-- <0.05	-- <0.05	-- <0.20	-- 0.05	-- <0.05
1810	0.430	0.02	0.007	--	--	--	--	--	--
1811	0.030	0.02	0.006	--	--	--	--	--	--
1812	0.040 0.030	0.05 0.05	0.017 0.017	-- --	-- --	-- --	-- --	-- --	-- --
1813	<0.020 <0.020 -- 0.020	0.02 0.02 -- 0.04	0.007 0.008 -- 0.012	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --
1814	0.070 -- 0.070	0.06 -- 0.06	0.019 -- 0.021	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1815	0.030	0.05	0.015	--	--	--	--	--	--
1816	<0.020 -- 0.020	0.03 -- 0.04	0.010 -- 0.012	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1799	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1800	<0.05 -- <0.05	<0.05 -- <0.05	<0.05 -- <0.05	<0.05 -- <0.05	<0.05 -- <0.05	<0.05 -- <0.05	0.3 -- 0.4	-- 45 --	-- 2500 --
1801	--	--	--	--	--	--	0.6	--	--
1802	--	--	--	--	--	--	<0.1	--	--
1803	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1804	--	--	--	--	--	--	<0.1	--	--
1805	--	--	--	--	--	--	0.2	--	--
1806	--	--	--	--	--	--	1.1	--	--
1807	--	--	--	--	--	--	0.9	--	--
1808	--	--	--	--	--	--	<0.1	--	--
1809	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.1	30 --	210 --
1810	--	--	--	--	--	--	<0.1	--	--
1811	--	--	--	--	--	--	1.2	--	--
1812	-- --	-- --	-- --	-- --	-- --	-- --	0.2 0.4	-- --	-- --
1813	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	<0.1 <0.1 -- <0.1	-- -- 28 --	-- -- 570 --
1814	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 33 --	-- 1400 --
1815	--	--	--	--	--	--	0.4	--	--
1816	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 27 --	-- 310 --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1817	400505075590901	000GBBR	05-23-91	1015	125.00	830	28
		000GBBR	10-16-91	1515	125.00	830	30
1818	400424075590201	000GRDR	05-23-91	1235	255.00	790	334
		000GRDR	10-16-91	1418	255.00	790	--
		000GRDR	10-16-91	1420	255.00	790	342
1819	400342075584701	000GRDR	05-23-91	1415	70.00	680	320
		000GRDR	10-16-91	1333	70.00	680	--
		000GRDR	10-16-91	1335	70.00	680	274
1820	400517075582601	000SRPN	05-23-91	1110	80.00	790	178
		000SRPN	10-16-91	1610	80.00	790	239
1821	400133075570201	377LDGR	05-23-91	1540	--	440	382
		377LDGR	10-17-91	1355	--	440	344
1822	400317075583001	377LDGR	10-17-91	1450	--	560	233
1823	395938076154301	367CNSG	05-20-91	1245	475.00	330	430
		367CNSG	10-21-91	1258	475.00	330	--
		367CNSG	10-21-91	1300	475.00	330	390
1824	395823076171101	367CNSG	05-20-91	1455	--	420	815
		367CNSG	10-21-91	1350	--	420	820
1826	395312076160102	300WSCKA	05-21-91	0955	106.00	920	418
		300WSCKA	10-16-91	1028	106.00	920	--
		300WSCKA	10-16-91	1030	106.00	920	448
1827	395422076153901	300WSCKA	05-21-91	1410	75.00	660	177
		300WSCKA	10-17-91	0848	75.00	660	--
		300WSCKA	10-17-91	0850	75.00	660	186
1828	395539076154201	300WSCKA	05-22-91	1100	--	570	154
		300WSCKA	10-17-91	0955	--	570	180
1829	395554076160201	377AMHP	05-22-91	1300	125.00	390	589
		377AMHP	10-21-91	0933	125.00	390	--
		377AMHP	10-21-91	0935	125.00	390	550
1830	395546076165001	377AMHP	05-22-91	1420	150.00	350	514
		377AMHP	10-17-91	1055	150.00	350	526
1831	395702076153501	367CNSG	05-23-91	0950	--	350	362
1832	395712076172601	377AMHP	05-23-91	1130	225.00	420	445
		377AMHP	10-21-91	1040	225.00	420	515
1833	395738076170001	367CNSG	05-23-91	1240	240.00	365	208
		367CNSG	10-21-91	1128	240.00	365	--
		367CNSG	10-21-91	1130	240.00	365	200

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1817	6.0 5.8	11.5 12.0	8.4 8.1	12 23	0.060 0.090	0.008 <0.004	0.120 0.030	0.15 0.04	0.24 0.37	0.36 0.40
1818	6.5 -- 6.4	12.0 -- 12.0	5.3 -- 5.1	54 -- 67	7.00 -- 6.50	0.030 -- 0.042	0.110 -- 0.060	0.14 -- 0.08	0.27 -- 0.40	0.38 -- 0.46
1819	6.0 -- 6.0	13.5 -- 14.0	9.2 -- 6.8	34 -- 73	12.0 -- 11.0	0.008 -- 0.004	0.110 -- 0.050	0.14 -- 0.06	0.29 -- 0.48	0.40 -- 0.53
1820	7.0 7.0	13.0 12.5	4.2 4.0	80 74	2.00 2.40	0.008 <0.004	0.100 0.060	0.13 0.08	0.32 0.36	0.42 0.42
1821	7.4 7.4	15.5 15.5	6.4 6.0	160 150	4.60 3.30	<0.004 <0.004	0.090 0.110	0.12 0.14	0.44 0.30	0.53 0.41
1822	5.9	13.0	6.1	32	9.00	<0.004	0.100	0.13	0.26	0.36
1823	7.7 -- 7.6	13.0 -- 14.0	0.8 -- 1.9	190 -- 190	0.520 -- 0.350	0.006 -- <0.004	0.100 -- 0.050	0.13 -- 0.06	0.32 -- 0.15	0.42 -- 0.20
1824	7.1 7.2	13.5 15.0	8.1 6.9	280 290	5.40 4.80	0.008 <0.004	0.120 0.050	0.15 0.06	0.36 0.47	0.48 0.52
1826	4.7 -- 4.8	13.0 -- 12.5	1.9 -- --	-- -- --	20.0 -- 25.0	0.016 -- 0.012	0.260 -- 0.320	0.33 -- 0.41	0.45 -- 0.52	0.71 -- 0.84
1827	4.9 -- 5.0	15.0 -- 12.5	8.5 -- --	4 -- --	14.0 -- 14.0	0.006 -- <0.004	0.100 -- 0.020	0.13 -- 0.03	0.34 -- 0.26	0.44 -- 0.28
1828	5.3 5.7	14.0 12.5	6.2 6.4	12 48	11.0 10.0	0.008 <0.004	0.090 0.050	0.12 0.06	0.36 0.45	0.45 0.50
1829	7.2 -- 7.1	14.0 -- 13.0	8.4 -- 9.9	-- -- 190	15.0 -- 15.0	0.006 -- 0.004	0.080 -- 0.060	0.10 -- 0.08	0.39 -- 0.43	0.47 -- 0.49
1830	7.4 7.3	15.0 13.0	0.8 0	220 --	0.110 <0.040	0.016 0.004	0.090 0.040	0.12 0.05	0.42 0.24	0.51 0.28
1831	7.0	13.5	8.5	100	7.50	0.008	0.110	0.14	0.29	0.40
1832	6.8 7.3	14.0 13.5	2.7 2.4	70 120	2.80 0.500	0.024 0.012	0.110 0.060	0.14 0.08	0.27 0.34	0.38 0.40
1833	7.4 -- 7.4	13.5 -- 15.5	6.0 -- 7.6	64 -- 230	5.90 -- 5.80	0.006 -- 0.004	0.110 -- 0.060	0.14 -- 0.08	0.34 -- 0.32	0.45 -- 0.38

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (μG/L) (04038)
LANCASTER COUNTY									
1817	0.050 0.040	0.11 0.09	0.035 0.029	<0.05 --	<0.05 --	<0.05 --	<0.20 --	<0.05 --	<0.05 --
1818	0.030 -- 0.020	0.02 -- 0.03	0.008 -- 0.010	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1819	0.050 -- 0.100	0.08 -- 0.11	0.027 -- 0.035	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1820	0.050 0.040	0.13 0.12	0.042 0.039	-- --	-- --	-- --	-- --	-- --	-- --
1821	<0.020 0.020	0.02 0.01	0.006 0.003	-- --	-- --	-- --	-- --	-- --	-- --
1822	0.050	0.12	0.038	--	--	--	--	--	--
1823	<0.020 -- <0.020	0.02 -- 0.02	0.006 -- 0.006	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1824	<0.020 <0.020	0.01 0.01	0.004 0.002	-- --	-- --	-- --	-- --	-- --	-- --
1826	0.030 -- 0.040	-- -- --	<0.002 -- <0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1827	<0.020 -- 0.020	-- -- --	<0.002 -- <0.002	<0.05 -- --	<0.05 -- --	<0.05 -- --	<0.20 -- --	0.35 -- --	<0.05 -- --
1828	<0.020 0.020	0.01 --	0.003 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1829	0.030 -- 0.030	0.04 -- 0.04	0.014 -- 0.014	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1830	<0.020 0.020	-- --	<0.002 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1831	0.030	0.06	0.021	--	--	--	--	--	--
1832	<0.020 <0.020	0.02 --	0.005 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1833	0.050 -- 0.050	0.11 -- 0.11	0.037 -- 0.035	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1817	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.1 --	-- --	-- --
1818	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- 30	-- 1200
1819	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- 39	-- 3400
1820	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- --	-- --
1821	-- --	-- --	-- --	-- --	-- --	-- --	0.1 0.2	-- --	-- --
1822	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- --	-- --
1823	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- 35	-- 2000
1824	-- --	-- --	-- --	-- --	-- --	-- --	0.2 0.1	-- --	-- --
1826	-- --	-- --	-- --	-- --	-- --	-- --	-- 2.5	-- 65	-- 8800
1827	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	0.1 --	-- 67	-- 5400
1828	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- --	-- --
1829	-- --	-- --	-- --	-- --	-- --	-- --	-- 0.5	-- 28	-- 890
1830	-- --	-- --	-- --	-- --	-- --	-- --	0.2 0.3	-- --	-- --
1831	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- --	-- --
1832	-- --	-- --	-- --	-- --	-- --	-- --	0.3 0.2	-- --	-- --
1833	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 --	-- 36	-- 2400

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μS/CM) (00095)
LANCASTER COUNTY								
1834	395756076153001	377VNTG	05-23-91	1355	75.00	385	610	
1835	395636076161901	367CNSG	05-24-91	1050	--	350	612	
1836	400706076030801	374ZKCR	10-17-91	1040	265.00	490	491	
1837	400539076070701	374ZKCR	10-17-91	1210	630.00	515	447	
1838	395342076164401	300WSCA	05-21-91	1150	--	650	35	
		300WSCA	10-16-91	1135	--	650	45	
1839	400431076003501	377CCKS	05-20-91	1125	240.00	1010	27	
1840	400332076011301	000GRPC	05-20-91	1230	--	695	401	
		000GRPC	05-20-91	a1231	--	695	--	
1841	400616076014501	377LDGR	05-20-91	1440	300.00	530	538	
		377LDGR	10-16-91	1313	300.00	530	--	
		377LDGR	10-16-91	1315	300.00	530	502	
1842	400456076065701	374ZKCR	05-21-91	1005	65.00	440	1020	
		374ZKCR	10-15-91	1143	65.00	440	--	
		374ZKCR	10-15-91	1145	65.00	440	966	
1843	400404076065001	377LDGR	05-21-91	1150	--	400	991	
1844	400309076060301	377ANTM	05-21-91	1410	135.00	485	302	
		377ANTM	10-15-91	1353	135.00	485	--	
		377ANTM	10-15-91	1355	135.00	485	367	
1845	400310076060001	377ANTM	05-21-91	1530	400.00	485	335	
		377ANTM	10-15-91	1300	400.00	485	366	
1846	400342076050201	377LDGR	05-22-91	0935	275.00	460	1040	
		377LDGR	10-21-91	1200	275.00	460	998	
1847	400313076040401	377LDGR	05-22-91	1050	52.00	470	806	
		377LDGR	10-21-91	1118	52.00	470	--	
		377LDGR	10-21-91	1120	52.00	470	546	
1848	400310076023501	377LDGR	05-22-91	1200	--	465	--	
1849	400431076031001	377ANTM	05-22-91	1305	100.00	680	223	
		377ANTM	10-21-91	1033	100.00	680	--	
		377ANTM	10-21-91	1035	100.00	680	228	
1850	400455076040901	377LDGR	05-22-91	1425	100.00	445	305	
		377LDGR	10-15-91	1508	100.00	445	--	
		377LDGR	10-15-91	1510	100.00	445	377	

^a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1834	7.2	13.0	6.0	81	9.90	0.010	0.120	0.15	0.37	0.49
1835	7.6	14.0	6.5	130	29.0	0.006	0.110	0.14	0.38	0.49
1836	7.5	12.5	2.0	200	1.80	0.006	0.080	0.10	0.36	0.44
1837	7.2	13.5	1.9	270	0.040	<0.004	0.080	0.10	0.30	0.38
1838	6.6	12.5	10.0	19	<0.040	0.008	0.100	0.13	0.34	0.44
	6.4	12.0	--	28	0.060	<0.004	0.050	0.06	0.30	0.35
1839	5.6	11.5	5.5	4	0.060	0.012	0.130	0.17	0.15	0.28
1840	5.7	14.0	7.4	26	9.40	0.008	0.120	0.15	0.23	0.35
	--	--	--	--	9.70	0.010	0.120	0.15	0.23	0.35
1841	7.8	13.0	6.8	130	12.0	0.018	0.110	0.14	0.12	0.23
	--	--	--	--	--	--	--	--	--	--
1842	7.9	12.5	6.3	160	12.0	<0.004	0.060	0.08	0.28	0.34
	--	--	--	--	--	--	--	--	--	--
1843	6.7	13.0	6.5	240	39.0	0.006	0.110	0.14	0.24	0.35
	--	--	--	--	--	--	--	--	--	--
1844	7.3	13.0	6.4	290	33.0	<0.004	0.050	0.06	0.36	0.41
	--	--	--	--	--	--	--	--	--	--
1845	6.6	13.0	2.5	520	22.0	0.008	0.110	0.14	0.26	0.37
	--	--	--	--	--	--	--	--	--	--
1846	6.4	13.0	7.3	50	10.0	0.014	0.110	0.14	0.19	0.30
	--	--	--	--	--	--	--	--	--	--
1847	7.8	13.0	2.3	80	9.10	0.056	0.040	0.05	0.39	0.43
	--	--	--	--	--	--	--	--	--	--
1848	6.8	13.0	4.9	77	9.70	0.052	0.110	0.14	0.24	0.35
	8.0	13.0	2.6	81	8.90	0.080	0.020	0.03	0.35	0.37
1849	7.0	13.0	7.5	280	20.0	0.010	0.130	0.17	0.19	0.32
	7.7	12.5	16.0	360	16.0	0.004	0.070	0.09	0.24	0.31
1850	7.4	13.5	9.2	240	21.0	0.010	0.120	0.15	0.20	0.32
	--	--	--	--	--	--	--	--	--	--
1851	7.4	13.0	10.0	210	14.0	0.004	0.060	0.08	0.24	0.30
	--	--	--	--	--	--	--	--	--	--
1852	--	--	--	230	22.0	0.010	0.110	0.14	0.19	0.30
	--	--	--	--	--	--	--	--	--	--
1853	7.2	12.5	0.9	71	0.350	0.006	0.110	0.14	0.12	0.23
	--	--	--	--	--	--	--	--	--	--
1854	6.9	11.5	0.6	94	0.420	0.004	0.070	0.09	0.23	0.30
	--	--	--	--	--	--	--	--	--	--
1855	8.0	12.0	7.7	120	6.50	0.008	0.110	0.14	0.15	0.26
	--	--	--	--	--	--	--	--	--	--
1856	8.0	12.0	6.0	140	7.70	<0.004	0.020	0.03	0.33	0.35
	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC (μG/L) (46342)	AMETRYN WATER, DISS, REC (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (μG/L) (04038)
LANCASTER COUNTY									
1834	0.030	0.04	0.014	--	--	--	--	--	--
1835	0.030	0.06	0.020	<0.05	<0.05	0.10	<0.20	0.16	<0.05
1836	0.020	--	<0.002	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
1837	0.020	--	<0.002	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
1838	<0.020 0.040	0.01 0.02	0.003 0.008	-- --	-- --	-- --	-- --	-- --	-- --
1839	<0.020	0.02	0.006	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
1840	0.040 0.040	0.08 0.09	0.025 0.029	-- --	-- --	-- --	-- --	-- --	-- --
1841	<0.020 -- 0.020	0.02 -- 0.01	0.005 -- 0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1842	0.030 -- 0.030	0.05 -- 0.07	0.017 -- 0.023	2.8 -- --	<0.05 -- --	1.8 -- --	<0.20 -- --	1.0 -- --	<0.05 -- --
1843	0.030	0.04	0.014	--	--	--	--	--	--
1844	0.030 -- 0.040	0.05 -- 0.06	0.017 -- 0.021	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1845	0.030 0.030	0.04 0.05	0.014 0.018	-- --	-- --	-- --	-- --	-- --	-- --
1846	<0.020 0.020	0.02 0.01	0.008 0.003	-- --	-- --	-- --	-- --	-- --	-- --
1847	0.030 -- 0.020	0.02 -- 0.01	0.007 -- 0.003	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1848	0.030	0.05	0.015	--	--	--	--	--	--
1849	0.150 -- 0.060	0.08 -- 0.05	0.026 -- 0.015	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1850	<0.020 -- <0.020	0.03 -- 0.02	0.009 -- 0.008	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1834	--	--	--	--	--	--	<0.1	--	--
1835	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	--	--
1836	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
1837	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
1838	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1839	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
1840	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1841	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.2 -- 0.2	-- 30 --	-- 190 --
1842	<0.05 -- --	<0.05 -- --	0.40 -- --	1.1 -- --	<0.05 -- --	<0.05 -- --	3.6 -- 4.2	-- 27 --	-- 300 --
1843	--	--	--	--	--	--	0.3	--	--
1844	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.2 -- 0.1	-- 44 --	-- 5000 --
1845	-- --	-- --	-- --	-- --	-- --	-- --	0.2 0.2	-- --	-- --
1846	-- --	-- --	-- --	-- --	-- --	-- --	0.1 <0.1	-- --	-- --
1847	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.6 -- 0.5	-- 28 --	-- 410 --
1848	--	--	--	--	--	--	0.2	--	--
1849	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 45 --	-- 4400 --
1850	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.2 -- 0.3	-- 24 --	-- 98 --

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1851	400444076055401	377LDGR	05-22-91	1625	--	420	836
1852	400554076041101	377LDGR	05-23-91	0915	160.00	475	645
		377LDGR	10-16-91	1013	160.00	475	--
		377LDGR	10-16-91	1015	160.00	475	759
1853	400613076030101	377LDGR	05-23-91	1050	93.00	485	590
1854	400507076021401	377ANTM	05-23-91	1140	--	610	61
1855	400400076020601	377CCKS	05-23-91	1255	70.00	875	345
		377CCKS	10-16-91	1430	70.00	875	287
1856	400420076041301	377VNTG	05-23-91	1510	--	510	314
1857	400537076031301	377LDGR	05-23-91	1620	160.00	485	366
		377LDGR	10-16-91	1123	160.00	485	--
		377LDGR	10-16-91	1125	160.00	485	366
1860	400042076111901	367CNSG	05-20-91	1255	175.00	420	829
		367CNSG	05-20-91	a1256	175.00	420	--
		367CNSG	10-21-91	1358	175.00	420	--
		367CNSG	10-21-91	1400	175.00	420	--
1861	400006076124101	367CNSG	05-20-91	1540	--	410	693
		367CNSG	10-15-91	1450	--	410	625
1862	400308076112101	377LDGR	05-21-91	1020	125.00	350	852
		377LDGR	10-18-91	0958	125.00	350	--
		377LDGR	10-18-91	1000	125.00	350	800
1863	400021076111401	367CNSG	05-21-91	1150	200.00	320	755
		367CNSG	10-15-91	1210	200.00	320	765
1864	400040076115401	367CNSG	05-21-91	1345	160.00	360	831
		367CNSG	10-18-91	1235	160.00	360	940
1865	400156076122901	367CNSG	05-21-91	1545	109.00	315	585
		367CNSG	10-21-91	0900	109.00	315	540
1867	400158076113301	374ZKCR	05-22-91	0915	144.00	350	766
		374ZKCR	10-18-91	1100	144.00	350	700
1868	395918076055501	367CNSG	10-17-91	1715	200.00	440	682
1869	400308076123601	374ZKCR	05-22-91	1100	210.00	390	677
1870	400253076135101	377LDGR	05-22-91	1235	--	365	879
1872	400154076144501	367CNSG	05-22-91	1555	--	355	869
		367CNSG	10-21-91	1018	--	355	--
		367CNSG	10-21-91	1020	--	355	850

^a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1851	7.1	14.5	3.1	280	23.0	0.012	0.240	0.31	0.20	0.44
1852	7.1	13.0	6.9	170	14.0	0.008	0.110	0.14	0.12	0.23
	7.0	12.5	5.8	260	13.0	<0.004	0.050	0.06	0.38	0.43
1853	7.2	13.0	8.2	170	11.0	0.008	0.120	0.15	0.09	0.21
1854	5.6	14.0	7.6	10	2.00	0.006	0.130	0.17	0.17	0.30
1855	4.7	15.5	6.8	2	5.50	0.010	0.140	0.18	0.23	0.37
	4.9	13.5	7.0	8	5.30	<0.004	0.060	0.08	0.48	0.54
1856	7.8	15.0	10.0	120	5.10	0.010	0.100	0.13	0.11	0.21
1857	7.5	12.5	8.3	120	7.20	0.014	0.120	0.15	0.20	0.32
	7.8	12.0	7.5	250	6.90	0.004	0.050	0.06	0.28	0.33
1860	6.8	13.0	--	250	12.0	0.024	0.130	0.17	0.28	0.41
	--	--	--	--	15.0	0.018	0.130	0.17	0.34	0.47
	--	13.0	5.8	280	15.0	0.040	0.070	0.09	0.32	0.39
1861	7.0	12.0	9.2	220	8.00	0.008	0.120	0.15	0.20	0.32
	7.2	13.0	8.7	200	12.0	<0.004	0.030	0.04	0.38	0.41
1862	6.9	14.0	2.3	350	15.0	0.014	0.210	0.27	0.16	0.37
	7.5	12.0	1.5	350	15.0	0.004	0.190	0.24	0.27	0.46
1863	7.2	14.5	1.2	260	2.00	0.042	0.130	0.17	0.19	0.32
	7.1	14.5	1.1	280	2.20	0.040	0.040	0.05	0.49	0.53
1864	7.0	13.5	1.7	270	17.0	0.008	0.130	0.17	0.28	0.41
	7.2	14.0	3.3	230	19.0	<0.004	0.110	0.14	0.49	0.60
1865	7.2	14.0	7.2	270	2.20	0.014	0.130	0.17	0.30	0.43
	6.4	14.0	4.3	290	2.50	0.004	0.080	0.10	0.22	0.30
1867	7.2	14.0	8.0	210	10.0	0.010	0.120	0.15	0.27	0.39
	7.5	14.0	7.4	330	11.0	<0.004	0.100	0.13	0.29	0.39
1868	7.5	11.5	--	180	14.0	0.020	0.090	0.12	0.35	0.44
1869	7.1	13.0	9.2	220	7.60	0.010	0.110	0.14	0.30	0.41
1870	7.3	14.0	4.3	270	17.0	0.018	0.120	0.15	0.31	0.43
1872	7.0	13.0	5.2	270	9.70	0.010	0.130	0.17	0.30	0.43
	--	--	--	--	--	--	--	--	--	--
	--	14.0	2.4	290	8.20	0.006	0.070	0.09	0.36	0.43

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1851	--	--	--	--	--	--	0.4	--	--
1852	--	--	--	--	--	--	0.3	--	--
	--	--	--	--	--	--	--	33	<80
	--	--	--	--	--	--	0.3	--	--
1853	--	--	--	--	--	--	0.1	--	--
1854	--	--	--	--	--	--	<0.1	--	--
1855	--	--	--	--	--	--	1.2	--	--
	--	--	--	--	--	--	0.5	--	--
1856	--	--	--	--	--	--	<0.1	--	--
1857	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	--	36	170
	--	--	--	--	--	--	0.1	--	--
1860	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	29	1100
	--	--	--	--	--	--	<0.1	--	--
1861	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1862	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	--	28	260
	--	--	--	--	--	--	0.3	--	--
1863	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1864	--	--	--	--	--	--	0.6	--	--
	--	--	--	--	--	--	0.5	--	--
1865	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1867	--	--	--	--	--	--	0.4	--	--
	--	--	--	--	--	--	0.3	--	--
1868	--	--	--	--	--	--	0.1	--	--
1869	--	--	--	--	--	--	0.3	--	--
1870	--	--	--	--	--	--	2.7	--	--
1872	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	--	34	890
	--	--	--	--	--	--	0.3	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1873	395859076062001	377VNTG	10-17-91	1610	90.00	440	703
1874	400158076133901	367CNSG	05-23-91	1040	--	350	606
		367CNSG	10-21-91	0945	--	350	530
1875	395926076034101	367CNSG	10-17-91	1100	102.00	460	806
1876	400045076134201	367CNSG	05-23-91	1220	50.00	400	720
		367CNSG	10-18-91	1325	50.00	400	800
1877	400017076132001	367CNSG	05-24-91	0900	80.00	430	1320
		367CNSG	10-21-91	1135	80.00	430	--
1879	400030076143001	367CNSG	05-24-91	1045	100.00	395	827
		367CNSG	10-15-91	1535	100.00	395	775
1880	400045076154801	367CNSG	05-24-91	1205	150.00	340	806
		367CNSG	10-21-91	1230	150.00	340	900
1882	395750076105501	377AMHP	05-21-91	1115	60.00	525	265
1884	395949076085501	367CNSG	05-21-91	1520	300.00	455	760
		367CNSG	05-21-91	a1521	300.00	455	--
		367CNSG	10-25-91	1655	300.00	455	840
		367CNSG	10-25-91	a1656	300.00	455	--
1885	395929076105401	367CNSG	05-21-91	1740	77.00	435	310
		367CNSG	10-16-91	1538	77.00	435	--
		367CNSG	10-16-91	1540	77.00	435	300
1886	395835076085501	367CNSG	05-22-91	1155	--	440	430
1888	395739076093701	377AMHP	05-22-91	1500	200.00	540	368
		377AMHP	10-18-91	1120	200.00	540	335
1889	395648076091101	377AMHP	05-22-91	1750	167.00	630	206
		377AMHP	10-25-91	1810	167.00	630	195
1890	395708076110601	367CNSG	05-23-91	1140	--	380	630
1891	395551076103201	377AMHP	05-23-91	1300	275.00	730	102
		377AMHP	10-22-91	1635	275.00	730	105
1892	395329076104101	367CNSG	05-23-91	1600	155.00	480	105
		367CNSG	10-22-91	1508	155.00	480	--
		367CNSG	10-22-91	1510	155.00	480	109
1894	395837076104001	367CNSG	05-24-91	1145	100.00	455	650
		367CNSG	10-21-91	1150	100.00	455	740

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1873	7.6	12.0	0.9	240	5.30	0.044	0.080	0.10	0.39	0.47
1874	7.0 --	15.0 13.0	10.0 --	190 220	10.0 11.0	0.008 0.006	0.120 0.060	0.15 0.08	0.07 0.35	0.19 0.41
1875	7.4	12.0	7.0	160	13.0	<0.004	0.080	0.10	0.48	0.56
1876	6.9 7.2	13.0 14.0	6.2 6.6	170 210	22.0 19.0	0.010 <0.004	0.130 0.100	0.17 0.13	0.20 0.30	0.33 0.40
1877	6.8 --	15.0 12.0	-- 9.0	310 370	47.0 46.0	0.012 0.008	0.120 0.070	0.15 0.09	0.29 0.50	0.41 0.57
1879	7.2 7.2	14.0 14.0	3.2 2.8	210 240	31.0 26.0	0.010 0.004	0.120 0.030	0.15 0.04	0.31 0.48	0.43 0.51
1880	7.0 --	13.0 14.0	9.0 8.1	250 260	10.0 18.0	0.008 0.006	0.130 0.070	0.17 0.09	0.36 0.49	0.49 0.56
1882	5.3	13.0	--	10	7.80	0.006	0.110	0.14	0.49	0.60
1884	7.2 -- 7.4 --	13.0 -- 12.0 --	0.4 -- 2.8 --	270 -- 290 --	5.40 5.30 4.80 4.50	0.190 0.200 0.074 0.062	0.110 0.090 0.180 0.190	0.14 0.12 0.23 0.24	0.41 0.49 0.17 0.16	0.52 0.58 0.35 0.35
1885	7.7 -- 7.2	13.0 -- 12.0	13.0 -- --	110 -- 140	6.50 -- 7.00	0.006 -- 0.010	0.100 -- 0.080	0.13 -- 0.10	0.25 -- 0.32	0.35 -- 0.40
1886	7.6	12.0	7.8	160	9.80	<0.004	0.110	0.14	0.30	0.41
1888	7.1 6.9	15.0 14.5	2.1 2.4	120 94	1.00 1.10	0.230 0.040	0.100 0.080	0.13 0.10	0.44 0.36	0.54 0.44
1889	6.5 6.5	12.0 12.0	2.3 0.2	47 52	0.720 0.850	0.026 0.008	0.100 0.200	0.13 0.26	0.39 0.14	0.49 0.34
1890	7.8	12.0	--	180	2.90	0.180	0.130	0.17	0.97	1.1
1891	5.2 5.1	12.0 13.5	8.6 5.2	10 9	4.00 3.90	0.010 <0.004	0.090 0.230	0.12 0.30	0.55 0.15	0.64 0.38
1892	4.9 -- 5.8	13.0 -- 14.0	8.0 -- 7.0	45 -- 40	2.80 -- 2.20	0.010 -- 0.012	0.110 -- 0.350	0.14 -- 0.45	0.67 -- 0.25	0.78 -- 0.60
1894	6.2 6.8	13.5 13.0	-- 5.6	240 240	11.0 15.0	0.006 0.004	0.100 0.070	0.13 0.09	0.37 0.29	0.47 0.36

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (µG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DEISO- PROPYL ATRAZIN WATER, DISS, REC (µG/L) (04038)
LANCASTER COUNTY									
1873	0.020	--	<0.002	--	--	--	--	--	--
1874	<0.020 0.020	0.03 0.02	0.009 0.008	<0.05 --	<0.05 --	<0.05 --	<0.20 --	0.57 --	<0.05 --
1875	0.030	0.06	0.019	<0.05	<0.05	<0.05	<0.20	0.18	<0.05
1876	<0.020 <0.020	-- 0.01	<0.002 0.003	-- --	-- --	-- --	-- --	-- --	-- --
1877	<0.020 0.020	0.02 0.02	0.005 0.005	-- <0.05	-- <0.05	-- 0.29	-- <0.20	-- 0.44	-- 0.09
1879	<0.020 <0.020	0.01 0.02	0.003 0.006	-- --	-- --	-- --	-- --	-- --	-- --
1880	<0.020 0.060	0.02 0.10	0.006 0.034	-- --	-- --	-- --	-- --	-- --	-- --
1882	0.040	0.08	0.026	--	--	--	--	--	--
1884	<0.020 <0.020 0.020 0.100	0.02 0.02 0.01 0.03	0.008 0.007 0.004 0.010	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --
1885	0.030 -- 0.180	0.07 -- 0.13	0.022 -- 0.042	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1886	0.030	0.06	0.021	--	--	--	--	--	--
1888	<0.020 <0.020	0.02 --	0.006 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1889	<0.020 0.020	0.02 0.04	0.007 0.013	<0.05 --	<0.05 --	<0.05 --	<0.20 --	0.12 --	<0.05 --
1890	<0.020	0.02	0.007	--	--	--	--	--	--
1891	<0.020 <0.020	0.02 0.01	0.007 0.003	-- --	-- --	-- --	-- --	-- --	-- --
1892	0.350 -- 0.260	0.04 -- 0.37	0.013 -- 0.120	-- -- <0.05	-- -- <0.05	-- -- <0.05	-- -- <0.20	-- -- 0.09	-- -- <0.05
1894	0.030 0.020	0.05 0.04	0.018 0.013	-- --	-- --	-- --	-- --	-- --	-- --

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (μ G/L) (82630)	PROP- AZINE WATER DISS REC (μ G/L) (38535)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN (μ G/L) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1873	--	--	--	--	--	--	<0.1	--	--
1874	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	0.1 0.1	-- --	-- --
1875	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	0.1	--	--
1876	-- --	-- --	-- --	-- --	-- --	-- --	0.7 0.8	-- --	-- --
1877	-- <0.05	-- <0.05	-- <0.05	-- 0.06	-- <0.05	-- <0.05	0.8 0.8	-- --	-- --
1879	-- --	-- --	-- --	-- --	-- --	-- --	0.3 0.2	-- --	-- --
1880	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 0.1	-- --	-- --
1882	--	--	--	--	--	--	<0.1	--	--
1884	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	<0.1 <0.1 <0.1 <0.1	-- -- -- --	-- -- -- --
1885	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 39 --	-- 1000 --
1886	--	--	--	--	--	--	<0.1	--	--
1888	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1889	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.1 <0.1	-- --	-- --
1890	--	--	--	--	--	--	<0.1	--	--
1891	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1892	-- -- <0.05	-- -- <0.05	-- -- <0.05	-- -- <0.05	-- -- <0.05	-- -- <0.05	<0.1 -- <0.1	-- 54 --	-- 7700 --
1894	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1895	395615076093601	377AMHP	05-24-91	1405	--	750	220
1896	395455076095101	367CNSG	05-24-91	1615	--	470	420
		367CNSG	05-24-91	a1616	--	470	--
1897	395302076093201	300WSCKA	05-24-91	1845	185.00	660	90
		300WSCKA	10-21-91	1558	185.00	660	--
		300WSCKA	10-21-91	a1559	185.00	660	--
		300WSCKA	10-21-91	1600	185.00	660	89
1898	395405076085802	367CNSG	05-28-91	1150	--	550	265
		367CNSG	10-17-91	1220	--	550	230
1899	395454076105901	377AMHP	05-28-91	1405	--	460	75
1900	395524076092001	377AMHP	05-28-91	1525	130.00	600	187
		377AMHP	10-18-91	1235	130.00	600	175
1901	395904076094601	367CNSG	05-28-91	1805	120.00	460	810
		367CNSG	10-21-91	1413	120.00	460	--
		367CNSG	10-21-91	1415	120.00	460	950
1903	395418076105901	367CNSG	05-29-91	1135	70.00	445	440
		367CNSG	10-18-91	1615	70.00	445	450
1904	395233076110401	300WSCKA	05-29-91	1445	--	700	230
		300WSCKA	10-22-91	1255	--	700	240
1905	400030076080801	367CNSG	05-20-91	1110	750.00	375	560
1906	400015076084701	367CNSG	05-20-91	1250	--	405	745
1907	400048076095001	367CNSG	05-20-91	1400	200.00	380	800
		367CNSG	10-21-91	1208	200.00	380	--
		367CNSG	10-21-91	1210	200.00	380	824
1908	400134076100401	377LDGR	05-20-91	1500	122.00	370	750
		377LDGR	10-16-91	0948	122.00	370	--
		377LDGR	10-16-91	0950	122.00	370	746
		377LDGR	10-16-91	a0951	122.00	370	--
1909	400110076082401	377LDGR	05-21-91	1015	60.00	400	1420
1910	400217076080401	377LDGR	05-21-91	1200	300.00	420	705
1911	400225076092601	377LDGR	05-21-91	1315	122.00	410	790
1912	400159076101701	367CNSG	05-21-91	1415	108.00	385	605
		367CNSG	05-21-91	a1416	108.00	385	--
		367CNSG	10-21-91	0915	108.00	385	913

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1895	6.8	12.0	--	52	1.80	0.006	0.110	0.14	0.34	0.45
1896	7.5	12.5	0.5	170	1.30	0.012	0.090	0.12	0.36	0.45
	--	--	--	--	1.30	0.008	0.090	0.12	0.45	0.54
1897	5.1	13.0	10.0	9	5.20	<0.004	0.100	0.13	0.56	0.66
	--	--	--	--	--	--	--	--	--	--
	5.7	12.0	8.7	6	5.10	0.004	0.060	0.08	0.34	0.40
1898	5.4	13.0	--	--	8.00	<0.004	0.140	0.18	0.52	0.66
	5.0	12.5	5.1	12	7.30	<0.004	0.080	0.10	0.32	0.40
1899	5.6	12.0	--	8	5.60	<0.004	0.150	0.19	0.51	0.66
1900	5.5	12.0	--	7	15.0	<0.004	0.140	0.18	0.52	0.66
	5.3	12.0	--	7	13.0	<0.004	0.110	0.14	0.38	0.49
1901	7.2	12.5	0.3	250	7.70	0.016	0.130	0.17	0.67	0.80
	--	--	--	--	--	--	--	--	--	--
	6.9	12.0	0.3	330	8.00	0.022	0.060	0.08	0.28	0.34
1903	7.4	14.5	7.2	120	12.0	<0.004	0.130	0.17	0.57	0.70
	7.6	12.5	6.6	150	11.0	0.004	0.080	0.10	0.42	0.50
1904	4.9	13.0	7.5	--	20.0	<0.004	0.140	0.18	0.60	0.74
	--	12.5	8.6	9	18.0	<0.004	0.230	0.30	0.08	0.31
1905	7.6	13.5	2.0	230	<0.040	0.006	0.120	0.15	0.27	0.39
1906	7.3	13.0	7.1	260	12.0	0.008	0.130	0.17	0.30	0.43
1907	6.9	14.0	8.8	260	17.0	0.006	0.140	0.18	0.27	0.41
	--	--	--	--	--	--	--	--	--	--
	7.4	13.0	7.1	270	18.0	0.006	0.070	0.09	0.36	0.43
1908	6.9	13.0	6.7	280	17.0	0.006	0.130	0.17	0.09	0.22
	--	--	--	--	--	--	--	--	--	--
	7.2	12.5	7.2	280	15.0	<0.004	0.030	0.04	0.42	0.45
	--	--	--	--	15.0	<0.004	0.040	0.05	0.42	0.46
1909	6.8	17.0	1.6	420	23.0	0.040	1.30	1.7	1.1	2.4
1910	7.1	13.0	6.0	290	14.0	0.008	0.140	0.18	0.29	0.43
1911	7.0	13.5	6.2	320	6.80	0.008	0.140	0.18	0.33	0.47
1912	7.2	13.0	5.1	300	14.0	0.008	0.140	0.18	0.29	0.43
	--	--	--	--	14.0	0.008	0.130	0.17	0.26	0.39
	7.2	13.5	5.5	360	13.0	<0.004	0.060	0.08	0.29	0.35

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC, (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC, (µG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC, (µG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC, (µG/L) (04038)
LANCASTER COUNTY									
1895	<0.020	0.02	0.007	--	--	--	--	--	--
1896	<0.020 <0.020	0.02 0.02	0.006 0.006	<0.05 --	<0.05 --	<0.05 --	<0.20 --	0.19 --	<0.05 --
1897	<0.020 -- -- 0.030	0.02 -- -- 0.01	0.006 -- -- 0.003	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --
1898	0.020 <0.020	-- --	<0.002 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1899	0.070	0.02	0.006	--	--	--	--	--	--
1900	<0.020 <0.020	-- 0.01	<0.002 0.004	-- --	-- --	-- --	-- --	-- --	-- --
1901	<0.020 -- <0.020	-- -- --	<0.002 -- <0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1903	0.060 0.030	0.05 0.04	0.015 0.014	-- --	-- --	-- --	-- --	-- --	-- --
1904	<0.020 0.020	-- --	<0.002 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1905	<0.020	0.01	0.004	--	--	--	--	--	--
1906	<0.020	0.01	0.004	--	--	--	--	--	--
1907	<0.020 -- 0.030	-- -- 0.01	<0.002 -- 0.002	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1908	<0.020 -- <0.020 <0.020	0.01 -- 0.02 0.02	0.004 -- 0.005 0.005	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --
1909	0.260	0.71	0.230	--	--	--	--	--	--
1910	<0.020	0.02	0.005	--	--	--	--	--	--
1911	0.030	0.04	0.014	--	--	--	--	--	--
1912	<0.020 <0.020 0.020	0.01 -- 0.02	0.004 <0.002 0.006	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (μ G/L) (82630)	PROP- AZINE WATER DISS REC (μ G/L) (38535)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	TRIAZIN SCREEN (ELISA) WAT, DIS REC, AS ATRAZIN (μ G/L) (34756)	RA-222 2 SIGMA WATER, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1895	--	--	--	--	--	--	<0.1	--	--
1896	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	0.1 0.1	-- --	-- --
1897	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	-- -- -- --	0.3 -- -- 0.2	-- 47 48 --	-- 5100 5700 --
1898	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1899	--	--	--	--	--	--	<0.1	--	--
1900	-- --	-- --	-- --	-- --	-- --	-- --	<0.1 <0.1	-- --	-- --
1901	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.6 -- 0.4	-- 42 --	-- 4200 --
1903	-- --	-- --	-- --	-- --	-- --	-- --	1.4 0.8	-- --	-- --
1904	-- --	-- --	-- --	-- --	-- --	-- --	2.8 3.5	-- --	-- --
1905	--	--	--	--	--	--	<0.1	--	--
1906	--	--	--	--	--	--	0.6	--	--
1907	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	<0.1 -- <0.1	-- 34 --	-- 1500 --
1908	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.9 -- 0.7 0.7	-- 29 -- --	-- 330 -- --
1909	--	--	--	--	--	--	<0.1	--	--
1910	--	--	--	--	--	--	1.8	--	--
1911	--	--	--	--	--	--	<0.1	--	--
1912	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	0.2 -- 0.2	-- -- --	-- -- --

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1913	400246076101001	377LDGR	05-21-91	1530	--	360	836
1914	400244076092501	377LDGR	05-22-91	0915	125.00	400	610
		377LDGR	10-16-91	1048	125.00	400	--
		377LDGR	10-16-91	1050	125.00	400	595
1915	400255076075201	377KZRS	05-22-91	1030	375.00	370	810
		377KZRS	05-22-91	a1031	375.00	370	--
		377KZRS	10-16-91	1128	375.00	370	--
		377KZRS	10-16-91	a1129	375.00	370	--
		377KZRS	10-16-91	1130	375.00	370	858
1916	400400076080001	377LDGR	05-22-91	1145	--	385	390
		377LDGR	10-18-91	1305	--	385	682
1917	400407076085401	377LDGR	05-22-91	1230	62.00	370	1090
		377LDGR	10-16-91	1208	62.00	370	--
		377LDGR	10-16-91	1210	62.00	370	1420
1918	400411076102201	377LDGR	05-22-91	1345	240.00	395	900
		377LDGR	10-17-91	1048	240.00	395	--
		377LDGR	10-17-91	1050	240.00	395	979
1919	400406076113001	374ZKCR	05-22-91	1445	300.00	395	505
		374ZKCR	10-18-91	1240	300.00	395	522
1920	400359076122801	374ZKCR	05-24-91	0915	78.00	400	655
		374ZKCR	10-16-91	1248	78.00	400	--
		374ZKCR	10-16-91	1250	78.00	400	792
1921	400429076114701	377LDGR	05-24-91	0945	150.00	400	970
		377LDGR	10-18-91	1155	150.00	400	1040
1922	400443076103501	377LDGR	05-24-91	1030	700.00	380	390
		377LDGR	10-18-91	1110	700.00	380	443
1923	400444076085801	377LDGR	05-24-91	1130	150.00	410	875
		377LDGR	10-18-91	0915	150.00	410	826
1924	400445076075601	374ZKCR	05-24-91	1200	70.00	415	800
		374ZKCR	10-16-91	1343	70.00	415	--
		374ZKCR	10-16-91	1345	70.00	415	1040
1925	400530076081701	374ZKCR	05-24-91	1300	90.00	485	585
		374ZKCR	10-17-91	1008	90.00	485	--
		374ZKCR	10-17-91	1010	90.00	485	835
1926	395908076014801	377CCKS	05-21-91	0840	--	590	70
1927	395845076023301	377CCKS	05-21-91	0945	--	690	133
1928	395932076031801	367CNSG	05-21-91	1050	--	450	830
1929	400000076034401	377VNTG	05-21-91	1150	125.00	485	971
		377VNTG	10-16-91	0903	125.00	485	--
		377VNTG	10-16-91	0905	125.00	485	936

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1913	7.2	13.0	8.1	310	13.0	0.008	0.130	0.17	0.28	0.41
1914	7.8	14.5	--	220	14.0	0.008	0.120	0.15	0.14	0.26
	7.2	14.0	--	220	14.0	0.004	0.040	0.05	0.41	0.45
1915	8.2	14.0	4.0	260	18.0	0.048	0.110	0.14	0.17	0.28
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	7.4	12.5	2.7	260	14.0	0.036	0.050	0.06	0.40	0.45
1916	7.4	17.0	8.7	250	16.0	0.010	0.110	0.14	0.13	0.24
	7.2	13.0	8.6	270	11.0	<0.004	0.110	0.14	0.31	0.42
1917	7.0	13.0	6.0	250	21.0	0.006	0.130	0.17	0.26	0.39
	7.3	13.0	0.8	310	13.0	0.006	0.080	0.10	0.38	0.46
1918	7.4	12.5	5.3	280	23.0	0.006	0.120	0.15	0.49	0.61
	7.3	13.0	6.6	330	19.0	<0.004	0.090	0.12	0.39	0.48
1919	8.2	13.5	1.2	230	0.850	0.008	0.120	0.15	0.35	0.47
	7.7	15.0	3.2	270	0.880	<0.004	0.100	0.13	0.35	0.45
1920	7.1	14.0	3.4	250	13.0	0.006	0.120	0.15	0.51	0.63
	7.3	13.5	3.4	300	15.0	0.004	0.050	0.06	0.41	0.46
1921	7.6	13.0	5.0	420	7.20	0.006	0.130	0.17	0.50	0.63
	7.2	13.0	5.3	360	8.00	<0.004	0.110	0.14	0.47	0.58
1922	7.9	14.0	1.1	200	0.230	0.012	0.130	0.17	0.42	0.55
	7.8	14.0	1.8	230	0.350	0.006	0.100	0.13	0.32	0.42
1923	7.1	14.0	--	24	31.0	0.014	0.130	0.17	0.50	0.63
	7.6	12.5	--	250	28.0	<0.004	0.100	0.13	0.35	0.45
1924	7.0	15.0	5.0	290	31.0	0.008	0.130	0.17	0.30	0.43
	7.2	14.5	3.5	330	31.0	0.010	0.120	0.15	0.51	0.63
1925	7.1	14.0	5.8	240	7.00	0.006	0.130	0.17	0.32	0.45
	7.3	14.0	3.2	350	9.20	0.006	0.100	0.13	0.55	0.65
1926	--	11.5	7.8	6	2.00	0.008	0.120	0.15	0.35	0.47
1927	5.0	12.5	0.8	5	6.50	0.014	0.130	0.17	0.58	0.71
1928	7.1	13.0	2.2	270	21.0	0.006	0.090	0.12	0.31	0.40
1929	7.1	14.0	7.3	250	19.0	0.008	0.080	0.10	0.32	0.40
	7.1	14.5	5.5	250	16.0	<0.004	0.100	0.13	0.22	0.32

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO ₄) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (μG/L) (46342)	AMETRYN WATER, DISS, REC, (μG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (μG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (μG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (μG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (μG/L) (04038)
LANCASTER COUNTY									
1913	<0.020	0.02	0.008	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
1914	0.030	0.05	0.017	--	--	--	--	--	--
	0.020	0.05	0.015	--	--	--	--	--	--
1915	<0.020	0.03	0.010	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	0.020	0.04	0.012	--	--	--	--	--	--
1916	0.030	0.02	0.007	--	--	--	--	--	--
	0.020	0.02	0.005	--	--	--	--	--	--
1917	0.030	0.05	0.015	--	--	--	--	--	--
	0.030	0.09	0.028	--	--	--	--	--	--
1918	0.030	0.03	0.010	--	--	--	--	--	--
	0.030	--	<0.002	--	--	--	--	--	--
1919	<0.020	--	<0.002	--	--	--	--	--	--
	0.020	--	<0.002	--	--	--	--	--	--
1920	<0.020	--	<0.002	--	--	--	--	--	--
	0.020	0.03	0.009	--	--	--	--	--	--
1921	0.030	0.01	0.003	--	--	--	--	--	--
	0.020	0.03	0.011	--	--	--	--	--	--
1922	0.080	0.02	0.008	--	--	--	--	--	--
	0.040	0.04	0.012	--	--	--	--	--	--
1923	0.060	0.08	0.027	--	--	--	--	--	--
	0.060	0.11	0.037	--	--	--	--	--	--
1924	0.070	0.14	0.047	--	--	--	--	--	--
	0.040	0.25	0.081	--	--	--	--	--	--
1925	0.100	0.24	0.079	--	--	--	--	--	--
	0.080	0.11	0.036	--	--	--	--	--	--
1926	<0.020	--	<0.002	--	--	--	--	--	--
1927	<0.020	--	<0.002	--	--	--	--	--	--
1928	0.030	0.05	0.015	--	--	--	--	--	--
1929	0.040	0.09	0.029	--	--	--	--	--	--
	0.030	0.03	0.010	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (μ G/L) (82630)	PROP- AZINE WATER DISS REC (μ G/L) (38535)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN (μ G/L) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1913	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
1914	--	--	--	--	--	--	1.1	--	--
	--	--	--	--	--	--	--	27	110
	--	--	--	--	--	--	1.6	--	--
1915	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	--	44	2100
	--	--	--	--	--	--	--	36	2100
	--	--	--	--	--	--	0.2	--	--
1916	--	--	--	--	--	--	0.3	--	--
	--	--	--	--	--	--	0.6	--	--
1917	--	--	--	--	--	--	0.1	--	--
	--	--	--	--	--	--	--	31	610
	--	--	--	--	--	--	<0.1	--	--
1918	--	--	--	--	--	--	0.6	--	--
	--	--	--	--	--	--	--	38	690
	--	--	--	--	--	--	0.4	--	--
1919	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1920	--	--	--	--	--	--	0.2	--	--
	--	--	--	--	--	--	--	29	460
	--	--	--	--	--	--	0.2	--	--
1921	--	--	--	--	--	--	0.5	--	--
	--	--	--	--	--	--	0.6	--	--
1922	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	<0.1	--	--
1923	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	0.2	--	--
1924	--	--	--	--	--	--	0.8	--	--
	--	--	--	--	--	--	--	32	940
	--	--	--	--	--	--	0.8	--	--
1925	--	--	--	--	--	--	<0.1	--	--
	--	--	--	--	--	--	--	38	1100
	--	--	--	--	--	--	<0.1	--	--
1926	--	--	--	--	--	--	<0.1	--	--
1927	--	--	--	--	--	--	<0.1	--	--
1928	--	--	--	--	--	--	0.3	--	--
1929	--	--	--	--	--	--	0.1	--	--
	--	--	--	--	--	--	--	35	1200
	--	--	--	--	--	--	0.2	--	--

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1930	395655076071701	000GRGS	05-21-91	1420	--	840	266
		000GRGS	10-16-91	1420	--	840	272
1931	395838076054301	377AMHP	05-21-91	1305	--	560	100
		377AMHP	10-17-91	1555	--	560	126
1932	395829076022901	000GRGS	05-21-91	1705	200.00	690	345
1933	395856076042501	377VNTG	05-22-91	1045	--	475	376
		377VNTG	05-22-91	a1046	--	475	--
1934	395613076075501	377CCKS	05-22-91	1325	260.00	860	144
		377CCKS	10-16-91	1405	260.00	860	148
1935	395641076075901	377CCKS	05-22-91	1415	165.00	900	179
		377CCKS	10-17-91	1330	165.00	900	183
1936	395756076073001	377AMHP	05-22-91	1510	275.00	520	177
		377AMHP	10-16-91	1128	275.00	520	--
		377AMHP	10-16-91	1130	275.00	520	176
1937	395937076044001	367CNSG	05-22-91	1615	--	420	776
1938	395952076014501	377ANTM	05-22-91	1655	51.00	480	774
		377ANTM	10-15-91	1708	51.00	480	--
		377ANTM	10-15-91	1710	51.00	480	787
1939	395927076014001	377VNTG	05-22-91	1540	95.00	480	506
		377VNTG	10-15-91	1543	95.00	480	--
		377VNTG	10-15-91	1545	95.00	480	378
1940	395939076011001	377VNTG	05-23-91	0920	--	470	560
		377VNTG	10-17-91	0940	--	470	554
		377VNTG	10-17-91	a0941	--	470	--
1941	395921076002601	377CCKS	05-23-91	1025	--	600	72
1942	395949076061001	377VNTG	05-23-91	1155	94.50	430	680
		377VNTG	10-16-91	1648	94.50	430	--
		377VNTG	10-16-91	1650	94.50	430	657
1943	395943076080801	367CNSG	05-23-91	1350	--	450	665
1944	395756076071401	377AMHP	05-23-91	1520	--	560	187
1945	395749076060201	377CCKS	05-23-91	1610	125.00	770	137
		377CCKS	10-16-91	1745	125.00	770	84
1946	395254076205301	300WSCKA	10-18-91	1555	100.00	565	190
1947	400026076024301	377VNTG	10-16-91	0905	150.00	430	525
1948	400040076035601	377VNTG	10-16-91	1025	100.00	385	480

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1930	3.7 4.4	13.0 12.5	8.4 6.0	-- 0	7.10 8.00	0.006 <0.004	0.100 0.090	0.13 0.12	0.65 0.60	0.75 0.69
1931	5.5 5.5	13.0 12.0	7.2 4.4	15 14	6.00 8.80	0.014 <0.004	0.060 0.080	0.08 0.10	0.34 0.42	0.40 0.50
1932	6.8	15.0	--	70	4.00	0.078	0.100	0.13	0.32	0.42
1933	6.7 --	14.5 --	-- --	130 --	2.90 2.80	<0.004 <0.004	0.070 0.090	0.09 0.12	0.33 0.48	0.40 0.57
1934	5.9 5.2	13.5 14.5	7.7 7.2	5 10	10.0 10.0	0.006 <0.004	0.110 0.080	0.14 0.10	0.69 0.42	0.80 0.50
1935	5.5 5.2	14.0 13.0	3.0 6.9	6 11	7.70 7.80	0.006 <0.004	0.110 0.080	0.14 0.10	0.35 0.46	0.46 0.54
1936	7.2 -- 7.6	13.5 -- 13.5	0.4 -- 0.2	50 -- 62	0.500 -- 0.210	0.006 -- 0.008	0.100 -- 0.210	0.13 -- 0.27	0.26 -- 0.21	0.36 -- 0.42
1937	6.9	12.5	--	270	17.0	<0.004	0.070	0.09	0.37	0.44
1938	7.2 -- 7.1	13.5 -- 14.0	6.2 -- 5.6	200 -- 220	23.0 -- 20.0	<0.004 -- <0.004	0.090 -- 0.100	0.12 -- 0.13	0.35 -- 0.34	0.44 -- 0.44
1939	7.7 -- 7.6	13.0 -- 13.0	7.3 -- 5.7	150 -- 150	18.0 -- 16.0	0.010 -- <0.004	0.070 -- 0.100	0.09 -- 0.13	0.41 -- 0.30	0.48 -- 0.40
1940	7.4 7.4 --	14.0 12.5 --	4.3 3.7 --	190 190 --	7.80 7.40 --	0.006 <0.004 --	0.070 0.100 --	0.09 0.13 --	0.41 0.28 --	0.48 0.38 --
1941	8.4	14.0	6.1	8	1.40	0.006	0.080	0.10	0.32	0.40
1942	7.3 -- --	14.0 -- 13.5	7.1 -- 5.4	230 -- 220	14.0 -- 12.0	0.006 -- <0.004	0.090 -- 0.100	0.12 -- 0.13	0.46 -- 0.36	0.55 -- 0.46
1943	7.5	13.5	--	210	19.0	0.006	0.090	0.12	0.35	0.44
1944	5.9	13.5	7.9	10	6.30	0.006	0.080	0.10	0.34	0.42
1945	5.2 --	13.0 13.5	4.9 3.3	9 31	4.20 2.00	<0.004 <0.004	0.090 0.080	0.12 0.10	0.39 --	0.48 <0.20
1946	5.6	15.0	7.1	8	11.0	<0.004	0.120	0.15	0.39	0.51
1947	7.4	13.0	6.6	230	13.0	<0.004	0.080	0.10	0.36	0.44
1948	7.7	13.5	8.2	210	10.0	<0.004	0.080	0.10	0.29	0.37

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ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (µG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (µG/L) (04038)
LANCASTER COUNTY									
1930	<0.020 0.020	-- --	<0.002 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1931	0.090 0.020	0.05 0.02	0.016 0.006	-- --	-- --	-- --	-- --	-- --	-- --
1932	<0.020	0.05	0.016	--	--	--	--	--	--
1933	0.040 0.030	0.05 0.05	0.016 0.015	-- --	-- --	-- --	-- --	-- --	-- --
1934	0.030 0.020	-- --	<0.002 <0.002	<0.05 --	<0.05 --	<0.05 --	<0.20 --	0.07 --	<0.05 --
1935	0.040 0.020	0.01 --	0.003 <0.002	-- --	-- --	-- --	-- --	-- --	-- --
1936	<0.020 -- 0.030	0.02 -- 0.02	0.007 -- 0.006	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1937	0.030	0.03	0.011	--	--	--	--	--	--
1938	0.030 -- 0.030	0.05 -- 0.04	0.017 -- 0.014	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1939	0.060 -- 0.050	0.16 -- 0.11	0.051 -- 0.036	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1940	0.040 0.040 --	0.09 0.07 --	0.029 0.023 --	<0.05 -- --	<0.05 -- --	0.07 -- --	<0.20 -- --	0.08 -- --	<0.05 -- --
1941	0.030	0.04	0.012	--	--	--	--	--	--
1942	0.040 -- 0.030	0.07 -- 0.05	0.023 -- 0.016	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
1943	<0.020	0.05	0.018	--	--	--	--	--	--
1944	<0.020	0.06	0.020	--	--	--	--	--	--
1945	<0.020 0.020	0.02 0.01	0.005 0.002	-- --	-- --	-- --	-- --	-- --	-- --
1946	0.020	0.02	0.007	--	--	--	--	--	--
1947	0.030	0.02	0.007	--	--	--	--	--	--
1948	0.030	0.02	0.008	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV ($\mu\text{G/L}$) (39415)	METRI- BUZIN SENCOR WATER DISSOLV ($\mu\text{G/L}$) (82630)	PROP- AZINE WATER DISS REC ($\mu\text{G/L}$) (38535)	PRO- METON, WATER, DISS, REC ($\mu\text{G/L}$) (04037)	PRO- METRYN, WATER, DISS, REC ($\mu\text{G/L}$) (04036)	SI- MAZINE, WATER, DISS, REC ($\mu\text{G/L}$) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN ($\mu\text{G/L}$) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1930	--	--	--	--	--	--	<0.1 <0.1	--	--
1931	--	--	--	--	--	--	<0.1 <0.1	--	--
1932	--	--	--	--	--	--	<0.1	--	--
1933	--	--	--	--	--	--	<0.1 <0.1	--	--
1934	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.1 <0.1	--	--
1935	--	--	--	--	--	--	<0.1 <0.1	--	--
1936	--	--	--	--	--	--	<0.1 -- <0.1	-- 53	-- 6500
1937	--	--	--	--	--	--	0.6	--	--
1938	--	--	--	--	--	--	0.3 -- 0.4	-- 37	-- 450
1939	--	--	--	--	--	--	<0.1 -- <0.1	-- 29	-- 220
1940	0.08 --	<0.05 --	<0.05 --	0.24 --	<0.05 --	<0.05 --	0.3 -- 0.4	--	--
1941	--	--	--	--	--	--	<0.1	--	--
1942	--	--	--	--	--	--	0.3 -- 0.6	-- 32	-- 730
1943	--	--	--	--	--	--	0.6	--	--
1944	--	--	--	--	--	--	<0.1	--	--
1945	--	--	--	--	--	--	<0.1 <0.1	--	--
1946	--	--	--	--	--	--	1.2	--	--
1947	--	--	--	--	--	--	0.1	--	--
1948	--	--	--	--	--	--	0.3	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY							
1949	400219076045901	377LDGR	10-29-91	1143	163.00	450	--
		377LDGR	10-29-91	1145	163.00	450	320
1950	395415076142701	300WSCKA	10-21-91	1115	150.00	620	104
1951	395455076142901	300WSCKA	10-21-91	1145	150.00	570	73
1952	395607076120401	367CNSG	10-21-91	1310	400.00	380	833
1953	395653076134801	367CNSG	10-21-91	1345	400.00	415	673
1954	395903076065901	367CNSG	10-16-91	1605	--	385	578
1955	395456076154401	300WSCKA	10-16-91	1445	120.00	600	820
1956	395932076155701	367CNSG	10-18-91	1100	300.00	370	858
1957	400556076020801	377VNTG	10-16-91	1640	13.40	610	195
1958	400430076003301	377CCKS	10-21-91	1410	165.00	1005	17
1959	400303076010101	377LDGR	10-21-91	1540	97.00	520	387
1960	400112076120901	377LDGR	10-15-91	1330	200.00	375	730
1961	395816076091801	377VNTG	10-24-91	1228	420.00	430	--
		377VNTG	10-24-91	1230	420.00	430	345
1962	395706076111601	367CNSG	10-24-91	1500	70.00	380	570
1963	395616076092601	377AMHP	10-24-91	1700	325.00	770	172
1964	395509076103901	367CNSG	10-25-91	1055	140.00	450	215
		367CNSG	10-25-91	a1056	140.00	450	--
1965	395438076095401	367CNSG	10-25-91	1355	73.00	520	780
1966	400342076093701	374ZKCR	10-18-91	1000	75.00	370	933
1967	400308076092801	377LDGR	10-18-91	1405	60.00	360	837
1968	400145076075901	377LDGR	10-18-91	1450	60.00	425	542
1969	400014076090301	367CNSG	10-21-91	1043	56.00	390	--
		367CNSG	10-21-91	1045	56.00	390	899
1970	400012076073901	377KZRS	10-21-91	1140	65.00	390	803
1971	400110076080501	377LDGR	10-21-91	1250	200.00	410	675

a Sequential replicate sample for quality assurance check. Actual time is same as preceding sample.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	NITRO- GEN, NITRATE (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
LANCASTER COUNTY										
1949	-- 8.1	-- 11.0	-- 7.6	-- 100	-- 12.0	-- <0.004	-- 0.170	-- 0.22	-- 0.05	-- 0.22
1950	--	13.0	8.6	8	6.00	0.006	0.190	0.24	0.57	0.76
1951	--	12.5	9.3	5	5.10	0.004	0.070	0.09	0.31	0.38
1952	--	14.0	4.6	280	20.0	0.008	0.080	0.10	0.17	0.25
1953	--	13.0	5.5	240	3.60	0.016	0.070	0.09	0.22	0.29
1954	7.2	13.0	0.3	240	0.040	<0.004	0.110	0.14	0.33	0.44
1955	7.2	15.0	6.9	290	13.0	<0.004	0.060	0.08	0.28	0.34
1956	7.0	16.0	4.8	290	16.0	0.010	0.120	0.15	0.49	0.61
1957	4.9	16.5	4.2	22	5.60	<0.004	0.050	0.06	0.69	0.74
1958	5.3	12.0	8.7	4	0.110	0.004	0.070	0.09	0.41	0.48
1959	7.4	12.5	3.2	150	6.00	0.004	0.070	0.09	0.25	0.32
1960	7.2	12.0	3.3	270	13.0	0.004	0.040	0.05	0.46	0.50
1961	-- 7.6	-- 11.5	-- 0.3	-- 78	-- 6.40	-- 0.350	-- 0.230	-- 0.30	-- 0.08	-- 0.31
1962	7.0	11.0	--	160	16.0	<0.004	0.230	0.30	0.13	0.36
1963	4.9	12.0	8.5	6	12.0	<0.004	0.240	0.31	0.16	0.40
1964	7.2 --	12.5 --	7.5 --	95 --	2.60 2.80	<0.004 <0.004	0.190 0.180	0.24 0.23	0.10 0.15	0.29 0.33
1965	7.3	13.0	9.1	200	12.0	<0.004	0.200	0.26	0.33	0.53
1966	7.1	14.5	7.4	--	20.0	<0.004	0.120	0.15	0.43	0.55
1967	7.3	14.0	6.3	280	19.0	<0.004	0.110	0.14	0.47	0.58
1968	7.6	14.0	8.4	200	15.0	<0.004	0.110	0.14	0.28	0.39
1969	-- 7.0	-- 13.0	-- 5.6	-- 340	-- 12.0	-- <0.004	-- 0.070	-- 0.09	-- 0.40	-- 0.47
1970	7.1	12.5	--	270	19.0	<0.004	0.040	0.05	0.37	0.41
1971	7.4	12.5	5.2	270	9.00	<0.004	0.060	0.08	0.20	0.26

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHATE, TOTAL (MG/L AS PO4) (00650)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	AMETRYN WATER, DISS, REC, (µG/L) (38401)	ATRA- ZINE, WATER, DISS, REC (µG/L) (39632)	CYANA- ZINE, WATER, DISS, REC (µG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DEISO- PROPYL ATRAZINE WATER, DISS, REC (µG/L) (04038)
LANCASTER COUNTY									
1949	-- 0.030	-- 0.07	-- 0.024	-- --	-- --	-- --	-- --	-- --	-- --
1950	0.070	0.15	0.050	--	--	--	--	--	--
1951	0.030	0.01	0.003	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
1952	<0.020	0.01	0.002	--	--	--	--	--	--
1953	0.020	0.01	0.002	--	--	--	--	--	--
1954	<0.020	--	<0.002	--	--	--	--	--	--
1955	0.090	0.19	0.062	--	--	--	--	--	--
1956	0.020	0.03	0.009	--	--	--	--	--	--
1957	0.030	0.04	0.012	--	--	--	--	--	--
1958	<0.020	--	<0.002	--	--	--	--	--	--
1959	0.020	0.02	0.005	--	--	--	--	--	--
1960	0.020	0.04	0.012	--	--	--	--	--	--
1961	-- <0.020	-- 0.01	-- 0.002	-- <0.05	-- <0.05	-- <0.05	-- <0.20	-- 0.22	-- <0.05
1962	0.020	0.04	0.012	--	--	--	--	--	--
1963	0.020	0.01	0.004	--	--	--	--	--	--
1964	<0.020 <0.020	0.01 0.01	0.003 0.003	<0.05 --	<0.05 --	<0.05 --	<0.20 --	0.08 --	<0.05 --
1965	0.030	0.01	0.003	--	--	--	--	--	--
1966	0.020	0.02	0.008	-- *	--	--	--	--	--
1967	0.020	0.02	0.006	--	--	--	--	--	--
1968	0.020	0.01	0.003	--	--	--	--	--	--
1969	-- <0.020	-- 0.01	-- 0.002	-- <0.05	-- <0.05	-- 0.25	-- <0.20	-- 0.84	-- <0.05
1970	0.060	0.09	0.031	--	--	--	--	--	--
1971	0.020	0.02	0.007	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Pequea-Mill Creek GIS Project

LOCAL IDENT- IFIER	METO- LACHLOR WATER DISSOLV (μ G/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (μ G/L) (82630)	PROP- AZINE WATER DISS REC (μ G/L) (38535)	PRO- METON, WATER, DISS, REC (μ G/L) (04037)	PRO- METRYN, WATER, DISS, REC (μ G/L) (04036)	SI- MAZINE, WATER, DISS, REC (μ G/L) (04035)	TRIAZIN SCREEN (ELISA) WAT,DIS REC,AS ATRAZIN (μ G/L) (34756)	RA-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	RADON 222 TOTAL (PCI/L) (82303)
LANCASTER COUNTY									
1949	-- --	-- --	-- --	-- --	-- --	-- --	-- <0.1	25 --	300 --
1950	--	--	--	--	--	--	<0.1	--	--
1951	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	--	--
1952	--	--	--	--	--	--	3.8	--	--
1953	--	--	--	--	--	--	<0.1	--	--
1954	--	--	--	--	--	--	<0.1	--	--
1955	--	--	--	--	--	--	<0.1	--	--
1956	--	--	--	--	--	--	1.2	--	--
1957	--	--	--	--	--	--	<0.1	--	--
1958	--	--	--	--	--	--	<0.1	--	--
1959	--	--	--	--	--	--	0.2	--	--
1960	--	--	--	--	--	--	0.4	--	--
1961	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.1	64 --	5000 --
1962	--	--	--	--	--	--	<0.1	--	--
1963	--	--	--	--	--	--	<0.1	--	--
1964	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.05 --	<0.1 <0.1	-- --	-- --
1965	--	--	--	--	--	--	0.2	--	--
1966	--	--	--	--	--	--	--	--	--
1967	--	--	--	--	--	--	0.3	--	--
1968	--	--	--	--	--	--	<0.1	--	--
1969	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- <0.05	-- 0.11	-- 0.8	35 --	1400 --
1970	--	--	--	--	--	--	0.1	--	--
1971	--	--	--	--	--	--	0.6	--	--

< Actual value is known to be less than the value shown.

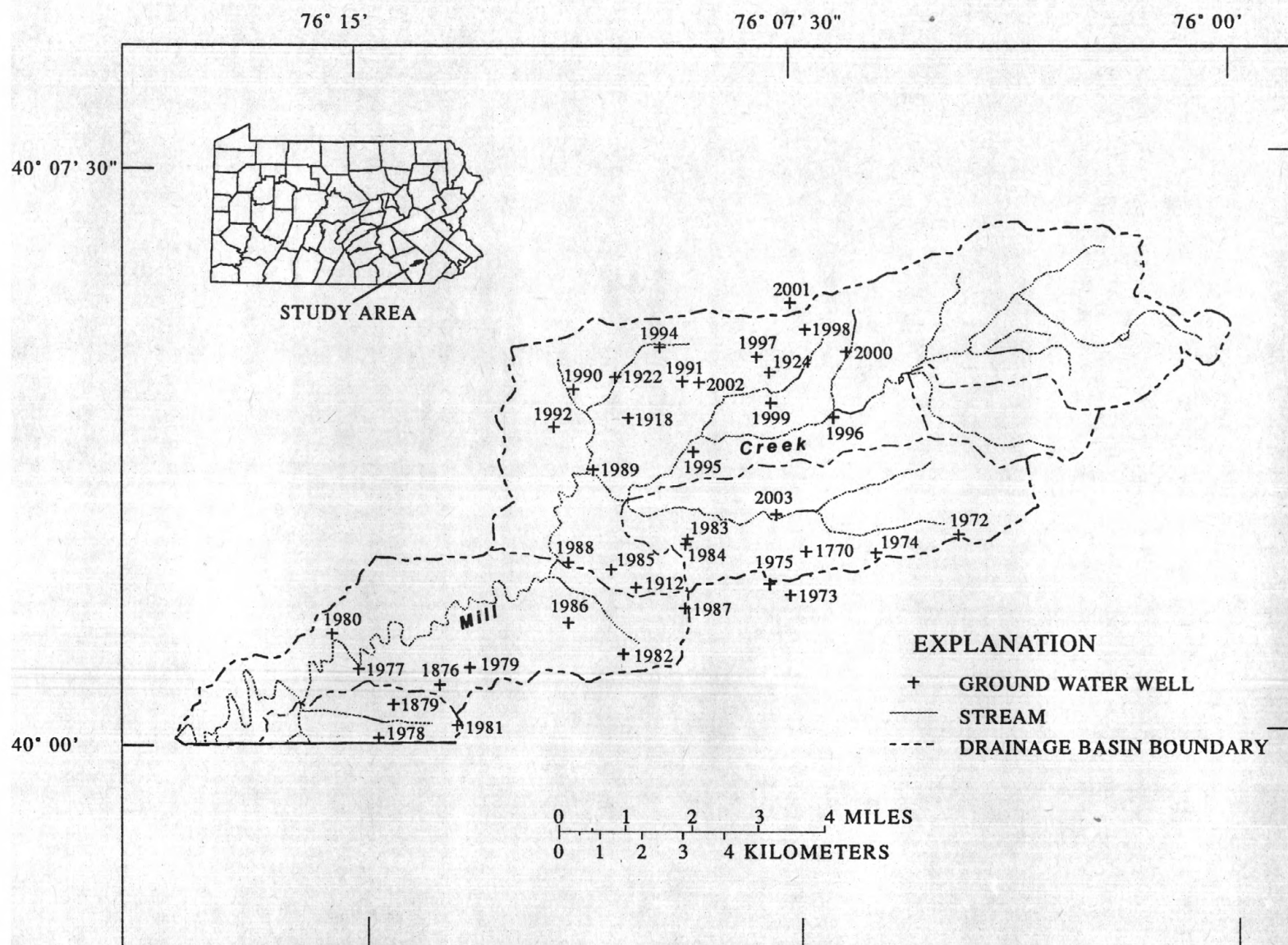


Figure 13.--Location of ground-water sampling sites for the Mill Creek project, Lancaster County, Pa.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

REMARKS.--The data presented on the next three pages contain data collected from wells in Lancaster County as part of the Mill Creek project. Additional data collected as part of this project may be found on pages 203-206 and 222-226.

LOCAL IDENT- IFIER	STATION NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
LANCASTER COUNTY								
1978	400004076144601	--	08-19-92	1500	10.72	200	621	7.1
1981	400013076132401	--	08-19-92	1255	20.35	40	682	7.0
1879	400030076143001	367CNSG	08-19-92	1410	30.00	100	802	7.2
1876	400045076134201	367CNSG	08-19-92	1205	20.19	50	754	7.0
1979	400058076131001	--	08-20-92	1055	27.13	200	806	7.2
1977	400058076150601	--	08-19-92	1100	16.42	150	600	7.4
1982	400107076103101	--	08-19-92	1300	15.95	34	640	6.7
1980	400126076153301	--	08-20-92	1145	7.22	85	910	6.9
1986	400132076112701	--	08-19-92	1125	27.96	440	650	7.1
1987	400142076092701	--	08-19-92	1127	31.88	320	650	7.1
1973	400151076073801	--	08-20-92	1045	2.00	45	750	6.4
1912	400159076101701	367CNSG	08-19-92	1217	41.40	108	690	6.8
1975	400200076075901	377LDGR	08-18-92	1345	62.79	--	610	7.5
1985	400213076104201	--	08-19-92	1340	31.30	120	600	6.7
1988	400219076112601	--	08-19-92	1459	22.60	98	620	6.6
1974	400223076060901	--	08-20-92	1125	26.47	140	950	6.6
1984	400232076092601	--	08-19-92	0920	56.40	--	840	7.5
1770	400225076072101	377LDGR	08-18-92	1430	20.51	100	700	7.2
1983	400236076092301	--	08-19-92	1026	39.17	49	540	7.4
2003	400254076075101	--	08-18-92	1145	160.37	375	855	7.2
1989	400331076105901	--	08-18-92	1545	12.94	175	600	7.3
1995	400344076091601	--	08-18-92	1455	37.28	--	830	7.4
1992	400405076113901	--	08-18-92	1220	--	150	443	7.2
1996	400409076065101	--	08-19-92	0915	--	--	800	7.1
1918	400411076102201	377LDGR	08-18-92	1130	15.30	240	932	7.0

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

DATE	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	TRIAZIN SCREEN (ELISA) WAT,WH REC,AS ATRAZIN (UG/L) (34757)
LANCASTER COUNTY										
1978	13.0	<0.010	6.50	0.010	--	<0.20	--	<0.010	<0.010	--
1981	13.5	<0.010	20.0	<0.010	--	<0.20	--	0.040	0.020	0.1
1879	14.5	--	--	--	--	--	--	--	--	--
1876	13.0	<0.010	19.0	<0.010	--	<0.20	--	<0.010	0.010	0.7
1979	17.5	<0.010	31.0	0.010	--	<0.20	--	<0.010	<0.010	0.6
1977	20.5	<0.010	12.0	0.010	--	<0.20	--	<0.010	<0.010	2
1982	13.5	<0.010	14.0	<0.010	--	<0.20	--	0.010	<0.010	--
1980	13.0	<0.010	24.0	<0.010	--	<0.20	--	0.010	<0.010	0.3
1986	17.0	0.030	10.0	0.010	--	<0.20	--	<0.010	<0.010	0.2
1987	17.0	<0.010	11.0	<0.010	--	<0.20	--	<0.010	0.010	0.4
1973	15.5	<0.010	20.0	<0.010	--	<0.20	--	0.020	<0.010	0.8
1912	13.0	<0.010	13.0	<0.010	--	<0.20	--	0.010	<0.010	0.1
1975	17.0	--	--	--	--	--	--	--	--	1
1985	15.0	<0.010	10.0	0.080	--	<0.20	--	<0.010	0.010	0.6
1988	14.0	0.020	7.50	0.020	0.18	0.20	7.7	0.060	0.030	--
1974	19.0	<0.010	7.40	<0.010	--	<0.20	--	<0.010	0.020	1
1984	14.5	<0.010	15.0	<0.010	--	<0.20	--	<0.030	0.020	--
1770	17.5	<0.010	14.0	0.010	--	<0.02	--	0.010	<0.010	--
1983	12.0	<0.010	16.0	<0.010	--	<0.20	--	0.020	0.020	--
2003	13.0	0.030	17.0	<0.010	--	<0.20	--	0.010	<0.010	0.1
1989	13.0	<0.010	13.0	<0.010	--	<0.20	--	0.010	<0.010	--
1995	13.0	0.050	6.00	<0.010	--	<0.20	--	<0.010	<0.010	0.0
1992	12.0	<0.010	2.30	<0.010	--	<0.20	--	<0.010	<0.010	0.0
1996	15.5	<0.010	2.40	0.020	--	<0.20	--	<0.010	<0.010	--
1918	7.0	<0.010	18.0	0.010	0.19	0.20	18	<0.010	0.010	0.2

< Actual value is known to be less than the value shown.

ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT SPECIAL STUDY SITES

Mill Creek Project

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)
LANCASTER COUNTY								
1999	400421076075501		377LDGR	08-18-92	1055	16.70	125	480
1990	400434076111801		--	08-17-92	1445	--	220	754
2002	400438076090901		--	08-20-92	1200	7.25	60	540
1991	400439076092601		--	08-18-92	1635	29.60	123	807
1922	400443076103501		377LDGR	08-19-92	0905	15.95	700	443
1924	400445076075601		374ZKCR	08-18-92	0849	4.68	70	1050
1997	400457076080901		--	08-18-92	0944	--	--	470
2000	400500076063701		--	08-20-92	0943	--	120	690
1994	400506076094901		--	08-18-92	1020	5.40	--	681
1998	400518076071901		--	08-20-92	0902	45.00	--	790
2001	400539076073401		--	08-20-92	1010	--	--	900

DATE	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	TRIAZIN SCREEN (ELISA) WAT, WH REC, AS ATRAZIN (UG/L) (34757)
LANCASTER COUNTY									
1999	7.6	12.0	<0.010	13.0	0.020	<0.02	<0.010	0.010	2
1990	7.5	13.5	<0.010	9.70	<0.010	<0.20	0.010	<0.010	--
2002	7.4	16.5	<0.010	20.0	<0.010	<0.20	0.050	0.040	0.5
1991	7.3	12.0	<0.010	20.0	<0.010	<0.20	0.010	0.010	0.4
1922	7.5	12.0	<0.010	0.340	<0.010	<0.20	<0.010	<0.010	0.0
1924	7.1	19.0	<0.010	38.0	<0.010	<0.20	0.090	0.080	0.7
1997	7.8	17.5	<0.010	11.0	<0.010	<0.20	<0.010	<0.010	0.4
2000	7.3	14.0	<0.010	18.0	0.010	<0.20	<0.010	0.010	--
1994	7.1	7.5	<0.010	<0.050	<0.010	<0.20	<0.010	<0.010	--
1998	7.5	13.5	0.040	6.60	0.010	<0.20	<0.010	<0.010	0.3
2001	7.1	14.5	<0.010	17.0	<0.010	<0.20	0.020	<0.010	2

< Actual value is known to be less than the value shown.

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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