

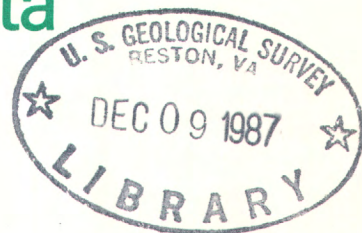
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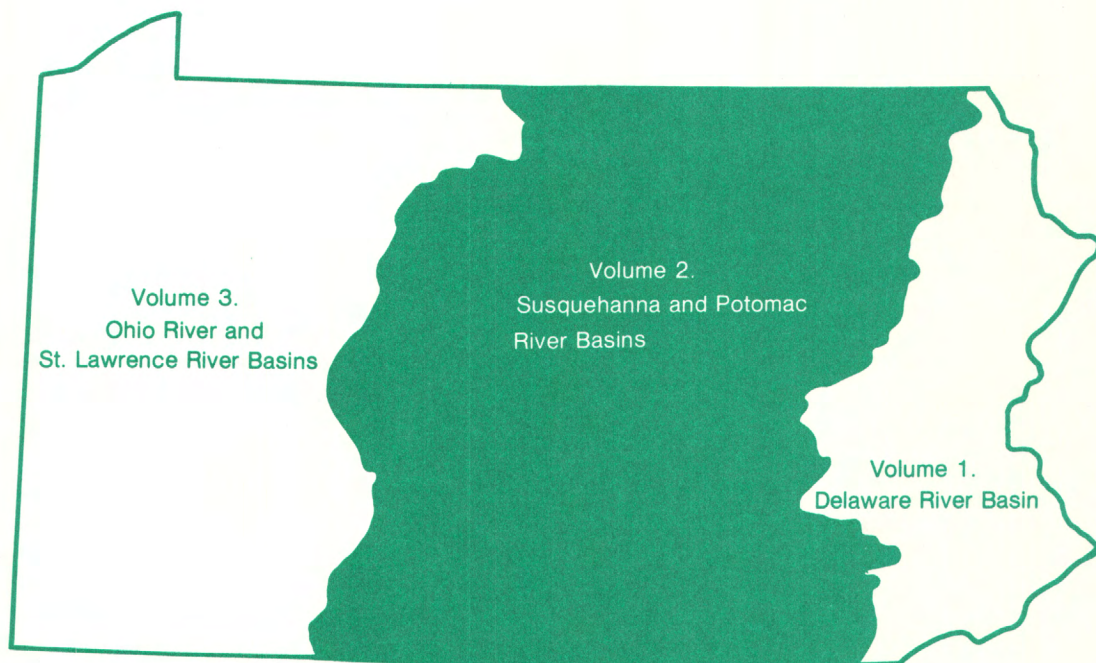
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# Water Resources Data Pennsylvania Water Year 1985



Volume 2. Susquehanna and Potomac River Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-85-2  
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 1985

1984

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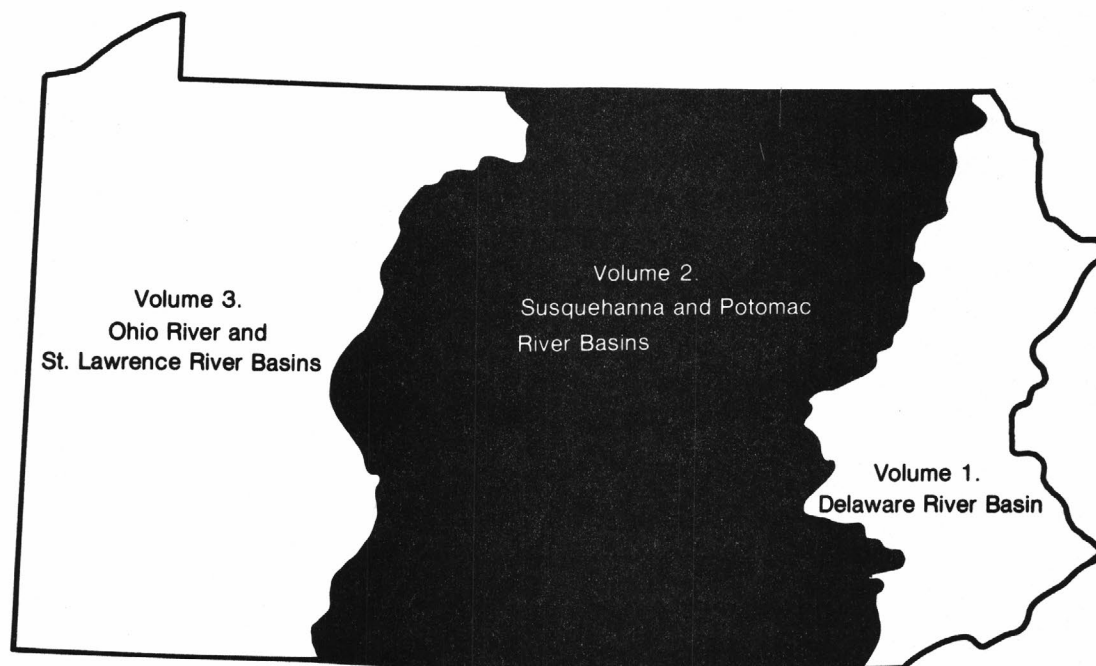




# Water Resources Data Pennsylvania Water Year 1985

## Volume 2. Susquehanna and Potomac River Basins

by W.C. Loper, T.E. Behrendt, W.P. Schaffstall, and R.A. Hainly



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-85-2  
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



UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to  
District Chief, Water Resources Division  
U.S. Geological Survey  
P.O. Box 1107  
Harrisburg, Pennsylvania 17108



## 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; Thomas H. Yorke, Subdistrict Chief, Harrisburg Subdistrict; Clayton D. Kauffman, Chief of Hydrologic Data Section, Harrisburg Subdistrict, and Robert A. Hainly, Hydrologist-in-Charge, 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:

Donald C. Bartoo	Douglas C. Chichester	Scott A. Hoffman	William D. Pope
Carolyn J. Beard	Randall R. Conger	Joanne V. Irvin	William C. Roth
Albert E. Becher	Randall R. Durlin	Milford S. Johnson	Lettie L. Weight
Mary A. Biggard	David K. Fishel	John F. Kerestes	
Elizabeth M. Cain	Kevin G. Guttormson	Robert L. Morningstar	



<b>REPORT DOCUMENTATION PAGE</b>	<b>1. REPORT NO.</b> USGS/WRD/HD-87/266	<b>2.</b>	<b>3. Recipient's Accession No.</b>
<b>4. Title and Subtitle</b> Water Resources Data for Pennsylvania Water Year 1985 Volume 2. Susquehanna and Potomac River Basins			<b>5. Report Date</b> September 1987
<b>7. Author(s)</b> W.C. Loper, T.E. Behrendt, W.P. Schaffstall, and R.A. Hainly			<b>6.</b>
<b>9. Performing Organization Name and Address</b> U.S. Geological Survey, Water Resources Division P.O. Box 1107 Harrisburg, PA 17108			<b>8. Performing Organization Rept. No.</b> USGS/WDR-PA-85-2
			<b>10. Project/Task/Work Unit No.</b>
			<b>11. Contract(C) or Grant(G) No.</b> (C) (G)
<b>12. Sponsoring Organization Name and Address</b> U.S. Geological Survey, Water Resources Division P.O. Box 1107 Harrisburg, PA 17108			<b>13. Type of Report &amp; Period Covered</b> Annual Oct. 1, 1984 to Sept. 30, 1985
			<b>14.</b>
<b>15. Supplementary Notes</b>  Prepared in cooperation with the State of Pennsylvania and other agencies			
<b>16. Abstract (Limit: 200 words)</b> Water resources data for the 1985 water year for Pennsylvania consist of records of discharge and water quality of streams; contents of lakes and reservoirs; and water levels, and water quality of ground-water wells. This volume contains records for water discharge at 95 stations; contents at 13 lakes and reservoirs, water quality at 33 gaging stations; and water levels at 25 network observation wells and 12 project wells. Also included are data for 13 crest-stage and 96 low-flow stations. Water-quality data for 2 surface-water stations, and 21 water-level stations are also published. Locations of these sites are shown on figures 6-9. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses and represent 10 discharge sites and 115 ground-water quality sites. These data together with the data in Volume 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.			
<b>17. Document Analysis a. Descriptors</b> *Pennsylvania, *Hydrologic data, *Groundwater, *Surface waters, *Water Quality, Gaging stations, Streamflow, Flow Rates, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Water analysis, Water levels, Water wells, Data collections, Sites.  <b>b. Identifiers/Open-Ended Terms</b>          <b>c. COSATI Field/Group</b>			
<b>18. Availability Statement</b> No restrictions on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22161		<b>19. Security Class (This Report)</b> Unclassified	<b>21. No. of Pages</b> 361
		<b>20. Security Class (This Page)</b> Unclassified	<b>22. Price</b>

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

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## INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and federal agencies, obtains 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, Volume 1, 2, and 3."

This report, Volume 2, includes records on both surface and ground water in the Susquehanna and Potomac River Basins. Specifically, it contains: (1) Discharge records for 95 streamflow-gaging stations, for 106 partial-record or miscellaneous streamflow stations, and for 13 crest-stage, partial-record streamflow stations; (2) stage and content records for 13 lakes and reservoirs; (3) water-quality records for 26 streamflow-gaging stations, for 11 ungaged streamsites, and for 136 wells or springs; and (4) water-level records for 37 observation wells.

This series of annual reports for Pennsylvania began with the 1961 water year report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground-water, and ground-water levels.

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 through 1970 water years, the data were published in two 5-year reports. Data prior to 1961 are included in two reports: "Compilation of Records of Surface Waters of the United States through 1950," and "Compilation of Records of Surface Waters of the United States, October 1950 to September 1960." Data for Pennsylvania are published in Parts 1, 3, 4. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report PA-85-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, 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 Information Specialist, telephone (717) 782-3851.

## 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 acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

The Pennsylvania State Department of Environmental Resources, Arthur A. Davis, Secretary through the following:

- Office of Resources Management, James R. Grace, Deputy Secretary;
- Bureau of Water Resources Management, John E. McSparran, Director;
- Bureau of Topographic and Geologic Survey, Donald M. Hoskins, Director;
- Office of Environmental Protection, Mark M. McClellan, Deputy Secretary;
- Bureau of Water Quality Management, Daniel B. Drawbaugh, Acting Director;
- Bureau of Mining and Reclamation, Ernest F. Giovannitti, Director.

Susquehanna River Basin Commission, Robert J. Bielo, Executive Director;

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

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

Lancaster County Planning Commission, John R. Ahlfeld, Planning Director;

City of Harrisburg, Stephen R. Reed, Mayor.

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

Corps of Engineers, U.S. Army, in collection of records for 53 gaging stations;  
National Weather Service, NOAA, U.S. Department of Commerce;  
Soil Conservation Service, U.S. Department of Agriculture.

The following organizations aided in collecting records: Municipality of Lancaster, P.H. Glatfelter Co., Pennsylvania Power and Light Co., Safe Harbor Water Power Corp., and York Water Co.

### SUMMARY OF HYDROLOGIC CONDITIONS

#### Surface Water

The Susquehanna River drains generally north to south from southern New York to the Chesapeake Bay. At the point where it enters the State of Maryland, it drains 26,896 mi<sup>2</sup>. The majority of this area--20,635 mi<sup>2</sup>, is located in central Pennsylvania. Streams in the basin are located in the Appalachian Plateaus, Valley and Ridge, and Piedmont Provinces. The underlying geology includes rocks of Precambrian to Triassic in age, and the predominant rock types are shale, sandstone, and limestone.

Precipitation within the basin generally was below average for the year. Several small water-supply systems experienced rationing and others were preparing to ration when early Fall rains recharged water supplies. The problem began in the fall of 1984 and winter of 1985 and was accelerated by the relatively small amounts of rain that fell April through June. During these months, water demands for vegetation, especially agricultural types, increase substantially. The reduced recharge to surface- and ground-water systems during this period created critical or near-critical water-supply conditions in the summer months. Total precipitation for the period April to June, and for the 1985 water year, and departures from average precipitation at several sites within the basin are shown below. The data are derived from records maintained by the National Oceanic and Atmospheric Administration (1984, 1985). Figure 1 locates the rain gages listed in the following table.

#### Precipitation in inches

	April - June 1985		1985 Water year	
	<u>Total</u>	<u>Departure from mean</u>	<u>Total</u>	<u>Departure from mean</u>
Galeton	8.64	-2.26	38.12	-1.55
Montrose	11.40	0.18	44.40	2.26
Williamsport WSO AP	7.65	-3.42	32.31	-8.97
Philipsburg FAA AP	7.37	-4.03	30.99	-9.11
Shamokin	13.32	2.17	40.48	-1.96
Mapleton Depot	9.91	-0.29	35.15	-2.33
Landisville 2 NW	9.65	-1.48	34.53	-5.66
Chambersburg 1 ESE	7.84	-3.65	<u>1/</u> 33.05	<u>1/</u> -4.36

1/ No data are available for September 1985. Figures given for total precipitation and departure are incomplete.

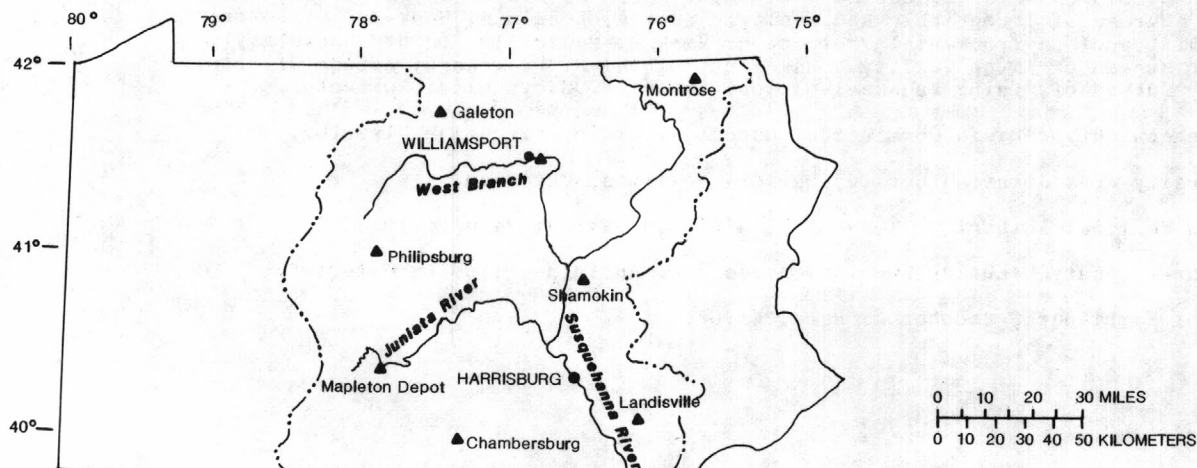


Figure 1.—Location of selected rain gages.



## Surface-Water Conditions

Due to the below-normal precipitation received in the basin, the total streamflow for the year was generally lower than normal. Data from six stations have been selected to illustrate this condition. Three of the sites were chosen due to their proximity to the mouths of large tributaries in the basin. Two sites are located in the headwaters area of their basins. The sixth site, located on the Susquehanna River, is a long-term site in the lower part of the basin. The figures below indicate the average daily streamflow at the station for water year 1965 (the final year of a recent drought period), the long-term average daily streamflow, and the average daily streamflow for the 1985 water year.

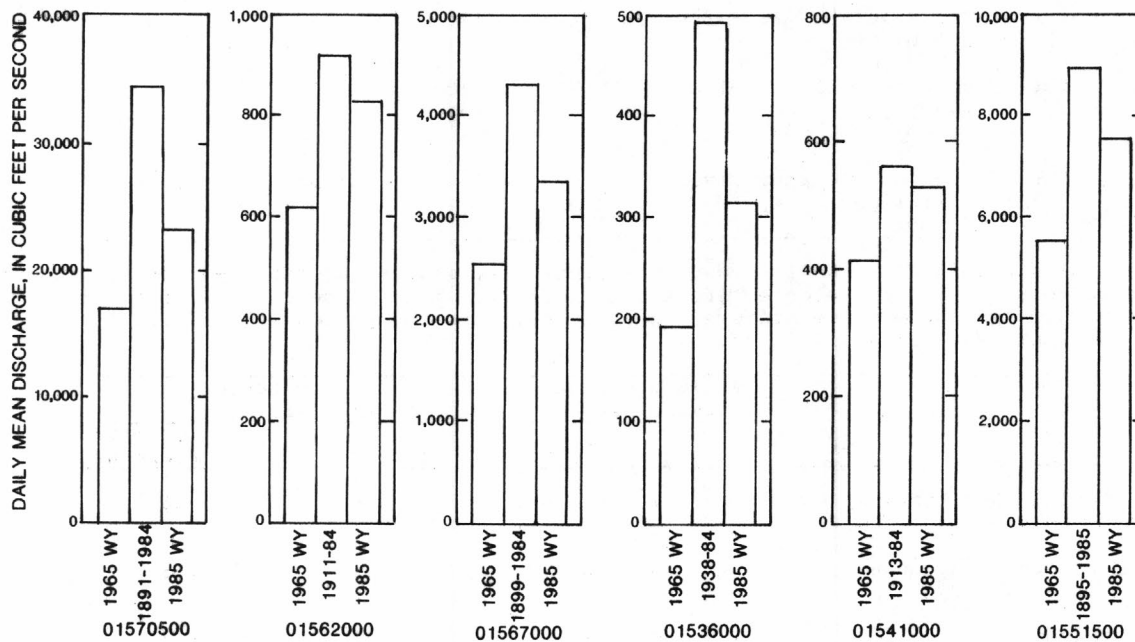


Figure 2.—Mean discharges at selected gaging stations.

## WATER RESOURCES DATA - PENNSYLVANIA, 1985

A summary of the discharges for each station is given below.

	1965 (ft <sup>3</sup> /s)	Mean (ft <sup>3</sup> /s)	1985 (ft <sup>3</sup> /s)
Susquehanna River at Harrisburg, Pa. (01570500)	16,900	34,300	23,000
Juniata River at Saxton, Pa. (01562000)	616	918	831
Juniata River at Newport, Pa. (01567000)	2,540	4,300	3,360
Lackawanna River at Old Forge, Pa. (01536000)	194	490	315
West Branch Susquehanna River at Bower, Pa. (01541000)	413	558	526
West Branch Susquehanna River at Williamsport, Pa. (01551500)	5,540	8,950	7,520

The lack of precipitation and the resulting lower streamflows, as expected, had a pronounced effect on reservoir storage in selected areas of the basin. The following table indicates the average annual storage and minimum storage, in acre-feet, for the period 1971-80 and for the 1985 water year in eight reservoirs within the basin.

	Minimum contents (acre-feet)		Mean contents (acre-feet)		Departure (percent)
	1971-80	1985	1971-80	1985	
Stillwater Lake (01534180)	347	393	680	575	-15.4
Curwensville Lake (01541180)	1,610	3,990	8,280	8,600	+ 3.7
Raystown Lake (01563100)	425,000	501,000	504,000	514,000	+ 2.0
Kettle Creek Lake (01544800)	1,260	1,600	1,900	1,760	- 7.4
Glendale Lake (01541340)	14,700	23,900	25,500	26,600	+ 4.3
Foster Joseph Sayers Lake (01547480)	4,960	6,000	20,900	20,900	+ 0.0
DeHart Reservoir (01568400)	13,200	14,900	17,800	17,100	- 3.9
First Fork Sinnemahoning Reservoir (01543900)	568	1,480	2,210	2,070	- 6.3

Collectively, the annual mean storage for the eight reservoirs was -3.3 percent below the normal volume.



## Surface-Water Quality

Surface-water quality data collected at four special network stations in 1985 were compared to data collected at these sites from 1975-84. This year, only nutrient data were evaluated. Figure 3 shows the interquartile values at the four stations for dissolved nitrite plus nitrate as nitrogen, total ammonia and organic nitrogen, total phosphorus, and sampled streamflows. The whisker and box plots indicate the 95th, 75th, 50th, 25th and 5th percentile and mean values for the selected period of data collection up to and including the 1984 water year. The mean value for the 1985-water-year samples is also shown for comparison. The values associated with each of the percentiles are those which would not be expected to be exceeded the percent of time indicated by the percentile. For example, the value associated with the 75th percentile would be expected to be higher than 75 percent of the sample values. Conversely, the 75th percentile value would be expected to be exceeded by only 25 percent of the sample values. The 50th percentile value is the median of the sample values. In general, baseflow values are expected to fall within the limits of the 25th and 75th percentiles. The stations examined in figure 3 are-

01540500 Susquehanna River at Danville, Pa.

01553500 West Branch Susquehanna River at Lewisburg, Pa.

01567000 Juniata River at Newport, Pa.

01570500 Susquehanna River at Harrisburg, Pa.

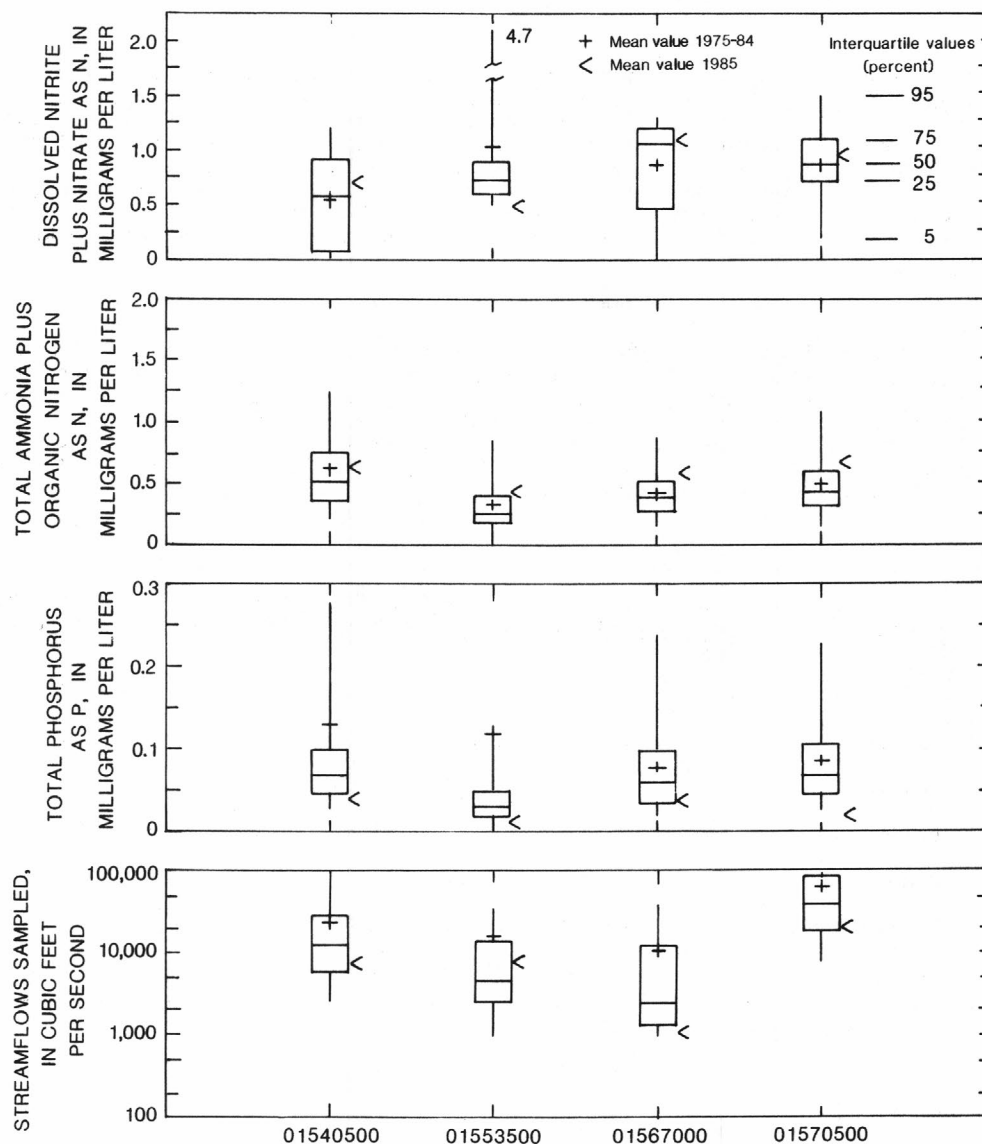


Figure 3.--Mean and interquartile values of selected constituents at water-quality network stations.

Generally, values for the streamflows sampled in 1985 and dissolved nitrite plus nitrate as nitrogen fell within the 25th-75th-percentile ranges. This indicates that the streamflows and the nitrite plus nitrate concentrations fell within a range attained by one-half of all the samples. It further indicates that the same general sampling schedule was followed and that relatively "normal" concentrations of nitrite plus nitrate were found. However, concentrations for total ammonia and organic nitrogen generally exceeded the 75th percentile. In other words, statistics indicate that the mean value of the 1985 samples should occur in only 25 percent or less of the samples. The mean percentile ranking for the mean total ammonia and organic concentrations found at the four stations was nearly 80. The mean concentrations of total phosphorus generally were ranked lower than the 25th-percentile level. The mean percentile ranking for the mean concentration of the 1985 samples was about 15. The mean ammonia and organic nitrogen and phosphorus concentrations rankings generally fell outside of the "normal" range. This may reflect effects of a land-use change. No other analyses were performed on the data evaluated in figure 3 to determine if the results indicate a trend. In addition, the statistical analyses may be affected by reported concentrations at or near detection limits.

An ongoing study in a small agricultural watershed (5.8 mi<sup>2</sup>) located in the southeastern section of the Susquehanna River basin is evaluating the baseflow and storm concentrations and loads of nutrients. Data collected by the U.S. Geological Survey since 1984 indicate that changes in the baseflow concentration of nitrate before and after a storm have no apparent relation to the amount of precipitation received during the storm. Changes in baseflow concentration after the storm are theorized to be a result of subsurface flow and the accompanying leaching of nitrate from the soil profile.

During extended periods of dry weather, baseflow nitrate concentrations decrease because less nitrate is contributed to the stream from the deep ground water system than from the upper system where infiltration is percolating through nutrient-rich soils. Conversely, baseflow phosphorus concentrations tend to increase during the same period. It is suggested that this is due to the breakdown of organic material in the stream rather than to the effects of ground water (Thompson, 1985).

#### Ground Water

The geologic environment in which ground water occurs controls the availability of the water and its natural quality. Ground water is present in pores and fractures in rocks and the amount available is dependent on the number, size, and degree of interconnection of the openings. The natural water-quality depends on the mineralogic composition of the rocks. The geology and aquifers of Pennsylvania are complex and varied. The systems within one river drainage basin usually are related only slightly to adjacent systems. For this reason, changes in ground-water quantity or quality generally are related only to causal factors within that particular aquifer. In addition, because of the relative unrelatedness of the aquifers, it is difficult to determine any basinwide trends or variations.

#### Ground-Water Conditions

The following table presents the highest, lowest and average maximum depth below land surface for the two wells shown in figure 4 and five additional wells for the period of record. The average annual maximum depth below land surface for the 1985 water year and the departure from average is also shown. The hydrographs presented in figure 4 indicate the ground-water levels at 2 observation wells located within the basin. The three hydrographs for each well show the mean of the maximum daily depth below land surface for each month in 1965 (a relatively dry year), for the period of record prior to the 1985 water year, and for 1985.

Well	County	Years of Record	DEPTH BELOW LAND SURFACE (ft)				Water-level departure from average (ft)
			Highest	Lowest	Average	1985WY	
DA-350	Dauphin	21	1.15	6.95	4.93	6.19	-1.26
LU-243	Luzerne	30	36.08	58.70	53.54	52.68	+0.86
AD-146	Adams	17	9.87	13.77	12.00	13.05	-1.05
BR-92	Bradford	19	1.33	11.86	8.32	11.17	-2.85
CM-13	Cameron	17	18.53	25.98	23.42	23.71	-0.29
HU-301	Huntingdon	16	48.82	55.96	53.98	55.71	-1.73
UN-51	Union	17	25.26	42.24	38.08	41.14	-3.06



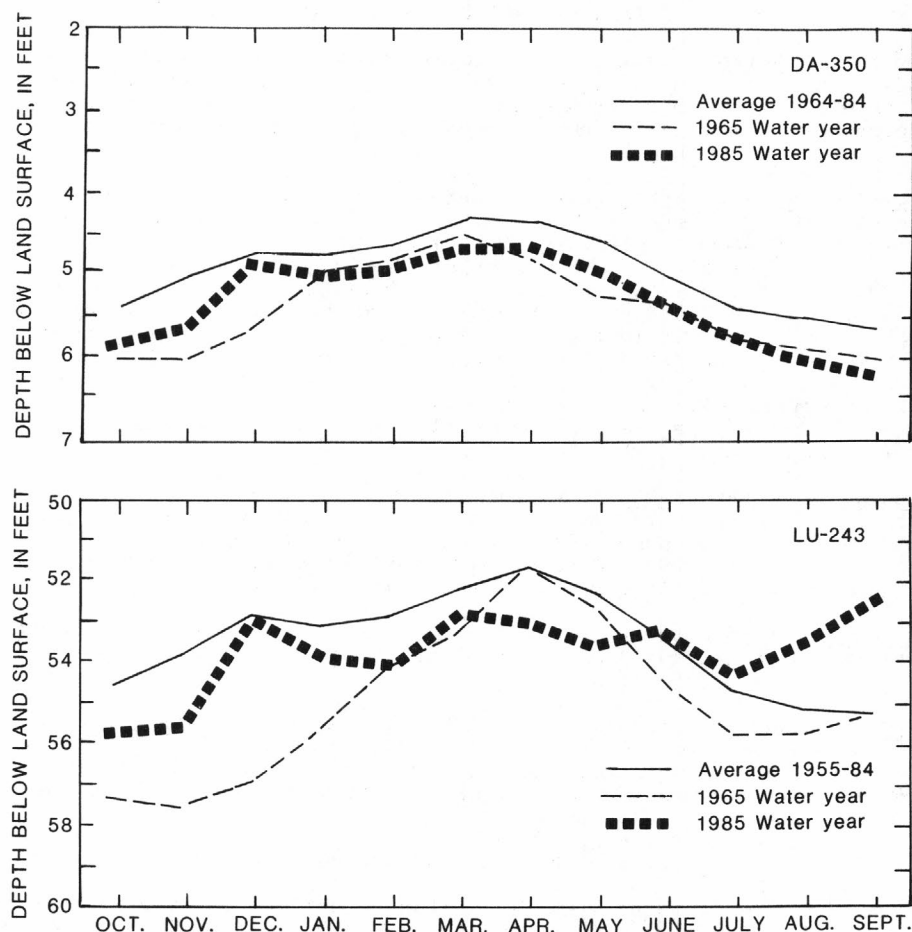


Figure 4.--Well hydrographs for selected periods at two observation wells.

#### Ground-Water Quality

A significant contribution to the understanding of ground-water quality in the Susquehanna River basin was made by a study that detailed the occurrence of nitrate and herbicides in ground water in the Upper Conestoga River basin (Fishel and Lietman, 1986). Results indicated that the occurrence was closely related to agricultural practices and geology and that the transport of these constituents in areas underlain by carbonate rocks is rapid. Maximum nitrate concentrations in agricultural areas ranged from 37 to 40 mg/L and 12 to 19 mg/L in non-agricultural areas.

In addition, Gerhart (1986) found that ground-water recharge to a shallow, unconfined, fracture-dolomite aquifer underlying agricultural land in the Conestoga River basin occurs by two mechanisms. Direct recharge occurs through pathways such as near-surface bedrock fractures and sinkholes and affects dissolved nitrate concentrations of ground water within 2 to 3 days. This effect lasts only about 1 week. Gradual recharge occurs through small channels and pores and affects dissolved nitrate concentrations for several weeks or more after the effects of direct recharge have dissipated.

#### References

- Fishel, D. K., and Lietman, P. L., 1986, Occurrence of Nitrate and Herbicides in Ground Water in the Upper Conestoga River Basin, Pennsylvania: U.S. Geological Survey Water-Resources Investigations 85-4202, 8 p.
- Gerhart, J.M., 1986, Ground-water recharge and its effects on nitrate concentration beneath a manured field site in Pennsylvania: Ground Water, v. 24, no. 4, p. 483-9.
- Thompson, E.F., 1985, Conestoga Headwaters Rural Clean Water Program - 1985 Progress Report, U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Berks and Lancaster Counties, 139 p.
- U.S. Department of Commerce, 1984-85, Climatological data for Pennsylvania, Volume 84-85: National Oceanic and Atmospheric Administration, Environmental Data Service.

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins throughout the country which 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 the activities of man.

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. The 500 or so sites in NASQAN are generally 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 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).

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

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 6-9. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report, whether streamsite or well, is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Pennsylvania, for some miscellaneous surface-water sites where only random water-quality samples or discharge measurements are taken.

## 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 and system of indentation show 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 and normally appears to the left of the station name. For example, an 8-digit number for a station such as 01570500, includes a 2-digit part number "01" plus a 6-digit downstream order number "570500". The part number designates major river basins; for example, part "01" is the North Atlantic Slope basin.

## Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites with a 1-second grid. See figure 5 below.

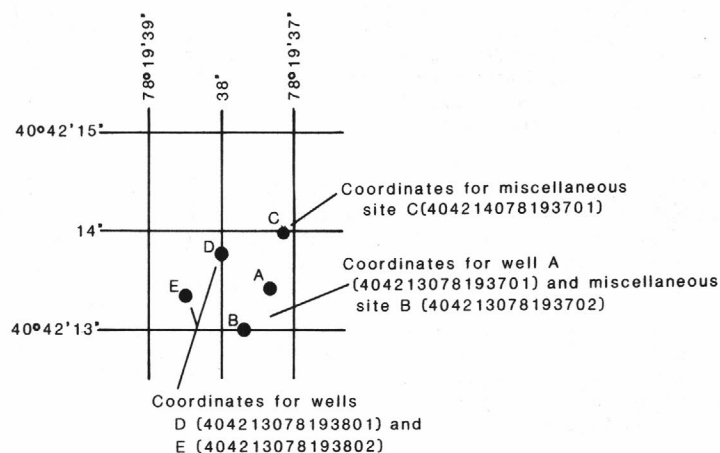


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

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



Records of Stage and Water Discharge

Records of stage and water discharge may be continuous or partial. Continuous records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Because daily mean discharges and 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 records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all continuous-record and partial record stations for which data are given in this report are shown in figures 6, 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 or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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

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

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

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

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

#### Data Presentation

The records published for each gaging station and reservoir consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

**PERIOD OF RECORD.**--This indicates the period for which there are published records 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 records from it can reasonably be considered equivalent with records from the present station.

**REVISED RECORD.**--Published records, because of new information, 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.

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

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

**AVERAGE DISCHARGE.**--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

**EXTREMES FOR PERIOD OF RECORD.**--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

**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.

**EXTREMES FOR CURRENT YEAR.**--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

**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 to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

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

#### Identifying Estimated Daily Discharge

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



### Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures for more than 1,000 ft<sup>3</sup>/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 temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. 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 district office (telephone number: 717-782-3851).

### Records of Surface-Water Quality

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

### Classification of records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Location of stations for which records on the quality of surface water appear in this report are shown in figures 6, 7, 8.

### Arrangement of Records

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

## On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations,." Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on a following page in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the 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 obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are determined from data recorded at 15, 30, or 60 minute intervals for each day. More detailed records (hourly values) may be obtained from the U.S.G.S. 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 taken at time of discharge measurements for water-discharge stations and are on file in the District office. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

## Sediment

Suspended-sediment concentrations are determined from samples collected by hand or by pumping samplers. Samples are collected by hand using depth-integrating samplers at single or multiple verticals in the cross section. Samples are collected by pumping samplers using 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 based on 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 times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

## Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

## Data Presentation

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

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

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

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

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

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

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

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

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

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

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



## Remark Codes

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

<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 a basic network of observation wells and from ground-water projects are published herein. Location of observation wells in the basic network are shown in figures 6, 9. The location of observation wells for projects are shown in figure 8.

## Data Collection and Computation

Measurements of water levels are made 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.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. 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 or from the graph or punched tape of a water-stage recorder. 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 are given to a tenth of a foot or a larger unit.

## Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

**LOCATION.**--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; 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 and/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 used, 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. Water levels are reported in feet below land-surface datum. Wells equipped with recording gages have water levels reported for each day. Missing records are indicated by dashes in place of the water level.

#### 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. The location of ground-water-quality stations are shown in figure 8.

#### 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 "U.S. Geological Survey 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 obtained by trained personnel.

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

## ACCESS TO WATSTORE DATA

The National Water Data STorage and Retrieval system (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist  
U.S. Geological Survey  
437 National Center  
Reston, Virginia 22092



## 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 or 1,233 cubic meters.

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

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

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

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.

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°C  $\pm$  1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found also in 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°C  $\pm$  1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the 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<sup>3</sup>), and periphyton and benthic organisms in grams per square meter (g/m<sup>2</sup>).

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, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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 foot per second ( $\text{ft}^3/\text{s}$ )<sup>1</sup> 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 or 0.02832 cubic meters per second.

Cubic feet per second per square mile [ $(\text{ft}^3/\text{s})/\text{mi}^2$ ]<sup>1</sup> 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.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45  $\mu\text{m}$  membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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.

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 ( $\text{CaCO}_3$ ).

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

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 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 ( $\text{mg/L}$ ,  $\text{mg/L}$ ) 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  $\text{mg/L}$ , 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<sup>2</sup>), acres, or hectare. Periphyton benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [mg C/(m<sup>2</sup>.time)] for periphyton and macrophytes and [mg C/(m<sup>3</sup>.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 [mgO<sub>2</sub>/(m<sup>2</sup>.time)] for periphyton and macrophytes and [mgO<sub>2</sub>/(m<sup>3</sup>.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.

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

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft<sup>3</sup>/s) x 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 (7 Q<sub>10</sub>) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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.

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-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45  $\mu$ 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  $\mu$ 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 in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 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 annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

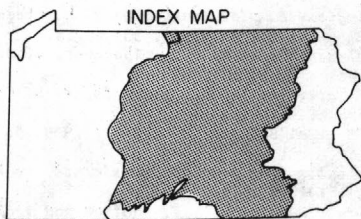
WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.



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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (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-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob 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.
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- 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.
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- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
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- 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-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.
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- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 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.
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- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 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.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. 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.



EXPLANATION	
5745 ▲	Streamflow station and number
576083 ▼	Water-quality station and number
576754 ◆	Streamflow and water-quality station and number
AD 146 •	Observation well and number
57439 △	Lake and number

NOTE - Station numbers abbreviated:  
First two digits (part number), third digit (if zero),  
and last two digits (if zeros) are omitted.

Station number 01572820 shown as 57282,  
station number 01572800 shown as 5728.

Figure 6.--Location of continuous data-collection stations, and network observation wells.

## SUSQUEHANNA RIVER BASIN

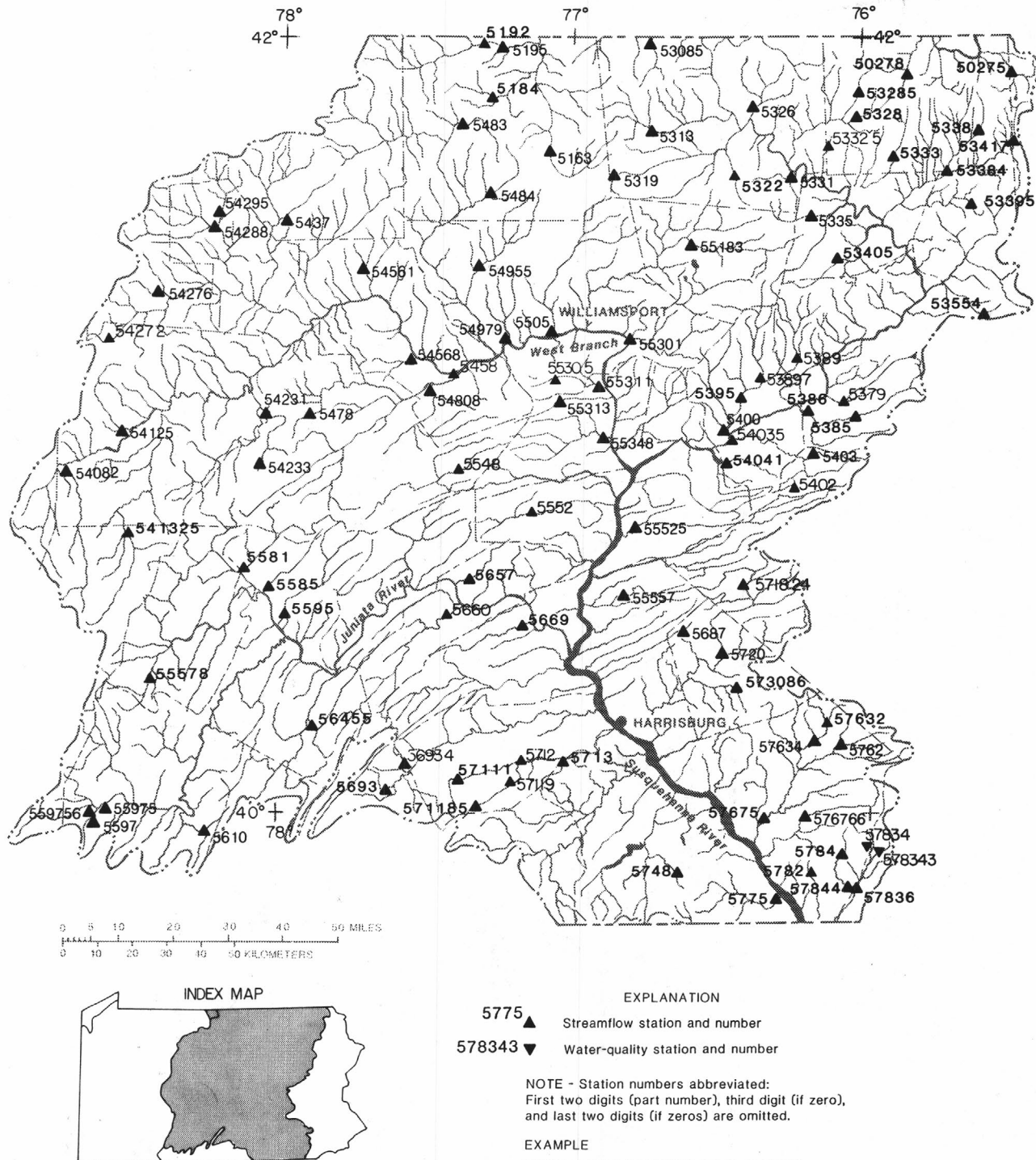


Figure 7.--Location of partial-record data-collection stations.

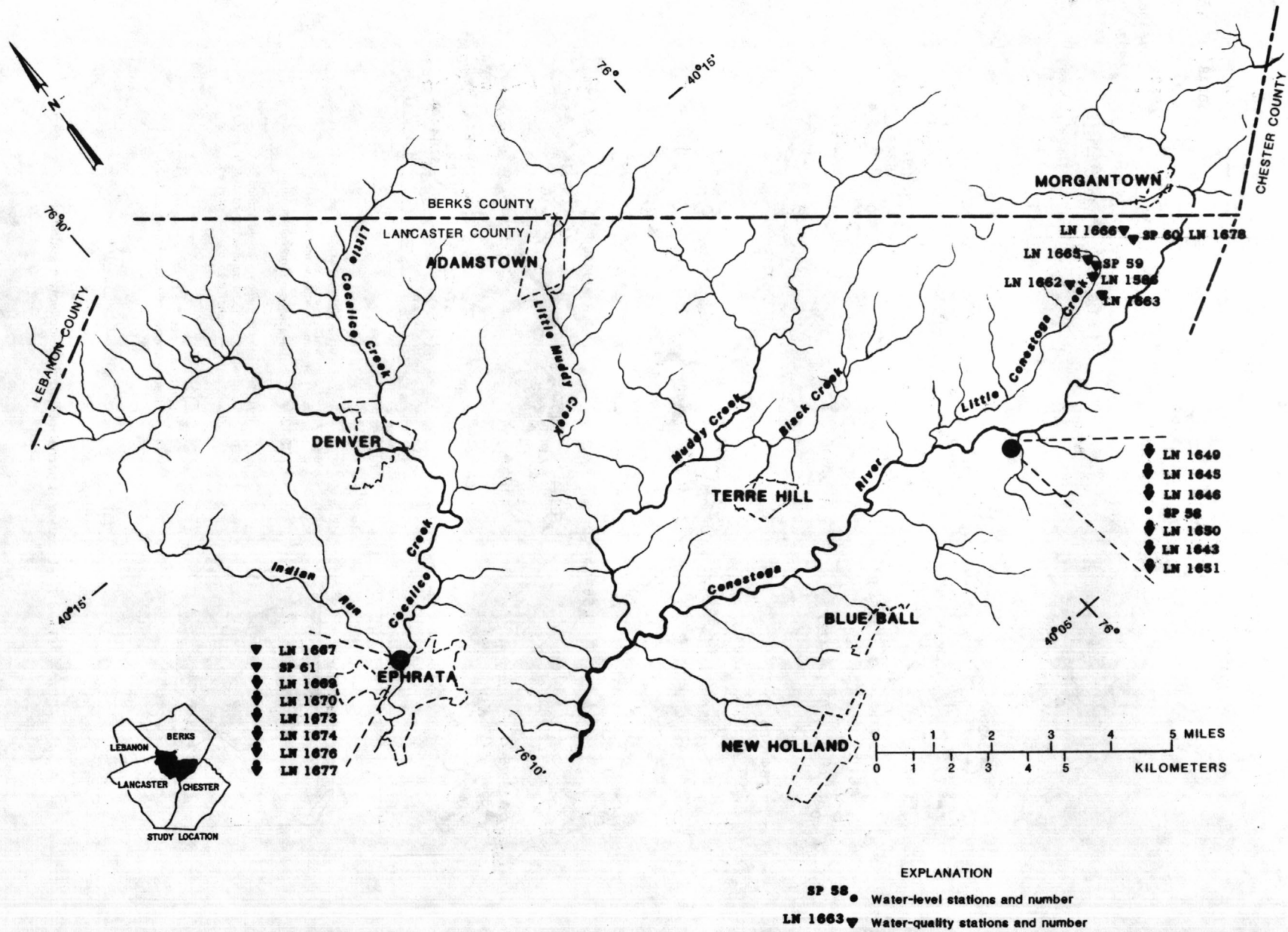


Figure 8.--Location of water-level and quality of ground-water data-collection stations in northern Lancaster county.



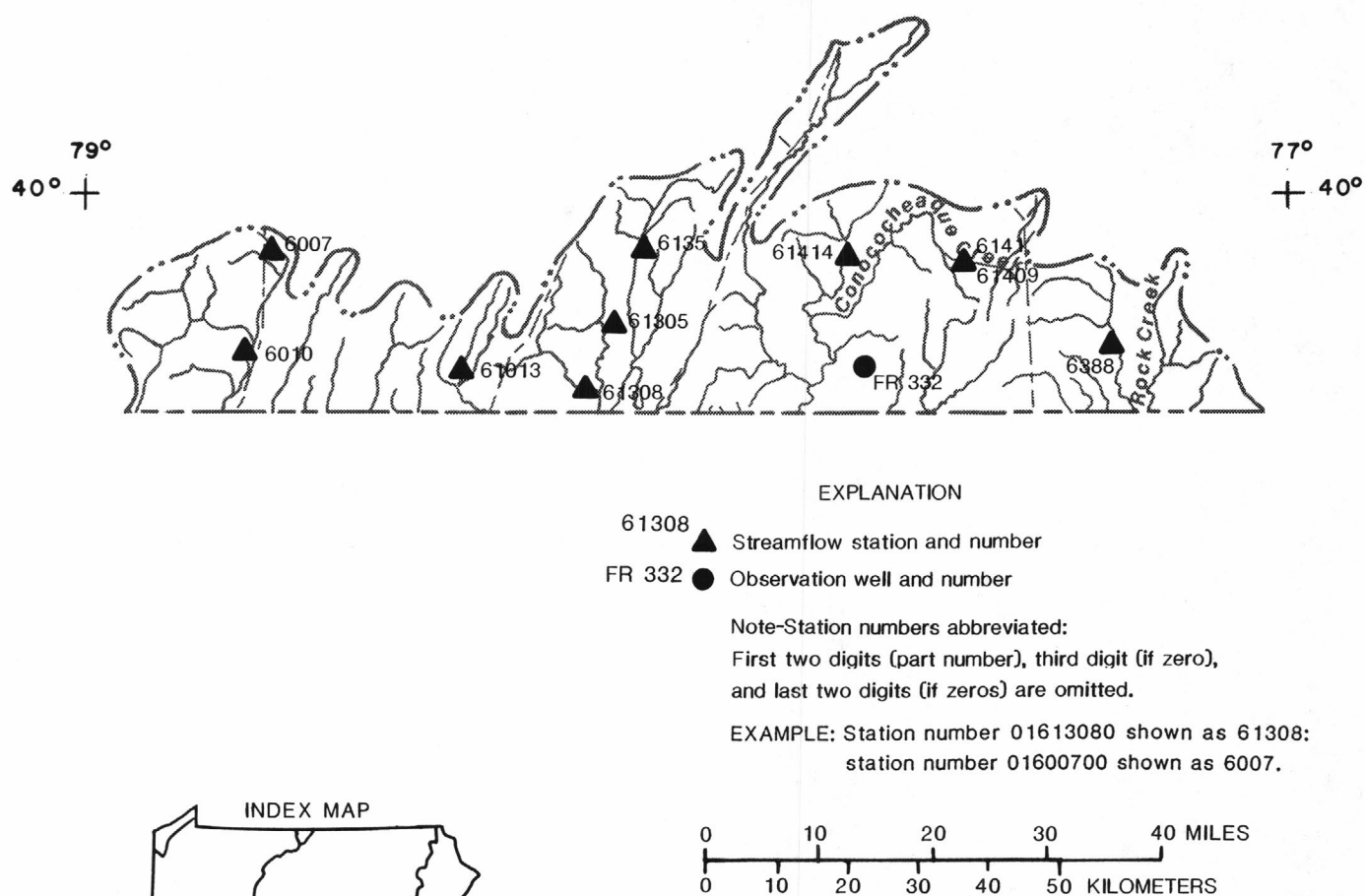


Figure 9.--Location of continuous data-collection and partial-record stations, Potomac River basin.



## CONTINUOUS SURFACE-WATER AND WATER-QUALITY STATION RECORDS

33

## CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA

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

DRAINAGE AREA.--153 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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.--Estimated daily discharges: Jan. 9 to Feb. 23. Records good except those for estimated daily discharges, which are fair. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--9 years, 213 ft<sup>3</sup>/s, 18.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,490 ft<sup>3</sup>/s Feb. 14, 1984, gage height, 14.68 ft, from rating curve extended above 6,000 ft<sup>3</sup>/s; maximum gage height, 16.17 ft May 14, 1978; minimum daily discharge, 9.6 ft<sup>3</sup>/s Sept. 20, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1975 reached an approximate stage of 20.13 ft, from flood-marks, approximate discharge, 18,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0445	*3,150	*12.19	No other peak greater than base discharge			
Minimum discharge, 12 ft <sup>3</sup> /s Sept. 24, gage height, 8.01 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	36	594	397	62	266	672	77	601	51	126	29
2	34	34	384	366	60	246	466	80	290	45	66	27
3	31	33	391	289	59	213	397	117	223	62	48	25
4	29	31	350	254	58	179	356	98	185	100	41	23
5	27	77	261	235	56	264	315	85	170	57	36	22
6	25	79	250	200	55	214	295	83	163	48	32	21
7	25	59	210	192	54	169	263	124	129	88	57	20
8	26	49	184	166	52	192	265	106	116	65	133	28
9	25	45	164	130	51	203	257	89	104	62	71	38
10	25	60	174	130	50	183	221	83	92	53	49	42
11	25	76	330	130	49	173	212	78	80	48	42	41
12	25	70	279	120	100	461	199	78	87	43	38	32
13	24	62	346	120	300	331	184	93	88	42	35	28
14	24	55	383	120	200	282	170	78	81	38	32	25
15	24	51	361	110	140	247	162	72	71	42	30	24
16	24	51	331	100	110	215	158	95	68	56	41	22
17	23	50	312	98	91	209	146	101	71	44	44	21
18	24	48	276	96	80	183	131	155	67	37	34	20
19	24	46	285	90	72	156	125	120	57	33	30	19
20	27	42	296	80	68	169	133	97	52	31	28	19
21	26	40	236	72	66	148	131	84	50	36	26	19
22	32	39	414	70	250	133	116	80	46	99	25	18
23	49	39	319	76	680	203	108	71	48	53	24	17
24	40	40	260	75	720	459	115	65	51	39	23	17
25	34	39	233	72	823	388	114	59	49	33	31	18
26	34	39	185	68	473	278	112	56	41	34	31	17
27	33	39	187	66	395	254	100	56	38	40	28	31
28	33	69	328	70	293	261	92	261	37	35	26	50
29	47	1590	519	70	---	289	89	221	51	30	23	35
30	50	513	573	66	---	272	82	137	68	27	27	27
31	40	---	392	64	---	488	---	118	---	120	34	---
TOTAL	939	3501	9807	4192	5467	7728	6186	3117	3274	1591	1311	775
MEAN	30.3	117	316	135	195	249	206	101	109	51.3	42.3	25.8
MAX	50	1590	594	397	823	488	672	261	601	120	133	50
MIN	23	31	164	64	49	133	82	56	37	27	23	17
CFSM	.20	.76	2.07	.88	1.27	1.63	1.35	.66	.71	.34	.28	.17
IN.	.23	.85	2.38	1.02	1.33	1.88	1.50	.76	.80	.39	.32	.19

CAL YR 1984 TOTAL 108363 MEAN 296 MAX 5450 MIN 23 CFSM 1.93 IN. 26.35  
WTR YR 1985 TOTAL 47888 MEAN 131 MAX 1590 MIN 17 CFSM .86 IN. 11.64

## CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

pH: October 1976 to current year.

WATER TEMPERATURE: October 1976 to current year.

DISSOLVED OXYGEN: October 1976 to September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1976.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1981-82, 1984-85): Maximum, 975 microsiemens Sept. 22, 1982; minimum, 72 microsiemens Feb. 12, 1981.

pH (water years 1981-85): Maximum, 6.8 units May 28, Aug. 14, 1984; minimum, 3.2 units Sept. 15, 16, 17, 18, 1985 summer and fall periods.

WATER TEMPERATURE (water years 1981-82, 1984-85): Maximum, 31.0°C July 18, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 783 microsiemens Sept. 26; minimum, 87 microsiemens Feb. 25.

pH: Maximum, 6.7 units Mar. 31; minimum, 3.2 units Sept. 15, 16, 17, 18.

WATER TEMPERATURE: Maximum, 29.0°C July 20, Aug. 14, Sept. 7; minimum 0.0°C Dec. 25, 26, 27.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	704	661	687	469	436	453	162	135	152	176	167	171
2	661	612	627	497	468	473	192	162	177	209	174	187
3	633	625	629	492	479	485	202	175	190	208	188	198
4	641	627	634	501	490	496	199	175	186	224	208	216
5	656	642	651	488	332	390	220	199	212	242	219	225
6	671	656	664	333	302	309	222	208	217	253	237	246
7	680	671	677	335	309	321	249	222	234	252	244	250
8	689	680	684	361	335	347	257	236	250	307	249	263
9	689	668	675	382	361	371	268	247	258	363	310	343
10	686	676	682	382	339	364	260	214	251	351	335	341
11	690	682	686	339	296	311	211	184	194	346	328	332
12	692	682	689	328	296	302	198	186	193	330	317	324
13	702	686	696	316	297	309	239	180	192	322	312	316
14	714	700	708	333	314	325	219	157	169	332	320	326
15	710	705	708	349	333	341	167	161	165	347	321	329
16	715	705	710	355	349	353	176	166	171	401	348	369
17	719	711	715	362	355	358	184	176	179	393	374	381
18	717	714	715	377	362	370	200	185	192	374	359	366
19	718	710	715	386	377	382	208	182	199	361	358	359
20	710	685	697	422	379	399	199	187	191	---	---	---
21	695	677	686	414	395	403	217	199	208	---	---	---
22	679	566	651	433	389	415	218	162	182	446	422	435
23	565	501	513	440	398	418	186	162	175	438	412	421
24	503	485	491	435	396	417	202	186	195	412	402	408
25	531	497	515	451	387	419	232	202	208	405	401	404
26	550	527	536	458	386	422	257	228	243	411	401	405
27	541	527	534	454	385	421	247	225	238	434	410	419
28	543	531	538	425	244	399	240	165	208	430	414	421
29	535	411	472	235	103	125	195	149	163	420	413	416
30	436	409	421	147	119	135	154	137	144	456	415	427
31	436	410	427	---	---	---	169	147	159	453	427	437
MONTH	719	409	627	501	103	368	268	135	197	456	167	336



01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN			
FEBRUARY				MARCH				APRIL				MAY			
1	449	428	433	222	193	212	---	---	---	338	321	327			
2	434	424	428	222	217	219	---	---	---	340	310	329			
3	439	416	424	240	222	230	---	---	---	309	247	274			
4	460	398	425	265	239	253	---	---	---	282	243	259			
5	460	441	452	251	195	215	---	---	---	---	---	---			
6	455	437	444	228	196	214	---	---	---	---	---	---			
7	437	431	433	270	216	244	---	---	---	---	---	---			
8	451	423	432	227	207	218	---	---	---	---	---	---			
9	464	441	451	214	206	210	---	---	---	---	---	---			
10	458	449	453	220	212	217	---	---	---	---	---	---			
11	459	449	454	224	218	221	---	---	---	326	306	315			
12	452	317	431	221	138	173	---	---	---	335	301	323			
13	314	244	275	163	140	153	---	---	---	309	267	284			
14	294	269	286	169	160	165	---	---	---	322	282	298			
15	329	294	312	184	168	179	---	---	---	347	321	332			
16	339	325	331	---	---	---	244	236	240	339	287	310			
17	347	335	344	---	---	---	241	211	226	302	222	289			
18	355	341	349	---	---	---	260	233	245	229	200	216			
19	352	336	342	---	---	---	265	252	259	231	205	220			
20	356	336	347	---	---	---	271	243	256	339	230	258			
21	364	335	345	---	---	---	253	233	243	284	265	273			
22	364	164	274	---	---	---	271	248	260	302	281	288			
23	165	117	150	---	---	---	287	266	275	320	298	307			
24	142	89	118	---	---	---	281	254	270	338	317	323			
25	113	87	97	---	---	---	266	254	261	357	329	343			
26	153	114	135	---	---	---	267	254	260	368	352	359			
27	184	153	167	---	---	---	290	266	277	381	360	367			
28	222	182	205	---	---	---	293	285	288	374	140	252			
29	---	---	---	---	---	---	308	291	298	186	140	163			
30	---	---	---	---	---	---	328	301	313	229	187	208			
31	---	---	---	---	---	---	---	---	---	257	231	243			
MONTH	464	87	333	270	138	208	328	211	265	381	140	286			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN			
JUNE				JULY				AUGUST				SEPTEMBER			
1	242	106	130	425	388	403	267	189	224	637	620	626			
2	173	125	150	468	426	451	362	268	309	663	634	646			
3	216	175	196	468	339	436	441	363	398	675	660	666			
4	263	218	240	388	285	316	508	442	475	697	672	683			
5	269	254	262	401	329	361	564	509	535	716	693	703			
6	278	247	261	453	402	427	615	565	585	730	711	721			
7	308	275	290	475	327	391	629	406	555	747	727	739			
8	331	308	317	397	344	371	395	271	309	751	705	734			
9	348	318	333	429	397	411	377	298	333	734	538	595			
10	373	340	353	470	430	445	449	377	411	581	498	532			
11	397	367	377	509	470	488	503	448	476	509	473	484			
12	399	332	361	542	508	521	552	502	527	521	479	497			
13	335	321	327	571	541	555	595	551	573	572	521	547			
14	353	321	335	588	572	581	629	594	612	607	572	587			
15	388	342	364	608	533	585	652	627	639	637	606	619			
16	393	376	384	536	461	499	651	557	602	662	637	648			
17	404	359	382	515	472	486	552	526	536	678	662	670			
18	413	386	399	558	515	537	588	539	561	700	678	691			
19	434	403	417	595	559	578	632	587	609	714	700	708			
20	---	---	---	621	595	606	658	630	643	728	714	723			
21	---	---	---	625	455	596	675	658	666	745	727	736			
22	---	---	---	471	315	378	692	673	681	753	743	748			
23	---	---	---	423	349	376	713	691	699	759	752	756			
24	---	---	---	492	423	458	725	711	716	767	744	761			
25	---	---	---	546	493	519	726	685	708	773	767	770			
26	---	---	---	571	542	558	681	651	657	783	770	774			
27	558	514	536	556	497	533	677	648	657	782	626	705			
28	568	553	563	550	525	535	701	672	681	630	472	548			
29	555	414	508	592	550	571	726	697	714	530	473	499			
30	420	388	401	621	592	606	734	640	698	584	531	558			
31	---	---	---	628	199	439	680	625	648	---	---	---			
MONTH	568	106	343	628	199	484	734	189	562	783	472	656			

## CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	3.60	3.50	3.50	4.50	4.40	4.40	6.20	5.20	5.70	5.40	5.20	5.30
2	3.80	3.60	3.70	4.40	4.30	4.30	5.20	5.10	5.20	5.30	5.00	5.10
3	3.70	3.60	3.70	4.30	4.20	4.30	5.80	5.00	5.20	5.00	4.80	4.90
4	3.70	3.60	3.70	4.20	4.20	4.20	5.20	5.00	5.10	5.00	4.60	4.70
5	3.70	3.70	3.70	5.40	4.20	4.90	5.00	4.80	4.90	4.80	4.50	4.70
6	3.80	3.70	3.70	5.10	5.00	5.10	5.10	4.60	4.90	4.80	4.30	4.50
7	3.70	3.70	3.70	5.10	5.00	5.00	5.10	4.50	4.80	4.70	4.50	4.50
8	3.70	3.70	3.70	5.00	4.90	5.00	5.10	4.60	4.70	4.70	4.20	4.50
9	3.80	3.70	3.80	4.90	4.70	4.80	5.10	4.50	4.70	4.40	4.10	4.20
10	3.80	3.70	3.70	5.10	4.70	4.90	5.40	4.70	4.90	4.30	4.20	4.20
11	3.80	3.70	3.80	5.10	5.00	5.00	5.80	5.40	5.60	4.20	4.20	4.20
12	3.80	3.70	3.80	5.10	5.00	5.10	5.60	5.40	5.40	4.30	4.20	4.30
13	3.80	3.70	3.80	5.10	5.00	5.10	5.80	5.30	5.50	4.30	4.20	4.30
14	3.80	3.70	3.70	5.10	4.90	5.00	5.40	5.30	5.30	4.30	4.20	4.20
15	3.80	3.70	3.80	4.90	4.70	4.80	5.40	5.20	5.30	4.40	4.20	4.20
16	3.80	3.80	3.80	4.70	4.60	4.70	5.20	5.00	5.10	4.30	4.00	4.20
17	3.80	3.80	3.80	4.60	4.50	4.60	5.10	4.90	5.00	4.10	4.00	4.10
18	3.80	3.80	3.80	4.50	4.40	4.50	4.90	4.70	4.80	4.10	4.00	4.10
19	3.80	3.70	3.80	4.40	4.40	4.40	5.60	4.60	4.90	4.10	4.10	4.10
20	3.80	3.80	3.80	4.60	4.20	4.30	5.30	4.90	5.10	---	---	---
21	3.80	3.80	3.80	4.40	4.30	4.30	4.90	4.80	4.80	---	---	---
22	4.20	3.80	3.90	4.50	4.20	4.30	5.70	4.80	5.40	4.00	3.90	3.90
23	4.80	4.20	4.60	4.40	4.10	4.20	5.30	5.00	5.20	4.00	3.90	3.90
24	4.40	4.30	4.30	4.50	4.10	4.20	5.10	4.90	5.00	4.00	4.00	4.00
25	4.30	4.20	4.20	4.70	4.00	4.20	5.10	4.60	4.90	4.00	4.00	4.00
26	4.20	4.10	4.10	4.70	4.00	4.30	5.10	4.40	4.60	4.00	4.00	4.00
27	4.20	4.20	4.20	4.70	4.00	4.30	4.80	4.40	4.50	4.00	3.90	4.00
28	4.20	4.10	4.10	6.20	4.20	4.50	6.30	4.60	5.30	4.10	3.90	3.90
29	5.00	4.10	4.50	6.40	5.70	5.90	5.70	5.30	5.40	4.10	4.10	4.10
30	5.00	4.60	4.80	5.90	5.40	5.50	5.90	5.40	5.60	4.20	4.00	4.20
31	4.70	4.50	4.60	---	---	---	5.40	5.20	5.30	4.10	4.10	4.10
MONTH	5.00	3.50	3.93	6.40	4.00	4.67	6.30	4.40	5.10	5.40	3.90	4.29
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.10	4.10	4.10	5.20	4.70	4.90	6.40	5.70	6.00	4.30	4.20	4.30
2	4.10	4.10	4.10	5.00	4.70	4.90	5.70	5.50	5.60	4.40	4.20	4.30
3	4.20	4.10	4.20	4.90	4.60	4.80	5.50	5.40	5.50	4.70	4.40	4.60
4	4.40	4.10	4.20	4.90	4.40	4.60	5.50	5.10	5.30	4.70	4.40	4.60
5	4.20	4.10	4.10	5.70	4.70	5.30	5.10	4.90	5.10	4.40	4.30	4.40
6	4.10	4.10	4.10	5.50	4.80	5.20	5.10	4.90	5.00	4.40	4.30	4.30
7	4.20	4.10	4.20	5.50	4.50	4.90	5.00	4.90	5.00	4.60	4.40	4.60
8	4.30	4.10	4.20	5.40	4.90	5.10	5.00	4.60	4.90	4.60	4.40	4.50
9	4.20	4.10	4.20	5.30	5.10	5.20	5.00	4.90	5.00	4.50	4.30	4.40
10	4.10	4.10	4.10	5.20	5.10	5.10	5.00	4.80	4.90	4.30	4.20	4.30
11	4.10	4.10	4.10	5.20	5.10	5.10	4.90	4.80	4.80	4.20	4.20	4.20
12	4.90	4.10	4.20	6.60	5.20	5.80	4.90	4.80	4.80	4.30	4.10	4.20
13	5.50	4.90	5.30	5.80	5.50	5.60	4.80	4.70	4.70	4.50	4.30	4.40
14	5.40	5.30	5.30	5.50	5.50	5.50	4.80	4.70	4.70	4.40	4.00	4.20
15	5.30	5.10	5.30	5.50	5.20	5.30	4.80	4.70	4.70	4.20	4.10	4.10
16	5.10	5.00	5.10	---	---	---	4.90	4.70	4.80	4.20	4.10	4.20
17	5.00	4.80	4.90	---	---	---	4.90	4.70	4.80	5.30	4.20	4.30
18	4.90	4.80	4.90	---	---	---	4.70	4.50	4.70	5.80	4.90	5.10
19	5.10	5.00	5.10	---	---	---	4.60	4.60	4.60	5.00	4.70	4.90
20	5.20	5.10	5.10	---	---	---	4.70	4.60	4.60	4.70	4.40	4.60
21	5.30	5.10	5.20	---	---	---	4.70	4.50	4.60	4.50	4.40	4.40
22	6.60	5.10	5.70	5.20	4.50	4.90	4.60	4.50	4.60	4.40	4.30	4.40
23	6.60	6.10	6.40	5.90	4.70	5.20	4.60	4.40	4.50	4.30	4.20	4.30
24	6.10	5.80	5.90	6.50	5.70	6.10	4.60	4.20	4.40	4.60	4.20	4.20
25	5.90	5.60	5.70	6.30	5.70	5.90	4.50	4.40	4.50	4.20	4.10	4.10
26	5.60	5.40	5.50	5.70	5.50	5.60	4.60	4.50	4.50	4.10	4.00	4.00
27	5.40	5.00	5.30	5.50	5.30	5.40	4.50	4.30	4.40	4.10	4.00	4.10
28	5.40	4.60	5.00	5.40	5.30	5.30	4.40	4.40	4.40	5.20	4.00	4.60
29	---	---	---	5.40	5.30	5.30	4.40	4.30	4.40	5.10	4.80	4.90
30	---	---	---	5.40	5.30	5.30	4.40	4.20	4.30	4.80	4.30	4.50
31	---	---	---	6.70	5.30	5.80	---	---	---	4.50	4.30	4.30
MONTH	6.60	4.10	4.84	6.70	4.40	5.28	6.40	4.20	4.80	5.80	4.00	4.40

## CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5.50	4.50	5.00	4.00	4.00	4.00	4.70	4.50	4.60	3.60	3.60	3.60
2	4.90	4.60	4.80	4.00	3.90	3.90	4.50	4.10	4.30	3.60	3.50	3.50
3	4.60	4.40	4.50	4.80	3.90	4.10	4.10	3.90	4.10	3.50	3.50	3.50
4	4.40	4.20	4.30	4.60	4.30	4.40	3.90	3.80	3.90	3.50	3.40	3.50
5	4.30	4.20	4.20	4.30	4.00	4.20	3.80	3.60	3.70	3.40	3.40	3.40
6	4.30	4.10	4.20	4.00	3.90	4.00	3.70	3.60	3.60	3.40	3.40	3.40
7	4.20	4.10	4.10	4.00	3.80	3.90	4.50	3.60	3.90	3.40	3.40	3.40
8	4.10	4.00	4.00	4.00	4.00	4.00	5.10	4.60	4.80	3.50	3.40	3.40
9	4.00	4.00	4.00	4.00	3.90	3.90	4.60	4.20	4.50	4.00	3.40	3.70
10	4.00	3.90	4.00	3.90	3.80	3.90	4.20	3.90	4.10	3.90	3.60	3.80
11	4.00	3.90	3.90	3.80	3.80	3.80	3.90	3.80	3.90	3.90	3.80	3.90
12	4.10	3.90	4.00	3.80	3.80	3.80	3.80	3.70	3.80	3.90	3.60	3.70
13	4.20	4.10	4.10	3.80	3.70	3.70	3.70	3.70	3.70	3.60	3.50	3.60
14	4.20	4.00	4.10	3.70	3.70	3.70	3.70	3.60	3.60	3.50	3.40	3.40
15	4.00	3.90	4.00	3.70	3.50	3.60	3.60	3.60	3.60	3.50	3.20	3.30
16	3.90	3.90	3.90	3.70	3.60	3.60	3.80	3.60	3.70	3.30	3.20	3.30
17	4.00	3.90	3.90	3.70	3.70	3.70	3.90	3.80	3.90	3.30	3.20	3.30
18	3.90	3.90	3.90	3.70	3.60	3.70	3.80	3.70	3.70	3.30	3.20	3.30
19	4.00	3.90	3.90	3.60	3.60	3.60	3.70	3.60	3.70	3.40	3.30	3.30
20	3.90	3.70	3.80	3.60	3.60	3.60	3.60	3.60	3.60	3.30	3.30	3.30
21	3.70	3.70	3.70	4.30	3.60	3.70	3.60	3.60	3.60	3.40	3.30	3.30
22	3.70	3.70	3.70	5.60	4.20	4.60	3.70	3.60	3.60	3.30	3.30	3.30
23	3.90	3.70	3.80	4.30	4.10	4.20	3.60	3.50	3.60	3.30	3.30	3.30
24	3.90	3.80	3.90	4.10	3.90	4.00	3.50	3.50	3.50	3.40	3.30	3.30
25	3.90	3.80	3.90	3.90	3.80	3.80	3.60	3.50	3.50	3.40	3.30	3.30
26	3.80	3.80	3.80	3.80	3.70	3.70	3.60	3.50	3.60	3.40	3.30	3.40
27	3.80	3.70	3.70	4.00	3.70	3.80	3.50	3.50	3.50	3.80	3.40	3.60
28	3.80	3.70	3.70	3.80	3.70	3.70	3.50	3.50	3.50	3.80	3.60	3.70
29	4.30	3.80	3.90	3.70	3.70	3.70	3.50	3.40	3.50	3.80	3.70	3.80
30	4.40	4.00	4.20	3.70	3.70	3.70	3.70	3.40	3.50	3.70	3.50	3.60
31	---	---	---	4.90	3.60	4.20	3.60	3.60	3.60	---	---	---
MONTH	5.50	3.70	4.03	5.60	3.50	3.88	5.10	3.40	3.80	4.00	3.20	3.47

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	11.0	12.5	12.0	9.0	10.5	5.0	3.5	4.0	6.5	4.0	5.5
2	12.5	10.0	11.0	12.5	8.0	11.5	5.0	3.5	4.0	6.5	3.0	5.0
3	13.5	8.0	10.5	9.0	5.0	7.0	5.0	3.5	4.0	3.5	1.5	2.5
4	15.0	9.5	12.5	8.0	5.0	6.5	3.5	1.5	2.5	2.5	.5	1.5
5	13.5	10.0	11.5	11.5	8.0	9.5	3.0	1.5	2.0	2.5	.5	1.5
6	13.0	7.0	10.0	10.0	7.0	8.0	2.0	1.0	1.5	2.5	.5	1.5
7	12.5	8.0	10.5	8.0	5.0	6.5	1.5	1.0	1.0	3.5	2.0	2.5
8	13.0	11.5	12.0	7.0	3.0	5.0	1.5	1.0	1.0	2.5	.5	1.0
9	16.5	12.5	14.0	6.5	5.0	5.5	2.0	1.0	1.5	.5	.5	.5
10	17.5	15.0	16.5	10.5	6.5	8.5	3.5	1.5	2.5	.5	.5	.5
11	18.5	15.0	16.5	10.0	8.5	9.5	4.0	3.0	3.5	.5	.5	.5
12	17.0	13.5	15.0	8.5	5.0	6.5	4.0	3.0	3.5	.5	.5	.5
13	17.0	12.5	15.0	5.0	3.0	4.0	6.0	4.0	5.0	.5	.5	.5
14	16.0	12.5	14.5	5.5	1.5	3.5	5.0	4.0	4.5	.5	.5	.5
15	16.0	11.5	14.0	5.5	2.0	4.0	6.0	4.0	5.0	.5	.5	.5
16	16.0	11.5	14.0	6.0	4.0	5.5	5.5	4.5	5.0	1.0	.5	.5
17	15.5	13.0	14.5	6.0	3.0	4.5	7.5	5.0	6.0	.5	.5	.5
18	17.5	14.0	15.5	5.5	3.0	4.0	6.0	4.0	5.0	.5	.5	.5
19	18.5	14.5	16.5	4.5	1.5	3.5	4.0	3.0	3.5	.5	.5	.5
20	18.0	16.0	17.0	1.5	.5	1.0	4.5	2.0	3.5	---	---	---
21	16.5	13.5	15.0	1.5	.5	1.0	2.5	1.0	1.5	---	---	---
22	16.5	14.0	15.5	1.5	.5	1.0	5.5	2.5	3.5	.5	.5	.5
23	14.5	13.0	13.5	1.5	1.0	1.0	3.5	1.0	2.0	.5	.5	.5
24	13.5	12.0	12.5	3.5	1.0	2.0	.5	.5	2.0	.5	.5	.5
25	14.0	10.0	12.0	4.0	1.0	2.0	3.5	.0	2.0	.5	.5	.5
26	15.0	13.0	14.0	4.0	1.0	2.5	1.0	.0	.5	.5	.5	.5
27	17.5	14.0	15.5	4.0	1.0	2.5	1.0	.0	.5	.5	.5	.5
28	19.5	15.5	17.5	8.5	4.0	6.5	5.0	1.0	3.0	.5	.5	.5
29	18.5	14.0	16.5	6.5	3.5	4.5	8.5	5.0	7.0	.5	.5	.5
30	14.0	10.5	12.5	4.5	2.5	3.5	8.5	3.5	6.5	.5	.5	.5
31	12.5	10.5	12.0	---	---	---	4.0	1.5	3.0	.5	.5	.5
MONTH	19.5	7.0	14.0	12.5	.5	5.0	8.5	.0	3.0	6.5	.5	1.0

## CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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



## CHEMUNG RIVER BASIN

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01516500 COREY CREEK NEAR MAINESBURG, PA

LOCATION.--Lat 41°47'27", long 77°00'54", Tioga County, Hydrologic Unit 02050104, on right bank, 30 ft upstream from township bridge, 500 ft upstream from small tributary, 1.1 mi west of Mainesburg, 35 mi east of Mansfield, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--12.2 mi<sup>2</sup>.

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.--Estimated daily discharges: Dec. 6-9, 25-27, Jan. 6 to Feb. 23, 28, Mar. 6, 7, 16, 18, 19, 21, Aug. 12-16. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 12.5 ft<sup>3</sup>/s, 13.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft<sup>3</sup>/s June 23, 1972, gage height, 10.44 ft, from floodmark, from rating curve extended above 490 ft<sup>3</sup>/s on basis of slope-area measurements at gage height 7.88 ft and at peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0630	*176	*3.25				

Minimum discharge, 0.33 ft<sup>3</sup>/s Sept. 7, 8, gage height, 1.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.7	44	24	2.4	16	44	4.4	17	2.8	5.0	.94
2	1.8	1.9	22	21	2.3	15	31	4.6	7.5	3.2	2.8	.79
3	1.3	1.5	23	16	2.3	11	27	6.4	6.4	5.0	2.1	.69
4	1.1	1.5	20	15	2.2	11	23	4.7	5.3	4.5	1.6	.62
5	.92	4.9	14	13	2.2	19	20	4.4	5.2	2.5	1.3	.53
6	.90	3.8	13	11	2.1	15	19	4.6	4.8	2.1	1.1	.47
7	.89	2.7	13	9.4	2.1	13	16	6.1	3.8	2.2	4.2	.39
8	.94	2.2	12	8.2	2.0	11	19	4.7	3.5	2.0	10	1.5
9	.99	2.0	12	7.6	2.0	10	17	4.1	3.1	1.9	3.6	2.7
10	.97	3.0	11	6.8	1.9	9.6	14	3.8	2.7	1.8	2.4	3.3
11	.89	3.2	23	6.0	1.9	9.2	13	3.4	2.3	1.6	2.0	2.4
12	.86	2.9	20	5.4	3.0	27	11	3.4	3.0	1.3	1.7	1.4
13	.84	2.6	26	5.0	15	19	10	3.3	2.9	1.2	1.5	1.2
14	.84	2.5	22	4.7	10	16	9.7	3.0	2.6	1.1	1.3	1.0
15	.83	2.2	21	4.4	5.4	14	9.5	3.3	2.2	1.2	1.2	.86
16	.84	2.2	18	4.0	4.5	13	9.2	3.8	2.2	1.5	3.0	.76
17	.76	1.9	17	3.7	3.9	11	7.8	4.1	2.2	1.0	1.8	.68
18	.83	1.8	14	3.4	3.4	11	7.0	7.3	2.0	.83	1.3	.61
19	.88	1.8	16	3.3	3.2	10	6.9	4.4	1.7	.67	1.1	.55
20	1.4	1.4	15	3.0	3.1	9.2	11	3.5	1.6	.61	.97	.53
21	1.0	1.4	12	2.7	3.0	8.4	8.3	3.1	1.5	2.1	.86	.49
22	2.5	1.4	23	2.6	25	8.0	6.9	3.0	1.4	7.9	.83	.47
23	3.5	1.3	15	2.8	80	14	6.5	2.7	1.5	1.9	.70	.49
24	1.8	1.5	12	2.7	55	36	7.7	2.4	1.7	1.3	.66	.56
25	1.5	1.5	11	2.6	43	27	6.8	2.2	1.3	1.0	1.1	.62
26	1.8	1.4	11	2.5	31	19	6.3	2.2	1.0	1.1	1.0	.51
27	2.0	1.4	10	2.4	25	18	5.8	2.3	.96	1.9	.84	2.9
28	1.6	3.9	28	2.7	21	18	5.3	8.6	1.1	1.1	.69	2.4
29	3.8	80	28	2.6	----	19	5.2	5.3	4.6	.84	.63	1.4
30	2.9	25	37	2.5	----	18	4.7	3.7	4.5	.71	1.1	1.1
31	2.0	----	23	2.4	----	43	----	3.8	----	9.6	1.4	----
TOTAL	44.88	166.5	586	203.4	357.9	498.4	388.6	126.6	101.56	68.46	59.78	32.86
MEAN	1.45	5.55	18.9	6.56	12.8	16.1	13.0	4.08	3.39	2.21	1.93	1.10
MAX	3.8	80	44	24	80	43	44	8.6	17	9.6	10	3.3
MIN	.76	1.3	10	2.4	1.9	8.0	4.7	2.2	.96	.61	.63	.39
CFSM	.12	.45	1.55	.54	1.05	1.32	1.07	.33	.28	.18	.16	.09
IN.	.14	.51	1.79	.62	1.09	1.52	1.18	.39	.31	.21	.18	.10

CAL YR 1984 TOTAL 7134.10 MEAN 19.5 MAX 645 MIN .49 CFSM 1.60 IN. 21.75  
WTR YR 1985 TOTAL 2634.94 MEAN 7.22 MAX 80 MIN .39 CFSM .59 IN. 8.03

## 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 at Tioga, 0.8 mi upstream from Crooked Creek and 0.9 mi downstream from Tioga Lake.

DRAINAGE AREA.--282 mi<sup>2</sup>.

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

REVISIONS.--WSP 871: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,021.0 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.--Estimated daily discharge: Jan. 21. Records good except estimated daily discharge, which is fair. Discharges include flow diverted from Crooked Creek into Tioga River since Oct. 1, 1977. Flow regulated by Tioga Lake (station 01517900) 0.9 mi upstream since November 1979. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,000 ft<sup>3</sup>/s June 22, 1972, gage height, 19.70 ft, from flood-mark, from rating curve extended above 8,000 ft<sup>3</sup>/s on basis of slope-area measurement and contracted-opening measurement at gage height, 15.47 ft and slope-area measurement of peak flow; no flow Mar. 6, 1979, Aug. 29, 1980, result of shutoff at Tioga Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,400 ft<sup>3</sup>/s Nov. 29, gage height, 4.96 ft; minimum daily, 42 ft<sup>3</sup>/s Sept. 26, 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	52	1000	635	100	461	2210	119	655	56	176	70
2	50	53	1140	890	100	549	1120	119	464	56	114	69
3	50	53	903	845	97	434	948	120	251	56	68	69
4	49	52	865	637	87	332	969	121	199	115	68	65
5	49	53	641	524	82	393	720	121	162	139	68	62
6	49	53	484	362	81	438	718	121	190	127	67	62
7	49	53	484	352	81	429	592	140	170	127	68	62
8	49	53	361	380	81	428	437	154	131	98	68	63
9	49	53	315	265	81	427	488	154	131	68	68	57
10	49	52	357	99	81	420	503	140	119	68	68	53
11	50	53	609	98	81	408	448	116	97	68	68	53
12	50	53	860	136	81	852	374	105	97	72	68	53
13	50	54	848	271	81	1010	325	105	95	68	68	53
14	50	54	1010	344	96	749	268	105	95	68	64	53
15	50	53	737	244	107	710	281	104	95	68	68	53
16	50	53	655	123	107	523	291	124	92	74	69	53
17	50	53	671	84	109	449	200	119	95	80	69	53
18	52	54	638	82	109	348	129	135	95	80	68	48
19	53	54	461	113	128	344	156	194	95	80	68	43
20	54	54	555	141	195	340	256	194	95	80	68	43
21	53	54	670	140	358	335	291	163	71	74	68	43
22	53	54	990	135	387	247	271	103	57	67	68	43
23	54	54	710	125	1030	350	224	88	57	67	68	43
24	54	54	357	125	2540	1210	188	88	57	65	68	43
25	54	54	360	121	2210	1140	189	88	57	64	69	43
26	53	54	275	118	1220	761	191	79	56	66	69	42
27	53	54	368	117	854	680	161	71	56	67	69	43
28	53	57	756	112	567	555	119	246	56	67	69	42
29	54	1860	1760	98	---	594	119	413	56	67	84	42
30	53	1620	1350	95	---	670	119	225	56	67	75	42
31	53	---	949	100	---	1260	---	157	---	105	71	---
TOTAL	1589	4977	22139	7911	11131	17846	13305	4331	4002	2424	2289	1563
MEAN	51.3	166	714	255	398	576	444	140	133	78.2	73.8	52.1
MAX	54	1860	1760	890	2540	1260	2210	413	655	139	176	70
MIN	49	52	275	82	81	247	119	71	56	56	64	42
CAL YR 1984	TOTAL	224500	MEAN	613	MAX	5430	MIN	16				
WTR YR 1985	TOTAL	93507	MEAN	256	MAX	2540	MIN	42				

## CHEMUNG RIVER BASIN

41

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 at Tioga Junction, 3.3 mi downstream from Crooked Creek and 5.0 mi downstream from Tioga and Hammond Lakes.

DRAINAGE AREA.--446 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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.--Estimated daily discharges: Jan. 10, 11, Jan. 17 to Feb. 14, Sept. 15-18. Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1979 by Tioga Lake (01517900) and Hammond Lake (station 01518498) located 5.0 mi upstream. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--9 years, 539 ft<sup>3</sup>/s, 16.43 in/yr, adjusted for storage since November 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft<sup>3</sup>/s Feb. 25, 1977, gage height, 16.70 ft, from rating curve extended above 4,000 ft<sup>3</sup>/s; minimum daily, 16 ft<sup>3</sup>/s Aug. 26-28, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1975 reached a stage of about 22.1 ft, from floodmarks, discharge, about 48,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,620 ft<sup>3</sup>/s Feb. 23, gage height, 11.44 ft; minimum daily, 50 ft<sup>3</sup>/s Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	72	79	1220	773	130	561	2720	151	657	69	189	82	
2	69	79	1380	1010	130	669	1480	151	573	68	129	82	
3	69	78	1080	1010	130	548	1180	152	286	69	78	82	
4	69	78	1040	732	125	409	1230	150	221	110	77	79	
5	69	90	766	625	120	489	891	149	189	149	76	74	
6	69	92	561	432	120	528	877	150	216	133	76	73	
7	69	85	545	411	120	513	744	166	202	133	79	73	
8	69	84	429	443	120	521	540	183	154	112	79	80	
9	69	83	357	346	120	521	590	181	151	77	76	75	
10	69	84	415	160	120	506	607	168	145	77	76	76	
11	69	87	716	150	120	494	539	143	118	76	77	66	
12	69	87	1030	236	120	1100	463	129	121	84	77	65	
13	69	87	1000	315	120	1290	398	127	119	82	76	65	
14	69	85	1210	397	135	932	337	127	119	78	72	64	
15	69	84	897	307	159	882	346	128	118	80	77	63	
16	69	83	761	192	154	638	359	141	119	84	79	62	
17	69	83	776	128	151	563	281	160	118	91	76	62	
18	71	83	719	120	146	428	190	150	118	91	76	60	
19	75	83	553	135	158	415	213	219	118	90	76	53	
20	76	83	602	220	227	415	325	216	118	90	77	52	
21	76	83	742	220	400	404	360	198	97	87	77	52	
22	78	82	1090	200	629	324	336	132	70	78	76	52	
23	78	80	890	190	1280	407	287	110	70	76	79	51	
24	76	81	416	185	3110	1520	248	106	71	75	77	52	
25	76	82	412	180	2740	1500	249	104	69	74	77	52	
26	78	81	325	175	1650	957	248	99	68	78	76	50	
27	78	82	411	170	1170	859	224	86	67	76	76	57	
28	77	84	768	160	816	705	172	204	68	75	76	52	
29	92	906	2060	135	---	735	154	441	70	74	97	51	
30	87	1390	1570	130	---	800	151	270	69	74	93	51	
31	82	---	1220	130	---	1470	---	182	---	100	83	---	
TOTAL	2276	4628	25961	10017	14520	22103	16739	5073	4699	2710	2585	1908	
MEAN	73.4	154	837	323	519	713	558	164	157	87.4	83.4	63.6	
MAX	92	1390	2060	1010	3110	1520	2720	441	657	149	189	82	
MIN	69	78	325	120	120	324	151	86	67	68	72	50	
MEAN†	66.4	187	833	346	492	720	549	169	157	85.3	73.5	52.2	
CFSM†	.15	.42	1.87	.78	1.10	1.61	1.23	.38	.35	.19	.16	.12	
IN.†	.17	.47	2.16	.90	1.15	1.86	1.37	.44	.39	.22	.18	.13	
CAL YR 1984 TOTAL	274181	MEAN	749	MAX	6200	MIN	65	MEAN†	750	CFSM†	1.68	IN.†	22.90
WTR YR 1985 TOTAL	113219	MEAN	310	MAX	3110	MIN	50	MEAN†	310	CFSM†	.70	IN.†	9.44

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

## CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-72, 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

pH: October 1976 to current year.

WATER TEMPERATURE: October 1976 to current year.

DISSOLVED OXYGEN: October 1976 to September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1976.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1977, 1979-85): Maximum, 460 microsiemens Aug. 26, 1979; minimum, 67 microsiemens Mar. 8, 1979.

pH: Maximum, 8.0 units May 23-25, 1978; minimum, 5.1 units Sept. 8, 1977, Aug. 26, Sept. 15, 23, 1979.

WATER TEMPERATURE: Maximum, 29.5°C July 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 321 microsiemens Sept. 30; minimum, 127 microsiemens Apr. 6, 7.

pH: Maximum, 7.3 units on several days in November and April; minimum, 6.1 units Jan. 28.

WATER TEMPERATURE: Maximum, 27.0°C July 20; minimum, 0.5°C on many days during winter period.

## SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	282	272	277	265	260	263	---	---	---	152	148	151
2	279	272	277	261	256	258	---	---	---	149	146	147
3	283	266	279	261	257	259	---	---	---	155	147	150
4	269	243	252	261	255	259	---	---	---	153	147	150
5	264	248	253	255	243	249	---	---	---	149	147	148
6	267	261	264	273	245	255	177	175	176	149	148	149
7	263	258	260	283	274	280	177	165	171	149	147	148
8	262	251	258	283	274	278	166	162	164	150	147	149
9	263	249	254	275	258	268	164	163	163	159	150	153
10	277	263	270	260	254	257	164	161	163	162	156	159
11	286	277	282	258	252	255	161	155	158	159	154	157
12	287	280	283	258	253	255	---	---	---	160	154	156
13	285	277	281	261	257	259	---	---	---	170	159	163
14	278	273	275	259	251	257	---	---	---	170	163	166
15	275	268	271	260	253	257	---	---	---	180	165	170
16	269	264	267	260	252	259	---	---	---	---	---	---
17	266	263	264	261	258	260	---	---	---	200	185	196
18	265	256	260	262	258	261	---	---	---	201	195	198
19	262	258	261	262	259	261	165	161	163	206	192	200
20	258	252	254	261	241	254	161	157	159	---	188	---
21	279	255	271	268	238	254	159	155	158	214	205	209
22	272	245	253	267	255	262	157	152	154	209	198	205
23	253	245	250	267	258	262	153	151	152	206	201	204
24	252	249	251	264	260	262	155	152	153	209	202	206
25	283	250	265	263	259	262	156	152	155	223	207	214
26	291	275	285	263	260	262	156	154	155	233	223	229
27	290	275	285	263	260	262	156	153	155	236	225	232
28	290	270	286	---	---	---	154	151	153	232	224	229
29	270	261	264	---	---	---	152	147	149	231	214	228
30	272	265	270	---	---	---	149	147	148	213	178	198
31	270	257	263	---	---	---	152	149	150	220	212	216
MONTH	291	243	267	283	238	260	177	147	158	236	146	182



01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	229	217	224	---	---	---	138	135	136	172	168	170
2	235	221	227	---	---	---	138	133	136	171	168	169
3	241	224	233	---	---	---	137	131	135	171	169	170
4	241	219	233	---	---	---	134	130	132	173	170	171
5	240	231	234	---	---	---	133	130	131	174	172	173
6	234	228	231	153	143	148	132	127	129	175	173	174
7	235	230	233	150	138	145	131	127	129	178	174	177
8	243	231	238	145	140	142	130	128	129	179	177	179
9	239	233	237	143	140	142	133	129	133	183	179	180
10	240	233	236	143	140	141	133	129	133	186	181	183
11	244	234	239	144	140	142	137	133	135	186	182	184
12	240	228	235	146	132	142	137	133	137	187	184	185
13	230	221	225	150	141	145	141	137	139	190	186	188
14	236	223	229	150	141	144	141	137	140	193	185	190
15	234	228	232	150	146	149	144	141	142	193	190	192
16	229	224	226	148	145	146	148	144	145	195	190	193
17	226	219	222	147	142	145	148	144	147	196	180	192
18	226	223	225	146	143	145	152	144	149	195	182	189
19	223	214	221	145	140	143	152	144	149	197	194	196
20	214	203	208	144	140	142	152	144	149	198	196	197
21	207	190	202	146	142	144	156	148	152	198	196	197
22	192	151	182	146	143	144	156	152	154	198	194	196
23	184	133	157	144	140	142	160	152	158	197	193	195
24	---	---	---	142	132	137	168	160	164	200	195	198
25	---	---	---	154	132	144	165	161	162	200	198	199
26	---	---	---	150	146	148	162	160	161	200	195	199
27	---	---	---	151	143	146	164	161	162	200	196	198
28	---	---	---	145	140	142	164	160	161	203	190	196
29	---	---	---	147	141	144	169	162	166	205	202	203
30	---	---	---	144	141	143	171	167	169	204	201	203
31	---	---	---	143	134	139	---	---	---	203	170	198
MONTH	244	133	223	154	132	144	171	127	145	205	168	188
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	206	174	196	249	219	235	257	253	254	299	281	290
2	205	200	203	250	246	248	271	254	263	288	273	278
3	205	197	202	249	243	247	269	262	264	299	286	290
4	199	196	197	257	245	248	266	263	264	303	296	299
5	197	188	195	247	239	243	266	261	263	304	299	302
6	196	192	194	241	237	239	265	260	262	304	299	301
7	197	194	195	243	239	240	264	252	258	301	298	299
8	196	193	195	240	236	239	262	253	256	300	281	291
9	197	194	195	244	238	241	267	259	261	289	275	282
10	199	196	197	244	239	241	282	267	276	289	257	283
11	200	197	198	243	237	240	283	277	279	289	257	279
12	199	194	196	243	234	239	280	275	277	289	272	280
13	199	196	197	243	212	230	281	275	277	276	273	274
14	202	197	199	243	240	241	280	272	276	288	276	283
15	206	199	201	242	233	239	279	270	274	293	285	290
16	218	204	213	243	233	238	270	265	268	295	289	291
17	221	216	218	243	238	240	273	269	270	296	291	294
18	219	215	217	243	239	241	273	267	270	295	292	294
19	220	216	218	245	240	241	272	265	268	295	290	293
20	218	213	216	245	241	243	269	265	267	296	293	295
21	217	213	215	245	238	243	267	260	263	296	292	294
22	225	215	221	247	233	240	270	265	268	296	292	294
23	225	215	219	247	241	244	273	262	271	296	289	292
24	225	220	223	246	241	243	281	258	268	300	290	294
25	225	223	224	249	244	246	280	272	275	299	291	295
26	224	221	222	249	240	245	289	270	276	298	288	293
27	223	220	222	252	241	247	302	288	297	289	269	277
28	223	217	220	254	248	251	305	301	303	284	270	279
29	218	212	215	254	250	251	306	275	298	296	283	287
30	220	215	217	254	250	252	296	272	285	321	297	309
31	---	---	---	254	235	246	298	275	292	---	---	---
MONTH	225	174	208	257	212	243	306	252	272	321	257	290

## CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.80	6.70	6.70	7.00	6.80	6.90	---	---	---	7.00	7.00	7.00
2	6.90	6.70	6.80	7.10	6.80	7.00	---	---	---	7.00	7.00	7.00
3	6.90	6.70	6.80	7.10	6.90	7.00	---	---	---	7.10	7.00	7.00
4	6.80	6.80	6.80	7.10	6.90	7.00	---	---	---	7.10	7.00	7.10
5	6.90	6.70	6.80	7.10	6.90	7.00	---	---	---	7.10	7.00	7.10
6	6.90	6.80	6.90	7.10	6.90	7.00	---	---	---	7.00	6.90	7.00
7	7.00	6.90	6.90	7.10	6.90	7.00	---	---	---	7.10	7.00	7.00
8	7.00	6.90	6.90	7.10	6.90	7.00	7.10	7.00	7.00	7.10	7.00	7.00
9	7.10	6.90	7.00	7.10	6.90	7.00	7.10	6.90	7.00	7.00	6.90	7.00
10	7.00	6.90	6.90	7.20	6.90	7.00	7.00	6.90	7.00	7.00	7.00	7.00
11	7.00	6.90	6.90	7.20	6.90	7.00	7.00	6.90	7.00	7.10	7.00	7.00
12	7.00	6.90	6.90	7.10	7.00	7.00	---	---	---	7.10	6.90	7.00
13	7.00	6.80	6.90	7.20	7.00	7.10	---	---	---	7.00	6.80	6.90
14	7.00	6.90	6.90	7.20	7.00	7.10	---	---	---	6.90	6.80	6.80
15	7.00	6.90	6.90	7.30	7.10	7.20	---	---	---	6.90	6.80	6.80
16	7.10	6.90	7.00	7.30	7.10	7.20	---	---	---	---	---	---
17	7.10	6.90	7.00	7.30	7.10	7.20	---	---	---	6.90	6.70	6.70
18	7.10	6.90	7.00	7.30	7.10	7.20	---	---	---	6.80	6.70	6.80
19	7.10	6.90	6.90	7.30	7.10	7.20	7.10	7.10	7.10	6.70	6.50	6.70
20	7.10	6.80	7.00	7.30	7.20	7.20	7.10	7.10	7.10	---	---	---
21	7.00	6.90	6.90	7.30	7.20	7.20	7.10	7.00	7.00	6.50	6.40	6.40
22	7.00	6.80	6.90	7.30	7.20	7.20	7.10	7.10	7.10	6.50	6.30	6.40
23	7.10	6.90	7.00	7.30	7.00	7.20	7.20	7.10	7.10	6.50	6.40	6.40
24	7.10	6.90	7.00	7.30	7.00	7.10	7.20	7.00	7.10	6.50	6.40	6.40
25	7.00	6.90	7.00	7.30	7.10	7.10	7.10	7.00	7.00	6.50	6.40	6.40
26	6.90	6.80	6.80	7.20	7.10	7.10	7.10	7.00	7.00	6.40	6.20	6.30
27	6.90	6.80	6.80	7.30	7.00	7.10	7.10	7.00	7.00	6.30	6.20	6.20
28	6.90	6.80	6.80	---	---	---	7.10	7.00	7.10	6.30	6.10	6.20
29	6.90	6.70	6.80	---	---	---	7.10	7.00	7.10	6.50	6.20	6.20
30	6.90	6.80	6.80	---	---	---	7.10	7.00	7.10	6.90	6.40	6.60
31	7.00	6.80	6.90	---	---	---	7.10	7.00	7.00	6.40	6.40	6.40
MONTH	7.10	6.70	6.89	7.30	6.80	7.09	7.20	6.90	7.05	7.10	6.10	6.72
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.40	6.30	6.30	---	---	---	7.10	7.00	7.10	7.00	6.70	6.90
2	6.40	6.20	6.30	---	---	---	7.10	7.00	7.10	7.00	6.80	6.90
3	6.40	6.20	6.30	---	---	---	7.10	7.00	7.10	7.10	6.80	6.90
4	6.40	6.30	6.40	---	---	---	7.10	7.00	7.10	7.10	6.80	6.90
5	6.30	6.20	6.30	---	---	---	7.20	7.10	7.10	7.00	6.80	6.90
6	6.40	6.30	6.30	6.70	6.50	6.60	7.20	7.00	7.10	7.00	6.80	6.90
7	6.40	6.30	6.40	6.70	6.60	6.60	7.20	7.00	7.10	7.10	6.80	6.90
8	6.40	6.30	6.40	6.70	6.70	6.70	7.20	7.00	7.10	7.00	6.80	6.90
9	6.30	6.30	6.30	6.70	6.70	6.70	7.20	7.00	7.00	7.00	6.80	6.90
10	6.40	6.30	6.30	6.70	6.70	6.70	7.20	7.00	7.00	7.00	6.80	6.90
11	6.40	6.30	6.30	6.70	6.70	6.70	7.10	6.90	7.00	7.00	6.70	6.90
12	6.60	6.40	6.40	6.80	6.50	6.70	7.10	6.90	7.00	7.00	6.70	6.90
13	6.70	6.60	6.60	6.80	6.50	6.70	7.10	6.90	7.00	7.00	6.80	6.90
14	6.60	6.40	6.50	6.80	6.70	6.80	7.20	6.90	7.10	6.90	6.70	6.80
15	6.70	6.40	6.50	6.80	6.60	6.70	7.20	6.90	7.10	6.90	6.70	6.80
16	6.80	6.60	6.70	6.90	6.80	6.80	7.20	6.90	7.00	6.90	6.80	6.80
17	---	---	---	6.90	6.80	6.90	7.20	6.90	7.00	6.80	6.70	6.70
18	---	---	---	6.90	6.80	6.90	7.30	6.90	7.10	7.00	6.70	6.80
19	---	---	---	7.00	6.90	6.90	7.20	7.00	7.10	6.80	6.70	6.70
20	6.60	6.60	6.60	7.00	6.90	7.00	7.30	6.90	7.10	6.80	6.60	6.70
21	6.60	6.50	6.60	7.00	6.90	7.00	7.20	6.90	7.00	6.80	6.50	6.70
22	7.10	6.60	6.70	7.00	6.90	7.00	7.20	6.80	7.00	6.90	6.60	6.70
23	7.10	6.50	6.90	7.10	7.00	7.00	7.20	6.80	7.00	6.90	6.70	6.80
24	---	---	---	7.00	7.00	7.00	7.00	6.80	6.90	6.90	6.70	6.80
25	---	---	---	7.00	6.70	6.80	7.00	6.80	6.90	6.90	6.70	6.80
26	---	---	---	6.90	6.80	6.90	7.00	6.80	6.90	6.90	6.70	6.80
27	---	---	---	7.00	6.90	6.90	7.00	6.80	6.90	6.90	6.70	6.80
28	---	---	---	7.10	6.90	7.00	7.00	6.80	6.90	6.90	6.60	6.80
29	---	---	---	7.10	6.90	7.00	7.00	6.80	6.90	6.80	6.60	6.70
30	---	---	---	7.00	7.00	7.00	7.00	6.80	6.90	6.70	6.50	6.60
31	---	---	---	7.10	7.00	7.00	---	---	---	6.70	6.60	6.60
MONTH	7.10	6.20	6.46	7.10	6.50	6.85	7.30	6.80	7.02	7.10	6.50	6.81

## 01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.80	6.60	6.70	6.80	6.60	6.70	6.60	6.30	6.50	6.70	6.50	6.60
2	6.80	6.50	6.60	6.70	6.50	6.60	6.50	6.30	6.40	6.80	6.60	6.70
3	6.70	6.50	6.60	6.70	6.50	6.60	6.70	6.40	6.50	6.80	6.60	6.70
4	6.70	6.50	6.60	6.70	6.30	6.50	6.70	6.50	6.60	6.70	6.50	6.60
5	6.80	6.50	6.60	6.40	6.20	6.30	6.80	6.50	6.60	6.70	6.50	6.60
6	6.70	6.60	6.60	6.50	6.30	6.40	6.80	6.50	6.60	6.80	6.50	6.60
7	6.70	6.50	6.60	6.60	6.30	6.50	6.70	6.50	6.60	6.80	6.50	6.60
8	6.80	6.60	6.70	6.60	6.40	6.50	6.80	6.50	6.60	6.80	6.50	6.60
9	6.80	6.60	6.70	6.70	6.50	6.60	6.80	6.50	6.70	6.80	6.50	6.60
10	6.80	6.60	6.70	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.60	6.70
11	6.80	6.60	6.70	6.80	6.60	6.70	6.70	6.50	6.60	6.90	6.70	6.80
12	6.80	6.60	6.70	6.80	6.60	6.70	6.80	6.50	6.60	6.80	6.60	6.70
13	6.90	6.70	6.80	6.80	6.60	6.70	6.80	6.50	6.60	6.80	6.60	6.70
14	6.90	6.70	6.80	6.70	6.60	6.60	6.80	6.50	6.60	6.80	6.60	6.70
15	6.80	6.70	6.80	6.80	6.60	6.70	6.80	6.50	6.60	6.80	6.60	6.70
16	6.70	6.60	6.70	6.80	6.50	6.70	6.80	6.50	6.60	6.80	6.50	6.70
17	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.70	6.80	6.50	6.60
18	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.60
19	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.70	6.80	6.50	6.70
20	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.60	6.80	6.50	6.60
21	6.70	6.50	6.60	6.80	6.50	6.60	6.80	6.60	6.70	6.80	6.50	6.70
22	6.70	6.60	6.60	6.90	6.50	6.70	6.80	6.60	6.70	6.80	6.50	6.70
23	6.70	6.50	6.60	6.90	6.60	6.70	6.80	6.50	6.60	6.80	6.50	6.70
24	6.70	6.50	6.60	6.90	6.50	6.70	6.80	6.50	6.70	6.80	6.50	6.70
25	6.80	6.60	6.70	6.90	6.60	6.70	6.70	6.50	6.60	6.90	6.60	6.70
26	6.80	6.60	6.70	6.80	6.50	6.70	6.70	6.50	6.60	6.90	6.60	6.70
27	6.80	6.60	6.70	6.90	6.50	6.70	6.60	6.40	6.50	6.80	6.60	6.70
28	6.80	6.60	6.70	6.90	6.50	6.70	6.60	6.40	6.50	6.90	6.70	6.80
29	6.90	6.70	6.80	6.90	6.50	6.70	6.70	6.40	6.50	6.90	6.70	6.80
30	6.90	6.60	6.80	6.90	6.50	6.70	6.60	6.50	6.60	6.80	6.60	6.70
31	---	---	---	6.70	6.40	6.60	6.70	6.50	6.60	---	---	---
MONTH	6.90	6.50	6.67	6.90	6.20	6.62	6.80	6.30	6.60	6.90	6.50	6.68

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	13.5	14.5	13.5	11.0	12.5	---	---	---	4.5	4.0	4.0
2	15.0	13.0	13.5	13.5	11.0	12.5	---	---	---	5.0	4.5	4.5
3	14.5	11.5	13.0	11.0	8.5	10.0	---	---	---	4.5	3.0	4.0
4	15.5	13.0	14.5	10.5	8.5	9.5	---	---	---	4.0	3.0	3.5
5	15.0	12.5	13.5	13.0	10.5	11.5	---	---	---	3.5	2.5	3.0
6	14.0	10.5	12.5	12.0	9.0	10.5	4.0	2.5	3.0	4.0	2.5	3.0
7	14.0	11.5	13.0	9.0	7.5	8.5	3.5	2.0	2.5	3.5	2.5	3.0
8	14.5	13.5	14.0	9.0	6.5	8.0	3.5	2.0	2.5	2.5	1.0	2.0
9	16.5	14.0	15.0	9.0	7.5	8.5	3.5	2.0	2.5	2.0	.5	1.0
10	16.5	15.5	16.0	11.5	9.0	10.0	3.5	2.0	3.0	.5	.5	.5
11	17.0	14.5	16.0	11.5	10.5	11.0	3.5	3.0	3.0	.5	.5	.5
12	16.0	13.5	15.0	10.5	7.5	8.5	---	---	---	1.0	.5	.5
13	16.0	13.5	15.0	7.0	6.0	6.5	---	---	---	2.0	.5	1.0
14	15.5	13.0	14.5	7.0	4.5	6.0	---	---	---	2.5	1.0	1.5
15	15.5	13.5	14.5	8.5	5.5	7.0	---	---	---	1.5	.5	1.0
16	16.0	12.5	14.5	8.5	6.5	7.5	---	---	---	---	---	---
17	16.0	14.0	15.0	7.0	6.0	6.5	---	---	---	1.0	.5	.5
18	16.5	15.0	16.0	8.0	6.0	7.0	---	---	---	1.5	.5	1.0
19	18.0	15.0	16.5	8.0	5.0	6.5	5.0	5.0	5.0	1.5	.5	1.0
20	18.0	15.5	16.5	5.0	3.5	4.5	5.0	4.5	5.0	---	---	---
21	16.5	14.0	15.0	5.5	4.0	4.5	4.5	4.5	4.5	.5	.5	.5
22	17.0	15.0	16.0	5.5	3.5	4.5	4.5	4.5	4.5	1.0	.5	.5
23	15.0	14.0	14.5	5.5	4.0	4.5	4.5	4.0	4.5	.5	.5	.5
24	14.5	13.0	14.0	5.5	4.0	4.5	4.5	4.0	4.0	.5	.5	.5
25	15.0	12.5	13.5	5.5	3.5	4.5	4.5	3.5	4.0	1.0	.5	.5
26	15.5	14.5	15.0	5.5	3.0	4.5	3.5	3.5	3.5	1.0	.5	.5
27	17.0	15.0	16.0	6.5	3.5	4.5	3.5	3.0	3.0	1.0	.5	.5
28	18.0	15.5	17.0	---	---	---	3.5	3.0	3.5	1.5	.5	1.0
29	18.0	15.0	16.5	---	---	---	4.0	3.5	3.5	1.5	.5	1.0
30	15.0	12.0	13.5	---	---	---	4.0	4.0	4.0	2.0	.5	1.0
31	14.0	12.5	13.5	---	---	---	4.0	3.5	4.0	1.5	.5	1.0
MONTH	18.0	10.5	15.0	13.5	3.0	7.5	5.0	2.0	3.5	5.0	.5	1.5

## CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	1.5	.5	1.0	---	---	---	6.5	6.0	6.5	16.0	12.0	14.0
2	---	---	---	---	---	---	6.5	5.5	6.0	14.0	12.0	12.5
3	---	---	---	---	---	---	6.5	5.5	5.5	17.0	11.5	14.0
4	1.0	.5	.5	---	---	---	7.0	5.0	6.0	17.5	10.0	13.5
5	.5	.5	.5	---	---	---	8.5	6.0	7.0	15.0	13.0	14.0
6	.5	.5	.5	4.5	1.5	2.5	8.5	6.5	7.5	15.5	13.5	14.5
7	.5	.5	.5	4.0	2.0	3.0	7.5	6.0	6.5	15.5	13.0	14.0
8	.5	.5	.5	5.5	3.0	3.5	7.0	5.5	6.5	17.5	11.5	14.0
9	.5	.5	.5	6.0	2.5	4.0	7.5	5.5	6.0	19.0	11.0	14.5
10	.5	.5	.5	6.5	3.0	4.0	8.5	5.0	6.5	20.5	13.5	17.0
11	1.0	.5	.5	4.5	3.0	4.0	7.5	6.0	6.5	20.0	13.5	17.0
12	2.0	1.0	1.5	4.0	3.5	4.0	10.5	5.5	7.5	20.0	15.0	17.5
13	2.5	1.5	2.0	4.5	3.0	3.5	10.5	6.5	8.0	22.0	16.0	19.0
14	2.5	.5	1.5	4.5	3.5	3.5	12.5	8.0	9.5	21.5	14.5	18.0
15	3.0	.5	2.0	4.5	3.0	3.5	11.5	8.5	9.5	19.5	15.0	16.5
16	5.0	2.0	3.5	6.0	2.5	3.5	12.5	8.5	10.0	17.0	15.0	15.5
17	---	---	---	4.5	2.5	3.5	13.0	7.0	9.5	19.0	15.0	17.0
18	---	---	---	5.5	2.0	3.0	15.0	8.0	11.0	17.0	14.0	15.5
19	---	---	---	5.5	2.0	3.0	12.5	10.5	11.0	18.5	13.0	15.5
20	4.5	1.0	2.5	5.5	2.5	4.0	14.5	10.0	12.0	21.0	14.5	17.5
21	4.5	1.5	2.5	6.0	2.0	3.5	16.0	10.5	12.5	17.5	15.5	16.0
22	4.0	3.0	3.5	7.0	2.0	4.0	16.5	10.5	13.0	20.0	13.5	17.0
23	4.0	2.5	3.0	5.5	3.5	4.0	18.0	11.5	14.5	20.5	14.5	18.0
24	---	---	---	4.0	3.5	4.0	15.5	13.5	14.5	21.5	14.5	18.0
25	---	---	---	5.0	3.5	4.0	15.0	13.0	13.5	22.0	15.0	19.0
26	---	---	---	6.5	3.5	4.5	16.0	11.5	13.5	20.5	16.0	18.0
27	---	---	---	7.0	3.5	5.0	17.5	11.5	14.0	21.5	16.5	19.0
28	---	---	---	7.0	5.0	6.0	13.5	11.0	12.0	21.5	16.0	18.0
29	---	---	---	8.5	5.5	7.0	17.0	10.0	13.5	21.0	15.5	17.5
30	---	---	---	7.0	5.5	6.0	19.0	10.5	15.0	20.5	16.0	18.0
31	---	---	---	6.0	6.0	6.0	---	---	---	19.0	16.5	17.5
MONTH	5.0	.5	1.5	8.5	1.5	4.0	19.0	5.0	10.0	22.0	10.0	16.5

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



## CHEMUNG RIVER BASIN

47

01518862 COWANESQUE RIVER AT WESTFIELD, PA

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

DRAINAGE AREA.--90.6 mi<sup>2</sup>.

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

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

REMARKS.--Estimated daily discharges: Dec. 7-10, 25-27, Jan. 9 to Apr. 15. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft<sup>3</sup>/s Aug. 13, 1984, gage height, 8.47 ft, from floodmarks at gage, from rating curve extended above 1,000 ft<sup>3</sup>/s; minimum, 1.2 ft<sup>3</sup>/s Aug. 23-25, 1983, gage height, 1.10 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 28	1745	*883	*3.59				

Minimum discharge, 2.8 ft<sup>3</sup>/s Aug. 14, 22-25, Sept. 19, gage height, 1.27 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	22	128	322	22	155	450	24	110	8.1	7.2	8.6
2	15	21	100	237	21	145	310	24	29	7.3	5.7	6.8
3	12	19	138	186	20	135	260	27	23	7.0	4.7	5.9
4	9.8	18	119	161	20	130	230	23	19	8.6	4.0	5.3
5	9.1	52	88	142	19	160	210	21	16	7.4	3.5	4.5
6	8.9	40	90	122	19	155	195	23	16	6.8	3.2	3.8
7	8.9	29	80	114	19	135	180	27	13	6.8	7.5	3.4
8	8.6	24	80	98	18	260	165	22	11	7.3	13	16
9	8.6	21	74	86	18	245	125	20	11	8.0	7.5	13
10	8.7	37	76	77	18	175	120	18	9.9	7.7	5.6	14
11	8.9	44	161	68	18	160	125	17	9.5	7.3	4.8	13
12	8.8	38	143	61	50	450	99	17	19	6.0	4.3	8.2
13	8.7	31	289	54	120	320	91	17	16	6.0	3.8	6.8
14	8.7	27	213	48	90	260	83	15	14	6.0	3.3	6.1
15	8.2	25	212	43	76	215	80	14	11	6.2	3.7	5.3
16	8.1	25	169	38	68	170	78	15	13	9.4	8.7	4.7
17	7.8	22	157	37	62	150	68	15	25	7.1	8.4	4.2
18	7.8	21	132	35	58	130	58	15	17	5.4	5.8	3.9
19	8.2	20	143	34	55	100	57	14	14	4.9	4.8	3.3
20	10	16	133	29	52	120	60	12	12	4.2	4.1	3.2
21	9.2	17	104	28	50	105	52	11	15	4.1	3.9	3.2
22	12	15	171	28	90	88	46	11	13	10	3.2	3.2
23	21	14	122	30	250	115	42	11	20	6.3	2.8	3.2
24	14	15	105	30	470	430	39	10	14	4.7	2.8	3.2
25	12	16	96	28	260	320	37	9.7	11	3.5	4.0	3.2
26	18	15	84	25	210	230	36	9.2	8.6	3.7	4.9	3.2
27	25	15	76	23	180	200	32	9.3	7.3	4.5	9.6	17
28	17	22	374	25	170	300	30	27	7.0	4.2	6.3	17
29	95	236	377	24	---	250	28	20	8.2	3.6	5.3	9.0
30	43	104	339	23	---	190	26	14	8.7	3.2	7.9	7.0
31	29	---	247	23	---	300	---	23	---	4.7	15	---
TOTAL	482.0	1021	4820	2279	2523	6298	3412	535.2	521.2	190.0	179.3	209.2
MEAN	15.5	34.0	155	73.5	90.1	203	114	17.3	17.4	6.13	5.78	6.97
MAX	95	236	377	322	470	450	450	27	110	10	15	17
MIN	7.8	14	74	23	18	88	26	9.2	7.0	3.2	2.8	3.2
CFSM	.17	.38	1.71	.81	.99	2.24	1.26	.19	.19	.07	.06	.08
IN.	.20	.42	1.98	.94	1.04	2.59	1.40	.22	.21	.08	.07	.09

CAL YR 1984 TOTAL 54417.6 MEAN 149 MAX 2260 MIN 7.8 CFSM 1.64 IN. 22.34  
WTR YR 1985 TOTAL 22469.9 MEAN 61.6 MAX 470 MIN 2.8 CFSM .68 IN. 9.23

## 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 0.5 mi downstream from Cowanesque Lake, 0.8 mi upstream from highway bridge on U.S. Route 15 in Lawrenceville, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--298 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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. Flow regulated since December 1979 by Cowanesque Lake (station 01519995) 0.5 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--34 years, 295 ft<sup>3</sup>/s, 13.44 in/yr, adjusted for storage since December 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,700 ft<sup>3</sup>/s Sept. 26, 1975, gage height, 18.13 ft, site and datum then in use, from floodmark, from rating curve extended above 6,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum discharge before construction of Cowanesque Dam, 0.8 ft<sup>3</sup>/s, Aug. 31, Sept. 1, 27, 1964; no flow Aug. 22, 1978, during dam construction.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,290 ft<sup>3</sup>/s Feb. 25, gage height, 10.66 ft; minimum daily, 14 ft<sup>3</sup>/s Aug. 27-29, Sept. 1-3, 14-16, 19-24, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	90	404	858	52	481	1760	75	40	28	19	14
2	25	74	425	902	59	490	989	73	40	20	19	14
3	25	38	289	478	64	457	831	76	40	21	19	14
4	24	38	392	441	64	273	806	76	40	20	19	15
5	25	54	326	395	64	288	610	75	40	20	21	15
6	25	123	249	368	64	443	484	69	40	22	22	15
7	25	99	180	332	60	398	477	64	36	23	20	15
8	25	76	185	258	52	418	402	64	31	20	16	16
9	25	76	202	127	52	876	344	64	23	20	15	16
10	25	79	196	87	52	543	344	61	21	20	15	16
11	25	99	532	118	52	406	327	50	24	20	15	16
12	25	107	582	102	69	1590	287	45	23	21	16	17
13	25	114	861	156	97	1140	239	45	37	20	16	16
14	25	87	800	224	95	1020	223	46	41	20	15	14
15	25	81	670	190	127	683	201	46	35	20	15	14
16	25	71	480	103	105	524	199	46	33	20	16	14
17	25	49	417	75	110	511	196	41	48	20	16	15
18	26	47	414	76	102	400	177	35	35	26	16	17
19	26	52	377	89	92	279	158	35	37	25	16	14
20	26	59	437	109	87	345	207	34	37	25	16	14
21	26	38	397	130	87	327	257	35	33	25	17	14
22	27	38	386	126	89	226	200	35	28	25	16	14
23	26	38	436	98	882	377	110	31	38	25	16	14
24	26	40	350	98	2610	1490	98	26	45	25	15	14
25	26	47	281	98	2760	1210	117	22	39	23	15	15
26	26	44	233	84	1500	757	142	22	26	19	15	15
27	26	38	173	76	819	662	111	22	22	19	14	16
28	26	43	390	68	654	946	98	32	21	19	14	15
29	75	849	1470	56	----	789	75	63	32	19	14	15
30	164	444	1150	52	----	651	75	60	38	19	15	14
31	90	----	686	52	----	1230	----	47	----	20	15	----
TOTAL	1041	3132	14370	6426	10920	20230	10544	1515	1023	669	508	447
MEAN	33.6	104	464	207	390	653	351	48.9	34.1	21.6	16.4	14.9
MAX	164	849	1470	902	2760	1590	1760	76	48	28	22	17
MIN	24	38	173	52	52	226	75	22	21	19	14	14
MEAN†	47.3	104	465	205	393	650	354	53.0	33.3	17.7	9.2	16.1
CFSM†	.16	.35	1.56	.69	1.32	2.18	1.19	.18	.11	.06	.03	.05
IN.†	.18	.39	1.80	.80	1.37	2.51	1.33	.21	.12	.07	.03	.06

CAL YR 1984 TOTAL 176633 MEAN 483 MAX 4020 MIN 16 MEAN† 483 CFSM† 1.62 IN.† 22.04  
WTR YR 1985 TOTAL 70825 MEAN 194 MAX 2760 MIN 14 MEAN† 195 CFSM† .65 IN.† 8.87

† Adjusted for change in contents in Cowanesque Lake.

## CHEMUNG RIVER BASIN

49

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA.--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1972 to September 1975, November 1976 to current year.

INSTRUMENTATION.--Water-temperature recorder May 1972 to September 1975, November 1976 to current year.

REMARKS.--The temperature recorder measures the water temperature of the outflow from Cowanesque Lake. Interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite tele-meter at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: (water years 1975, 1979, 1982-84): Maximum, 31.0°C July 9, 1975, July 14, 15, 1979; minimum, 0.0°C on many days during winter periods.

## TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	15.0	15.5	15.0	13.5	14.0				---	---	---
2	16.5	14.5	15.5	14.5	12.0	13.5				---	---	---
3	---	---	---	14.0	11.5	12.5				---	---	---
4	---	---	---	12.0	11.5	11.5				---	---	---
5	---	---	---	12.5	11.5	12.0				---	---	---
6	---	---	---	11.5	11.0	11.5				---	---	---
7	---	---	---	11.5	10.0	10.5				---	---	---
8	---	---	---	11.0	9.5	10.0				---	---	---
9	---	---	---	10.0	9.5	9.5				---	---	---
10	---	---	---	11.0	9.5	10.0				---	---	---
11	---	---	---	10.0	9.5	10.0				---	---	---
12	17.0	12.0	14.0	10.0	9.0	9.5				---	---	---
13	17.0	13.5	14.5	9.0	8.0	9.0				---	---	---
14	17.0	12.5	14.5	9.0	7.5	8.0				---	---	---
15	16.0	12.5	14.0	8.5	7.5	8.0				---	---	---
16	16.5	12.5	14.0	8.0	7.0	7.5				---	---	---
17	15.0	13.0	14.0	8.0	6.5	7.0				---	---	---
18	16.5	14.0	14.5	7.0	6.0	6.5				---	---	---
19	18.0	13.5	15.0	7.0	5.5	6.0				---	---	---
20	18.0	13.0	15.0	---	---	---				---	---	---
21	15.5	13.0	14.0	---	---	---				---	---	---
22	14.0	13.0	13.5	---	---	---				---	---	---
23	15.5	13.0	14.5	---	---	---				---	---	---
24	15.5	13.5	14.5	---	---	---				---	---	---
25	16.0	13.0	14.0	---	---	---				---	---	---
26	15.0	14.0	14.5	---	---	---				---	---	---
27	17.0	14.0	15.0	---	---	---				---	---	---
28	18.0	14.5	16.0	---	---	---				---	---	---
29	16.5	14.5	15.0	---	---	---				---	---	---
30	15.0	14.5	14.5	---	---	---				---	---	---
31	14.5	13.5	14.0	---	---	---				2.0	1.5	2.0
MONTH	18.0	12.0	14.5	15.0	5.5	10.0				2.0	1.5	2.0

## CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

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



## CHEMUNG RIVER BASIN

51

## 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 mi<sup>2</sup>. 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, 11,260 acre-ft Nov. 29, elevation, 1,084.53 ft; minimum, 8,460 acre ft Sept. 27, elevation, 1,078.67 ft.

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi<sup>2</sup>. 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, 9,680 acre-ft Mar. 12, elevation, 1,087.29 ft; minimum, 8,260 acre-ft Oct. 21, elevation, 1,085.21 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 mi<sup>2</sup>. 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 1,045.0 ft, capacity 7,330 acre-ft. Reservoir is used for flood control 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, 32,110 acre-ft Feb. 16, 1984, elevation, 1,079.57 ft; minimum, 65 acre-ft June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,550 acre-ft Feb. 25, elevation, 1,050.00 ft; minimum, 6,620 acre-ft Oct. 1, elevation, 1,043.25 ft.

## CHEMUNG RIVER BASIN

## Reservoirs in Chemung River basin--Continued

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01517900 Tioga Lake				01518498 Hammond Lake		
Sept. 30.....	1,080.07	9,080	--	1,085.65	8,590	--
Oct. 31.....	1,079.45	8,800	- 4.6	1,085.45	8,440	- 2.4
Nov. 30.....	1,082.20	10,090	+21.7	1,086.42	9,110	+11.3
Dec. 31.....	1,081.46	9,730	- 5.9	1,086.27	9,020	+ 1.5
CAL YR 1984.....	--	--	+ 1.4	--	--	- 0.6
Jan. 31.....	1,084.20	11,100	+22.3	1,086.33	9,050	+ 0.5
Feb. 28.....	1,081.20	9,600	-27.0	1,086.35	9,060	+ 0.2
Mar. 31.....	1,081.86	9,920	+ 5.2	1,086.57	9,200	+ 2.3
Apr. 30.....	1,081.35	9,670	- 4.2	1,086.11	8,920	- 4.7
May 31.....	1,081.57	9,780	+ 1.8	1,086.40	9,090	+ 2.8
June 30.....	1,081.94	9,960	+ 3.0	1,086.08	8,900	- 3.2
July 31.....	1,081.70	9,820	- 2.3	1,086.10	8,910	+ 0.2
Aug. 31.....	1,080.40	9,230	- 9.6	1,086.08	8,890	- 0.3
Sept. 30.....	1,078.86	8,540	-11.6	1,086.09	8,900	+ 0.2
WTR YR 1985.....	--	--	- 0.7	--	--	+ 1.2
01519995 Cowanesque Lake						
Sept. 30.....	1,043.25	6,620	--			
Oct. 31.....	1,045.31	7,460	+13.7			
Nov. 30.....	1,045.23	7,430	- 0.5			
Dec. 31.....	1,045.36	7,480	+ 0.8			
CAL YR 1984.....	--	--	+ 0.08			
Jan. 31.....	1,045.07	7,360	- 2.0			
Feb. 28.....	1,045.50	7,540	+ 3.2			
Mar. 31.....	1,045.00	7,330	- 3.4			
Apr. 30.....	1,045.43	7,510	+ 3.0			
May 31.....	1,046.02	7,760	+ 4.1			
June 30.....	1,045.90	7,710	- 0.8			
July 31.....	1,045.33	7,470	- 3.9			
Aug. 31.....	1,044.28	7,030	- 7.2			
Sept. 30.....	1,044.44	7,100	+ 1.2			
WTR YR 1985.....	--	--	+ 0.7			

## SUSQUEHANNA RIVER BASIN

53

01531500 SUSQUEHANNA RIVER AT TOWANDA, PA

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

DRAINAGE AREA.--7,797 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302. 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.

GAGE.--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.--Estimated daily discharges: Jan. 12 to Feb. 24. 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. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--72 years, 10,600 ft<sup>3</sup>/s, 18.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 320,000 ft<sup>3</sup>/s June 24, 1972, gage height, 33.43 ft from flood-marks, from rating curve extended above 180,000 ft<sup>3</sup>/s; minimum, 334 ft<sup>3</sup>/s Sept. 23, 24, 1964; minimum gage height -0.56 ft Aug. 17, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 68,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 13	1400	*48,800	*10.49				

Minimum discharge, 626 ft<sup>3</sup>/s Aug. 24, gage height, -0.17 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1560	2740	24200	23300	3100	20100	30900	4400	3220	1570	1660	1020
2	1570	2600	23400	23000	2900	17000	29500	4130	4180	1620	2030	946
3	1600	2320	19700	22700	2800	15900	24300	3860	3850	1660	1930	922
4	1640	2090	20500	19800	2700	14300	21500	3640	3120	1660	1540	888
5	1610	2160	18100	16100	2600	12300	19500	3460	2730	1510	1430	900
6	1560	2530	15600	13600	2900	14100	18300	3330	2470	1430	1300	884
7	1510	3590	13200	12200	2700	14100	16900	3420	2220	1350	1200	858
8	1520	3690	11300	11100	2600	13500	15500	3740	2110	1270	1150	956
9	1480	3490	10200	9480	2500	16800	13700	4330	2000	1410	1070	1230
10	1440	3190	9580	6990	2400	18600	12200	4370	1890	1450	1010	1390
11	1470	3170	10900	5800	2400	17500	11100	3790	1800	1500	973	1590
12	1420	3540	14100	5600	2600	22500	10100	3430	1760	1810	879	1920
13	1360	3900	15900	5400	3000	46300	9340	3280	1720	2430	826	1920
14	1290	3860	20500	5400	3700	45200	8520	3120	1740	2450	797	1590
15	1240	3640	21200	5200	4300	37100	7940	3110	1960	2040	866	1460
16	1290	3370	18900	5200	4300	28900	7570	3020	2080	1900	916	1280
17	1230	3170	16600	4800	4000	23900	7260	2950	2080	2140	843	1190
18	1190	3200	15300	4500	3700	20900	6690	2980	2180	2090	814	1140
19	1180	3250	14200	4300	3500	17300	6040	3900	2290	1800	813	1080
20	1200	3330	14100	4000	3300	14600	7230	3850	2160	1620	780	1030
21	1200	3230	14700	3600	3200	13700	8560	3400	2060	1490	749	966
22	1300	2980	16300	3500	3500	12800	7930	3120	1950	1470	735	877
23	1420	2780	22100	3400	5400	11500	7060	2880	1810	1430	698	823
24	1490	2760	21200	3300	23000	12300	6250	2650	1780	1440	647	787
25	1540	2670	17400	3200	40600	18200	5740	2430	1740	1210	717	752
26	1650	2660	14400	3100	40900	15400	5540	2240	1660	1130	747	728
27	1660	2620	12000	3000	33000	12700	5500	2020	1490	1040	941	1060
28	1700	2580	10500	3000	25800	12000	5230	2160	1380	1090	1000	18700
29	1960	8160	15600	2900	---	15000	4900	2520	1340	1060	895	25900
30	2210	21700	23500	2900	---	16000	4690	3430	1450	1040	882	17000
31	2840	---	26200	2800	---	17200	---	3240	---	1170	908	---
TOTAL	47330	114970	521380	243170	237400	587700	345490	102200	64220	48280	31746	91787
MEAN	1527	3832	16820	7844	8479	18960	11520	3297	2141	1557	1024	3060
MAX	2840	21700	26200	23300	40900	46300	30900	4400	4180	2450	2030	25900
MIN	1180	2090	9580	2800	2400	11500	4690	2020	1340	1040	647	728
CFSM	.20	.49	2.16	1.01	1.09	2.43	1.48	.42	.27	.20	.13	.39
IN.	.23	.55	2.49	1.16	1.13	2.80	1.65	.49	.31	.23	.15	.44

CAL YR 1984 TOTAL 4713000 MEAN 12880 MAX 138000 MIN 1180 CFSM 1.65 IN. 22.49  
WTR YR 1985 TOTAL 2435673 MEAN 6673 MAX 46300 MIN 647 CFSM .86 IN. 11.62

## TOWANDA CREEK BASIN

01532000 TOWANDA CREEK NEAR MONROETON, PA

LOCATION.---Lat 41°42'25", long 76°29'06", Bradford County, Hydrologic Unit 02050106, 0.8 mi southwest of Monroeton, and 1.0 mi upstream from South Branch Towanda Creek.

DRAINAGE AREA.---215 mi<sup>2</sup>.

PERIOD OF RECORD.---February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.---WSP 756: Drainage area. WSP 1051: 1943-44(M). WSP 1302: 1922(M), 1924, 1925-26(M), 1928, 1929(M), 1930-31. WSP 1432: 1921(M), 1932(M), 1933, 1934-35(M), 1936, 1938(M), 1940. WDR PA-78-2: 1972(M).

GAGE.---Water-stage recorder. Datum of gage is 765.527 ft above National Geodetic Vertical Datum of 1929. Non-recording gage Aug. 27, 1976 to Oct. 20, 1977, at present site and datum. Non-recording gage Sept. 26, 1975 to Aug. 26, 1976, at bridge 0.6 mi downstream at datum 11.82 ft lower. Water-stage recorder Oct. 1, 1942 to Sept. 25, 1975, 0.6 mi downstream at datum 11.82 ft lower. Prior to Oct. 1, 1942, non-recording gage at present site at datum 8.62 ft higher.

REMARKS.---Estimated daily discharges: Jan. 9 to Feb. 23. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.---71 years, 289 ft<sup>3</sup>/s, 18.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 74,000 ft<sup>3</sup>/s, June 22, 1972, gage height, 15.3 ft in gage well, 16.9 ft outside, from floodmark, site and datum then in use; minimum observed, 0.7 ft<sup>3</sup>/s Sept. 15, 17, 21, 22, 1932.

EXTREMES FOR CURRENT YEAR.---Peak discharges greater than base discharge of 4,300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0815	*2,410	*9.59				

Minimum discharge, 8.9 ft<sup>3</sup>/s, Sept. 22-27, gage height, 6.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	39	537	530	50	338	1010	101	1250	39	126	24
2	24	36	422	480	51	305	684	104	572	34	62	21
3	22	33	448	380	50	259	554	170	367	34	41	19
4	20	32	475	322	49	217	476	153	267	75	32	16
5	19	42	339	298	50	316	412	124	227	53	27	14
6	18	61	313	251	51	316	371	118	220	41	23	13
7	17	53	264	234	51	231	329	189	171	76	24	12
8	16	44	239	211	50	237	331	162	140	58	52	13
9	17	39	204	125	49	247	339	133	123	46	45	17
10	17	46	197	110	47	220	290	120	104	50	31	30
11	17	77	518	110	45	204	267	108	83	59	25	36
12	16	104	464	110	45	405	248	103	84	49	22	28
13	16	83	458	120	70	422	223	133	90	52	19	22
14	16	69	479	120	150	342	208	112	80	43	17	19
15	15	62	428	100	120	301	200	95	66	112	16	16
16	15	59	384	90	110	254	192	110	61	278	19	14
17	15	55	349	86	94	244	176	108	64	126	23	13
18	14	50	308	80	82	213	156	144	61	79	19	12
19	15	48	277	76	75	183	149	135	57	60	15	11
20	17	45	308	62	70	191	181	107	49	46	15	10
21	18	43	260	54	110	170	179	88	43	40	14	9.8
22	24	39	721	52	200	150	153	80	39	58	13	9.3
23	42	39	531	58	700	191	139	71	40	47	12	8.9
24	39	39	404	60	1100	441	170	64	41	36	12	9.3
25	33	38	351	58	1130	507	165	60	44	30	19	9.5
26	31	37	269	56	713	341	159	53	35	33	34	9.2
27	32	36	250	54	557	299	141	52	30	44	32	86
28	32	41	379	56	397	292	129	321	31	35	24	138
29	37	1360	869	54	---	315	122	366	40	27	19	63
30	54	661	904	52	---	299	110	196	48	23	19	41
31	47	---	612	50	---	496	---	151	---	61	24	---
TOTAL	735	3410	12961	4499	6266	8946	8263	4031	4527	1844	875	744.0
MEAN	23.7	114	418	145	224	289	275	130	151	59.5	28.2	24.8
MAX	54	1360	904	530	1130	507	1010	366	1250	278	126	138
MIN	14	32	197	50	45	150	110	52	30	23	12	8.9
CFSM	.11	.53	1.94	.67	1.04	1.34	1.28	.60	.70	.28	.13	.12
IN.	.13	.59	2.24	.78	1.08	1.55	1.43	.70	.78	.32	.15	.13

CAL YR 1984 TOTAL 154816 MEAN 423 MAX 11500 MIN 14 CFSM 1.97 IN. 26.79  
WTR YR 1985 TOTAL 57101.0 MEAN 156 MAX 1360 MIN 8.9 CFSM .73 IN. 9.88



## SUSQUEHANNA RIVER BASIN

55

01533400 SUSQUEHANNA RIVER AT MESHOPPEN, PA

LOCATION.--Lat 41°36'26", long 76°03'02", Wyoming County, Hydrologic Unit 02050106, on right bank, 0.7 mi south of Meshoppen, 0.7 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 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 2 to Feb. 25. 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. Several measurements of water temperature were made during the year. National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--9 years, 12,110 ft<sup>3</sup>/s, 18.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 207,000 ft<sup>3</sup>/s Mar. 6, 1979, gage height, 35.06 ft; minimum, 731 ft<sup>3</sup>/s Aug. 24, 25, 1985, gage height 7.23 ft.

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 ft<sup>3</sup>/s, from rating curve extended above 220,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 13	2230	*53,200	*19.84				

Minimum discharge, 731 ft<sup>3</sup>/s Aug. 24, 25, gage height, 7.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1620	3160	25900	26300	3900	23000	29100	5100	4880	1730	2210	1140
2	1610	2950	26300	24000	3600	18500	35500	4840	5170	1820	2470	1180
3	1620	2740	22100	21000	3100	17000	28200	4760	5260	1850	2460	1090
4	1640	2440	22000	19000	3000	15600	23600	4520	4330	1910	2100	1050
5	1670	2380	20200	16000	3300	13800	21300	4220	3710	1890	1750	992
6	1630	2650	17500	15000	3400	14300	19600	4060	3360	1720	1550	995
7	1600	3260	14900	13000	3000	14800	18200	4130	3020	1640	1410	983
8	1570	3900	12800	11000	2900	14500	16900	4250	2730	1560	1430	971
9	1590	3790	11300	9000	3000	15100	15400	4590	2550	1510	1430	1110
10	1560	3620	10700	7500	3100	19400	13600	5000	2370	2160	1250	1480
11	1540	3680	11800	6900	3300	18100	12500	4610	2200	2170	1160	1660
12	1560	3940	14900	6600	4000	19700	11400	4130	2130	2100	1110	1980
13	1510	4200	16700	6400	4000	44700	10600	4060	2090	2430	984	2150
14	1460	4250	19700	6400	4200	51100	9730	3840	2010	3250	935	2080
15	1390	4050	22500	6500	4500	43700	9070	3670	2080	3020	901	1840
16	1360	3840	20600	5400	4900	33600	8550	3680	2320	3240	979	1620
17	1390	3570	18000	5200	4800	26600	8190	3750	2410	2900	1020	1370
18	1340	3480	16300	5200	4700	22800	7730	4330	2430	2710	934	1240
19	1330	3480	15200	5000	4600	19200	7040	4330	2580	2410	904	1140
20	1360	3530	14800	4100	4500	16000	7760	4830	2560	2080	913	1060
21	1360	3510	15100	2900	4400	14500	9410	4340	2420	1920	865	994
22	1480	3380	17700	3200	4400	13800	9240	3920	2260	2050	827	938
23	1730	3140	22600	3800	4600	12700	8260	3660	2150	1960	811	891
24	1810	3040	23500	4200	6600	12500	7410	3390	2060	1780	759	880
25	1780	2950	19800	4300	15000	16900	6770	3080	2000	1650	745	860
26	1820	2880	16200	4100	47300	17900	6410	2800	1940	1440	888	823
27	1980	2860	13800	4000	39100	14200	6260	2630	1820	1500	1070	3060
28	1970	2830	12100	4100	29700	12800	6030	2770	1670	1360	1140	11200
29	2060	9170	16300	3900	----	14300	5690	3710	1610	1300	1130	29100
30	2340	21900	24300	3800	----	16300	5370	3720	1610	1240	1050	21100
31	2740	----	28300	3700	----	17000	----	4120	----	1290	1090	----
TOTAL	51420	124570	563900	261500	226900	624400	384820	124840	79730	61590	38275	96977
MEAN	1659	4152	18190	8435	8104	20140	12830	4027	2658	1987	1235	3233
MAX	2740	21900	28300	26300	47300	51100	35500	5100	5260	3250	2470	29100
MIN	1330	2380	10700	2900	2900	12500	5370	2630	1610	1240	745	823
CFSM	.19	.48	2.09	.97	.93	2.31	1.47	.46	.30	.23	.14	.37
IN.	.22	.53	2.41	1.12	.97	2.66	1.64	.53	.34	.26	.16	.41

CAL YR 1984 TOTAL 5405540 MEAN 14770 MAX 168000 MIN 1330 CFSM 1.69 IN. 23.06  
WTR YR 1985 TOTAL 2638922 MEAN 7230 MAX 51100 MIN 745 CFSM .83 IN. 11.26

## 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 mi northeast of Tunkhannock, and 4 mi upstream from mouth.

DRAINAGE AREA.--383 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. 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).

GAGE.--Water-stage recorder. Datum of gage is 610.50 ft above National Geodetic Vertical Datum of 1929, Pennsylvania Department of Transportation benchmark. Prior to Aug. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 22. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years, 539 ft<sup>3</sup>/s, 19.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft<sup>3</sup>/s Apr. 5, 1947, gage height, 13.96 ft, from rating curve extended above 14,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; maximum gage height, 14.26 ft Mar. 10, 1964; minimum discharge, 6.2 ft<sup>3</sup>/s Sept. 24, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 27	2130	*23,400	*13.89	No other peak greater than base discharge.			

Minimum discharge, 31 ft<sup>3</sup>/s Aug. 24, gage height, 1.04 ft.

REVISIONS.--The peak discharges and annual maximum (\*) shown below supersede those published in the reports for 1954-64, 1967-71, 1977-78, 1981-84.

Water year	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)	Water year	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)
1954	Apr. 17, 1954	1130	*12,500	*10.36	1964	Mar. 5, 1964	2100	13,000	10.54
	Mar. 2, 1954	0430	5,820	7.27		Mar. 10, 1964	1700	*24,700	*14.26
1955	Aug. 19, 1955	0600	* 7,000	* 7.92	1967	Mar. 15, 1967	1600	6,240	7.51
1956	Oct. 16, 1955	0430	*20,100	*12.95		Mar. 29, 1967	0800	5,280	6.95
	Oct. 30, 1955	2100	5,710	7.21		Aug. 28, 1967	0800	*15,500	*11.45
	Nov. 16, 1955	1600	5,800	7.26	1968	Nov. 3, 1967	0300	* 7,330	* 8.09
	Feb. 25, 1956	2130	5,230	6.92		Mar. 17, 1968	1500	5,210	6.91
	Mar. 8, 1956	2000	8,390	8.61		Mar. 23, 1968	2100	5,100	6.84
1957	Apr. 6, 1957	0830	*11,400	* 9.92	1969	Dec. 5, 1968	0900	5,060	6.82
1958	Dec. 21, 1957	0330	7,410	8.13		Mar. 25, 1969	0800	6,980	7.91
	Dec. 26, 1957	2030	6,050	7.40		Apr. 6, 1969	0100	6,980	7.91
	Feb. 28, 1958	1730	4,840	6.68		June 15, 1969	1930	*11,700	*10.04
	Apr. 7, 1958	2100	* 8,520	* 8.67	1970	Feb. 3, 1970	2100	6,280	7.53
1959	Jan. 22, 1959	1100	* 7,260	* 8.05		Mar. 27, 1970	0400	6,240	7.51
	Feb. 10, 1959	1130	5,710	7.21		Apr. 2, 1970	2300	*16,400	*11.77
	Apr. 2, 1959	2300	5,100	6.84	1971	Feb. 14, 1971	0200	4,950	6.75
1960	Nov. 28, 1959	1330	*17,400	*12.08		Feb. 27, 1971	2300	6,140	7.45
	Jan. 3, 1960	1530	7,650	8.25		Mar. 16, 1971	0100	* 7,000	* 7.92
	Feb. 11, 1960	1630	8,350	8.59	1977	Oct. 9, 1976	2215	*21,800	*13.45
	Mar. 31, 1960	0600	7,810	8.33	1978	Jan. 9, 1978	1200	14,700	11.17
	Apr. 4, 1960	0900	15,800	11.58		Jan. 26, 1978	1645	*15,500	*11.47
	June 24, 1960	2130	7,180	8.01	1981	Feb. 11, 1981	2100	*18,500	*12.44
	Sept. 20, 1960	0930	7,370	8.11	1982	Mar. 13, 1982	2200	* 5,530	* 7.10
1961	Feb. 26, 1961	0400	*13,200	*10.65		Apr. 4, 1982	0100	5,180	6.89
	Apr. 25, 1961	1330	6,410	7.60	1983	Feb. 3, 1982	1230	5,750	7.23
1962	Jan. 7, 1962	1000	6,650	7.73		Apr. 16, 1982	0530	*22,700	*13.70
	Mar. 12, 1962	1800	5,660	7.18		Apr. 25, 1982	0730	7,770	8.31
	Apr. 1, 1962	0600	* 8,920	* 8.86	1984	Dec. 14, 1983	0315	*18,400	*12.40
	Apr. 8, 1962	0300	5,290	6.96		Feb. 15, 1984	1745	10,200	9.41
1963	Mar. 17, 1963	2300	5,280	6.95		Apr. 6, 1984	0115	10,600	9.58
	Mar. 27, 1963	0800	* 7,590	* 8.22		May 29, 1984	1145	9,660	9.19
1964	Jan. 25, 1964	1800	11,500	9.97					

## TUNKHANNOCK CREEK BASIN

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01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	104	967	910	120	697	986	288	810	198	326	153
2	80	91	963	815	110	631	825	296	553	148	221	105
3	74	91	882	677	110	536	663	559	395	122	158	82
4	66	83	1160	583	110	453	610	468	326	141	126	67
5	61	176	759	558	120	604	536	361	284	118	110	60
6	58	309	691	449	120	657	512	371	269	94	94	64
7	57	219	594	458	130	464	491	491	232	265	82	56
8	56	166	502	433	140	492	560	394	214	208	99	51
9	55	138	426	291	140	524	604	323	206	155	123	68
10	54	165	400	270	140	458	510	292	190	303	94	239
11	51	287	620	250	150	423	470	273	160	321	76	226
12	48	269	704	230	150	1630	443	263	151	240	65	142
13	47	237	694	200	180	1620	398	316	167	387	57	97
14	46	212	640	180	300	1170	387	272	147	270	51	77
15	44	189	603	170	280	957	386	227	131	483	74	64
16	41	184	548	160	250	761	366	219	166	809	91	56
17	40	172	501	150	230	685	357	292	179	474	76	50
18	40	153	463	150	220	589	316	737	173	322	59	47
19	39	144	426	140	200	463	409	587	164	251	49	43
20	43	132	551	140	230	483	763	449	133	204	47	40
21	45	126	454	130	250	439	528	357	119	194	41	37
22	84	117	1280	140	274	371	474	325	102	541	37	37
23	278	106	1280	150	952	382	454	292	91	326	34	34
24	198	106	852	150	2350	398	588	262	114	233	32	34
25	132	111	742	140	2460	370	475	240	174	183	43	34
26	117	104	564	140	1450	320	509	217	121	170	117	32
27	194	98	547	130	1100	297	433	232	89	364	134	9010
28	168	98	581	130	821	304	372	395	79	227	108	6800
29	149	1400	1670	130	---	322	349	656	113	167	72	1790
30	145	1060	1560	120	---	314	313	373	278	133	72	1030
31	124	---	1060	120	---	359	---	301	---	136	227	---
TOTAL	2699	6847	23684	8694	13087	18173	15087	11128	6330	8187	2995	20625
MEAN	87.1	228	764	280	467	586	503	359	211	264	96.6	688
MAX	278	1400	1670	910	2460	1630	986	737	810	809	326	9010
MIN	39	83	400	120	110	297	313	217	79	94	32	32
CFSM	.23	.60	1.99	.73	1.22	1.53	1.31	.94	.55	.69	.25	1.80
IN.	.26	.67	2.30	.84	1.27	1.77	1.47	1.08	.61	.80	.29	2.00
CAL YR 1984	TOTAL	220995	MEAN	604	MAX	9090	MIN	39	CFSM	1.58	IN.	21.46
WTR YR 1985	TOTAL	137536	MEAN	377	MAX	9010	MIN	32	CFSM	.98	IN.	13.36

## 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 Uniondale, and 3.5 mi north of Forest City.

DRAINAGE AREA.--37.1 mi<sup>2</sup>.

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, 6,000 acre-ft Mar. 7, 1979, Apr. 7, 1984, maximum elevation, 1,604.01 ft Mar. 7, 1979; minimum, 242 acre-ft Sept. 10, 1960, elevation, 1,568.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,560 acre-ft Sept. 28, elevation, 1,598.45 ft; minimum, 393 acre-ft Oct. 16, elevation, 1,572.55 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
Sept. 30 .....	1,572.60	460	--
Oct. 31 .....	1,572.94	494	+ 0.6
Nov. 30 .....	1,575.25	725	+ 3.9
Dec. 31 .....	1,574.82	682	- 0.7
CAL YR 1984 .....	--	--	+ 0.2
Jan. 31 .....	1,572.90	490	- 3.1
Feb. 28 .....	1,575.85	785	+ 5.3
Mar. 31 .....	1,573.59	559	- 3.7
Apr. 30 .....	1,573.30	530	- 0.5
May 31 .....	1,573.72	572	+ 0.7
June 30 .....	1,573.63	563	- 0.2
July 31 .....	1,573.10	510	- 0.9
Aug. 31 .....	1,573.25	525	+ 0.2
Sept. 30 .....	1,593.95	3,591	+51.6
WTR YR 1985 .....	--	--	+ 4.3



## LACKAWANNA RIVER BASIN

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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 Lake, 1.7 mi below confluence of East and West Branches, and 2.2 mi north of Forest City.

DRAINAGE AREA.--38.8 mi<sup>2</sup>.

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, non recording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 17 to Feb. 23. Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1959 at Stillwater Lake (station 01534180) 1.3 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--27 years, 71.3 ft<sup>3</sup>/s, 24.96 in/yr, adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 6.41 ft, from rating curve extended above 930 ft<sup>3</sup>/s; no flow part of each day July 21, 22, 1978, result of shut off at Stillwater Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 525 ft<sup>3</sup>/s Sept. 29, gage height, 3.93 ft; minimum daily 4.3 ft<sup>3</sup>/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	15	149	125	16	154	73	36	52	40	24	30
2	9.2	15	135	109	16	110	120	35	50	33	25	26
3	9.3	14	116	91	16	88	107	48	43	27	21	21
4	8.5	13	128	73	15	72	88	50	35	23	18	17
5	7.9	22	107	67	15	78	82	43	30	20	16	16
6	7.0	42	88	61	15	99	80	43	26	18	14	16
7	6.4	39	79	58	16	80	80	42	22	17	12	15
8	6.0	31	58	53	16	77	78	20	21	16	13	13
9	5.8	26	55	54	16	77	83	20	19	16	13	13
10	5.6	29	51	37	17	76	77	24	19	18	12	32
11	5.4	42	53	38	17	73	70	103	18	21	11	42
12	5.1	44	63	37	17	151	67	52	18	24	9.9	35
13	4.8	42	83	36	18	229	60	42	19	46	8.9	25
14	4.8	35	142	35	19	227	57	35	18	49	10	20
15	4.5	33	139	34	19	203	59	30	17	73	12	16
16	4.4	32	118	32	19	161	59	28	18	120	13	13
17	4.3	32	105	31	18	122	55	30	18	99	13	12
18	4.4	30	96	30	17	97	48	49	18	61	11	11
19	4.5	27	87	29	17	77	52	74	18	43	9.8	10
20	5.1	25	101	28	16	74	67	75	16	33	8.8	9.2
21	5.3	22	92	26	15	69	64	58	14	30	8.0	8.4
22	9.0	20	107	25	16	60	56	47	12	44	7.2	7.6
23	23	20	166	24	20	57	50	39	11	52	7.3	7.6
24	26	24	141	23	103	57	72	35	13	41	8.8	8.1
25	20	23	110	21	243	55	80	32	22	32	15	7.7
26	19	21	80	20	264	49	71	29	22	30	18	7.2
27	25	19	72	19	244	45	59	28	19	31	19	59
28	25	18	73	19	207	46	48	39	17	28	18	250
29	22	84	142	18	---	49	42	73	19	24	15	514
30	20	166	177	18	---	49	37	63	34	20	15	488
31	18	---	160	17	---	49	---	48	---	20	23	---
TOTAL	332.5	1005	3273	1288	1447	2910	2041	1370	678	1149	429.7	1749.8
MEAN	10.7	33.5	106	41.5	51.7	93.9	68.0	44.2	22.6	37.1	13.9	58.3
MAX	26	166	177	125	264	229	120	103	52	120	25	514
MIN	4.3	13	51	17	15	45	37	20	11	16	7.2	7.2
MEAN†	11.3	37.4	1.05	38.4	57.0	90.2	67.5	44.9	22.4	36.2	14.1	110
CFSM†	.29	.96	2.71	.99	1.47	2.32	1.74	1.16	.58	.93	.36	2.84
IN.†	.33	1.07	3.12	1.14	1.53	2.68	1.94	1.34	.65	1.07	.42	3.17

CAL YR 1984 TOTAL 30788.8 MEAN 84.1 MAX 945 MIN 4.3 MEAN† 84.3 CFSM† 2.17 IN.† 29.59  
WTR YR 1985 TOTAL 17673.0 MEAN 48.4 MAX 514 MIN 4.3 MEAN† 52.7 CFSM† 1.36 IN.† 18.46

† Adjusted for change in contents in Stillwater Lake.

## 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 in Archbald, 0.5 mi upstream from White Oak Run and Gilmartin Street Bridge.

DRAINAGE AREA.--108 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

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

REMARKS.--No estimated daily discharges. Records good. Regulation at low flow by mine pumps above station. Flow regulated since December 1959 at Stillwater Lake (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.--46 years, 202 ft<sup>3</sup>/s, 25.40 in/yr, adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,510 ft<sup>3</sup>/s May 22, 1942, gage height, 10.58 ft, from rating curve extended above 2,200 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 3.0 ft<sup>3</sup>/s Oct. 9, 11, 1943; minimum gage height, 1.08 ft Oct. 18, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,030 ft<sup>3</sup>/s Sept. 27, gage height, 7.84 ft; minimum, 22 ft<sup>3</sup>/s Oct. 18, gage height, 1.59 ft; minimum daily, 25 ft<sup>3</sup>/s Oct. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	47	317	372	67	380	223	110	246	97	105	70
2	37	48	304	324	66	297	268	116	188	78	88	66
3	37	45	318	274	62	246	245	251	163	70	77	57
4	36	44	338	237	56	209	221	208	142	67	69	50
5	34	76	269	221	59	255	205	182	125	71	62	53
6	33	87	244	192	60	264	205	190	115	67	56	48
7	31	83	205	188	59	219	201	223	102	64	56	45
8	31	74	176	173	55	217	211	160	99	55	59	43
9	30	66	161	134	55	212	218	144	92	54	55	44
10	29	75	155	120	57	203	204	137	86	55	50	70
11	29	87	168	121	57	194	201	202	77	55	46	81
12	28	90	186	118	74	540	195	165	76	56	44	73
13	27	87	217	119	93	569	181	151	75	71	40	61
14	26	81	286	112	81	534	183	128	73	86	51	52
15	26	76	286	109	74	470	179	112	67	123	57	46
16	25	78	264	92	73	387	172	108	94	186	48	42
17	25	76	247	97	70	319	162	121	76	163	47	39
18	25	71	226	99	69	264	150	170	76	115	44	37
19	26	70	214	97	69	221	178	188	68	91	41	36
20	28	64	229	84	67	213	214	176	62	76	39	35
21	33	60	215	71	65	197	188	157	61	85	36	33
22	69	58	336	82	71	177	170	133	54	138	35	32
23	85	56	388	83	191	173	161	116	56	113	34	31
24	62	57	333	82	515	168	174	107	62	96	35	32
25	55	58	284	82	811	158	191	100	64	81	56	31
26	58	56	228	76	669	143	178	95	61	106	54	30
27	64	53	211	72	577	134	158	95	57	134	55	2030
28	60	52	231	74	473	137	141	176	57	96	49	1120
29	60	314	454	69	----	139	127	206	72	83	45	1060
30	56	330	515	67	----	136	116	169	94	73	72	799
31	52	----	435	64	----	149	----	148	----	92	80	----
TOTAL	1254	2519	8440	4105	4695	7924	5620	4744	2740	2797	1685	6246
MEAN	40.5	84.0	272	132	168	256	187	153	91.3	90.2	54.4	208
MAX	85	330	515	372	811	569	268	251	246	186	105	2030
MIN	25	44	155	64	55	134	116	95	54	54	34	30
MEAN†	41.1	87.9	271	129	173	252	186	154	91.1	89.3	54.6	260
CFSM†	.38	.81	2.51	1.19	1.60	2.33	1.72	1.43	.84	.83	.51	2.41
IN.†	.44	.90	2.89	1.37	1.67	2.69	1.92	1.65	.94	.96	.59	2.69

CAL YR 1984 TOTAL 90326 MEAN 247 MAX 2000 MIN 25 MEAN† 247 CFSM† 2.29 IN.† 31.14  
WTR YR 1985 TOTAL 52769 MEAN 145 MAX 2030 MIN 25 MEAN† 149 CFSM† 1.38 IN.† 18.72

† Adjusted for change in contents in Stillwater Lake.

## LACKAWANNA RIVER BASIN

61

01536000 LACKAWANNA RIVER AT OLD FORGE, PA

LOCATION.--Lat 41°21'33", long 75°44'41", Lackawanna County, Hydrologic Unit 02050107, on right bank 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 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1432: 1939(M), 1940, 1945.

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.--No estimated daily discharges. Records good. Flow regulated since December 1959 at Stillwater Lake (station 01534180), about 33 mi upstream. Several measurements of water temperature were made during the year. National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--47 years, 490 ft<sup>3</sup>/s, 20.04 in/yr, adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 20.05 ft, from flood-mark, from rating curve extended above 8,000 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow; minimum, 20 ft<sup>3</sup>/s Sept. 21, 1964, gage height, 1.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,200 ft<sup>3</sup>/s Sept. 27, gage height, 15.83 ft; minimum, 41 ft<sup>3</sup>/s Oct. 15, gage height, 2.10 ft; minimum daily, 49 ft<sup>3</sup>/s Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	81	366	575	127	640	423	212	1490	172	414	126
2	79	89	359	491	133	518	480	285	820	150	250	116
3	69	83	369	431	117	424	434	1340	542	165	201	103
4	65	75	417	383	96	369	398	1070	421	146	177	94
5	64	180	337	366	122	450	362	738	401	118	155	88
6	60	151	322	315	119	463	363	639	383	139	134	95
7	59	134	272	304	116	371	354	672	310	147	175	85
8	60	119	256	291	97	383	437	484	288	132	271	85
9	61	108	232	225	108	394	474	383	257	123	197	96
10	58	111	225	212	110	363	415	338	235	119	176	273
11	56	124	248	218	112	329	392	352	200	108	162	199
12	56	129	271	219	422	790	386	349	191	147	153	145
13	54	124	297	207	314	938	352	323	182	263	145	122
14	49	122	347	194	241	833	352	261	178	192	151	109
15	51	114	349	195	201	725	339	235	159	351	169	103
16	53	112	322	152	188	598	343	227	320	396	165	88
17	53	109	304	176	181	513	322	430	274	299	148	82
18	53	102	284	181	175	434	285	936	250	232	136	84
19	61	100	269	176	170	351	312	639	200	180	132	79
20	79	95	279	130	167	333	396	466	214	153	100	70
21	74	90	286	113	160	314	334	384	212	170	81	68
22	228	87	560	203	177	288	302	333	176	270	77	63
23	216	82	535	192	482	293	313	281	157	189	73	61
24	126	86	454	172	1150	295	336	255	236	163	69	62
25	108	87	395	166	1530	275	334	220	213	137	142	62
26	109	84	323	143	1220	253	327	209	158	320	117	59
27	110	82	306	130	1030	235	293	219	137	474	144	9580
28	101	80	343	135	795	232	264	532	134	240	95	5300
29	102	508	835	129	---	244	249	544	181	189	84	2560
30	94	394	889	123	---	249	224	343	192	161	223	1710
31	86	---	693	120	---	274	---	292	---	371	203	---
TOTAL	2575	3842	11744	7067	9860	13171	10595	13991	9111	6416	4919	21767
MEAN	83.1	128	379	228	352	425	353	451	304	207	159	726
MAX	228	508	889	575	1530	938	480	1340	1490	474	414	9580
MIN	49	75	225	113	96	232	224	209	134	108	69	59
MEAN†	83.7	132	378	225	357	421	352	452	304	206	159	778
CFSM†	.25	.40	1.14	.68	1.08	1.27	1.06	1.36	.92	.62	.48	2.34
IN.†	.29	.45	1.31	.78	1.12	1.46	1.18	1.57	1.03	.72	.55	2.61

CAL YR 1984 TOTAL 195178 MEAN 533 MAX 5440 MIN 49 MEAN† 533 CFSM† 1.61 IN.† 21.88  
WTR YR 1985 TOTAL 115058 MEAN 315 MAX 9580 MIN 49 MEAN† 320 CFSM† 0.96 IN.† 13.07

†Adjusted for change in contents in Stillwater Lake.

## 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 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--April 1899 to current year. Monthly discharge only for some periods, published in WSP 1302. 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).

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.--Estimated daily discharges: Jan. 4-5, and Jan. 7 to Feb. 25. 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. 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.--86 years, 13,360 ft<sup>3</sup>/s, 18.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345,000 ft<sup>3</sup>/s June 24, 1972, gage height 40.91 ft, from flood-mark, from rating curve extended above 230,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 528 ft<sup>3</sup>/s Sept. 27, 1964, gage height, -1.78 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1899, 33.1 ft Mar. 18, 1865, from floodmarks, discharge, about 232,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 82,000 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 14	0915	*55,800	*13.04				

Minimum discharge, 871 ft<sup>3</sup>/s Sept. 26, gage height, -0.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2070	3220	25500	28900	4300	26800	23500	6230	7710	2320	2830	2150
2	2080	3530	27900	25300	4000	21200	37300	6110	8270	2270	3410	1890
3	2060	3290	24600	25200	3400	18500	31300	7560	7220	2360	3230	1760
4	2010	3090	23000	22000	3300	17200	25900	7600	6560	2380	3050	1570
5	1980	3130	22500	20000	3400	15900	23100	6500	5550	2360	2620	1430
6	1990	3230	19600	17100	3600	15200	21200	5990	4900	2340	2220	1340
7	1950	3480	17200	14500	3400	15900	19700	5990	4360	2210	2080	1290
8	1910	4120	14600	13000	3100	15700	18600	5840	3980	2270	2140	1310
9	1860	4500	12900	10000	3200	15300	17500	5700	3660	2080	2120	1290
10	1850	4360	12000	8200	3400	18900	15700	6020	3420	1990	2040	1800
11	1800	4310	11900	7600	3800	19200	14200	6120	3090	2740	1820	2320
12	1760	4500	14800	7200	4400	19700	13200	5570	2870	2970	1650	2210
13	1770	4810	17000	7000	4500	36000	12300	5420	2790	3540	1540	2310
14	1710	4960	18700	7100	4400	54800	11500	5120	2700	3820	1430	2370
15	1660	4880	22500	6900	4300	48800	10700	4670	2550	4280	1400	2280
16	1610	4700	22100	5800	4400	37500	10200	4520	2910	4730	1410	2010
17	1570	4400	19700	5700	5200	29400	9710	4750	3110	4640	1400	1770
18	1600	4080	17600	5600	5000	24800	9210	6270	3150	3810	1430	1510
19	1570	4010	16400	5400	4900	21300	8640	6560	3090	3440	1330	1380
20	1580	3970	15600	4500	4800	18000	8930	6310	3090	2990	1260	1230
21	1570	4010	15800	3100	4700	15900	10100	6130	3130	2600	1170	1140
22	1930	3940	18000	3300	4800	14900	10800	5420	2890	2990	1120	1070
23	2450	3780	23100	4000	5000	14000	10000	4870	2740	3050	1080	993
24	2560	3500	25200	4500	7000	13300	9380	4520	2760	2610	1030	940
25	2320	3440	22600	4700	16000	15000	8540	4130	2680	2350	1050	904
26	2210	3350	18700	4500	51600	19200	8040	3790	2520	2390	1090	887
27	2250	3280	15900	4400	44800	15900	7640	3600	2360	3060	1490	16000
28	2450	3260	14000	4500	34200	13900	7370	3970	2240	2740	1840	29700
29	2440	6460	16400	4300	----	13800	7000	5410	2200	2200	1660	28100
30	2500	19200	23900	4000	----	16300	6580	5330	2270	1960	1780	27600
31	2780	----	29000	4100	----	17100	----	5100	----	2190	2280	----
TOTAL	61850	134790	598700	292400	248900	659400	427840	171120	110770	87680	56000	142554
MEAN	1995	4493	19310	9432	8889	21270	14260	5520	3692	2828	1806	4752
MAX	2780	19200	29000	28900	51600	54800	37300	7600	8270	4730	3410	29700
MIN	1570	3090	11900	3100	3100	13300	6580	3600	2200	1960	1030	887
CFSM	.20	.45	1.94	.95	.89	2.14	1.43	.55	.37	.28	.18	.48
IN.	.23	.50	2.24	1.09	.93	2.46	1.60	.64	.41	.33	.21	.53

CAL YR 1984 TOTAL 6098670 MEAN 16660 MAX 179000 MIN 1570 CFSM 1.67 IN. 22.78  
WTR YR 1985 TOTAL 2992004 MEAN 8197 MAX 54800 MIN 887 CFSM .82 IN. 11.17



## TOBY CREEK BASIN

63

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 U.S. Highway 309, 0.5 mi upstream from inlet works of flood basin, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--32.4 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 4 to Feb. 12 and Feb. 15-17. Records good except those for estimated daily discharges, which are fair. Slight regulation by Huntsville Reservoir 5.9 mi upstream, usable capacity 256,900,000 ft<sup>3</sup>/s. Diversion from reservoir for municipal supply. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 45.3 ft<sup>3</sup>/s, 19.01 in/yr, adjusted for diversion.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft<sup>3</sup>/s June 22, 1972, gage height, 6.07 ft, in gage well, 7.59 ft from floodmarks, from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 0.1 ft<sup>3</sup>/s Sept. 12, 1944; minimum daily, 0.5 ft<sup>3</sup>/s Sept. 20, Oct. 8, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,090 ft<sup>3</sup>/s Sept. 27, gage height, 3.07 ft; minimum daily, 9.5 ft<sup>3</sup>/s Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	10	34	54	19	36	83	15	150	17	40	31
2	15	14	26	50	17	34	60	33	60	15	25	25
3	14	12	36	43	14	30	54	131	46	18	17	22
4	13	12	34	35	13	28	51	82	36	18	16	18
5	13	40	26	33	12	39	46	64	45	15	15	17
6	13	21	33	32	12	32	49	55	41	14	14	16
7	14	16	28	30	13	28	47	51	30	18	32	15
8	14	13	25	29	13	29	57	43	31	15	26	16
9	11	12	23	24	14	28	50	34	27	14	35	18
10	14	13	25	23	15	27	42	31	24	13	19	40
11	13	16	37	22	16	26	40	26	19	12	18	25
12	12	15	38	22	24	83	36	27	19	85	19	17
13	12	14	38	23	33	54	32	45	19	101	14	16
14	12	12	34	23	24	46	34	31	19	31	13	15
15	11	11	32	21	20	44	31	24	16	45	21	14
16	11	10	29	20	19	40	30	28	36	58	25	13
17	11	12	27	19	19	41	27	34	24	31	18	13
18	11	12	25	18	20	37	23	42	23	23	16	11
19	12	11	25	17	21	30	24	32	18	20	14	12
20	12	11	26	16	21	31	27	24	17	19	13	11
21	15	11	32	16	21	29	25	20	21	18	13	11
22	47	11	112	17	29	25	23	18	16	21	13	11
23	33	11	62	21	70	28	19	18	20	17	11	12
24	18	11	51	21	83	30	20	17	23	15	11	9.5
25	14	11	46	21	70	30	21	16	19	14	22	10
26	13	11	37	19	54	24	20	15	16	33	29	11
27	12	11	37	18	47	22	18	18	15	31	37	522
28	11	13	43	19	40	22	18	81	16	20	19	180
29	14	134	83	18	---	24	19	57	20	18	16	89
30	12	50	78	17	---	25	16	36	20	15	75	65
31	10	---	58	17	---	38	---	29	---	57	56	---
TOTAL	453	561	1240	758	773	1040	1042	1177	886	841	712	1285.5
MEAN	14.6	18.7	40.0	24.5	27.6	33.5	34.7	38.0	29.5	27.1	23.0	42.9
MAX	47	134	112	54	83	83	83	131	150	101	75	522
MIN	10	10	23	16	12	22	16	15	15	12	11	9.5
(†)	4.08	4.25	3.99	3.76	4.36	4.21	4.49	4.60	4.62	5.37	5.29	4.94
MEAN‡	18.7	23.0	44.0	28.3	32.0	37.7	39.2	42.6	34.1	32.5	28.3	47.8
CFSM‡	.58	.71	1.36	.87	.99	1.16	1.21	1.31	1.05	1.00	.87	1.48
IN.‡	.67	.79	1.57	1.00	1.03	1.34	1.35	1.51	1.17	1.15	1.00	1.65

CAL YR 1984 TOTAL 18521.5 MEAN 50.6 MAX 785 MIN 3.6 MEAN† 58.1 CFSM‡ 1.79 IN.‡ 24.36  
WTR YR 1985 TOTAL 10768.5 MEAN 29.5 MAX 522 MIN 9.5 MEAN† 34.0 CFSM‡ 1.05 IN.‡ 14.23

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

## SOLOMON CREEK BASIN

01537500 SOLOMON CREEK AT WILKES-BARRE, PA

LOCATION.--Lat 41°13'39", long 75°54'17", Luzerne County, Hydrologic Unit 02050107, on right bank at southwest city limits of Wilkes-Barre, 20 ft downstream from bridge on Central Railroad of Pennsylvania, 0.4 mi downstream from Spring Run, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--15.7 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1940 to current year. Monthly discharge only for March 1940, published in WSP 1302.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1382: 1940, 1942, 1944(P), 1945-47, 1949(M), 1951-52, 1953-54 (M).

GAGE.--Water-stage recorder and broad-crested weir. Elevation of gage is 545 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 6-8, 26, 27, Jan. 3 to Feb. 11 and Feb. 15, 16. Records good except those for estimated daily discharges, which are fair. Some regulation by mine pumps above station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 19.0 ft<sup>3</sup>/s, 16.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,450 ft<sup>3</sup>/s Aug. 18, 1955, gage height, 9.83 ft, from rating curve extended above 570 ft<sup>3</sup>/s on basis of computation of peak flow through culvert; no flow Sept. 4-13, 15-20, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 16, 1933 reached a stage of 11.4 ft, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 320 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	1700	333	3.51	Sept. 27	1400	*1,420	*6.91

Minimum discharge, 0.20 ft<sup>3</sup>/s Oct. 11, 14-17, 19, gage height, 0.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	.48	18	20	1.9	22	18	4.3	98	3.1	10	2.4
2	2.6	.73	17	18	1.7	19	15	15	49	3.3	5.8	1.7
3	2.2	.52	22	16	1.5	17	16	73	37	6.6	3.9	1.8
4	.39	.64	19	13	1.3	14	15	49	27	8.3	3.6	3.2
5	.25	6.9	18	11	1.2	16	15	41	44	6.2	3.7	3.0
6	.22	2.3	18	10	1.2	12	20	33	32	7.0	2.8	3.0
7	.22	1.6	14	9.6	1.3	13	17	28	27	6.9	5.1	4.6
8	.22	1.4	12	8.0	1.3	11	20	22	25	2.8	3.8	8.5
9	.22	1.5	11	5.6	1.4	10	18	23	20	2.7	4.6	11
10	.22	1.6	11	4.3	1.5	9.7	18	28	15	2.6	2.4	26
11	.22	1.9	13	4.0	1.6	8.6	17	26	12	1.9	2.6	12
12	.23	1.8	14	4.0	50	20	15	27	11	9.7	2.0	9.2
13	.22	1.7	15	3.9	42	15	15	22	9.6	32	2.2	7.8
14	.21	1.6	15	4.2	19	14	13	19	7.6	8.2	1.9	7.4
15	.22	1.5	15	3.5	13	14	13	17	6.5	16	4.0	7.4
16	.21	1.6	13	3.1	12	13	11	19	27	19	2.4	6.3
17	.21	1.6	13	2.9	13	13	10	21	10	10	1.5	6.8
18	.22	1.5	11	2.7	11	11	9.2	28	13	7.2	1.6	5.2
19	.22	1.4	11	2.5	10	13	8.9	18	7.8	5.6	1.2	4.3
20	.24	1.4	9.8	2.2	9.6	9.6	8.1	15	6.9	3.9	1.6	2.2
21	.24	1.3	13	1.9	11	9.1	8.0	15	6.3	3.7	1.5	1.9
22	5.3	1.2	31	1.9	10	8.4	6.3	18	5.8	4.2	1.5	2.1
23	4.7	1.2	21	2.1	27	9.3	6.6	17	7.9	4.4	1.2	1.5
24	1.2	1.2	20	2.2	44	12	5.6	15	14	3.4	.96	2.0
25	.83	.90	19	2.3	42	9.1	6.7	14	6.6	4.1	4.3	1.4
26	1.1	1.3	15	2.1	36	8.9	5.6	16	4.1	18	3.8	.58
27	1.5	1.0	14	2.0	31	6.0	5.6	18	4.1	6.5	2.3	491
28	.59	1.7	20	2.1	25	6.7	5.9	34	4.1	3.5	1.5	126
29	1.5	43	24	1.9	---	6.0	4.8	25	5.5	2.9	1.2	58
30	1.1	22	22	1.8	---	6.4	5.0	20	4.5	2.7	17	38
31	1.9	---	20	1.8	---	9.8	---	23	---	30	4.8	---
TOTAL	29.13	108.47	508.8	170.6	421.5	366.6	352.3	743.3	548.3	246.4	106.76	856.28
MEAN	.94	3.62	16.4	5.50	15.1	11.8	11.7	24.0	18.3	7.95	3.44	28.5
MAX	5.3	43	31	20	50	22	20	73	98	32	17	491
MIN	.21	.48	9.8	1.8	1.2	6.0	4.8	4.3	4.1	1.9	.96	.58
CFSM	.06	.23	1.04	.35	.96	.75	.75	1.53	1.17	.51	.22	1.82
IN.	.07	.26	1.21	.40	1.00	.87	.83	1.76	1.30	.58	.25	2.03

CAL YR 1984 TOTAL 5938.93 MEAN 16.2 MAX 269 MIN .21 CFSM 1.03 IN. 14.07  
WTR YR 1985 TOTAL 4458.44 MEAN 12.2 MAX 491 MIN .21 CFSM .78 IN. 10.56

## WAPWALLOPEN CREEK BASIN

65

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, 2.2 mi southeast of Wapwallopen, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--43.8 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302.

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 benchmark). Prior to Mar. 15, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 19-20, Dec. 7-8, 26-27, and Jan. 3 to Feb. 12. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--66 years, 64.6 ft<sup>3</sup>/s, 20.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft<sup>3</sup>/s June 22, 1972, gage height, 11.04 ft, from rating curve extended above 1,400 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 1.1 ft<sup>3</sup>/s Aug. 4, 1955, gage height, 0.44 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 580 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 27	1900	*1,290	*6.05	No other peak greater than base discharge.			

Minimum discharge, 8.3 ft<sup>3</sup>/s Sept. 23, gage height, 1.11 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	82	80	20	71	131	32	159	30	66	18
2	20	13	64	79	18	68	96	54	80	28	26	14
3	16	14	59	65	15	61	83	362	61	29	20	13
4	13	13	64	60	14	56	80	181	52	37	17	12
5	12	36	50	49	15	65	72	134	183	28	16	11
6	12	31	58	48	18	57	94	113	145	30	15	10
7	11	21	47	49	17	49	89	126	87	58	17	9.9
8	11	17	44	47	16	50	111	94	78	36	21	14
9	12	16	41	39	17	50	99	80	70	33	18	20
10	11	18	42	38	18	46	85	72	58	28	15	33
11	11	20	52	38	22	45	80	65	48	26	15	34
12	11	20	54	39	54	110	75	61	43	24	19	20
13	12	19	50	39	407	96	70	60	42	70	15	16
14	11	17	44	40	252	74	66	52	40	36	13	14
15	11	16	42	33	201	68	63	46	36	47	13	13
16	11	16	41	23	172	60	61	50	227	42	13	12
17	12	15	38	23	165	57	56	74	113	32	14	12
18	12	14	37	24	147	54	51	148	80	27	12	11
19	13	14	37	23	141	49	51	90	63	23	11	10
20	14	13	43	15	132	50	54	69	53	22	11	10
21	15	13	40	11	119	47	50	58	48	21	11	9.7
22	18	13	134	13	113	43	46	52	42	38	10	9.4
23	41	13	87	19	124	46	43	48	41	25	9.8	9.1
24	20	13	71	21	153	50	41	45	39	21	9.5	9.6
25	15	13	67	21	122	50	42	41	45	20	16	11
26	16	13	53	19	101	43	42	38	34	21	20	10
27	20	13	54	18	90	41	39	35	31	27	17	613
28	17	14	58	19	77	42	36	73	32	22	14	291
29	16	274	114	18	---	52	36	98	41	19	12	122
30	16	124	112	18	---	50	33	53	34	17	15	82
31	15	---	85	18	---	64	---	43	---	57	37	---
TOTAL	459	859	1864	1046	2760	1764	1975	2547	2105	974	538.3	1473.7
MEAN	14.8	28.6	60.1	33.7	98.6	56.9	65.8	82.2	70.2	31.4	17.4	49.1
MAX	41	274	134	80	407	110	131	362	227	70	66	613
MIN	11	13	37	11	14	41	33	32	31	17	9.5	9.1
CFSM	.34	.65	1.37	.77	2.25	1.30	1.50	1.88	1.60	.72	.40	1.12
IN.	.39	.73	1.58	.89	2.34	1.50	1.68	2.16	1.79	.83	.46	1.25

CAL YR 1984 TOTAL 26970.9 MEAN 73.7 MAX 933 MIN 9.2 CFSM 1.68 IN. 22.91  
WTR YR 1985 TOTAL 18365.0 MEAN 50.3 MAX 613 MIN 9.1 CFSM 1.15 IN. 15.60

## 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 25 ft downstream from highway bridge, 0.8 mi downstream from Green Creek, 0.9 mi west of Orangeville, and 5.5 mi north of Bloomsburg.

DRAINAGE AREA.--274 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 4 to Feb. 12, and Feb. 17. 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.

AVERAGE DISCHARGE.--47 years, 480 ft<sup>3</sup>/s, 23.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft<sup>3</sup>/s June 22, 1972, gage height, 15.18 ft, from flood-mark in gage shelter, from rating curve extended above 9,500 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 7.6 ft<sup>3</sup>/s July 19, 1939, gage height 1.71 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	1030	*4,040	*6.29	No other peak greater than base discharge.			

Minimum discharge, 45 ft<sup>3</sup>/s Oct. 19, gage height 1.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	87	1280	1050	120	662	1020	179	1130	158	856	994
2	72	84	954	953	120	587	980	264	744	145	465	713
3	64	83	903	787	96	493	857	1010	541	140	327	558
4	59	80	1000	660	88	425	769	794	430	149	260	432
5	57	173	794	550	86	464	706	604	671	144	219	349
6	55	228	772	500	100	457	665	510	644	125	189	292
7	54	171	648	460	120	352	613	476	438	143	182	256
8	54	143	530	420	110	366	682	394	378	160	302	277
9	54	128	453	280	92	345	621	336	364	151	244	278
10	54	132	421	260	100	315	541	304	305	134	204	445
11	53	173	589	250	98	296	509	276	255	128	173	541
12	51	298	633	240	150	1080	476	258	236	128	168	349
13	50	250	637	240	720	1270	428	367	227	631	145	278
14	48	213	650	250	463	1010	420	295	206	349	129	240
15	48	191	689	270	341	836	405	247	186	314	119	213
16	47	181	651	230	293	682	382	249	318	425	166	192
17	47	166	627	220	240	609	365	316	305	328	171	176
18	47	153	586	210	237	521	323	382	344	245	133	161
19	48	144	540	220	240	433	307	338	276	202	116	149
20	50	134	557	180	241	424	311	278	216	175	106	139
21	56	123	509	80	231	372	316	243	197	153	97	130
22	145	115	1370	78	257	330	282	220	177	149	90	122
23	301	110	1350	120	490	328	276	199	167	145	84	115
24	158	110	1120	140	1170	374	270	187	172	123	80	138
25	118	107	957	150	1450	366	263	172	265	109	118	154
26	117	103	751	150	1180	306	258	157	201	162	266	135
27	126	100	680	140	979	282	233	145	168	504	1360	1030
28	106	120	667	140	787	277	216	311	157	272	725	1380
29	103	2890	1120	140	---	316	205	652	180	196	439	811
30	108	1860	1450	120	---	311	190	363	175	164	606	587
31	95	---	1200	110	---	376	---	295	---	362	1710	---
TOTAL	2507	8850	25088	9598	10599	15265	13889	10821	10073	6713	10249	11634
MEAN	80.9	295	809	310	379	492	463	349	336	217	331	388
MAX	301	2890	1450	1050	1450	1270	1020	1010	1130	631	1710	1380
MIN	47	80	421	78	86	277	190	145	157	109	80	115
CFSM	.30	1.08	2.95	1.13	1.38	1.80	1.69	1.27	1.23	.79	1.21	1.42
IN.	.34	1.20	3.41	1.30	1.44	2.07	1.89	1.47	1.37	.91	1.39	1.58

CAL YR 1984 TOTAL 213918 MEAN 584 MAX 8030 MIN 41 CFSM 2.13 IN. 29.04  
WTR YR 1985 TOTAL 135286 MEAN 371 MAX 2890 MIN 47 CFSM 1.35 IN. 18.37



## SUSQUEHANNA RIVER BASIN

67

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 at Danville, and 0.8 mi upstream from Mahoning Creek.

DRAINAGE AREA.--11,220 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, 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 above Fabridam at Sunbury (station 01553990, discontinued) used as an auxiliary gage.

REMARKS.--Estimated daily discharges: Jan. 13 to Feb. 24. 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.--86 years, 15,310 ft<sup>3</sup>/s, 18.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363,000 ft<sup>3</sup>/s June 25, 1972, from rating curve extended above 250,000 ft<sup>3</sup>/s; maximum gage height, 32.32 ft June 24, 1972, (backwater from West Branch Susquehanna River); minimum discharge, 508 ft<sup>3</sup>/s Sept. 27, 1964, gage height, 1.51 ft.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,000 ft<sup>3</sup>/s Mar. 14, gage height, 11.77 ft; minimum, 1,530 ft<sup>3</sup>/s Aug. 24, Sept. 26, gage height 2.19 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	3070	27200	33300	5300	33100	22200	7290	7970	3040	5120	4350
2	2550	3460	29900	30700	5100	26800	35900	7250	10700	3050	4540	3600
3	2510	3820	29700	28000	4900	22300	38700	11100	9850	3000	4440	3150
4	2450	3620	26700	27700	4500	20200	32100	13300	8820	3030	4100	2850
5	2400	3670	25900	25100	4300	18900	27500	11000	8780	3120	3800	2600
6	2350	4030	24300	21400	4500	17600	25200	9360	9170	2990	3380	2380
7	2340	3850	21500	18400	4900	17300	23500	8740	7100	3100	3050	2230
8	2330	3920	18400	16700	4500	17600	22200	8280	6050	3130	3290	2290
9	2290	4430	16000	15100	4300	17400	21000	7660	5560	3100	3160	2460
10	2260	4950	14300	13400	4400	17600	19400	7330	5010	2940	2970	2590
11	2220	4880	13900	10900	4400	21400	17400	7530	4530	2720	2790	3390
12	2180	5000	14900	8770	4900	21500	16100	7420	4130	3170	2660	3460
13	2140	5160	18000	8200	5900	27400	14900	7070	3850	4590	2440	3140
14	2150	5350	20000	7600	5800	50400	13900	6770	3680	5020	2230	3070
15	2120	5460	22600	7000	6400	52800	13100	6240	3560	5050	2080	3100
16	2070	5370	25200	6400	6900	44600	12300	5760	4650	5510	2040	2970
17	2030	5140	23500	6000	7000	35700	11700	5930	5750	5800	2200	2720
18	1970	4850	21000	5800	6900	29500	11000	6750	5160	5390	2050	2490
19	1970	4510	19200	5500	6700	25600	10500	8320	4850	4490	2020	2250
20	1990	4400	18100	5100	6500	22000	10000	7840	4370	4040	1940	2100
21	2010	4320	17600	3500	6200	19000	10600	7540	4260	3610	1820	1940
22	2090	4340	20400	3500	6100	17100	11800	7120	4120	3310	1740	1810
23	2920	4270	24700	4300	6700	16400	11900	6310	3840	3550	1660	1720
24	3130	4110	28100	4700	8000	15500	11000	5740	3650	3570	1580	1720
25	3000	3870	28000	5200	18000	15200	10300	5330	3800	3140	1600	1680
26	2820	3770	23900	5100	51000	18600	9530	4880	3670	2960	2020	1570
27	2770	3700	20100	4800	50700	19800	9030	4470	3340	3690	3090	3440
28	2740	3660	17600	5300	42100	16500	8580	4440	3130	3950	3200	37000
29	2920	12300	17500	5300	---	15500	8250	5760	3160	3410	2880	26900
30	2930	17600	24800	5000	---	16500	7760	6770	3080	2870	2640	33600
31	2900	---	31300	5100	---	18700	---	6240	---	3030	4640	---
TOTAL	74950	150880	684300	352870	296900	728500	497350	225540	159590	113370	87170	168570
MEAN	2418	5029	22070	11380	10600	23500	16580	7275	5320	3657	2812	5619
MAX	3130	17600	31300	33300	51000	52800	38700	13300	10700	5800	5120	37000
MIN	1970	3070	13900	3500	4300	15200	7760	4440	3080	2720	1580	1570
CFSM	.22	.45	1.97	1.01	.94	2.09	1.48	.65	.47	.33	.25	.50
IN.	.25	.50	2.27	1.17	.98	2.42	1.65	.75	.53	.38	.29	.56

CAL YR 1984 TOTAL 6827540 MEAN 18650 MAX 191000 MIN 1970 CFSM 1.66 IN. 22.64  
WTR YR 1985 TOTAL 3539990 MEAN 9699 MAX 52800 MIN 1570 CFSM .86 IN. 11.74

## 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.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
NOV 14...	1345	1028	3.1	766	11.8	96	300	K16	130	58	130
MAR 06...	1400	1028	2.5	778	13.2	96	K11	K12	66	27	66
MAY 15...	1330	1028	4.0	766	10.0	112	K13	K2200	100	48	100
SEP 05...	1300	1028	3.0	763	10.8	136	94	170	94	43	94

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY FILTER FIELD MG/L AS CACO3	ALKA- LITY LAB (MG/L AS CACO3)
NOV 14...	35	9.3	13	18	0.5	1.9	83	0	70	73
MAR 06...	19	4.5	8.6	22	0.5	1.1	47	0	41	37
MAY 15...	28	8.0	11	19	0.5	1.5	67	0	56	52
SEP 05...	23	8.9	15	25	0.7	1.8	36	13	32	32

DATE	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 14...	68	2.1	54	21	<0.1	1.7	200	180	0.27	2880
MAR 06...	39	3.0	29	15	<0.1	4.3	106	110	0.14	5010
MAY 15...	55	0.7	51	17	<0.1	1.5	194	150	0.26	3210
SEP 05...	51	0.1	62	22	<0.1	2.7	176	180	0.24	1230

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 14...	60	<1	36	0	<1	1	<3	2	12	2
MAR 06...	30	<1	25	0.5	<1	<1	<3	2	240	2
MAY 15...	--	--	27	<0.5	<1	--	<3	--	9	--
SEP 05...	60	<1	25	<0.5	<1	<1	<3	6	15	3

(K) Results based on non-ideal colony count.

## SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 14...	8	100	<0.1	<10	5	<1	<1	140	<6	9
MAR 06...	20	120	0.3	<10	2	<1	<1	71	<6	13
MAY 15...	9	42	0.2	<10	--	--	--	120	<6	5
SEP 05...	<4	9	<0.1	<10	5	<1	<1	160	<6	15

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
OCT 22...	1200	42011	2040	395	8.10	20.5	0.98	0.99	0.02	0.01	0.03
NOV 14...	1345	1028	5330	330	7.80	6.5	--	--	--	--	--
20...	0930	42011	4380	320	7.90	3.5	--	--	--	--	--
DEC 13...	1130	42011	18100	195	6.80	5.5	--	--	--	--	--
JAN 18...	1000	42011	5800	274	8.20	0.0	--	--	--	--	--
FEB 21...	1000	42011	6200	330	7.40	2.0	--	--	--	--	--
MAR 06...	1400	1028	17500	175	7.40	3.0	--	--	--	--	--
21...	0955	42011	19000	176	6.20	6.0	--	--	--	--	--
APR 18...	1030	42011	11000	286	6.70	13.0	--	--	--	--	--
MAY 09...	0930	42011	7690	245	7.50	14.0	--	--	--	--	--
15...	1330	1028	6120	282	8.20	21.0	--	--	--	--	--
JUN 04...	1345	42011	8750	172	7.50	21.0	--	--	--	--	--
JUL 02...	1030	42011	3050	335	7.60	21.5	--	--	--	--	--
AUG 08...	1045	42011	3170	290	8.90	24.5	--	--	--	--	--
SEP 03...	1130	42011	3170	275	7.80	25.0	--	--	--	--	--
05...	1300	1028	2590	280	8.90	27.0	--	--	--	--	--

## SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT											
22...	1.00	1.00	0.01	0.04	0.05	0.49	0.36	0.5	--	0.4	1.5
NOV											
14...	--	0.93	--	0.08	0.10	--	--	0.8	--	--	--
20...	1.00	--	0.07	<0.01	0.01	1.6	--	1.7	--	0.4	2.7
DEC											
13...	0.90	--	0.09	0.07	0.09	0.41	0.43	0.5	--	0.5	1.4
JAN											
18...	1.00	--	0.20	0.19	0.24	0.60	0.21	0.8	--	0.4	1.8
FEB											
21...	1.40	--	0.18	0.13	0.17	0.52	--	0.7	--	--	2.1
MAR											
06...	--	1.00	--	0.12	0.15	--	--	0.8	--	--	--
21...	1.10	--	0.10	0.10	0.13	0.40	0.40	0.5	--	0.5	1.6
APR											
18...	0.80	--	<0.01	<0.01	0.01	--	--	2.2	--	1.2	3.0
MAY											
09...	0.50	--	<0.01	0.12	0.15	--	0.68	0.8	--	0.8	1.3
15...	--	<1.10	--	<0.01	--	--	--	0.4	--	--	--
JUN											
04...	0.50	--	0.03	0.11	0.14	0.77	1.7	0.8	0.0	1.8	1.3
JUL											
02...	0.80	--	0.05	0.04	0.05	0.65	0.46	0.7	0.2	0.5	1.5
AUG											
08...	<0.10	--	0.07	0.08	0.10	0.83	0.42	0.9	0.4	0.5	--
SEP											
03...	0.50	--	0.02	0.04	0.05	0.58	0.36	0.6	0.2	0.4	1.1
05...	--	0.27	--	0.03	0.04	--	--	0.8	--	--	--

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
22...	6.6	0.02	--	<0.01	0.01	<0.01	--	1.9	6	33	--
NOV											
14...	--	0.01	--	<0.01	--	<0.01	--	--	14	201	80
20...	12	0.04	--	<0.01	--	<0.01	--	2.7	7	83	--
DEC											
13...	6.2	0.05	--	<0.01	--	0.01	0.03	--	12	587	--
JAN											
18...	8.0	0.11	--	0.03	--	0.03	0.09	3.5	29	454	--
FEB											
21...	9.3	0.05	--	<0.01	--	<0.01	--	2.8	14	234	--
MAR											
06...	--	0.07	--	<0.01	--	0.02	0.06	--	17	803	98
21...	7.1	0.06	--	<0.01	--	0.02	0.06	3.2	15	769	--
APR											
18...	13	0.06	--	0.04	--	0.05	0.15	3.6	7	208	--
MAY											
09...	5.8	0.04	--	<0.01	--	<0.01	--	3.5	27	561	--
15...	--	0.02	--	0.02	--	<0.01	--	--	17	281	90
JUN											
04...	5.8	0.09	0.28	0.03	--	0.01	0.03	4.3	40	945	--
JUL											
02...	6.6	0.03	0.09	0.01	--	<0.01	--	4.0	12	99	--
AUG											
08...	--	<0.01	--	<0.01	--	0.02	0.06	11	30	257	--
SEP											
03...	4.9	0.06	0.18	0.04	--	<0.01	--	4.9	13	111	--
05...	--	0.07	0.21	0.03	--	0.01	0.03	--	22	154	69



## WEST BRANCH SUSQUEHANNA RIVER BASIN

71

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 at Bower, 4.6 mi downstream from Chest Creek, and Mahaffey.

DRAINAGE AREA.--315 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.--Estimated daily discharges: Jan. 8 to Feb. 23. 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.

AVERAGE DISCHARGE.--72 years, 558 ft<sup>3</sup>/s, 24.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 19.74 ft from floodmark in gage shelter, from rating curve extended above 7,200 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 14 ft<sup>3</sup>/s Aug. 29, 1939; minimum daily, 16 ft<sup>3</sup>/s Sept. 29, Oct. 1, 6, 13, 1930, Aug. 29, Aug. 31 to Sept. 2, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1913, about 18.5 ft May 13, 1889, discharge, about 27,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 23	1030	ice jam	*12.34	Mar. 29	1900	*8,140	12.07
Feb. 25	0230	5,250	10.44	Apr. 1	0530	5,290	10.47

Minimum discharge, 50 ft<sup>3</sup>/s Sept. 27, gage height, 4.07 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	125	1050	1300	200	958	4610	211	1110	105	88	137
2	125	119	828	1070	200	845	2860	532	607	106	85	102
3	96	117	914	841	180	725	2120	1820	498	151	78	85
4	84	165	961	712	160	640	2080	960	411	151	77	78
5	80	1490	709	647	170	858	1520	696	730	126	75	73
6	74	784	660	547	180	719	1250	571	514	114	72	70
7	74	495	555	493	180	587	1040	542	377	126	75	70
8	75	369	486	400	160	701	1060	447	318	230	79	153
9	90	305	446	320	150	731	1000	373	295	461	76	383
10	85	939	423	270	170	620	855	328	259	656	65	348
11	76	848	660	290	200	593	830	297	215	527	64	192
12	71	673	744	290	300	3040	837	274	256	279	68	133
13	69	560	1110	280	1920	2380	757	253	238	219	65	110
14	69	479	1180	270	1350	1600	706	227	233	283	66	96
15	73	439	1110	280	1000	1200	651	212	198	474	75	87
16	74	533	917	250	800	946	601	232	287	325	153	78
17	75	438	780	260	680	818	543	250	435	218	119	71
18	109	374	668	280	600	703	479	426	304	178	82	68
19	133	341	1090	240	540	588	451	296	241	161	73	64
20	146	296	1800	220	520	572	435	227	205	139	67	62
21	113	256	1280	200	500	505	389	199	201	122	65	64
22	173	220	2250	220	600	448	357	187	177	126	65	57
23	320	211	1490	240	1800	1130	330	175	170	117	64	54
24	177	205	1130	230	4250	2210	311	206	154	107	63	63
25	135	196	984	250	4330	1800	301	172	136	99	115	64
26	124	182	733	230	2490	1280	288	155	125	103	195	59
27	117	171	771	210	1700	1030	265	144	119	219	110	56
28	108	226	1270	200	1220	923	249	713	112	130	84	59
29	136	877	1100	200	---	6190	237	817	109	105	70	58
30	192	574	2090	190	---	4480	222	409	110	94	289	55
31	148	---	1630	190	---	3580	---	435	---	89	263	---
TOTAL	3514	13007	31819	11620	26550	43400	27634	12786	9144	6340	2985	3049
MEAN	113	434	1026	375	948	1400	921	412	305	205	96.3	102
MAX	320	1490	2250	1300	4330	6190	4610	1820	1110	656	289	383
MIN	69	117	423	190	150	448	222	144	109	89	63	54
CFSM	.36	1.38	3.26	1.19	3.01	4.44	2.92	1.31	.97	.65	.31	.32
IN.	.41	1.54	3.76	1.37	3.14	5.13	3.26	1.51	1.08	.75	.35	.36

CAL YR 1984 TOTAL 260360 MEAN 711 MAX 7740 MIN 69 CFSM 2.26 IN. 30.75  
WTR YR 1985 TOTAL 191848 MEAN 526 MAX 6190 MIN 54 CFSM 1.67 IN. 22.66

## 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 Lake, 1.1 mi south of Curwensville, and 1.8 mi upstream from Anderson Creek.

DRAINAGE AREA.--367 mi<sup>2</sup>.

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.--Estimated daily discharges: Dec. 9-13, Jan. 19 to Feb. 14, Mar. 6-12, June 6-19. Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1965 by Curwensville Lake (station 01541180) 0.8 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--30 years, 656 ft<sup>3</sup>/s, 24.31 in/yr, adjusted for storage since November 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft<sup>3</sup>/s Mar. 10, 1964, gage height, 14.19 ft; no flow at times; minimum daily, 19 ft<sup>3</sup>/s Aug. 16, 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,320 ft<sup>3</sup>/s Apr. 2, gage height, 7.28 ft; minimum daily, 50 ft<sup>3</sup>/s Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	204	846	2230	225	1870	3850	97	793	112	120	262
2	92	203	1290	1410	225	1330	4180	97	793	112	118	174
3	138	201	1110	1070	225	1130	4160	955	660	109	113	96
4	160	199	1090	1010	225	822	3890	1360	583	224	109	62
5	160	727	1150	861	185	802	3420	1030	747	184	108	64
6	160	1370	998	756	175	840	2920	819	1050	163	76	70
7	160	871	775	690	180	880	2120	739	520	140	52	73
8	160	425	682	585	190	860	1220	488	320	116	51	75
9	158	425	500	376	250	890	1120	399	270	416	50	273
10	154	734	430	291	250	920	1160	399	280	529	51	612
11	154	1400	660	335	250	1030	1150	394	280	581	52	579
12	124	1150	880	392	280	2000	939	285	280	483	52	199
13	76	766	1120	392	410	3280	853	178	280	276	53	168
14	75	652	1410	327	900	3010	864	176	280	224	54	140
15	75	625	1640	296	1160	1940	864	181	280	315	77	104
16	75	625	1540	296	844	1340	850	261	280	366	170	73
17	75	625	1070	242	827	1130	737	301	385	367	176	73
18	77	625	895	167	801	900	477	347	500	235	153	72
19	84	605	759	220	536	800	380	421	370	163	105	72
20	91	587	2110	270	432	749	385	321	226	163	80	72
21	91	578	1770	340	432	692	395	314	115	129	80	72
22	93	557	2040	390	520	459	406	261	174	109	80	72
23	294	470	2200	370	1330	626	421	236	220	109	79	72
24	422	385	1690	360	2890	2200	292	195	220	109	78	72
25	247	367	1400	350	3840	2610	220	170	185	109	79	71
26	212	347	990	340	3880	1990	208	170	164	110	111	71
27	207	262	790	320	3500	1280	176	170	133	157	136	70
28	204	232	1140	305	3000	1120	176	170	112	191	101	70
29	204	633	1460	290	----	2500	117	709	112	138	70	70
30	204	897	1700	265	----	3940	99	1130	112	120	125	70
31	204	----	2390	245	----	3970	----	809	----	120	352	----
TOTAL	4721	17747	38525	15791	27962	47910	38049	13582	10724	6679	3111	4023
MEAN	152	592	1243	509	999	1545	1268	438	357	215	100	134
MAX	422	1400	2390	2230	3880	3970	4180	1360	1050	581	352	612
MIN	75	199	430	167	175	459	99	97	112	109	50	62
MEAN†	139	526	1256	483	1031	1713	1105	483	353	214	107	126
CFSM†	.38	1.43	3.42	1.32	2.81	4.67	3.01	1.32	.96	.58	.29	.34
IN.†	.44	1.60	3.94	1.52	2.93	5.38	3.36	1.52	1.07	.67	.33	.38

CAL YR 1984 TOTAL 306422 MEAN 837 MAX 4630 MIN 61 MEAN† 839 CFSM† 2.29 IN.† 31.12  
WTR YR 1985 TOTAL 228824 MEAN 627 MAX 4180 MIN 50 MEAN† 626 CFSM† 1.71 IN.† 23.14

† Adjusted for change in contents in Curwensville Lake.

## WEST BRANCH SUSQUEHANNA RIVER BASIN

73

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 on Legislative Route 17098, at intersection with State Highway 879 at Hyde.

DRAINAGE AREA.--474 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 10 to Feb. 21. Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1965 by Curwensville Lake (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.--7 years, 897 ft<sup>3</sup>/s, 25.67 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,360 ft<sup>3</sup>/s Feb. 13, 1984, gage height, 10.82 ft from rating curve extended above 6,000 ft<sup>3</sup>/s; maximum gage height, 11.45 ft Feb. 18, 1981, (backwater from ice); minimum daily discharge, 46 ft<sup>3</sup>/s Sept. 14, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 10, 1964, reached a stage of 18.1 ft, from floodmarks, discharge 19,400 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,440 ft<sup>3</sup>/s Mar. 31, gage height, 9.33 ft; minimum daily, 71 ft<sup>3</sup>/s Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	240	1180	2800	270	2660	5180	147	880	121	136	351
2	123	235	1580	2000	270	1670	4950	226	871	122	134	243
3	143	236	1510	1480	270	1540	4740	1020	749	129	132	147
4	184	313	1500	1350	270	1090	4420	1680	619	225	123	96
5	183	1130	1500	1160	215	1120	3940	1190	737	244	123	93
6	182	1680	1360	979	190	1150	3420	1010	1090	199	109	90
7	180	1170	1070	898	195	1110	2650	905	709	190	77	90
8	181	580	965	781	210	1050	1740	702	387	146	75	120
9	184	562	812	667	310	1110	1520	538	303	449	75	358
10	181	1190	587	400	310	1160	1490	521	297	623	73	985
11	180	1930	887	450	310	1120	1450	509	291	652	73	844
12	169	1580	1160	500	400	2900	1240	434	312	593	72	337
13	108	1130	1400	475	800	4320	1110	272	303	368	71	261
14	106	952	1880	425	1400	3810	1100	262	299	275	75	228
15	107	920	2080	350	1500	2790	1080	262	291	347	98	183
16	112	902	1920	350	1150	1780	1050	327	317	441	244	123
17	110	866	1450	310	1120	1570	931	403	436	438	233	114
18	108	835	1200	275	1000	1210	690	417	611	328	187	109
19	116	813	1230	320	800	1070	578	549	427	198	124	107
20	116	780	2480	380	560	974	590	390	347	197	92	104
21	110	748	2290	450	580	907	571	378	125	177	90	103
22	138	713	2740	490	1240	693	545	339	147	124	90	101
23	304	629	2760	465	2100	895	535	293	253	126	89	100
24	557	511	2150	445	3630	2760	446	256	267	125	93	101
25	301	484	1810	425	4950	3210	335	208	252	125	112	100
26	259	453	1300	410	4620	2560	328	204	199	142	133	98
27	265	363	1150	400	4180	1760	267	202	181	184	170	99
28	245	348	1640	380	3610	1540	269	290	121	259	133	100
29	258	819	2070	360	----	4570	230	698	122	183	91	98
30	260	1160	2460	340	----	4980	147	1220	122	136	258	96
31	247	----	3030	310	----	5050	----	889	----	137	494	----
TOTAL	5845	24272	51151	20825	36460	64129	47542	16741	12065	8003	4079	5979
MEAN	189	809	1650	672	1302	2069	1585	540	402	258	132	199
MAX	557	1930	3030	2800	4950	5050	5180	1680	1090	652	494	985
MIN	106	235	587	275	190	693	147	147	121	121	71	90
MEAN†	176	744	1664	646	1334	2237	1422	585	398	257	139	191
CFSM†	.37	1.57	3.51	1.36	2.81	4.72	3.00	1.23	.84	.54	.29	.40
IN.†	.43	1.75	4.05	1.57	2.93	5.44	3.35	1.42	.94	.62	.33	.45

CAL YR 1984 TOTAL 406332 MEAN 1110 MAX 4920 MIN 106 MEAN† 1112 CFSM† 2.35 IN.† 31.94  
WTR YR 1985 TOTAL 297091 MEAN 814 MAX 5180 MIN 71 MEAN† 813 CFSM† 1.72 IN.† 23.28

† Adjusted for change in contents in Curwensville Lake.

## 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 at Dimeling, 600 ft downstream from Little Clearfield Creek, and 4 mi southeast of Clearfield.

DRAINAGE AREA.--371 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharges only for some periods, published in WSP 1302.

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

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.--Estimated daily discharges: Nov. 5-16, 22-24, Dec. 8-20, 24-26, Jan. 10 to Feb. 14, Aug. 2-15, 18-25, Sept. 3-7, 16-30. Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1960 by Glendale Lake (station 01541340) about 25 mi upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--72 years, 580 ft<sup>3</sup>/s, 21.18 in/yr, adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 18.49 ft, from flood-mark in gage shelter, from rating curve extended above 15,000 ft<sup>3</sup>/s; minimum, 6.0 ft<sup>3</sup>/s Oct. 1, 9, 1925; minimum daily, 7.1 ft<sup>3</sup>/s Oct 1, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,960 ft<sup>3</sup>/s Mar. 30, gage height, 9.08 ft; maximum gage height, 11.61 ft Feb. 13, backwater from ice; minimum daily discharge, 60 ft<sup>3</sup>/s Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	136	842	1300	260	1230	5220	237	647	112	91	105
2	129	128	921	1150	250	1060	3690	365	587	108	85	93
3	134	115	803	968	240	900	2860	2160	436	124	78	78
4	107	148	975	841	210	779	2730	1310	397	163	75	75
5	98	1800	756	778	200	844	2120	951	529	131	72	72
6	94	800	685	685	230	764	1770	791	455	122	71	74
7	90	500	601	617	220	621	1270	714	358	117	74	72
8	90	365	490	580	210	620	1300	616	309	157	80	128
9	97	280	450	441	200	640	1100	531	296	335	80	220
10	98	1000	410	330	300	565	1000	472	277	358	69	458
11	92	860	580	350	450	526	970	423	242	484	67	236
12	87	690	730	340	700	1960	940	392	242	256	67	143
13	85	570	1000	330	2300	2160	900	350	244	205	66	114
14	85	450	1130	340	1600	1530	840	317	233	182	68	100
15	83	370	1000	360	1200	1250	800	291	216	450	74	93
16	87	540	860	350	901	1020	760	294	221	311	105	84
17	90	305	700	330	805	893	700	295	528	224	100	75
18	89	275	600	320	674	783	625	500	380	176	76	68
19	143	239	800	300	609	670	571	437	267	153	70	66
20	130	220	1400	270	528	631	534	314	221	140	68	65
21	117	198	802	260	502	576	486	272	210	135	67	65
22	131	180	1560	280	574	511	437	249	194	126	67	64
23	211	190	1460	300	1780	1160	400	238	186	121	68	63
24	191	180	960	300	3540	2980	372	257	180	115	68	62
25	144	168	910	280	3680	2310	356	237	155	107	85	64
26	131	163	880	260	2640	1730	336	207	138	108	159	63
27	122	157	886	250	2000	1410	308	190	129	158	130	63
28	121	165	1220	240	1540	1270	285	318	121	146	95	62
29	128	903	1250	230	---	4630	269	637	119	111	83	60
30	135	864	1670	230	---	4670	250	391	116	100	197	60
31	136	---	1550	230	---	4010	---	368	---	94	150	---
TOTAL	3581	12959	28881	13840	28343	44703	34199	15124	8633	5629	2705	3045
MEAN	116	432	932	446	1012	1442	1140	488	288	182	87.3	102
MAX	211	1800	1670	1300	3680	4670	5220	2160	647	484	197	458
MIN	83	115	410	230	200	511	250	190	116	94	66	60
MEAN‡	119	442	943	429	1036	1474	1086	494	277	182	83.4	95.6
CFSM‡	.32	1.19	2.54	1.16	2.79	3.97	2.93	1.33	.75	.49	.22	.26
IN.‡	.37	1.33	2.93	1.34	2.91	4.58	3.27	1.53	.84	.56	.25	.29

CAL YR 1984 TOTAL 259303 MEAN 708 MAX 6000 MIN 83 MEAN‡ 710 CFSM‡ 1.91 IN.‡ 26.08  
WTR YR 1985 TOTAL 201642 MEAN 552 MAX 5220 MIN 60 MEAN‡ 552 CFSM‡ 1.49 IN.‡ 20.20

‡ Adjusted for change in contents in Glendale Lake.



## WEST BRANCH SUSQUEHANNA RIVER BASIN

75

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 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1232: 1941-46, 1948, 1950-51, Drainage area.

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

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 10, Feb. 16 to May 15. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 111 ft<sup>3</sup>/s, 21.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,120 ft<sup>3</sup>/s June 23, 1972, gage height 14.25 ft, from rating curve extended above 1,800 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 7.58 ft, 9.00 ft, and at peak flow; minimum, 1.0 ft<sup>3</sup>/s Jan. 30, 1981, result of freezeup; minimum daily, 3.6 ft<sup>3</sup>/s Oct. 17, 24, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 1	Unknown	Unknown	Unknown				

Minimum discharge, 15 ft<sup>3</sup>/s Nov. 3, 4; minimum gage height, 0.23 ft, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	18	120	203	35	143	620	74	124	31	30	17
2	28	17	98	195	35	126	450	150	68	32	28	16
3	23	15	111	179	34	113	350	280	60	62	27	16
4	21	18	116	167	33	103	310	200	55	50	27	16
5	20	64	100	157	32	106	260	170	59	38	28	16
6	20	38	103	141	34	97	230	138	54	40	27	17
7	19	26	97	130	33	89	200	120	49	39	43	17
8	22	21	90	119	32	90	220	110	49	65	41	45
9	23	20	83	92	31	87	200	98	61	89	25	31
10	20	41	85	76	30	84	190	90	50	88	22	129
11	20	44	137	71	34	80	175	82	45	65	22	50
12	19	36	129	67	170	270	162	78	49	48	21	32
13	19	31	155	68	443	240	150	77	47	44	20	27
14	18	28	156	66	242	200	142	76	45	84	23	24
15	18	27	151	63	202	160	132	78	42	92	21	23
16	20	27	141	59	114	130	123	80	105	56	30	22
17	19	24	135	56	110	110	115	80	97	44	24	21
18	20	23	130	53	100	100	108	91	68	39	21	20
19	19	23	174	50	96	91	100	73	53	36	21	19
20	22	21	197	40	96	91	96	65	52	35	21	18
21	21	20	174	43	98	88	94	61	51	35	21	18
22	35	19	238	47	115	85	91	58	45	35	21	18
23	37	21	200	44	320	155	88	61	47	33	21	18
24	23	20	190	42	380	450	86	57	41	31	23	19
25	19	19	185	45	340	410	87	52	38	31	56	18
26	19	18	162	42	250	350	85	50	36	43	36	17
27	18	18	165	40	200	240	80	48	35	50	20	19
28	17	57	201	38	160	195	78	94	34	33	17	19
29	28	198	188	37	---	520	76	71	35	31	16	17
30	25	107	236	38	---	415	74	54	33	30	23	17
31	20	---	207	37	---	470	---	73	---	30	22	---
TOTAL	690	1059	4654	2505	3799	5888	5172	2889	1627	1459	798	756
MEAN	22.3	35.3	150	80.8	136	190	172	93.2	54.2	47.1	25.7	25.2
MAX	38	198	238	203	443	520	620	280	124	92	56	129
MIN	17	15	83	37	30	80	74	48	33	30	16	16
CFSM	.32	.51	2.18	1.17	1.98	2.76	2.50	1.35	.79	.68	.37	.37
IN.	.37	.57	2.52	1.35	2.05	3.18	2.80	1.56	.88	.79	.43	.41

CAL YR 1984 TOTAL 46960 MEAN 128 MAX 1490 MIN 15 CFSM 1.86 IN. 25.39  
WTR YR 1985 TOTAL 31296 MEAN 85.7 MAX 620 MIN 15 CFSM 1.25 IN. 16.92

## 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 mi<sup>2</sup>, 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.--Estimated daily discharge: Jan. 20 to Feb. 10, May 7-20. Records good except those for estimated daily discharges, which are fair. Flow regulated since December 1960 by Glendale Lake (station 01541340) about 70 mi upstream and since November 1965 by Curwensville Lake (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.--45 years, 2,505 ft<sup>3</sup>/s, 23.22 in/yr, adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,300 ft<sup>3</sup>/s June 23, 1972, gage height 18.57 ft, from rating curve extended above 50,000 ft<sup>3</sup>/s; minimum, 100 ft<sup>3</sup>/s Sept. 26, 27, 1964, gage height, 0.43 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 24.5 ft Mar. 18, 1936, from floodmarks at highway bridge, discharge, about 135,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,300 ft<sup>3</sup>/s Apr. 1, gage height, 9.10 ft; minimum daily, 274 ft<sup>3</sup>/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	651	3430	6790	820	6530	17800	934	2080	570	422	775
2	508	614	3710	6090	840	4810	15000	1260	2240	550	399	705
3	496	571	3750	4650	800	4250	12300	3240	1980	570	380	567
4	478	573	3970	4190	780	3650	11100	5140	1560	584	366	433
5	502	1550	3780	3760	740	3470	9500	3860	1690	712	354	349
6	476	2620	3570	3330	740	3460	8190	3420	2340	743	346	320
7	469	2480	3130	2940	740	3110	7050	3150	2000	686	392	302
8	469	1550	2650	2740	710	2950	5960	2650	1510	751	424	319
9	480	1170	2450	2340	705	3080	5020	2300	1420	860	385	561
10	492	1690	2170	1750	720	2960	4700	2200	1330	1430	335	1050
11	482	3030	2440	1660	751	2830	4350	1900	1140	1500	312	888
12	470	3150	3150	1740	914	6280	4090	1600	1160	1490	300	760
13	458	2510	3580	1760	2570	10500	3710	1400	1260	1160	290	753
14	402	2050	4210	1710	4990	8630	3550	1320	1060	912	287	649
15	372	1860	4880	1660	4220	7140	3370	1230	1030	839	292	576
16	379	1790	4590	1300	3400	5080	3190	1170	1140	1220	332	498
17	397	1700	4180	1280	2860	4510	2980	1290	1820	1080	529	406
18	420	1580	3410	1340	2690	3820	2680	1450	2150	954	539	371
19	393	1500	3360	1160	2500	3350	2290	1500	1860	788	478	359
20	439	1420	4860	1000	2120	3010	2180	1380	1440	610	386	341
21	472	1330	5850	900	1910	2780	2060	1260	1260	585	320	334
22	482	1250	6550	1090	1940	2460	1930	1190	959	581	289	323
23	636	1180	7540	1300	3610	2720	1750	1080	976	488	277	317
24	824	1110	6250	1220	9780	7480	1700	1020	1020	453	274	317
25	950	1030	5460	1170	12500	9190	1520	966	931	440	347	315
26	724	983	4580	1120	11400	7860	1370	887	851	449	470	308
27	747	933	3920	1070	9480	6250	1290	841	729	540	498	341
28	651	958	4490	1020	7840	5280	1180	1070	689	568	503	347
29	647	2740	6240	940	-----	12900	1140	1300	617	654	428	317
30	690	3680	6640	880	-----	16000	1040	2120	604	531	542	311
31	691	-----	7230	830	-----	14000	-----	2080	-----	438	799	-----
TOTAL	16550	49253	136020	64730	93070	180340	143990	56208	40826	23736	12295	14212
MEAN	534	1642	4388	2088	3324	5817	4800	1813	1361	766	397	474
MAX	950	3680	7540	6790	12500	16000	17800	5140	2340	1500	799	1050
MIN	372	571	2170	830	705	2460	1040	841	604	438	274	302
MEAN†	524	1586	4413	2045	3380	6018	4581	1864	1346	765	400	459
CFSM†	.36	1.08	3.02	1.40	2.31	4.12	3.13	1.27	.92	.52	.27	.31
IN.†	.42	1.20	3.48	1.61	2.41	4.75	3.49	1.46	1.03	.60	.31	.35

CAL YR 1984 TOTAL 1141354 MEAN 3118 MAX 23600 MIN 372 MEAN† 3122 CFSM† 2.14 IN.† 29.06  
WTR YR 1985 TOTAL 831230 MEAN 2277 MAX 17800 MIN 274 MEAN† 2276 CFSM† 1.56 IN.† 21.11

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

77

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 at North Creek Chapel, 0.1 mi upstream from mouth, and 5.5 mi northwest of Emporium.

DRAINAGE AREA.--5.24 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1963-64. August 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.--Estimated daily discharges: Dec. 12-18, Jan. 8 to Feb. 11, Feb. 20, 21, Aug. 20 to Sept. 30. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 8.78 ft<sup>3</sup>/s, 22.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 828 ft<sup>3</sup>/s Sept. 28, 1967, gage height, 6.32 ft, from rating curve extended above 80 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 5.09 ft, 5.86 ft, and at peak flow; no flow Sept. 14-19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29	0630	107	4.43	Mar. 12	1100	*200	*4.82
Feb. 24	2400	159	4.66				

Minimum daily discharge, 0.33 ft<sup>3</sup>/s, Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.5	12	27	.88	12	52	2.0	12	1.0	.52	1.9
2	.78	1.7	11	27	.84	10	40	2.3	9.3	.88	.42	1.5
3	.58	1.3	14	21	.70	8.0	26	2.3	6.8	.90	.38	1.2
4	.58	2.3	19	16	.70	7.3	18	1.9	5.1	.87	.35	1.0
5	.50	8.8	16	12	.70	13	15	1.8	4.3	.76	.34	.92
6	.43	7.1	13	8.4	.74	12	15	2.0	3.5	1.4	.33	.82
7	.39	5.6	9.2	7.0	.74	10	12	2.0	2.8	1.4	7.0	.76
8	.42	4.7	7.0	6.4	.70	14	11	1.7	2.6	3.0	9.0	1.3
9	.49	4.2	5.6	6.0	.66	25	8.9	1.5	2.5	4.7	5.4	9.0
10	.46	14	5.3	4.5	.64	22	7.6	1.5	2.0	4.7	3.2	12
11	.41	20	7.3	4.0	.70	18	7.1	1.5	1.7	3.6	2.2	8.0
12	.37	18	9.0	3.2	2.2	140	6.3	1.5	3.2	2.7	1.3	5.2
13	.35	12	22	2.6	7.2	64	5.6	1.4	2.7	2.1	1.2	4.0
14	.35	7.8	35	2.3	5.1	32	5.3	1.2	2.4	2.1	1.4	3.5
15	.35	6.3	32	2.3	4.1	21	5.1	1.0	2.3	2.0	1.3	3.0
16	.40	5.7	24	1.8	3.6	15	4.8	1.2	3.4	1.7	3.9	2.5
17	.41	5.0	16	1.8	3.2	12	4.2	2.5	3.1	1.4	2.0	2.1
18	.38	4.6	12	1.6	3.1	8.9	3.9	4.4	3.8	1.2	1.6	1.8
19	.52	4.2	11	1.4	2.8	8.1	4.0	3.2	3.3	1.1	1.4	1.6
20	.87	3.5	13	1.0	2.9	6.5	3.6	2.3	3.2	.96	1.1	1.4
21	.60	3.0	14	.94	2.8	5.3	3.2	1.9	2.7	1.0	.96	1.2
22	1.7	2.5	27	.90	3.4	4.7	3.1	1.6	2.4	1.4	.88	1.1
23	2.1	2.6	30	.86	27	7.5	3.0	1.5	2.4	.83	.78	1.0
24	.99	2.4	21	.84	101	23	2.9	1.3	2.0	.72	.70	.96
25	.69	2.2	14	.84	113	34	2.9	1.1	1.7	.66	1.4	1.1
26	1.2	1.9	9.8	1.0	44	26	2.7	1.1	1.5	.81	1.5	.90
27	1.3	1.8	9.0	.90	24	20	2.5	1.3	1.4	.74	1.3	.88
28	1.0	4.0	23	.88	16	16	2.4	4.3	1.2	.59	.90	1.2
29	3.8	9.9	91	.88	----	25	2.3	2.5	1.3	.53	.70	1.0
30	2.4	12	59	.88	----	31	2.1	2.1	1.3	.50	1.4	.88
31	1.8	----	36	.90	----	29	----	3.4	----	.50	3.5	----
TOTAL	27.72	180.6	627.2	167.12	373.40	680.3	282.5	61.3	97.9	46.75	58.36	73.72
MEAN	.89	6.02	20.2	5.39	13.3	21.9	9.42	1.98	3.26	1.51	1.88	2.46
MAX	3.8	20	91	27	113	140	52	4.4	12	4.7	9.0	12
MIN	.35	1.3	5.3	.84	.64	4.7	2.1	1.0	1.2	.50	.33	.76
CFSM	.17	1.15	3.85	1.03	2.54	4.18	1.80	.38	.62	.29	.36	.47
IN.	.20	1.28	4.45	1.19	2.65	4.83	2.01	.44	.70	.33	.41	.52

CAL YR 1984 TOTAL 4734.74 MEAN 12.9 MAX 219 MIN .35 CFSM 2.46 IN. 33.61  
WTR YR 1985 TOTAL 2676.87 MEAN 7.33 MAX 140 MIN .33 CFSM 1.40 IN. 19.00

## 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 downstream side of second pier from left bank of highway bridge at village of Sterling Run, and 300 ft upstream from Sterling Run.

DRAINAGE AREA.--272 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

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 and Oct. 1, 1931 to Sept. 30, 1932, water-stage recorder at present site and datum. Oct. 1, 1932 to Sept. 30, 1942, nonrecording gage at site 800 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 23. Records good except those for estimated daily discharges which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--72 years, 450 ft<sup>3</sup>/s, 22.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,800 ft<sup>3</sup>/s July 18, 1942, gage height, 14.70 ft, from flood-marks at highway bridge, from rating curve extended above 11,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum observed, 0.4 ft<sup>3</sup>/s Sept. 7, 12-14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 30	0230	4,820	3.75	Mar. 12	1400	*7,460	*4.94
Feb. 25	0330	5,630	4.14				

Minimum discharge, 14 ft<sup>3</sup>/s Oct. 15, 16, gage height, -0.56 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	72	617	1960	64	677	2660	124	651	73	31	110
2	59	64	572	1420	60	581	2230	125	506	65	29	89
3	40	65	705	942	58	460	1600	153	376	68	24	80
4	28	59	884	745	58	391	1220	125	320	70	21	69
5	24	467	753	628	66	613	937	115	256	58	19	62
6	21	332	673	490	64	582	833	112	230	51	18	57
7	19	228	551	411	60	492	725	122	183	90	358	53
8	17	175	446	379	56	650	625	106	165	156	491	147
9	19	150	348	290	54	769	534	94	175	274	293	533
10	20	1070	314	220	52	768	452	87	171	204	188	697
11	20	1310	385	200	60	719	416	83	125	152	139	514
12	18	1140	458	180	120	4780	376	90	203	113	107	370
13	16	848	1080	170	400	3180	339	90	214	99	85	282
14	16	641	1710	150	300	2080	319	76	187	87	91	223
15	14	463	1590	150	230	1310	295	70	160	126	80	181
16	14	409	1170	130	210	889	279	77	191	203	207	154
17	15	338	889	120	190	732	248	88	275	125	164	132
18	16	280	701	120	180	563	222	211	249	94	104	117
19	18	248	636	110	180	429	227	146	227	79	83	103
20	31	216	844	90	180	402	236	118	199	69	72	91
21	42	185	714	90	190	349	210	102	183	62	62	82
22	41	155	1560	86	230	291	190	94	158	122	56	76
23	98	160	1450	82	1100	365	180	83	173	89	51	68
24	68	177	1150	78	4050	1010	177	76	146	61	45	66
25	44	154	914	76	4340	1550	175	68	120	51	87	69
26	42	141	604	80	2220	1280	168	63	100	48	92	60
27	80	132	445	76	1320	1040	158	62	90	63	77	62
28	64	166	713	72	822	887	152	322	81	48	59	75
29	134	679	4020	70	---	1600	146	275	79	37	47	58
30	160	590	4200	68	---	1770	132	188	87	33	79	49
31	95	---	2350	68	---	1760	---	246	---	33	186	---
TOTAL	1322	11114	33446	9751	16914	32969	16461	3791	6280	2903	3445	4729
MEAN	42.6	370	1079	315	604	1064	549	122	209	93.6	111	158
MAX	160	1310	4200	1960	4340	4780	2660	322	651	274	491	697
MIN	14	59	314	68	52	291	132	62	79	33	18	49
CFSM	.16	1.36	3.97	1.16	2.22	3.91	2.02	.45	.77	.34	.41	.58
IN.	.18	1.52	4.57	1.33	2.31	4.51	2.25	.52	.86	.40	.47	.65

CAL YR 1984 TOTAL 257035 MEAN 702 MAX 11400 MIN 14 CFSM 2.58 IN. 35.15  
WTR YR 1985 TOTAL 143125 MEAN 392 MAX 4780 MIN 14 CFSM 1.44 IN. 19.57



## WEST BRANCH SUSQUEHANNA RIVER BASIN

79

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 mi<sup>2</sup>.

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

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

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 23. 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.

AVERAGE DISCHARGE.--47 years, 1,138 ft<sup>3</sup>/s, 22.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,800 ft<sup>3</sup>/s June 23, 1972, gage height, 21.78 ft, from rating curve extended above 31,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 21.58 ft; minimum, 1.2 ft<sup>3</sup>/s Sept. 4, 1939, gage height, 1.18 ft; minimum daily, 1.4 ft<sup>3</sup>/s Sept. 3, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 21.94 ft Mar. 18, 1936, from floodmark, discharge, 61,200 ft<sup>3</sup>/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	0700	10,300	7.89	Mar. 12	1600	*12,300	*8.67

Minimum discharge, 66 ft<sup>3</sup>/s, Aug. 5-7, gage height, 1.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	315	1900	3730	230	2160	7240	380	2450	208	102	295
2	151	284	1810	3050	210	1830	5830	427	1590	195	91	204
3	138	260	2020	2370	200	1490	4280	802	1140	197	78	175
4	107	241	2620	1980	190	1250	3550	625	903	199	69	149
5	96	1310	2290	1710	220	1720	2850	540	758	172	66	133
6	88	1320	2100	1370	220	1690	2510	514	695	169	66	120
7	83	941	1690	1160	200	1420	2250	664	542	250	410	110
8	82	736	1330	1050	190	1740	2130	594	468	397	1060	175
9	85	620	1110	750	180	2100	1920	511	551	885	490	792
10	89	2500	1010	620	170	1970	1660	474	523	721	301	1200
11	88	3320	1410	580	170	1830	1550	446	385	508	219	1030
12	82	2860	1630	540	320	8160	1430	467	548	367	176	642
13	78	2180	2400	520	1200	8050	1270	484	641	302	145	462
14	75	1630	3150	490	1400	5100	1180	412	532	263	140	357
15	74	1270	3080	460	1100	3560	1120	379	438	324	144	290
16	75	1120	2620	400	900	2650	1040	398	483	396	251	247
17	78	920	2250	380	800	2200	933	394	974	312	341	215
18	80	786	1860	360	700	1770	828	595	792	235	201	191
19	85	715	1700	350	640	1420	790	485	697	197	151	170
20	120	629	2330	300	620	1310	797	397	593	177	130	153
21	140	556	1980	290	600	1120	705	352	540	160	112	141
22	135	467	3320	280	800	939	647	329	456	200	101	129
23	254	461	3620	310	2500	1140	606	293	453	204	93	121
24	242	482	3100	320	8000	2880	578	271	393	151	86	118
25	168	431	2530	320	9230	3900	561	252	332	130	124	121
26	227	402	1840	290	5850	3320	533	231	283	126	198	112
27	448	374	1620	270	3940	2780	489	218	256	169	158	110
28	319	439	2280	300	2740	2410	458	658	231	156	129	123
29	368	1870	5520	300	---	4830	437	809	221	116	103	110
30	557	1600	5860	270	---	5080	400	490	233	99	145	95
31	384	---	4600	240	---	4910	---	711	---	94	565	---
TOTAL	5102	31039	76580	25360	43520	86729	50572	14602	19101	8079	6445	8290
MEAN	165	1035	2470	818	1554	2798	1686	471	637	261	208	276
MAX	557	3320	5860	3730	9230	8160	7240	809	2450	885	1060	1200
MIN	74	241	1010	240	170	939	400	218	221	94	66	95
CFSM	.24	1.51	3.61	1.19	2.27	4.08	2.46	.69	.93	.38	.30	.40
IN.	.28	1.69	4.16	1.38	2.36	4.71	2.75	.79	1.04	.44	.35	.45

CAL YR 1984 TOTAL 583224 MEAN 1594 MAX 17800 MIN 74 CFSM 2.33 IN. 31.67  
WTR YR 1985 TOTAL 375419 MEAN 1029 MAX 9230 MIN 66 CFSM 1.50 IN. 20.39

## 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 350 ft downstream from Woodrock Run, 1,500 ft upstream from Roaring Run, 0.8 mi downstream from First Fork Sinnemahoning Creek Reservoir, and 7.5 mi northeast of Sinnemahoning.

DRAINAGE AREA.--245 mi<sup>2</sup>.

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 First Fork Sinnemahoning Creek Reservoir (station 01543900) 0.8 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--32 years, 391 ft<sup>3</sup>/s, 21.73 in/yr, adjusted for storage since January 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft<sup>3</sup>/s Mar. 1, 1956, gage height, 6.60 ft; minimum daily, 0.10 ft<sup>3</sup>/s Aug. 8, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,940 ft<sup>3</sup>/s Feb. 25, gage height, 3.45 ft; minimum daily, 23 ft<sup>3</sup>/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	41	1030	1580	80	755	2110	120	491	85	34	118
2	55	42	818	1170	80	602	2010	129	364	63	39	105
3	49	42	769	895	85	490	1450	168	335	63	43	101
4	39	43	842	729	136	417	971	117	264	63	35	91
5	34	222	864	669	69	489	960	105	219	62	29	78
6	29	271	801	510	73	440	663	110	182	54	24	63
7	24	187	622	440	79	395	571	138	164	77	157	54
8	24	156	482	386	77	498	661	121	124	104	493	72
9	24	138	348	259	70	499	523	96	154	190	192	339
10	23	343	304	158	70	523	423	89	131	198	150	507
11	24	665	439	241	70	519	419	94	95	158	131	446
12	24	590	534	253	83	2250	374	96	125	126	104	279
13	24	487	675	202	234	3100	333	111	173	121	91	218
14	24	357	1080	186	292	1850	306	84	131	102	76	174
15	24	308	1310	204	211	1190	276	80	112	152	64	146
16	24	277	1110	141	173	897	269	93	122	173	127	132
17	24	235	942	121	173	770	271	95	175	118	130	106
18	29	197	701	155	138	591	245	107	178	103	76	92
19	37	178	635	165	149	444	216	102	178	92	64	83
20	36	174	686	141	153	383	222	91	164	85	63	79
21	54	155	676	102	131	338	207	86	150	65	63	65
22	50	131	883	76	149	299	194	84	149	112	59	54
23	44	107	1240	125	582	332	182	74	158	96	41	54
24	44	112	1130	127	2410	549	182	63	127	49	36	57
25	43	122	937	121	3420	890	183	58	99	56	76	63
26	43	120	658	112	2360	973	174	66	96	56	86	54
27	44	113	552	100	1370	879	157	68	91	65	64	77
28	44	130	528	97	965	794	157	147	83	58	54	94
29	44	923	2020	97	---	940	139	181	75	46	54	72
30	43	1130	2780	86	---	1190	126	113	89	41	70	48
31	42	---	2190	81	---	1250	---	108	---	39	153	---
TOTAL	1112	7996	28586	9729	13882	25536	14974	3194	4998	2872	2878	3921
MEAN	35.9	267	922	314	496	824	499	103	167	92.6	92.8	131
MAX	55	1130	2780	1580	3420	3100	2110	181	491	198	493	507
MIN	23	41	304	76	69	299	126	58	75	39	24	48
MEAN†	42.1	274	920	312	498	823	499	104	166	92.8	93.3	130
CFSM†	.17	1.12	3.76	1.27	2.03	3.36	2.04	.42	.68	.38	.38	.53
IN.†	.20	1.25	4.33	1.46	2.11	3.87	2.28	.48	.76	.44	.44	.59

CAL YR 1984 TOTAL 198641 MEAN 543 MAX 5190 MIN 23 MEAN† 543 CFSM† 2.22 IN.† 30.18  
WTR YR 1985 TOTAL 119678 MEAN 328 MAX 3420 MIN 23 MEAN† 329 CFSM† 1.34 IN.† 18.21

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

81

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, 0.2 mi downstream from Potter-Clinton County line, and 0.7 mi southeast of Cross Fork.

DRAINAGE AREA.--136 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October, November 1940, published in WSP 1302.

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

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 21, 23. 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.

AVERAGE DISCHARGE.--45 years, 182 ft<sup>3</sup>/s, 22.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft<sup>3</sup>/s June 23, 1972, gage height, 11.76 ft, from flood-mark in gage well, from rating curve extended above 9,200 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum daily 1.2 ft<sup>3</sup>/s Sept. 2-4, 1971; minimum gage height, -0.32 ft Aug. 23, 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 14.0 ft Mar. 18, 1936, from information by local residents, discharge, about 20,000 ft<sup>3</sup>/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	0830	*1,730	*4.01				

Minimum discharge, 18 ft<sup>3</sup>/s Oct. 13, gage height, 0.37 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	22	375	940	54	506	1120	85	267	40	40	41
2	24	22	337	692	52	421	1110	92	239	39	29	41
3	21	22	369	523	47	341	886	102	206	43	25	38
4	20	24	410	435	46	297	678	82	171	42	23	34
5	20	76	392	369	50	306	547	77	154	35	22	32
6	19	65	366	287	50	265	489	77	135	54	21	29
7	19	51	282	239	48	244	427	84	113	54	114	28
8	19	44	222	210	46	261	391	71	108	105	233	81
9	19	41	183	147	45	264	352	64	108	165	114	123
10	19	100	164	110	45	256	316	62	92	138	83	185
11	19	120	218	100	52	268	296	60	79	124	70	173
12	19	109	230	94	100	1090	268	66	110	112	59	133
13	19	97	322	90	300	1410	244	75	99	107	50	103
14	19	84	524	84	200	1010	225	59	82	92	47	82
15	19	76	672	80	150	732	212	56	72	113	42	68
16	19	75	672	70	130	558	200	60	81	131	93	59
17	20	65	612	80	120	461	182	65	95	105	62	52
18	20	60	504	72	100	375	166	80	90	94	46	46
19	21	57	455	70	80	312	159	66	83	83	41	41
20	26	53	445	56	72	277	160	58	77	74	37	37
21	24	50	431	56	68	234	143	53	72	68	34	34
22	28	46	632	54	172	203	135	50	66	79	33	32
23	35	52	733	58	300	239	129	47	79	58	29	30
24	26	49	666	62	976	361	124	46	62	49	28	31
25	23	46	532	62	1660	507	122	43	55	44	51	31
26	24	44	389	58	1280	532	117	42	49	46	43	27
27	25	43	330	64	890	502	108	44	46	47	41	75
28	23	57	293	64	640	459	101	118	43	37	32	69
29	28	371	994	60	---	475	95	86	49	33	30	41
30	29	374	1460	56	---	478	88	68	52	30	46	34
31	24	---	1220	54	---	567	---	86	---	38	64	---
TOTAL	691	2395	15434	5396	7773	14211	9590	2124	3034	2279	1682	1830
MEAN	22.3	79.8	498	174	278	458	320	68.5	101	73.5	54.3	61.0
MAX	35	374	1460	940	1660	1410	1120	118	267	165	233	185
MIN	19	22	164	54	45	203	88	42	43	30	21	27
CFSM	.16	.59	3.66	1.28	2.04	3.37	2.35	.50	.74	.54	.40	.45
IN.	.19	.66	4.22	1.48	2.13	3.89	2.62	.58	.83	.62	.46	.50

CAL YR 1984	TOTAL	110145	MEAN	301	MAX	6210	MIN	19	CFSM	2.21	IN.	30.13
WTR YR 1985	TOTAL	66439	MEAN	182	MAX	1660	MIN	19	CFSM	1.34	IN.	18.17

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA

LOCATION.--Lat 41°19'12", long 77°52'27", Clinton County, Hydrologic Unit 02050203, on left bank 0.4 mi upstream from Short Bend, 3.5 mi upstream from mouth and Westport, and 5 mi downstream from Kettle Creek Lake.

DRAINAGE AREA.--233 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 9 to Feb. 23. Records good except those for estimated daily discharges, which are fair. Flow regulated since February 1962 by Kettle Creek Lake (station 01544800) 5 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--31 years, 371 ft<sup>3</sup>/s, 21.59 in/yr, adjusted for storage since February 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,970 ft<sup>3</sup>/s Mar. 8, 1956, gage height, 10.48 ft; maximum gage height, 13.31 ft Jan. 22, 1959 (backwater from ice); minimum discharge, 3.0 ft<sup>3</sup>/s Dec. 6, 1964, gage height, 1.12 ft; minimum daily, 4.4 ft<sup>3</sup>/s Nov. 3, 6, 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft<sup>3</sup>/s Mar. 12, gage height, 6.53 ft; minimum daily, 14 ft<sup>3</sup>/s Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	28	814	1430	150	777	1960	133	480	81	57	95
2	36	14	690	1040	150	676	1910	151	500	73	59	71
3	39	24	690	816	140	490	1450	170	340	67	52	61
4	35	31	769	681	130	420	1110	157	289	69	46	61
5	30	163	763	617	130	451	842	143	292	69	41	56
6	27	228	713	545	130	417	773	129	250	76	39	55
7	25	142	565	391	140	337	665	124	192	96	97	53
8	24	103	471	377	140	365	588	129	179	136	297	58
9	25	95	349	290	140	383	538	121	180	248	193	116
10	25	147	337	220	140	390	473	106	163	222	111	211
11	25	385	411	210	150	405	444	96	134	174	111	237
12	24	353	466	230	180	1680	398	109	152	156	100	183
13	23	303	586	220	300	2330	371	248	177	147	87	141
14	22	237	892	210	400	1650	360	204	132	145	68	114
15	21	213	1050	200	350	1130	315	155	109	146	64	109
16	22	195	1040	200	300	915	290	142	120	175	92	89
17	22	162	947	200	260	697	287	135	164	165	118	69
18	22	159	783	200	230	570	251	162	163	132	93	75
19	25	146	695	180	200	481	241	207	129	115	72	73
20	33	124	711	170	160	422	244	156	118	116	66	68
21	39	115	690	110	150	329	235	116	114	110	55	64
22	44	96	919	150	150	291	211	101	106	111	56	60
23	60	81	1170	220	300	343	193	109	110	111	55	57
24	67	91	1110	220	1560	623	191	113	125	75	52	56
25	61	99	910	200	2600	909	190	106	98	65	59	54
26	72	96	663	190	2030	939	181	100	78	76	88	52
27	67	93	605	180	1360	862	166	94	65	92	86	81
28	59	111	505	180	975	759	166	178	69	81	63	122
29	77	777	1180	170	---	828	156	176	72	57	54	105
30	80	987	2260	150	---	926	139	151	81	47	77	72
31	28	---	1860	140	---	1060	---	187	---	51	101	---
TOTAL	1191	5798	25614	10337	13045	22855	15338	4408	5181	3484	2609	2718
MEAN	38.4	193	826	333	466	737	511	142	173	112	84.2	90.6
MAX	80	987	2260	1430	2600	2330	1960	248	500	248	297	237
MIN	21	14	337	110	130	291	139	94	65	47	39	52
MEAN†	37.3	195	825	333	467	736	512	143	174	111	84.5	90.1
CFSM†	.16	.84	3.54	1.43	2.00	3.16	2.20	.61	.75	.48	.36	.39
IN.†	.18	.94	4.08	1.65	2.08	3.64	2.45	.70	.84	.55	.42	.44

CAL YR 1984 TOTAL 178039 MEAN 486 MAX 5170 MIN 14 MEAN† 487 CFSM† 2.09 IN.† 28.47  
WTR YR 1985 TOTAL 112578 MEAN 308 MAX 2600 MIN 14 MEAN† 308 CFSM† 1.32 IN.† 17.97

† Adjusted for change in contents in Kettle Creek Lake.



## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA

LOCATION.--Lat 41°19'28", long 77°45'03", Clinton County, Hydrologic Unit 02050203, on right bank at abandoned Eighth Street bridge abutment at South Renovo, 1 mi upstream from Paddy Run.

DRAINAGE AREA.--2,975 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height records collected July 1895 to December 1903 and October 1905 to September 1974 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1908-10, 1912-13, 1914-15(M). WSP 2103: 1968 (monthly mean).

GAGE.--Water-stage recorder. Datum of gage is 634.19 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 17, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 12, 14. Records good. Flow slightly regulated by 4 flood-control reservoirs, which have a combined capacity of 316,000 acre-ft. U.S. Army Corps of Engineers satellite and landline telemeters at station.

AVERAGE DISCHARGE.--78 years, 4,977 ft<sup>3</sup>/s, 22.68 in/yr, adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 29.39 ft, from flood-mark in gage shelter, from rating curve extended above 87,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 80 ft<sup>3</sup>/s Dec. 6, 1908, gage height, -1.10 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 27.3 ft, June 1, 1889, from floodmark, discharge, about 211,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,100 ft<sup>3</sup>/s Apr. 1, gage height, 10.25 ft; minimum, 481 ft<sup>3</sup>/s Aug. 7, 24, 25, gage height, 0.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637	1200	8840	15500	1600	11700	31900	1910	6280	1050	649	1970
2	706	1070	8490	13200	1600	9260	29200	1920	5910	987	630	1370
3	781	1010	8400	10300	1600	7660	22500	3520	4800	938	589	1100
4	759	960	9680	8720	1500	6710	19300	6080	3950	933	559	938
5	707	2170	9210	7850	1500	6390	16100	5430	3480	937	525	774
6	700	5150	8680	6890	1500	6870	13900	4630	3640	1080	504	659
7	672	4630	7520	5910	1500	5930	12000	4450	3540	1140	595	611
8	656	3590	6290	5400	1400	5830	10500	4230	2880	1300	2480	647
9	656	2530	5890	4640	1400	6560	9150	3650	2530	2590	1680	1040
10	656	3610	5890	3430	1400	6340	8170	3150	2520	2830	1070	2930
11	656	7810	5890	2900	1400	6150	7570	2860	2110	2900	889	4780
12	656	8180	6350	3000	2000	15400	7140	2800	1930	2570	768	3320
13	646	6700	7680	3000	4560	27200	6420	3280	2410	2240	673	2130
14	621	5410	10000	2900	8000	19900	6090	2700	2270	1810	622	1560
15	566	4510	11400	2800	6320	15000	5770	2340	1870	1600	576	1310
16	540	4140	10800	2300	5280	11200	5440	2260	1850	1830	635	1150
17	540	3740	9830	2100	4300	9170	5170	2280	2720	2010	980	980
18	544	3420	8280	2000	4100	7890	4710	2730	3140	1640	1030	844
19	562	3120	7310	1900	3670	6590	4220	2880	3150	1410	847	775
20	585	2890	8890	1600	3450	5950	3950	2810	2670	1150	751	730
21	663	2670	10200	1500	3010	5400	3730	2280	2290	1020	639	684
22	760	2450	11800	1500	2990	4710	3470	2090	1950	954	562	648
23	861	2220	14900	1800	5400	4610	3240	1940	1750	1050	527	613
24	1110	2170	13500	2100	21300	9940	3090	1760	1770	848	494	604
25	1280	2070	11400	2100	30300	16000	3010	1650	1610	737	510	604
26	1290	1950	9230	2000	25400	14800	2760	1520	1430	738	749	597
27	1360	1850	7760	1900	18700	12300	2590	1410	1270	800	903	693
28	1320	1870	7800	1800	14400	10500	2410	1630	1170	873	794	807
29	1180	7090	14800	1700	---	17300	2280	2940	1130	863	740	750
30	1480	9160	19100	1700	---	25700	2130	2760	1060	834	838	645
31	1360	---	18000	1700	---	22900	---	3360	---	730	1830	---
TOTAL	25510	109340	303810	126140	179580	341860	257910	89250	79080	42392	25638	36263
MEAN	823	3645	9800	4069	6414	11030	8597	2879	2636	1367	827	1209
MAX	1480	9160	19100	15500	30300	27200	31900	6080	6280	2900	2480	4780
MIN	540	960	5890	1500	1400	4610	2130	1410	1060	730	494	597
CFSM	.28	1.23	3.29	1.37	2.16	3.71	2.89	.97	.89	.46	.28	.41
IN.	.32	1.37	3.80	1.58	2.25	4.27	3.22	1.12	.99	.53	.32	.45

CAL YR 1984 TOTAL 2403732 MEAN 6568 MAX 56900 MIN 540 CFSM 2.21 IN. 30.06  
WTR YR 1985 TOTAL 1616773 MEAN 4430 MAX 31900 MIN 494 CFSM 1.49 IN. 20.22

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to current year.

pH: October 1968 to current year.

WATER TEMPERATURE: October 1968 to current year.

DISSOLVED OXYGEN: February 1975 to September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1968.

REMARKS.--Interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1969-71, 1974-76, 1978-79, 1983-84): Maximum, 973 microsiemens Oct. 3, 1968; minimum, 87 microsiemens Feb. 25, 1975.

pH (water years 1969-72, 1974-76, 1978-85): Maximum, 6.8 units Mar. 24, 1978, Nov. 8, 9, 1984; minimum, 2.2 units Sept. 23, 24, 1969.

WATER TEMPERATURE (water years 1969-71, 1974-76, 1978-85): Maximum, 31.0°C June 27-30, July 16, 1969; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN (water year 1975): Maximum, 14.0 mg/L Feb. 14, 1975; minimum, 6.5 mg/L Aug. 3, 1975.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 6.8 units Nov. 8, 9; minimum, 3.4 units Oct. 25.

WATER TEMPERATURE: Maximum, 28.5°C July 20, Aug. 14; minimum, 0.0°C Jan. 21.

## SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	617	597	608	500	478	491	234	155	202	---	---	---
2	633	605	622	500	487	494	202	155	174	---	---	---
3	639	594	630	500	490	497	200	172	187	---	---	---
4	635	617	627	491	470	487	180	167	175	---	---	---
5	661	611	639	470	388	441	170	160	166	---	---	---
6	662	631	647	454	385	422	160	152	156	---	---	---
7	648	625	639	398	350	377	165	157	161	---	---	---
8	646	638	642	399	374	392	---	---	---	---	---	---
9	644	636	640	374	346	353	---	---	---	295	282	289
10	638	633	636	348	238	318	---	---	---	315	288	306
11	652	633	645	239	218	230	---	---	---	320	307	312
12	687	641	667	227	196	212	---	---	---	335	316	325
13	678	665	672	198	193	194	234	213	225	355	333	347
14	669	658	664	203	194	198	212	192	203	360	340	351
15	670	646	661	206	199	204	197	187	193	372	346	354
16	657	638	649	210	206	208	189	181	185	383	367	375
17	669	645	658	217	209	214	184	181	182	394	377	385
18	692	664	676	220	215	217	189	181	184	383	334	366
19	705	677	689	222	215	220	194	188	191	370	341	359
20	692	659	678	273	222	241	214	191	204	403	349	385
21	673	652	663	278	273	276	226	154	193	403	361	383
22	692	638	667	288	277	281	155	145	150	375	313	338
23	650	631	641	289	285	287	154	140	148	454	337	391
24	658	628	642	294	284	290	143	122	132	483	438	464
25	709	648	679	295	285	291	145	120	136	438	410	423
26	704	526	614	311	292	303	---	---	---	488	411	449
27	525	465	494	322	310	318	---	---	---	476	449	467
28	518	470	504	332	264	318	---	---	---	490	469	478
29	497	444	470	---	---	---	226	188	205	515	465	482
30	471	446	458	---	---	---	193	183	187	479	409	440
31	479	451	469	---	---	---	---	---	---	434	408	424
MONTH	709	444	622	500	193	313	234	120	179	515	282	387

## WEST BRANCH SUSQUEHANNA RIVER BASIN

85

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	432	425	429	---	---	---	---	---	---	423	409	417
2	436	407	415	---	---	---	---	---	---	414	382	398
3	407	390	394	---	---	---	---	---	---	429	380	408
4	419	392	405	---	---	---	---	---	---	439	342	423
5	406	393	400	---	---	---	---	---	---	338	296	303
6	420	403	411	---	---	---	---	---	---	299	288	294
7	466	421	438	---	---	---	---	---	---	292	280	286
8	559	461	502	262	255	258	---	---	---	287	279	284
9	515	498	507	263	255	259	---	---	---	287	277	282
10	513	497	507	266	260	263	---	---	---	291	279	287
11	533	507	523	261	255	257	---	---	---	305	290	295
12	523	483	507	257	148	218	---	---	---	314	303	308
13	550	437	506	192	176	185	---	---	---	331	312	321
14	465	316	396	177	170	172	---	---	---	321	309	313
15	323	262	275	190	175	181	---	---	---	330	320	324
16	278	266	271	197	189	191	---	---	---	347	331	340
17	267	258	262	210	197	205	320	314	317	365	348	358
18	260	256	258	224	209	217	328	319	326	373	360	366
19	260	255	257	235	224	230	337	327	333	382	367	372
20	264	258	261	242	235	238	346	332	339	391	383	388
21	299	262	285	259	242	252	358	344	352	387	369	379
22	308	302	306	267	259	264	363	357	360	369	362	365
23	312	214	297	266	257	262	370	360	366	377	366	372
24	222	176	202	273	252	263	371	353	360	---	---	---
25	176	136	152	251	200	219	375	364	370	---	---	---
26	147	131	137	200	191	194	383	368	373	---	---	---
27	160	136	147	197	192	194	395	383	389	---	---	---
28	175	163	167	204	198	200	402	392	397	---	---	---
29	---	---	---	---	---	---	410	396	404	---	---	---
30	---	---	---	---	---	---	424	402	412	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	559	131	343	273	148	225	424	314	364	439	277	343
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	520	463	499	528	472	516
2	---	---	---	---	---	---	488	464	476	520	489	505
3	---	---	---	---	---	---	506	471	491	493	443	475
4	---	---	---	---	---	---	513	481	499	453	436	444
5	---	---	---	---	---	---	---	---	---	448	435	440
6	---	---	---	---	---	---	---	---	---	449	431	441
7	---	---	---	---	---	---	---	---	---	458	437	446
8	---	---	---	---	---	---	520	271	379	461	423	449
9	---	---	---	---	---	---	317	293	310	470	388	446
10	---	---	---	---	---	---	398	314	365	512	327	396
11	---	---	---	---	---	---	418	382	400	588	460	524
12	---	---	---	---	---	---	434	397	412	459	392	432
13	---	---	---	---	---	---	444	393	422	390	359	370
14	---	---	---	---	---	---	448	421	433	370	360	366
15	---	---	---	---	---	---	475	419	453	395	368	380
16	---	---	---	---	---	---	489	447	475	407	392	401
17	---	---	---	433	394	420	508	404	465	422	399	410
18	---	---	---	412	400	404	618	405	513	435	399	423
19	---	---	---	399	390	393	620	579	610	434	396	417
20	---	---	---	391	366	380	614	568	596	457	408	439
21	---	---	---	383	363	373	576	525	553	476	437	461
22	---	---	---	400	382	390	533	496	517	497	457	483
23	---	---	---	414	360	392	495	474	484	519	477	501
24	---	---	---	388	354	372	505	466	486	547	516	530
25	---	---	---	428	374	408	543	496	518	552	523	539
26	---	---	---	437	414	429	568	517	544	556	512	537
27	---	---	---	442	416	429	549	513	527	537	501	515
28	---	---	---	471	423	451	640	547	599	521	476	505
29	---	---	---	510	455	482	687	623	666	548	476	521
30	---	---	---	561	513	545	641	494	586	520	480	500
31	---	---	---	527	515	522	504	457	480	---	---	---
MONTH	---	---	---	561	354	426	687	271	491	588	327	460

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	3.80	3.70	3.80	4.50	4.40	4.50	5.50	4.90	5.20	---	---	---
2	3.80	3.80	3.80	4.50	4.40	4.40	5.60	5.40	5.50	---	---	---
3	3.90	3.70	3.80	4.50	4.40	4.50	5.70	5.50	5.60	---	---	---
4	3.80	3.70	3.80	4.60	4.50	4.50	5.80	5.70	5.70	---	---	---
5	3.80	3.70	3.80	4.90	4.60	4.70	5.70	5.50	5.60	---	---	---
6	3.80	3.80	3.80	5.20	4.60	4.90	5.60	5.60	5.60	---	---	---
7	3.80	3.80	3.80	6.40	5.00	5.40	5.60	5.60	5.60	---	---	---
8	3.80	3.80	3.80	6.80	6.40	6.60	5.60	5.40	5.50	---	---	---
9	3.80	3.80	3.80	6.80	6.60	6.70	5.40	5.30	5.40	4.70	4.60	4.70
10	3.80	3.80	3.80	6.60	5.90	6.40	5.40	5.30	5.30	4.70	4.60	4.70
11	3.80	3.70	3.80	5.80	5.30	5.60	5.40	5.20	5.30	4.70	4.50	4.60
12	3.80	3.70	3.70	6.10	5.90	6.00	5.20	5.00	5.10	4.50	4.30	4.40
13	3.80	3.70	3.80	6.20	6.00	6.10	5.20	5.10	5.10	4.30	4.20	4.30
14	3.80	3.80	3.80	6.20	5.90	6.10	5.70	5.20	5.40	4.40	4.30	4.30
15	3.90	3.80	3.80	6.00	5.70	5.90	5.80	5.60	5.70	4.40	4.30	4.40
16	3.90	3.80	3.80	5.70	5.60	5.70	5.80	5.70	5.80	4.50	4.30	4.40
17	3.80	3.80	3.80	5.60	5.50	5.60	5.70	5.40	5.60	4.40	4.30	4.40
18	3.80	3.80	3.80	5.60	5.50	5.50	5.40	5.10	5.20	4.60	4.30	4.40
19	3.80	3.70	3.80	5.50	5.50	5.50	5.10	5.10	5.10	4.50	4.30	4.40
20	3.80	3.70	3.70	5.60	5.50	5.50	5.20	5.00	5.10	4.50	4.20	4.30
21	3.80	3.70	3.80	5.60	5.50	5.60	5.80	5.20	5.50	4.50	4.30	4.40
22	3.80	3.70	3.80	5.70	5.60	5.60	5.80	5.70	5.80	4.90	4.40	4.70
23	3.80	3.80	3.80	5.70	5.60	5.70	5.90	5.80	5.80	4.40	4.00	4.30
24	3.80	3.50	3.70	5.70	5.60	5.60	6.00	5.80	5.90	4.00	3.90	3.90
25	3.60	3.40	3.50	5.70	5.50	5.60	5.80	5.50	5.70	4.10	4.00	4.00
26	3.80	3.50	3.60	5.50	5.40	5.40	---	---	---	4.20	4.10	4.20
27	4.30	3.80	4.00	5.40	5.40	5.40	---	---	---	4.20	4.20	4.20
28	4.30	4.30	4.30	5.50	5.30	5.30	---	---	---	4.20	4.20	4.20
29	4.60	4.30	4.50	---	---	---	6.00	5.10	5.70	4.30	4.20	4.30
30	4.60	4.50	4.60	---	---	---	6.00	5.80	5.90	4.30	4.30	4.30
31	4.60	4.50	4.60	---	---	---	---	---	---	4.40	4.30	4.30
MONTH	4.60	3.40	3.87	6.80	4.40	5.51	6.00	4.90	5.51	4.90	3.90	4.35

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.40	4.40	4.40	---	---	---	5.60	5.30	5.50	3.90	3.80	3.80
2	4.40	4.40	4.40	---	---	---	5.50	5.40	5.50	4.00	3.90	3.90
3	4.40	4.30	4.30	---	---	---	5.40	5.30	5.40	4.00	3.70	3.80
4	4.40	4.30	4.30	---	---	---	5.40	5.30	5.30	4.40	3.70	3.90
5	4.30	4.30	4.30	---	---	---	5.40	5.20	5.30	5.10	4.40	4.70
6	4.40	4.30	4.30	---	---	---	5.30	5.00	5.20	5.10	4.80	4.90
7	4.30	4.20	4.30	---	---	---	5.10	5.10	5.10	4.80	4.70	4.80
8	4.20	4.20	4.20	4.90	4.80	4.80	5.10	4.80	5.00	4.80	4.70	4.80
9	4.20	4.20	4.20	4.80	4.80	4.80	4.80	4.50	4.70	4.70	4.60	4.70
10	4.20	4.20	4.20	4.80	4.80	4.80	4.50	4.20	4.40	4.60	4.40	4.50
11	4.20	4.10	4.10	4.90	4.80	4.80	4.40	4.30	4.30	4.40	4.20	4.30
12	4.20	4.10	4.20	6.00	4.80	5.20	4.40	4.30	4.30	4.20	4.10	4.20
13	4.20	4.10	4.20	5.90	5.50	5.70	4.40	4.30	4.30	4.10	4.00	4.10
14	5.20	4.00	4.50	5.60	5.50	5.50	4.30	4.20	4.30	4.10	4.00	4.00
15	5.30	4.90	5.00	5.60	5.50	5.60	4.30	4.20	4.30	4.00	4.00	4.00
16	5.60	5.30	5.50	5.60	5.40	5.50	4.30	4.20	4.30	4.00	4.00	4.00
17	5.60	5.20	5.40	5.40	5.00	5.20	4.30	4.30	4.30	4.00	3.90	3.90
18	5.20	5.00	5.10	5.00	5.00	5.00	4.30	4.20	4.30	3.90	3.90	3.90
19	5.10	4.90	5.00	5.00	4.90	4.90	4.20	4.20	4.20	3.90	3.90	3.90
20	4.90	4.90	4.90	4.90	4.80	4.80	4.20	4.00	4.10	4.00	3.90	3.90
21	4.90	4.70	4.80	4.80	4.70	4.70	4.00	3.90	4.00	4.00	4.00	4.00
22	4.70	4.60	4.70	4.70	4.70	4.70	3.90	3.90	3.90	4.00	4.00	4.00
23	5.70	4.60	4.70	4.70	4.60	4.70	3.90	3.90	3.90	4.00	3.90	3.90
24	6.20	5.50	5.90	5.20	4.40	4.70	4.00	3.90	4.00	3.90	3.80	3.90
25	6.40	6.20	6.30	5.60	5.20	5.50	4.00	4.00	4.00	3.90	3.80	3.80
26	6.30	6.10	6.20	5.60	5.50	5.60	4.00	3.90	4.00	3.80	3.80	3.80
27	6.10	6.00	6.00	5.60	5.30	5.50	3.90	3.90	3.90	3.80	3.80	3.80
28	6.00	5.90	6.00	5.30	5.10	5.20	3.90	3.80	3.90	3.80	3.80	3.80
29	---	---	---	5.40	4.80	5.00	3.90	3.80	3.80	3.90	3.80	3.90
30	---	---	---	5.70	5.30	5.40	3.80	3.80	3.80	3.80	3.70	3.80
31	---	---	---	5.30	5.20	5.30	---	---	---	---	---	---
MONTH	6.40	4.00	4.84	6.00	4.40	5.12	5.60	3.80	4.44	5.10	3.70	4.09



01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	4.20	4.10	4.10	4.20	4.10	4.10	4.10	3.80	3.90
2	5.60	5.00	5.30	4.00	4.00	4.00	4.20	4.10	4.20	4.10	4.00	4.10
3	5.40	4.90	5.10	4.10	4.00	4.00	4.20	4.10	4.10	4.30	4.10	4.20
4	5.40	5.30	5.30	4.00	3.90	4.00	4.10	4.00	4.10	4.40	4.20	4.30
5	5.30	5.10	5.20	4.00	3.90	3.90	---	---	---	4.50	4.40	4.40
6	5.10	4.70	4.90	3.80	3.60	3.70	---	---	---	4.70	4.40	4.50
7	4.90	4.70	4.80	3.80	3.60	3.70	---	---	---	4.60	4.50	4.60
8	5.20	4.90	5.10	3.90	3.70	3.80	4.80	3.90	4.40	4.70	4.50	4.50
9	5.20	4.90	5.10	4.20	3.80	4.00	4.80	4.70	4.70	4.60	4.40	4.50
10	4.90	4.70	4.80	4.30	4.00	4.20	4.70	4.50	4.60	4.90	4.20	4.70
11	4.70	4.50	4.60	3.90	3.80	3.90	4.50	4.30	4.40	4.50	4.00	4.20
12	4.50	4.30	4.40	4.10	3.90	3.90	4.30	4.20	4.30	5.00	4.50	4.70
13	4.40	4.30	4.30	4.40	4.10	4.20	4.40	4.20	4.30	5.80	4.90	5.30
14	4.30	4.20	4.30	4.80	4.40	4.60	4.30	4.20	4.20	6.00	5.70	5.80
15	4.30	4.20	4.20	5.20	4.80	5.00	4.30	4.10	4.20	5.80	5.50	5.70
16	4.20	4.10	4.20	5.50	4.90	5.10	4.20	4.00	4.10	5.50	5.20	5.30
17	4.20	4.10	4.10	4.90	4.70	4.70	4.30	4.00	4.10	5.30	5.10	5.20
18	4.20	3.90	4.10	4.90	4.80	4.80	4.30	3.90	4.10	5.30	5.00	5.10
19	4.10	3.90	4.00	4.90	4.80	4.80	4.00	3.90	3.90	5.10	5.00	5.10
20	4.10	4.10	4.10	5.10	4.90	5.00	4.00	3.90	3.90	5.10	4.90	4.90
21	4.30	4.10	4.20	5.10	4.90	5.00	4.10	4.00	4.00	4.90	4.80	4.80
22	4.40	4.30	4.30	5.00	4.80	4.90	4.20	4.00	4.00	5.00	4.70	4.80
23	4.40	4.20	4.30	4.90	4.80	4.80	4.20	4.00	4.10	4.80	4.50	4.60
24	4.20	4.10	4.10	5.00	4.90	4.90	4.20	4.10	4.10	4.70	4.40	4.60
25	4.10	4.00	4.00	5.00	4.70	4.80	4.20	4.10	4.10	4.60	4.30	4.40
26	4.00	4.00	4.00	4.80	4.70	4.70	4.20	4.00	4.00	4.60	4.10	4.30
27	4.10	4.00	4.00	4.70	4.70	4.70	4.10	3.90	4.00	4.40	4.10	4.30
28	4.20	4.00	4.10	4.70	4.50	4.60	3.90	3.70	3.80	4.30	4.00	4.10
29	4.30	4.10	4.20	4.50	4.30	4.40	3.80	3.60	3.70	4.30	4.10	4.20
30	4.30	4.20	4.20	4.30	4.10	4.20	4.00	3.70	3.80	4.40	4.10	4.20
31	---	---	---	4.20	4.10	4.10	4.10	3.90	4.00	---	---	---
MONTH	5.60	3.90	4.46	5.50	3.60	4.40	4.80	3.60	4.12	6.00	3.80	4.64

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	13.5	14.0	14.0	13.0	13.5	6.0	6.0	6.0	---	---	---
2	14.0	12.5	13.0	13.5	11.0	13.0	6.0	5.5	6.0	---	---	---
3	14.0	11.5	12.5	11.0	9.0	10.0	6.0	5.5	6.0	---	---	---
4	15.0	11.5	13.0	9.0	8.0	8.5	6.0	4.5	5.5	---	---	---
5	15.5	12.5	14.0	10.5	8.5	9.5	4.5	4.0	4.5	---	---	---
6	14.5	12.0	13.5	10.5	10.0	10.5	3.5	3.0	3.5	---	---	---
7	13.5	12.0	13.0	10.0	9.0	9.5	3.0	1.5	2.5	---	---	---
8	13.5	12.5	13.0	9.5	8.0	8.5	2.0	1.0	1.5	---	---	---
9	15.5	13.5	14.5	8.5	8.0	8.5	2.0	1.5	2.0	2.0	.5	.5
10	17.5	15.0	16.0	10.0	8.5	9.0	3.0	2.0	2.5	.5	.5	.5
11	19.0	16.5	17.5	10.0	9.5	10.0	4.0	3.0	3.5	.5	.5	.5
12	18.5	16.0	17.0	10.0	8.0	9.0	5.0	4.0	4.5	.5	.5	.5
13	18.0	15.5	17.0	8.0	6.5	7.0	6.5	5.0	6.0	.5	.5	.5
14	17.5	15.5	16.5	6.5	5.5	6.0	8.0	6.5	7.0	.5	.5	.5
15	16.5	14.5	15.5	6.5	5.5	6.0	7.5	7.0	7.0	.5	.5	.5
16	15.5	14.5	15.0	6.5	6.0	6.0	7.5	7.0	7.5	.5	.5	.5
17	16.0	15.0	15.5	6.0	5.0	5.5	8.0	7.5	8.0	.5	.5	.5
18	18.5	15.5	16.5	6.0	5.0	5.5	8.0	7.0	7.5	1.0	.5	.5
19	17.5	15.5	16.5	5.5	4.5	5.0	7.0	6.0	6.5	1.0	.5	.5
20	18.5	16.5	17.5	4.5	3.0	3.5	6.0	5.5	6.0	.5	.5	.5
21	17.0	15.5	16.5	3.5	3.0	3.0	6.0	5.5	5.5	.5	.0	.5
22	16.5	16.0	16.0	3.0	2.0	2.5	6.5	5.0	6.0	.5	.5	.5
23	16.0	15.5	15.5	2.5	1.5	2.0	6.5	6.0	6.0	.5	.5	.5
24	15.5	14.0	15.0	3.0	2.0	2.5	6.5	5.5	6.0	.5	.5	.5
25	15.0	13.5	14.0	3.5	2.5	3.0	6.5	5.0	5.5	.5	.5	.5
26	16.0	15.0	15.5	4.0	3.0	3.5	---	---	---	.5	.5	.5
27	17.5	15.5	16.5	4.0	3.0	3.5	---	---	---	.5	.5	.5
28	18.5	16.5	17.5	6.0	4.0	5.0	---	---	---	.5	.5	.5
29	18.0	16.5	18.0	---	---	---	8.5	5.0	7.5	.5	.5	.5
30	16.5	15.0	15.5	---	---	---	9.5	8.5	9.0	.5	.5	.5
31	15.0	14.0	15.0	---	---	---	---	---	---	.5	.5	.5
MONTH	19.0	11.5	15.5	14.0	1.5	7.0	9.5	1.0	5.5	2.0	.0	.5

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

89

01545600 YOUNG WOMANS CREEK NEAR RENOVO, 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 0.3 mi downstream from Laureilly Fork, 1.5 mi upstream from Left Branch Young Womans Creek, 3.7 mi upstream from mouth, and 5 mi northeast of Renovo.

DRAINAGE AREA.--46.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30, Dec. 1-4, Jan. 9 to Feb. 11, Feb. 20-22. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--20 years, 75.3 ft<sup>3</sup>/s, 22.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,370 ft<sup>3</sup>/s June 23, 1972, gage height, 7.98 ft, from rating curve extended above 1,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 1.1 ft<sup>3</sup>/s Sept. 6, 7, 1971, gage height, 1.47 ft; minimum gage height, 1.45 ft Aug. 30, 31, Sept. 1, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 460 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 1	1900	*346	*2.95				

Minimum discharge, 5.5 ft<sup>3</sup>/s Oct. 12-19, gage height, 1.61 ft; minimum gage height, 1.59 ft, Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	160	246	24	162	327	35	153	14	12	12
2	11	12	160	205	22	140	319	38	132	13	9.9	10
3	8.1	11	150	171	19	117	263	44	107	13	8.7	9.7
4	7.5	12	160	153	18	103	213	37	87	14	8.2	8.7
5	6.9	56	150	136	20	105	176	35	83	13	8.1	8.2
6	6.4	44	144	116	20	91	155	35	69	14	7.6	8.0
7	5.9	36	124	103	19	79	135	36	57	17	29	7.6
8	6.4	32	107	93	19	81	123	32	53	24	28	39
9	6.5	29	93	74	18	79	112	29	54	29	14	37
10	6.6	59	87	68	18	75	101	28	45	20	11	41
11	6.2	66	104	64	19	74	95	27	40	16	10	32
12	5.7	66	102	58	47	215	88	28	43	14	9.5	25
13	5.5	64	119	52	139	266	80	29	41	15	8.2	21
14	5.5	59	146	47	88	232	76	25	35	13	8.2	18
15	5.5	54	175	47	70	192	74	24	31	40	8.2	16
16	5.9	53	183	40	61	159	70	27	31	34	15	14
17	5.7	48	176	40	56	138	65	28	33	23	11	13
18	5.5	43	157	37	47	118	61	37	29	20	8.5	13
19	9.6	41	150	35	43	102	58	28	26	17	8.1	12
20	21	38	146	25	40	92	59	24	23	16	7.6	11
21	12	33	136	25	37	80	53	22	22	14	7.6	10
22	20	30	171	24	42	72	50	21	20	19	7.0	10
23	26	29	185	27	88	89	48	20	25	14	6.8	10
24	13	29	182	28	194	126	47	18	21	13	6.6	10
25	10	27	163	28	316	154	45	17	17	13	11	9.9
26	12	26	136	25	298	157	44	16	15	17	11	8.8
27	14	25	122	27	242	151	42	16	14	16	9.1	20
28	12	38	117	28	193	141	41	67	14	12	7.6	16
29	20	180	209	26	---	156	39	61	17	11	7.3	11
30	18	150	308	25	---	155	36	50	18	10	24	9.8
31	13	---	282	24	---	184	---	56	---	12	20	---
TOTAL	322.4	1402	4804	2097	2217	4085	3095	990	1355	530	348.8	471.7
MEAN	10.4	46.7	155	67.6	79.2	132	103	31.9	45.2	17.1	11.3	15.7
MAX	26	180	308	246	316	266	327	67	153	40	29	41
MIN	5.5	11	87	24	18	72	36	16	14	10	6.6	7.6
CFSM	.23	1.01	3.35	1.46	1.71	2.86	2.23	.69	.98	.37	.24	.34
IN.	.26	1.13	3.87	1.69	1.79	3.29	2.49	.80	1.09	.43	.28	.38

CAL YR 1984 TOTAL 35508.6 MEAN 97.0 MAX 1770 MIN 5.5 CFSM 2.10 IN. 28.59  
WTR YR 1985 TOTAL 21717.9 MEAN 59.5 MAX 327 MIN 5.5 CFSM 1.29 IN. 17.49

## 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.

INSTRUMENTATION.--Automatic sediment pumping sampler October 1980 to September 1981.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 30...	1000	20	45	7.30	10.5	0.4	748	10.8	99	K13
JAN 31...	1000	24	39	6.80	0.0	0.5	738	13.0	92	--
APR 16...	0830	64	42	6.80	10.0	1.0	736	11.0	101	K6
AUG 07...	0830	8.2	46	7.40	19.5	1.0	743	9.0	101	K140

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 30...	K320	17	6	5.0	1.2	1.3	13	0.1	0.7
JAN 31...	K3	13	6	3.7	0.97	0.9	12	0.1	0.5
APR 16...	K30	13	7	3.7	1.0	0.7	10	0.1	0.6
AUG 07...	--	17	8	4.8	1.2	1.2	13	0.1	0.9

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT 30...	11	8.5	2.1	0.8	3.8	32	31	0.04	1.7
JAN 31...	7	8.8	1.3	<0.1	3.7	20	24	0.03	1.3
APR 16...	6	8.6	0.9	0.1	3.8	22	23	0.03	3.8
AUG 07...	9	7.8	1.2	0.1	3.8	33	26	0.05	0.73

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	0.39	0.10	0.4	0.44	0.39	0.39	1	0.05	83
JAN 31...	0.26	0.04	<0.1	<0.01	<0.01	0.01	1	0.06	83
APR 16...	0.18	0.13	0.4	<0.01	<0.01	<0.01	3	0.52	89
AUG 07...	0.14	<0.01	0.3	<0.01	<0.01	<0.01	--	--	--

(K) Results based on non-ideal colony count.



## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 30...	1000	20	10	<1	29	<0.5	<1	2	<3	<1	16
APR 16...	0830	64	<10	<1	25	<0.5	1	1	<3	1	7

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	2	<4	5	<0.1	<10	1	<1	<1	34	<6	4
APR 16...	3	<4	4	<0.1	<10	3	<1	<1	24	<6	4

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	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)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
OCT 30...	1000	20	0.7	<0.6	<0.4	1.2	<0.4	1.0	<0.4	0.07	<0.01

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01546400 SPRING CREEK AT HOUSEVILLE, PA

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

DRAINAGE AREA.--58.5 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 926.627 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 20-22. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 318 ft<sup>3</sup>/s Feb. 12, 1985, gage height, 4.93 ft; minimum, 18 ft<sup>3</sup>/s Sept. 26, 1985, gage height, 2.59 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0130	235	4.30	Apr. 1	0145	291	4.72
Feb. 12	1930	*318	*4.93	May 12	1700	245	4.37
Mar. 29	0645	302	4.81				

Minimum discharge, 18 ft<sup>3</sup>/s Sept. 26, gage height, 2.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	61	83	37	82	273	64	73	38	32	26
2		---	52	83	36	77	239	96	57	37	31	25
3		---	74	78	35	72	226	134	53	38	30	25
4		---	66	77	33	71	201	94	50	37	30	25
5		---	59	76	31	71	175	86	63	36	30	25
6		---	61	71	30	67	161	83	51	44	29	25
7		---	55	70	29	64	153	79	49	37	46	24
8		26	53	68	29	64	159	74	52	44	49	32
9		26	50	62	27	61	143	70	56	40	35	42
10		30	55	60	27	59	129	67	49	45	33	54
11		31	69	60	27	60	125	65	47	38	32	28
12		28	68	58	157	79	117	81	50	38	32	25
13		26	69	56	176	66	110	66	45	35	31	24
14		26	69	56	110	64	104	62	44	41	31	22
15		26	71	53	92	61	103	61	43	37	30	22
16		26	68	50	81	59	98	61	61	35	34	22
17		25	67	50	75	58	92	61	52	34	30	22
18		25	65	50	70	57	88	64	51	34	29	22
19		25	78	49	68	56	86	57	45	34	29	21
20		25	76	45	66	55	83	54	47	34	29	21
21		24	82	42	63	53	80	52	44	34	28	21
22		24	112	38	71	52	77	51	44	36	27	20
23		24	99	31	91	130	75	53	43	33	27	20
24		24	98	32	107	147	74	51	42	32	28	20
25		24	95	33	107	144	73	49	40	33	39	19
26		23	86	34	100	123	69	48	40	47	29	19
27		23	88	35	95	114	69	47	40	37	29	43
28		72	91	38	87	108	70	63	40	33	27	23
29		143	87	37	---	247	68	49	40	33	27	21
30		67	86	37	---	208	66	47	38	33	29	20
31		---	80	36	---	249	---	76	---	37	27	---
TOTAL		---	2290	1648	1957	2878	3586	2065	1449	1144	969	758
MEAN		---	73.9	53.2	69.9	92.8	120	66.6	48.3	36.9	31.3	25.3
MAX		---	112	83	176	249	273	134	73	47	49	54
MIN		---	50	31	27	52	66	47	38	32	27	19
CFSM		---	1.26	.91	1.19	1.59	2.04	1.14	.83	.63	.53	.43
IN.		---	1.46	1.05	1.24	1.83	2.28	1.31	.92	.73	.62	.48

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 highway bridge, 1.6 mi west of Axemann, 1.8 mi southwest of Bellefonte, and 2.5 mi upstream from Logan Branch.

DRAINAGE AREA.--87.2 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 20, 21, July 4 to Sept. 8. Records good except those for estimated daily discharges, which are fair. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 91.8 ft<sup>3</sup>/s, 14.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft<sup>3</sup>/s June 23, 1972, gage height, 7.47 ft in gage well, 8.75 ft from floodmarks, from rating curve extended above 1,400 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 9.6 ft<sup>3</sup>/s Nov. 24, 1941, gage height, 1.69 ft; minimum daily, 20 ft<sup>3</sup>/s Dec. 20, 30, 1963, Jan. 28, 29, 31, 1966.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	2230	*394	*3.41	Apr. 1	0430	377	3.37
Mar. 29	1000	369	3.35				

Minimum discharge, 40 ft<sup>3</sup>/s Sept. 26, gage height, 2.36 ft; minimum gage height, 2.13 ft, Nov. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	60	93	111	68	113	363	94	109	73	67	60
2	70	60	84	116	67	107	320	123	92	72	64	59
3	68	58	100	109	65	102	291	181	88	72	60	58
4	67	59	101	108	63	99	271	135	84	75	60	58
5	67	74	90	108	63	99	236	125	99	74	60	58
6	65	61	93	103	63	94	217	121	86	78	58	58
7	65	60	86	102	61	90	205	116	82	76	64	59
8	65	58	83	99	59	90	217	108	84	79	76	63
9	67	59	81	93	59	88	200	103	92	81	64	80
10	64	62	80	90	60	85	183	100	83	80	63	100
11	64	62	98	90	60	86	176	98	81	76	62	66
12	63	59	97	88	167	105	166	113	85	74	62	60
13	63	58	98	86	242	95	157	103	79	74	62	57
14	62	58	98	86	148	90	151	95	78	82	61	54
15	63	57	98	84	124	87	148	94	77	78	61	53
16	63	57	97	80	111	84	143	94	94	74	64	52
17	62	56	96	81	104	83	137	92	89	70	62	51
18	62	56	94	80	98	81	131	100	87	69	60	51
19	63	57	105	79	95	80	127	90	81	68	60	48
20	65	55	108	75	93	81	126	86	82	69	60	48
21	62	55	108	70	90	79	122	84	81	68	59	48
22	73	54	148	76	93	79	119	83	78	68	58	48
23	70	54	134	75	116	140	115	85	80	66	59	48
24	64	54	133	74	135	185	112	81	80	66	63	47
25	62	54	129	72	142	188	112	79	76	66	72	46
26	62	54	119	71	135	165	106	78	77	68	88	45
27	61	53	120	70	127	155	103	78	76	74	67	74
28	61	79	122	70	119	147	101	97	77	65	62	57
29	64	204	119	68	---	291	98	83	76	64	62	52
30	61	102	117	67	---	261	95	80	74	66	64	51
31	61	---	111	67	---	302	---	112	---	70	61	---
TOTAL	2010	1949	3240	2648	2827	3831	5048	3111	2507	2235	1965	1709
MEAN	64.8	65.0	105	85.4	101	124	168	100	83.6	72.1	63.4	57.0
MAX	81	204	148	116	242	302	363	181	109	82	88	100
MIN	61	53	80	67	59	79	95	78	74	64	58	45
CFSM	.74	.75	1.20	.98	1.16	1.42	1.93	1.15	.96	.83	.73	.65
IN.	.86	.83	1.38	1.13	1.21	1.63	2.15	1.33	1.07	.95	.84	.73

CAL YR 1984 TOTAL 48593 MEAN 133 MAX 1160 MIN 53 CFSM 1.53 IN. 20.73  
WTR YR 1985 TOTAL 33080 MEAN 90.6 MAX 363 MIN 45 CFSM 1.04 IN. 14.11

## 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 Route 144, and 0.8 mi upstream from mouth and Milesburg.

DRAINAGE AREA.--142 mi<sup>2</sup>.

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.

AVERAGE DISCHARGE.--18 years, 236 ft<sup>3</sup>/s, 22.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft<sup>3</sup>/s June 23, 1972, gage height, 13.20 ft, from peak-stage indicator, from rating curve extended above 900 ft<sup>3</sup>/s on basis of computation of peak flow over dam; minimum, 60 ft<sup>3</sup>/s Sept. 30, 1969, gage height, 2.22 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 570 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 29	1145	629	4.77	Apr. 1	0715	*724	*5.03

Minimum discharge, 124 ft<sup>3</sup>/s Sept. 21, 26, gage height, 2.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	163	233	283	185	282	703	234	238	165	150	139
2	188	163	215	285	184	272	633	284	212	165	146	137
3	184	160	235	273	179	260	574	357	206	164	143	134
4	182	163	238	271	175	255	530	300	198	162	143	135
5	182	187	222	270	176	255	475	290	231	159	143	136
6	178	168	228	260	177	245	448	283	206	171	141	134
7	177	164	216	256	173	238	429	274	198	162	144	134
8	177	160	210	253	170	238	439	263	200	172	178	142
9	181	160	206	240	170	231	412	253	215	173	149	161
10	176	168	209	236	170	225	388	247	199	175	145	202
11	174	167	238	236	170	226	379	242	193	164	144	158
12	173	162	239	232	306	268	363	252	200	162	142	147
13	172	158	243	227	425	250	350	247	188	159	144	144
14	171	155	244	226	320	241	340	230	186	176	142	142
15	171	155	246	222	287	238	335	229	183	177	140	141
16	172	154	242	215	267	231	327	230	204	162	148	139
17	170	152	240	217	256	230	314	229	203	159	144	138
18	169	153	237	214	248	226	304	236	195	156	140	136
19	173	154	255	211	244	222	298	220	185	154	138	133
20	175	151	261	197	240	222	292	213	187	154	139	132
21	169	149	263	182	237	218	284	208	186	153	137	131
22	187	148	327	205	245	216	276	205	181	154	135	131
23	187	147	314	204	292	315	270	206	182	150	135	132
24	173	147	313	201	329	409	267	201	175	149	139	132
25	170	146	303	198	341	431	266	197	170	148	164	130
26	170	147	283	194	327	402	257	193	169	155	183	129
27	168	145	285	190	310	379	251	191	167	167	160	169
28	167	190	295	189	291	362	246	221	168	149	145	146
29	173	375	293	186	---	542	243	201	168	148	142	136
30	168	251	290	185	---	523	236	194	166	148	149	134
31	165	---	281	184	---	591	---	247	---	163	145	---
TOTAL	5450	5062	7904	6942	6894	9243	10929	7377	5759	4975	4537	4234
MEAN	176	169	255	224	246	298	364	238	192	160	146	141
MAX	208	375	327	285	425	591	703	357	238	177	183	202
MIN	165	145	206	182	170	216	236	191	166	148	135	129
CFSM	1.24	1.19	1.80	1.58	1.73	2.10	2.56	1.68	1.35	1.13	1.03	.99
IN.	1.43	1.33	2.07	1.82	1.81	2.42	2.86	1.93	1.51	1.30	1.19	1.11

CAL YR 1984 TOTAL 109805 MEAN 300 MAX 2130 MIN 140 CFSM 2.11 IN. 28.77  
WTR YR 1985 TOTAL 79306 MEAN 217 MAX 703 MIN 129 CFSM 1.53 IN. 20.78

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October, November 1955 published in WSP 1722. 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.--Estimated daily discharges: Jan. 21, 22, Feb. 13. 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.

AVERAGE DISCHARGE.--30 years, 405 ft<sup>3</sup>/s, 20.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft<sup>3</sup>/s June 23, 1972, gage height, 11.67 ft, from flood-mark in gage well, from rating curve extended above 9,000 ft<sup>3</sup>/s; minimum, 50 ft<sup>3</sup>/s Aug. 3, 1966, gage height, -0.80 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 1	0400	*2,630	*3.69				

Minimum discharge, 128 ft<sup>3</sup>/s, Sept. 26, gage height, -0.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	173	480	655	223	517	2270	288	363	191	178	156
2	211	171	389	619	222	476	1540	490	274	190	170	150
3	197	166	478	531	216	428	1240	1070	250	192	167	145
4	191	169	521	497	207	403	1140	697	235	191	166	144
5	190	261	432	486	208	424	939	573	329	185	166	144
6	185	226	427	440	210	383	858	506	285	197	164	141
7	185	195	368	421	207	349	781	461	249	188	167	140
8	185	183	337	399	200	358	861	414	247	202	207	148
9	191	178	321	324	198	345	766	376	297	217	176	181
10	187	198	324	301	198	328	700	355	271	220	170	346
11	183	216	576	328	199	326	665	338	243	205	167	220
12	181	210	613	328	413	999	613	339	276	191	164	175
13	179	192	606	315	1040	867	565	327	256	185	165	161
14	177	182	572	315	702	674	534	300	239	212	163	155
15	177	177	595	301	534	558	512	295	229	256	161	151
16	177	173	534	265	445	477	491	300	267	216	170	148
17	177	169	500	271	426	441	455	298	362	200	168	146
18	175	168	457	272	386	402	428	321	296	193	162	144
19	177	169	565	270	385	370	416	284	261	187	160	140
20	184	165	702	254	383	365	403	265	252	186	161	138
21	177	162	660	240	396	335	383	254	251	184	158	137
22	197	158	1170	248	481	319	368	247	235	185	156	137
23	228	157	936	254	1170	969	357	247	239	178	155	137
24	195	158	769	250	1450	1680	356	244	221	176	158	137
25	183	159	660	248	1120	1440	349	234	209	175	205	134
26	182	157	533	242	842	1030	333	226	204	184	299	133
27	181	156	520	235	695	839	321	221	200	203	259	194
28	176	335	650	233	576	745	312	269	199	181	173	183
29	186	1390	771	228	---	1900	302	259	200	175	159	152
30	185	579	779	222	---	1520	291	231	196	175	172	144
31	179	---	687	221	---	1770	---	330	---	190	171	---
TOTAL	5805	7152	17932	10213	13732	22037	19549	11059	7635	6010	5437	4761
MEAN	187	238	578	329	490	711	652	357	255	194	175	159
MAX	228	1390	1170	655	1450	1900	2270	1070	363	256	299	346
MIN	175	156	321	221	198	319	291	221	196	175	155	133
CFSM	.71	.90	2.18	1.24	1.85	2.68	2.46	1.35	.96	.73	.66	.60
IN.	.81	1.00	2.52	1.43	1.93	3.09	2.74	1.55	1.07	.84	.76	.67

CAL YR 1984 TOTAL 200338 MEAN 547 MAX 7560 MIN 156 CFSM 2.06 IN. 28.12  
WTR YR 1985 TOTAL 131322 MEAN 360 MAX 2270 MIN 133 CFSM 1.36 IN. 18.43



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01547400 BALD EAGLE CREEK NEAR MILESBERG, PA

LOCATION.--Lat 40°58'31", long 77°44'35", Centre County, Hydrologic Unit 02050204, at highway bridge at Curtin, 250 ft downstream from Nittany Creek, 500 ft downstream from Antis Run, and 3.5 mi downstream from Milesburg.

DRAINAGE AREA.--296 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1967 to current year.

INSTRUMENTATION.--Water-temperature recorder since July 1967.

REMARKS.--The temperature recorder measures the water temperature of the inflow to Foster Joseph Sayers Lake. Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE (water years 1967-81, 1983-85): Maximum, 29.0°C July 17, 18, Aug. 9, 23, 1968, June 27, 30, July 16, 1969; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 23.0°C July 16; minimum, 0.0°C Jan. 9-11, 13, 15-17, 19-24, 26, 27, Feb. 3-5, 7-10, 13-16.

## TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547400 BALD EAGLE CREEK NEAR MILESBERG, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

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

## 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 Lake, 0.7 mi upstream from Marsh Creek, and 0.9 mi south of Blanchard.

DRAINAGE AREA.--339 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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 Lake (station 01547480) 0.4 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--31 years, 463 ft<sup>3</sup>/s, 18.60 in/yr, adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft<sup>3</sup>/s Mar. 10, 1964, gage height, 11.59 ft, from rating curve extended above 4,100 ft<sup>3</sup>/s; no flow parts of June 16, Nov. 10, 1970, May 12, 18, 19, 1976, Mar. 6, 1979, result of shutoff at Foster Joseph Sayers Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft<sup>3</sup>/s Feb. 24, gage height, 5.51 ft; minimum daily, 132 ft<sup>3</sup>/s Sept. 17-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	328	1080	725	238	500	740	261	443	195	165	151
2	235	324	1060	727	238	418	1340	254	492	195	165	144
3	235	324	1140	680	238	422	1500	470	593	195	165	185
4	236	324	1030	544	238	425	1490	584	456	195	165	209
5	238	324	1150	468	238	424	1480	584	419	195	165	207
6	238	630	1120	468	236	426	1460	686	329	195	165	207
7	238	862	818	468	234	382	1260	718	266	195	165	207
8	238	849	648	468	233	352	1030	603	249	197	388	487
9	237	646	580	465	233	353	1080	465	247	341	394	422
10	237	496	308	338	233	356	1130	383	249	431	256	478
11	237	494	481	281	183	339	983	313	252	431	256	949
12	238	490	756	281	282	538	777	313	252	318	195	819
13	238	487	714	281	791	659	709	316	243	276	165	385
14	238	482	644	363	1070	667	709	318	221	276	159	180
15	236	411	644	407	805	620	557	318	212	261	154	180
16	233	359	644	407	375	584	462	313	216	252	154	150
17	233	359	607	405	377	584	359	313	216	211	154	132
18	233	359	510	344	381	430	291	313	310	191	154	132
19	235	358	469	297	615	235	296	313	365	191	154	132
20	233	353	651	297	488	221	297	313	365	191	154	132
21	233	353	795	225	494	206	297	313	336	191	154	132
22	236	349	952	191	549	195	282	313	285	172	154	132
23	233	347	1100	242	727	217	259	313	285	165	144	133
24	290	347	1090	297	1700	332	252	313	285	165	135	134
25	419	344	1070	297	1550	721	252	313	248	165	135	135
26	414	341	785	297	1200	974	253	284	224	165	137	135
27	330	341	637	297	856	974	256	246	207	168	135	151
28	330	341	674	297	665	976	256	257	195	168	135	183
29	330	653	873	297	---	1240	256	306	195	164	147	183
30	330	1110	1050	258	---	1540	257	302	195	165	155	183
31	330	---	896	238	---	1360	---	384	---	165	154	---
TOTAL	8199	13785	24976	11650	15467	17670	20570	11495	8850	6785	5477	7389
MEAN	264	460	806	376	552	570	686	371	295	219	177	246
MAX	419	1110	1150	727	1700	1540	1500	718	593	431	394	949
MIN	233	324	308	191	183	195	252	246	195	164	135	132
MEAN†	207	287	677	373	552	834	745	418	288	212	196	190
CFSM†	.61	.85	2.00	1.10	1.63	2.46	2.20	1.23	.85	.63	.58	.56
IN.†	.70	.95	2.31	1.27	1.70	2.84	2.45	1.42	.95	.73	.67	.62

CAL YR 1984 TOTAL 244341 MEAN 668 MAX 3980 MIN 174 MEAN† 668 CFSM† 1.97 IN.† 26.83  
WTR YR 1985 TOTAL 152313 MEAN 417 MAX 1700 MIN 132 MEAN† 414 CFSM† 1.22 IN.† 16.61

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1956 to September 1957, August 1967 to current year.

INSTRUMENTATION.--Water-temperature recorder since August 1967.

REMARKS.--The temperature recorder measures the water temperature of the outflow from Foster Joseph Sayers Lake. Interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 33.0°C June 20, 1957; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 21.5°C June 10, 24, July 24, 30, Aug. 15, 17; minimum, 0.5°C Dec. 20, 21, 22, 28, 29.

## TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	16.5	17.0	15.5	15.0	15.0	5.5	5.0	5.0	6.5	5.5	6.0
2	17.0	16.0	16.5	15.5	14.5	15.0	5.5	5.0	5.5	6.0	6.0	6.0
3	17.5	16.0	16.5	15.5	14.0	14.5	5.5	5.0	5.0	6.0	5.5	5.5
4	18.0	16.0	16.5	14.0	14.0	14.0	5.0	4.5	4.5	5.5	5.0	5.0
5	17.5	16.0	16.5	14.5	13.5	14.0	4.5	4.0	4.5	5.0	4.0	4.5
6	17.0	15.5	16.0	13.5	13.0	13.5	4.0	3.5	4.0	4.0	3.5	3.5
7	15.5	15.0	15.5	13.5	12.5	13.0	3.5	2.0	2.5	3.5	3.0	3.5
8	15.5	15.0	15.5	12.5	12.5	12.5	2.5	2.0	2.5	3.5	2.5	3.0
9	16.0	15.0	15.5	12.5	12.0	12.0	2.0	2.0	2.0	2.5	1.5	2.0
10	16.5	15.0	15.5	12.0	11.5	12.0	2.5	2.0	2.0	2.0	1.5	1.5
11	16.0	15.0	15.5	11.5	11.0	11.5	2.5	2.0	2.5	2.0	1.5	2.0
12	16.0	15.0	15.5	11.0	10.5	11.0	3.0	2.5	2.5	2.0	1.5	2.0
13	16.5	14.5	15.0	10.5	10.0	10.5	4.0	3.0	3.5	2.5	1.5	1.5
14	16.5	15.0	15.5	10.5	9.5	10.0	4.5	3.5	4.0	2.0	1.5	1.5
15	15.5	14.5	15.0	10.0	9.5	9.5	5.0	4.5	5.0	2.0	1.0	1.5
16	15.5	15.0	15.0	9.5	8.0	9.0	5.5	5.0	5.5	2.0	1.0	1.5
17	15.5	15.0	15.0	9.0	8.0	8.0	6.5	5.5	6.0	2.0	1.5	1.5
18	16.0	15.0	15.5	8.5	8.0	8.0	6.5	6.0	6.0	2.0	1.5	2.0
19	16.5	15.0	15.5	8.0	7.5	8.0	6.5	6.0	6.0	2.0	1.0	1.5
20	16.5	15.5	15.5	7.5	7.0	7.0	6.5	5.5	6.0	1.5	.5	1.0
21	16.0	15.0	15.5	7.5	6.5	7.0	6.0	5.5	5.5	1.5	.5	1.0
22	15.5	15.0	15.5	7.0	6.0	6.5	5.5	5.0	5.0	2.0	.5	1.0
23	15.5	15.0	15.0	6.0	6.0	6.0	4.5	4.0	4.5	1.5	1.0	1.0
24	15.5	15.0	15.0	6.5	5.5	6.0	4.0	4.0	4.0	2.0	1.5	1.5
25	16.0	15.0	15.5	6.5	5.5	6.0	4.0	3.0	3.5	2.5	1.0	1.5
26	15.5	15.0	15.5	6.5	5.5	5.5	3.0	3.0	3.0	2.5	1.0	1.5
27	16.0	15.0	15.5	6.0	5.0	5.0	3.0	2.5	2.5	1.5	1.0	1.0
28	16.5	15.5	16.0	6.0	5.0	5.5	2.5	2.0	2.5	1.5	.5	1.0
29	16.0	15.5	15.5	5.5	5.0	5.5	3.5	2.0	3.0	2.0	.5	1.0
30	16.0	15.0	15.5	5.0	4.5	5.0	6.5	3.5	4.5	2.0	1.0	1.5
31	16.0	15.0	15.5	---	---	---	6.0	4.5	5.5	1.5	1.5	1.5
MONTH	18.0	14.5	15.5	15.5	4.5	9.5	6.5	2.0	4.0	6.5	.5	2.5

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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



## WEST BRANCH SUSQUEHANNA RIVER BASIN

101

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, 0.5 mi southwest of Blanchard, 0.6 mi downstream from bridge on U.S. Highway 150, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--44.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October 1955, published in WSP 1722.

REVISED RECORDS.--WDR PA-72-1: 1971 (runoff in (ft<sup>3</sup>/s)/mi<sup>2</sup> 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.--Estimated daily discharges: Jan. 11 to Feb. 10. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 59.0 ft<sup>3</sup>/s, 18.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft<sup>3</sup>/s June 18, 1984, gage height, 7.85 ft, from rating curve extended above 4,900 ft<sup>3</sup>/s; no flow Aug. 30, 31, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 29	0700	*622	*4.05	Mar. 31	2330	504	3.86

Minimum discharge, 1.6 ft<sup>3</sup>/s Aug. 24, gage height, 2.06 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.1	96	166	15	93	452	23	18	6.5	4.1	11
2	6.8	5.8	70	138	15	82	315	59	14	6.6	3.2	7.6
3	4.4	4.8	76	113	15	71	224	146	13	7.0	2.8	6.2
4	3.8	5.0	73	100	16	63	169	136	13	6.4	2.5	5.5
5	3.5	22	65	92	15	65	135	114	36	5.8	2.3	4.7
6	3.4	15	66	80	15	55	119	95	24	6.1	2.3	4.1
7	3.2	10	56	74	15	48	106	85	18	6.3	4.3	4.0
8	3.3	8.0	48	67	16	50	105	67	16	20	8.5	4.1
9	3.7	7.0	41	50	15	47	96	56	16	30	4.3	8.9
10	3.9	17	43	38	15	44	91	49	15	15	3.1	21
11	3.5	20	88	34	16	43	89	44	12	12	2.7	12
12	3.5	16	102	33	40	190	82	42	17	8.9	2.4	7.5
13	3.3	13	107	31	98	187	74	38	14	7.8	2.3	6.1
14	3.2	10	97	31	75	153	69	33	12	7.7	2.3	5.1
15	3.2	9.1	96	28	65	124	64	30	10	11	2.2	4.6
16	3.3	8.8	86	28	58	103	59	29	18	8.0	2.3	4.4
17	3.4	7.7	80	26	56	91	52	28	26	6.3	2.7	4.7
18	3.4	6.9	71	25	51	79	47	31	18	5.5	2.5	4.1
19	7.2	6.6	88	24	52	70	45	25	14	5.1	2.3	4.0
20	12	5.8	99	21	53	66	41	22	12	4.7	2.2	3.8
21	5.7	5.0	118	20	55	56	38	20	12	4.4	2.3	3.7
22	11	4.0	226	19	70	51	35	19	10	4.4	2.1	3.6
23	16	4.4	206	19	160	129	33	17	11	3.9	1.9	3.4
24	8.1	4.8	168	19	245	287	33	17	9.0	3.5	1.8	3.8
25	5.9	4.7	130	19	226	296	32	15	8.1	3.3	6.3	3.8
26	6.8	4.4	96	18	174	223	29	14	7.3	4.4	24	3.7
27	11	4.3	84	17	138	174	28	14	7.2	5.9	21	11
28	6.9	26	89	17	108	164	26	21	6.7	4.1	6.6	11
29	11	271	234	17	---	466	25	16	8.1	3.2	4.5	5.8
30	11	120	239	16	---	362	24	14	7.7	3.0	24	4.6
31	7.5	---	191	15	---	345	---	24	---	4.4	22	---
TOTAL	189.1	653.2	3329	1395	1892	4277	2737	1343	423.1	231.2	177.8	187.8
MEAN	6.10	21.8	107	45.0	67.6	138	91.2	43.3	14.1	7.46	5.74	6.26
MAX	16	271	239	166	245	466	452	146	36	30	24	21
MIN	3.2	4.0	41	15	15	43	24	14	6.7	3.0	1.8	3.4
CFSM	.14	.49	2.43	1.02	1.53	3.13	2.07	.98	.32	.17	.13	.14
IN.	.16	.55	2.81	1.18	1.60	3.61	2.31	1.13	.36	.20	.15	.16

CAL YR 1984 TOTAL 33066.7 MEAN 90.3 MAX 2350 MIN 3.0 CFSM 2.05 IN. 27.89  
WTR YR 1985 TOTAL 16835.2 MEAN 46.1 MAX 466 MIN 1.8 CFSM 1.05 IN. 14.20

## 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 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Elevation of gage is 750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 29 to Feb. 13. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 280 ft<sup>3</sup>/s, 24.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft<sup>3</sup>/s June 23, 1972, gage height, 15.22 ft, from rating curve extended above 2,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 8.8 ft<sup>3</sup>/s Nov. 17, 1980; minimum gage height, 5.08 ft Oct. 15, 18, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 1	1200	*1,510	*8.41	No other peak greater than base discharge.			

Minimum discharge, 11 ft<sup>3</sup>/s Aug. 24; minimum gage height, 5.19 ft Oct. 14-17, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	33	593	560	54	437	1470	119	165	64	66	96
2	42	28	503	470	50	388	1240	216	137	61	47	78
3	29	27	499	400	47	333	983	466	139	61	40	67
4	27	23	485	350	51	299	806	434	133	56	37	60
5	24	30	434	300	52	309	665	426	193	51	35	52
6	23	97	422	260	52	269	589	401	191	51	33	46
7	21	69	371	230	50	234	519	405	166	53	71	42
8	21	49	328	200	48	235	491	347	159	99	118	44
9	22	41	288	170	52	224	453	314	165	162	60	75
10	25	39	269	120	54	206	405	293	154	111	42	152
11	24	115	340	130	60	197	382	271	131	91	38	93
12	22	108	340	120	130	403	355	271	137	75	33	65
13	20	93	385	110	300	469	328	307	125	72	29	56
14	19	83	415	120	273	463	308	250	112	66	29	48
15	18	76	451	120	233	429	293	234	100	71	28	43
16	18	72	440	100	209	384	279	238	123	62	36	40
17	18	71	426	92	198	355	258	224	193	54	40	37
18	19	63	395	86	177	320	234	229	191	48	27	33
19	20	59	418	80	167	285	222	203	176	45	23	30
20	20	57	471	68	154	268	213	186	156	42	22	28
21	37	49	454	70	146	239	197	175	139	55	21	26
22	28	42	593	70	154	216	185	165	124	78	18	23
23	44	41	627	68	346	285	177	154	122	69	14	23
24	70	52	624	68	718	530	174	145	104	63	15	25
25	36	46	572	70	865	611	166	134	92	60	51	23
26	27	43	478	66	749	602	157	124	84	75	64	19
27	34	42	440	64	624	574	147	117	78	83	57	81
28	52	46	460	68	509	545	140	165	73	62	29	86
29	33	740	740	64	---	1000	133	147	74	53	20	50
30	45	637	730	60	---	1030	124	117	73	49	195	37
31	46	---	650	56	---	1060	---	138	---	64	158	---
TOTAL	923	2971	14641	4810	6522	13199	12093	7415	4009	2106	1496	1578
MEAN	29.8	99.0	472	155	233	426	403	239	134	67.9	48.3	52.6
MAX	70	740	740	560	865	1060	1470	466	193	162	195	152
MIN	18	23	269	56	47	197	124	117	73	42	14	19
CFSM	.20	.65	3.11	1.02	1.53	2.80	2.65	1.57	.88	.45	.32	.35
IN.	.23	.73	3.58	1.18	1.60	3.23	2.96	1.81	.98	.52	.37	.39

CAL YR 1984 TOTAL 118561 MEAN 324 MAX 4910 MIN 18 CFSM 2.13 IN. 29.02  
WTR YR 1985 TOTAL 71763 MEAN 197 MAX 1470 MIN 14 CFSM 1.30 IN. 17.56

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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## 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 Lake.

DRAINAGE AREA.--562 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1302. 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 560.000 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.--Estimated daily discharges: Oct. 1 to Nov. 23, Jan. 20-23, and Feb. 3-5, 8. Records good except those for estimated daily discharges, which are fair. Flow regulated since March 1971 by Foster Joseph Sayers Lake (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.--75 years, 816 ft<sup>3</sup>/s, 19.69 in/yr, adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 14.42 ft from rating curve extended above 12,000 ft<sup>3</sup>/s; minimum, 29 ft<sup>3</sup>/s Aug. 22, 1930, gage height, 1.21 ft, (site and datum then in use); minimum daily, 80 ft<sup>3</sup>/s Jan. 16, 24, 25, 1931.

EXTREME FOR CURRENT YEAR.--Maximum discharge, 4,200 ft<sup>3</sup>/s Mar. 31, gage height, 10.47 ft; minimum daily, 157 ft<sup>3</sup>/s Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	426	2020	1720	336	1110	3420	389	601	277	212	241
2	341	422	1830	1540	336	921	3750	503	604	272	203	210
3	326	418	2000	1270	320	838	3420	1200	728	271	196	221
4	321	417	1760	1060	300	783	3020	1260	593	271	194	249
5	319	486	1850	987	300	788	2700	1210	617	263	194	245
6	319	780	1780	924	326	745	2550	1250	562	262	192	242
7	315	1010	1260	883	326	656	2190	1290	450	262	202	238
8	316	981	1070	800	320	616	1840	1060	421	282	409	452
9	319	747	886	654	307	613	1820	845	423	518	441	482
10	319	610	670	554	307	589	1820	724	421	535	281	528
11	317	657	1110	546	270	563	1620	619	394	509	275	1030
12	315	623	1390	550	391	1190	1330	611	400	414	233	915
13	315	599	1300	523	1190	1460	1170	655	384	351	191	449
14	315	587	1300	571	1510	1400	1130	590	352	348	188	225
15	315	503	1320	602	1200	1280	963	561	332	343	184	221
16	315	437	1290	543	621	1130	810	559	351	326	184	195
17	315	427	1170	555	613	1070	697	548	446	288	185	173
18	315	418	998	526	598	892	587	552	493	259	184	171
19	326	414	1200	468	827	605	567	529	540	255	180	170
20	340	408	1440	400	727	575	554	504	517	254	180	170
21	330	410	1830	350	684	516	534	490	483	250	180	170
22	347	410	2230	300	781	475	506	478	412	237	180	167
23	390	414	2240	360	1230	667	473	466	414	218	170	166
24	395	420	2140	426	3060	1330	470	456	395	214	157	166
25	510	411	1860	428	3160	1840	450	443	355	212	171	166
26	525	404	1320	410	2480	2060	442	414	319	215	216	166
27	457	407	1290	397	1830	1950	426	372	302	219	223	197
28	439	574	1710	400	1410	1890	415	416	281	217	180	274
29	445	2260	2390	394	---	3310	406	465	287	208	174	234
30	456	2140	2290	350	---	3730	394	428	290	203	268	222
31	437	---	1830	336	---	3600	---	505	---	210	355	---
TOTAL	11146	19220	48774	19827	25760	39192	40474	20392	13167	8963	6782	8755
MEAN	360	641	1573	640	920	1264	1349	658	439	289	219	292
MAX	525	2260	2390	1720	3160	3730	3750	1290	728	535	441	1030
MIN	315	404	670	300	270	475	394	372	281	203	157	166
MEAN†	303	468	1444	637	920	1528	1408	706	432	282	238	236
CFSM†	.54	.83	2.57	1.13	1.64	2.72	2.51	1.26	.77	.50	.42	.42
IN.†	.62	.93	2.96	1.30	1.71	3.14	2.80	1.45	.86	.58	.48	.47

CAL YR 1984 TOTAL 454145 MEAN 1241 MAX 11700 MIN 271 MEAN† 1241 CFSM† 2.21 IN.† 30.15  
WTR YR 1985 TOTAL 262452 MEAN 719 MAX 3750 MIN 157 MEAN† 716 CFSM† 1.27 IN.† 17.30

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01548303 STRAIGHT RUN AT MARSH CREEK, PA

LOCATION.--Lat 41°47'05", long 77°24'08", Tioga County, Hydrologic Unit 02050205, on left bank at downstream side of highway bridge 0.6 mi north of Marsh Creek, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--6.48 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1984 to September 1985 (discontinued).

GAGE.--Water stage recorder. Elevation of gage is 1,220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges, water year 1984: July 16 to Aug. 2, Aug. 10, 11, Aug. 26 to Sept. 30. Water year 1985: Oct. 1-28, Oct. 30 to Nov. 4, Nov. 8, 15-27, Dec. 23-27, 30, 31, Jan. 7 to Feb. 21, Mar. 7-11, April 2, 3, 5-7, 14-16, April 18 to May 27, May 29-30, July 12-14, 17-21, 23-30, Aug. 1-6, 11-15, Aug. 17 to Sept. 26, Sept. 28-30. Records good except those for periods of estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290 ft<sup>3</sup>/s, Aug. 12, 1984, gage height, 2.60 ft, minimum daily 0.47 ft<sup>3</sup>/s Aug. 24, 1985.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 12, 1984	2400	*290	*2.60	Mar. 12, 1985	0745	66.0	1.71
Feb. 24, 1985	2315	80	1.80				

Minimum daily discharge, 0.47 ft<sup>3</sup>/s Aug. 24, 1985.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.6	1.5
2	---	---	---	---	---	---	---	---	---	---	7.1	1.3
3	---	---	---	---	---	---	---	---	---	---	8.7	2.8
4	---	---	---	---	---	---	---	---	---	---	9.8	2.2
5	---	---	---	---	---	---	---	---	---	---	8.5	1.9
6	---	---	---	---	---	---	---	---	---	---	7.6	1.7
7	---	---	---	---	---	---	---	---	---	---	6.6	1.5
8	---	---	---	---	---	---	---	---	---	---	5.4	1.4
9	---	---	---	---	---	---	---	---	---	---	4.6	1.3
10	---	---	---	---	---	---	---	---	---	---	3.8	1.2
11	---	---	---	---	---	---	---	---	---	---	9.9	1.2
12	---	---	---	---	---	---	---	---	10	32	1.4	
13	---	---	---	---	---	---	---	---	7.6	165	.88	
14	---	---	---	---	---	---	---	---	6.0	123	.79	
15	---	---	---	---	---	---	---	---	5.0	71	1.1	
16	---	---	---	---	---	---	---	---	4.4	38	1.4	
17	---	---	---	---	---	---	---	---	3.9	23	1.0	
18	---	---	---	---	---	---	---	---	3.2	16	.82	
19	---	---	---	---	---	---	---	---	2.5	16	.69	
20	---	---	---	---	---	---	---	---	2.0	12	.62	
21	---	---	---	---	---	---	---	---	1.6	8.7	.57	
22	---	---	---	---	---	---	---	---	1.4	7.3	.68	
23	---	---	---	---	---	---	---	---	1.2	8.5	.50	
24	---	---	---	---	---	---	---	---	1.0	6.3	1.0	
25	---	---	---	---	---	---	---	---	.90	5.0	.90	
26	---	---	---	---	---	---	---	---	.86	4.1	.84	
27	---	---	---	---	---	---	---	---	8.8	2.5	.74	
28	---	---	---	---	---	---	---	---	4.2	2.3	1.6	
29	---	---	---	---	---	---	---	---	2.9	2.1	1.2	
30	---	---	---	---	---	---	---	---	2.3	1.7	1.1	
31	---	---	---	---	---	---	---	---	1.8	1.8	---	
TOTAL	---	---	---	---	---	---	---	---	---	---	619.9	35.83
MEAN	---	---	---	---	---	---	---	---	---	---	20.0	1.19
MAX	---	---	---	---	---	---	---	---	---	---	165	2.8
MIN	---	---	---	---	---	---	---	---	---	---	1.6	.50
CFSM	---	---	---	---	---	---	---	---	---	---	3.09	.18
IN.	---	---	---	---	---	---	---	---	---	---	3.56	.20

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548303 STRAIGHT RUN AT MARSH CREEK, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	1.3	21	28	2.2	22	29	3.7	9.4	2.1	1.8	1.7
2	1.1	1.8	19	24	2.1	19	25	3.9	6.4	2.0	1.5	1.4
3	.88	1.4	21	21	2.1	16	20	5.9	5.7	4.1	1.3	1.2
4	.84	1.3	19	19	2.0	14	25	4.1	5.2	4.8	1.1	1.1
5	.89	5.0	17	16	2.0	15	20	3.2	5.4	3.2	1.0	.98
6	.80	4.5	17	14	2.0	13	16	2.9	4.9	3.0	.90	.90
7	.70	4.3	14	11	1.9	11	14	4.1	4.2	2.9	9.5	.82
8	.74	4.0	13	10	1.9	9.3	16	3.3	4.0	3.1	10	.76
9	.79	4.3	11	9.0	1.9	8.5	14	2.8	3.8	2.9	4.2	1.6
10	.72	5.2	11	8.0	1.9	7.9	12	2.4	3.2	2.5	3.4	3.2
11	.68	5.1	14	7.2	1.8	7.5	11	2.2	2.8	2.0	2.9	1.7
12	.66	4.8	13	6.5	3.8	42	10	2.0	4.5	1.6	2.4	1.4
13	.64	4.7	16	5.9	5.4	40	9.3	4.5	3.5	1.5	2.0	1.1
14	.63	4.4	20	5.3	3.7	34	8.5	2.7	2.9	1.4	1.7	1.1
15	.62	3.8	25	4.9	2.8	26	8.2	2.2	2.6	2.4	1.5	1.1
16	.60	3.4	24	4.5	2.3	22	7.6	2.4	4.0	2.1	3.8	1.1
17	.59	3.3	24	4.2	2.0	19	8.1	2.5	4.8	1.5	1.7	1.0
18	.63	3.0	23	3.9	1.8	16	7.2	7.0	5.5	1.2	.96	.96
19	.68	2.9	23	3.7	1.8	15	6.4	4.5	4.1	.90	.80	.92
20	.79	2.7	21	3.4	1.7	12	7.8	3.8	3.6	.82	.70	.87
21	.54	2.7	18	3.2	1.7	10	6.8	3.0	3.1	2.5	.60	.83
22	1.1	2.5	23	3.1	7.8	9.3	6.0	2.4	3.3	3.1	.56	.80
23	2.5	2.3	15	2.9	16	12	5.5	2.1	4.0	1.1	.52	1.0
24	1.2	2.2	12	2.8	50	18	5.3	1.9	3.3	.70	.47	1.5
25	.89	2.1	11	2.7	63	20	4.9	1.7	2.7	.50	1.5	2.3
26	1.1	2.0	10	2.6	45	19	4.7	1.5	2.3	.90	1.1	1.1
27	1.4	2.0	11	2.5	34	19	4.4	1.9	2.1	1.7	.82	3.4
28	1.1	4.6	15	2.4	25	19	4.2	8.1	2.2	1.0	.62	2.4
29	5.0	25	28	2.3	---	19	4.0	4.0	3.2	.70	.50	1.8
30	2.6	18	43	2.3	---	17	3.8	3.1	2.6	.60	1.1	1.4
31	1.7	---	21	2.2	---	22	---	3.9	---	2.4	2.3	---
TOTAL	34.05	134.6	573	238.5	289.6	553.5	324.7	103.7	119.3	61.22	63.25	41.44
MEAN	1.10	4.49	18.5	7.69	10.3	17.8	10.8	3.35	3.98	1.97	2.04	1.38
MAX	5.0	25	43	28	63	42	29	8.1	9.4	4.8	10	3.4
MIN	.54	1.3	10	2.2	1.7	7.5	3.8	1.5	2.1	.50	.47	.76
CFSM	.17	.69	2.85	1.19	1.60	2.75	1.67	.52	.61	.30	.31	.21
IN.	.20	.77	3.29	1.37	1.67	3.17	1.86	.60	.68	.35	.36	.23

WTR YR 1985 TOTAL 2536.86 MEAN 6.95 MAX 63 MIN .47 CFSM 1.07 IN. 14.56



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01548309 ASAPH RUN AT ASAPH, PA

LOCATION.--Lat 41°46'34", long 77°24'42", Tioga County, Hydrologic Unit 02050205, on left bank 0.3 mi northwest of Asaph and 0.6 mi upstream from mouth.

DRAINAGE AREA.--16.3 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1984 to September 1985 (discontinued).

GAGE.--Water stage recorder. Elevation of gage is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-29, Oct. 31 to Nov. 4, Nov. 22, 25-28, Jan. 9 to Feb. 27, Mar. 7-11, Apr. 29 to May 2, May 4-30, July 8, 10-21, July 23 to Aug. 7, Aug. 10-15, 17-30, Sept. 6-8, 19-27. Records fair except those for periods of estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft<sup>3</sup>/s, Aug. 13, 1984, gage height 6.90 ft, minimum daily 0.79 ft<sup>3</sup>/s, Sept. 22, 1985.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 13, 1984	0045	*1,560	*6.90	Feb. 24, 1985	Unknown	Unknown	Unknown
Nov. 29, 1984	0445	109	4.74	Mar. 12, 1985	0745	207	5.15

Minimum daily discharge, 0.79 ft<sup>3</sup>/s Sept. 22, 1985.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	19	4.1	5.3
2	---	---	---	---	---	---	---	---	---	17	12	3.2
3	---	---	---	---	---	---	---	---	---	13	25	7.9
4	---	---	---	---	---	---	---	---	---	14	27	7.2
5	---	---	---	---	---	---	---	---	---	50	19	5.8
6	---	---	---	---	---	---	---	---	---	49	14	4.5
7	---	---	---	---	---	---	---	---	---	56	12	3.6
8	---	---	---	---	---	---	---	---	---	44	10	2.8
9	---	---	---	---	---	---	---	---	---	36	9.0	2.3
10	---	---	---	---	---	---	---	---	---	31	8.0	2.0
11	---	---	---	---	---	---	---	---	---	32	38	2.9
12	---	---	---	---	---	---	---	---	---	27	112	4.6
13	---	---	---	---	---	---	---	---	---	20	555	2.9
14	---	---	---	---	---	---	---	---	---	15	221	2.4
15	---	---	---	---	---	---	---	---	---	13	138	3.6
16	---	---	---	---	---	---	---	---	---	11	86	4.7
17	---	---	---	---	---	---	---	---	---	9.7	62	3.5
18	---	---	---	---	---	---	---	---	---	9.3	41	2.7
19	---	---	---	---	---	---	---	---	---	8.1	36	2.1
20	---	---	---	---	---	---	---	---	20	6.4	30	1.9
21	---	---	---	---	---	---	---	---	16	5.4	23	1.6
22	---	---	---	---	---	---	---	---	14	4.8	20	1.5
23	---	---	---	---	---	---	---	---	12	4.4	27	1.4
24	---	---	---	---	---	---	---	---	36	3.9	18	1.7
25	---	---	---	---	---	---	---	---	30	3.1	14	1.4
26	---	---	---	---	---	---	---	---	24	2.8	12	1.3
27	---	---	---	---	---	---	---	---	22	32	10	1.7
28	---	---	---	---	---	---	---	---	27	12	9.1	2.7
29	---	---	---	---	---	---	---	---	20	7.6	8.5	2.0
30	---	---	---	---	---	---	---	---	17	5.8	8.2	1.6
31	---	---	---	---	---	---	---	---	---	4.6	7.6	---
TOTAL	---	---	---	---	---	---	---	---	---	566.9	1616.5	92.8
MEAN	---	---	---	---	---	---	---	---	---	18.3	52.2	3.09
MAX	---	---	---	---	---	---	---	---	---	56	555	7.9
MIN	---	---	---	---	---	---	---	---	---	2.8	4.1	1.3
CFSM	---	---	---	---	---	---	---	---	---	1.12	3.20	.19
IN.	---	---	---	---	---	---	---	---	---	1.29	3.69	.21

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548309 ASAPH RUN AT ASAPH, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	8.0	47	48	4.2	43	83	8.6	25	4.1	3.9	6.4
2	3.7	9.9	41	38	4.0	39	74	8.9	17	3.7	3.0	5.1
3	3.3	7.1	44	32	3.9	32	68	11	15	7.7	2.2	3.8
4	2.9	7.0	42	30	3.8	26	59	8.1	14	9.2	1.8	2.9
5	2.5	19	36	26	3.7	32	55	7.6	13	4.6	1.6	2.3
6	2.2	12	36	22	3.6	24	49	8.1	12	4.4	1.5	1.6
7	1.9	9.8	32	20	3.5	20	40	9.0	9.3	4.5	15	1.4
8	2.1	9.0	27	16	3.4	18	40	7.6	8.9	5.7	16	4.9
9	2.3	8.8	25	14	3.4	16	35	6.3	8.5	5.6	6.7	4.6
10	2.1	17	23	13	3.3	16	30	5.5	8.5	3.8	3.3	7.4
11	1.9	17	32	11	3.2	15	28	5.2	6.9	3.0	2.9	5.4
12	1.8	15	30	10	3.1	99	25	5.4	12	2.6	2.5	4.0
13	1.7	13	44	9.0	9.0	74	23	8.2	9.6	2.3	2.3	3.4
14	1.7	12	56	8.4	29	55	21	6.0	8.0	2.1	2.0	2.8
15	1.6	11	63	7.8	15	74	20	6.5	6.4	2.9	1.8	2.3
16	1.7	11	55	7.4	9.4	43	21	7.0	9.7	5.8	7.8	1.9
17	1.5	10	50	6.9	7.5	38	19	7.7	14	2.2	2.7	1.6
18	1.6	10	42	6.4	6.3	34	18	8.9	14	1.5	1.8	1.3
19	1.8	9.7	40	6.0	5.7	35	17	7.9	11	1.2	1.4	1.1
20	3.0	8.7	38	5.5	5.5	31	16	6.4	8.7	1.1	1.2	.93
21	2.1	7.6	31	5.2	5.3	28	17	5.2	7.6	4.0	1.1	.84
22	5.0	6.8	44	4.8	30	29	16	4.7	6.0	8.0	.99	.79
23	6.1	7.3	39	5.0	100	35	14	4.3	12	2.2	.91	.85
24	4.4	7.3	35	4.8	140	44	13	3.8	8.7	2.0	.85	.99
25	3.5	6.6	32	4.6	127	42	13	3.5	5.5	1.9	1.4	1.2
26	4.1	5.8	26	4.4	92	43	13	3.5	4.2	2.9	1.1	.90
27	4.7	5.8	23	4.3	68	41	11	3.9	3.8	2.3	3.6	5.4
28	3.6	6.9	33	4.9	51	41	9.6	11	4.1	1.9	2.7	4.7
29	19	64	53	4.6	---	41	8.6	8.0	6.9	1.7	1.8	2.6
30	9.2	41	46	4.4	---	39	8.6	6.9	6.0	1.5	12	2.0
31	5.8	---	48	4.3	---	47	---	8.0	---	5.9	11	---
TOTAL	112.1	384.1	1213	388.7	743.8	1194	864.8	212.7	296.3	112.3	118.85	85.40
MEAN	3.62	12.8	39.1	12.5	26.6	38.5	28.8	6.86	9.84	3.62	3.83	2.85
MAX	19	64	63	48	140	99	83	11	25	9.2	16	7.4
MIN	1.5	5.8	23	4.3	3.1	15	8.6	3.5	3.8	1.1	.85	.79
CFSM	.22	.79	2.40	.77	1.63	2.36	1.77	.42	.61	.22	.23	.17
IN.	.25	.88	2.77	.89	1.70	2.71	1.98	.48	.68	.25	.27	.19

WTR YR 1985 TOTAL 5726.05 MEAN 15.7 MAX 140 MIN .79 CFSM .96 IN. 13.07

## 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 at village of Cedar Run, 2,000 ft downstream from Cedar Run, and 1.2 mi upstream from Gamble Run.

DRAINAGE AREA.--604 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1918 to current year. Monthly discharge only for some periods, 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.--Estimated daily discharges: Jan. 10 to Feb. 24. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--67 years, 836 ft<sup>3</sup>/s, 18.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,000 ft<sup>3</sup>/s June 23, 1972, gage height, 16.0 ft, from floodmark, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 8.0 ft<sup>3</sup>/s Sept. 1-3, 1939; minimum gage height, 0.80 ft Nov. 28, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	2130	ice jam	*5.65	Feb. 25	0230	*5,930	5.57

Minimum discharge, 76 ft<sup>3</sup>/s Aug. 6, 7, Sept. 23-27, gage height 1.46 ft, minimum gage height, 1.45 ft Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	177	1400	2890	280	1780	3270	293	1130	162	191	221
2	147	166	1380	2580	270	1530	3050	294	757	140	144	183
3	148	158	1340	2060	250	1280	2680	352	576	137	111	165
4	126	157	1530	1770	230	1080	2340	315	488	169	96	145
5	128	316	1270	1590	220	1140	1940	279	427	155	86	132
6	97	381	1210	1350	210	1110	1710	270	404	136	80	124
7	102	261	1060	1220	200	918	1530	334	331	170	169	113
8	98	216	904	1110	190	967	1420	305	295	222	822	200
9	101	195	787	894	190	1140	1320	263	273	345	408	274
10	101	255	747	800	180	1000	1150	246	249	296	275	300
11	99	411	1010	700	180	983	1060	235	215	258	225	291
12	95	380	1110	660	500	2830	974	230	239	229	194	210
13	91	338	1380	600	1000	3770	882	265	291	214	169	173
14	88	310	1740	560	1200	3120	815	235	241	193	163	150
15	86	287	2140	600	900	2380	770	216	204	224	151	135
16	86	284	2110	540	740	1880	734	226	193	279	187	122
17	86	277	2000	500	660	1610	689	228	248	230	236	112
18	86	253	1750	450	600	1340	615	299	240	179	157	103
19	92	239	1580	440	560	1110	574	257	235	154	130	97
20	118	219	1720	350	540	1040	564	225	198	138	120	91
21	128	199	1410	350	520	912	516	203	197	136	109	86
22	139	202	1890	340	520	766	472	193	187	346	102	82
23	198	200	2000	370	1200	858	442	183	217	281	95	78
24	198	203	1790	380	3000	1510	420	172	234	198	89	78
25	151	186	1620	380	5490	1790	410	161	212	168	107	77
26	134	178	1310	330	4210	1620	398	153	172	160	134	76
27	134	169	1210	350	3090	1550	370	158	152	162	143	113
28	141	187	1150	350	2200	1530	347	332	143	142	136	222
29	156	1780	2830	330	---	1630	333	414	153	120	106	150
30	245	1390	3530	310	---	1590	310	255	180	107	120	111
31	204	---	3190	300	---	1780	---	227	---	146	319	---
TOTAL	3927	9974	50098	25454	29330	47544	32105	7818	9081	5996	5574	4414
MEAN	127	332	1616	821	1048	1534	1070	252	303	193	180	147
MAX	245	1780	3530	2890	5490	3770	3270	414	1130	346	822	300
MIN	86	157	747	300	180	766	310	153	143	107	80	76
CFSM	.21	.55	2.68	1.36	1.74	2.54	1.77	.42	.50	.32	.30	.24
IN.	.24	.61	3.09	1.57	1.81	2.93	1.98	.48	.56	.37	.34	.27

CAL YR 1984 TOTAL 450432 MEAN 1231 MAX 22000 MIN 86 CFSM 2.04 IN. 27.74  
WTR YR 1985 TOTAL 231315 MEAN 634 MAX 5490 MIN 76 CFSM 1.05 IN. 14.25

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 (1.1 km) upstream from Blacks Creek, 1.7 mi upstream from confluence with Texas Creek, and 5 mi northeast of English Center.

DRAINAGE AREA.--37.7 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.--Estimated daily discharges: Jan. 9 to Feb. 21, Mar. 6, 7, 18, 19. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 58.5 ft<sup>3</sup>/s, 21.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft<sup>3</sup>/s June 23, 1972, gage height, 9.34 ft, from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 8.81 ft; no flow Aug. 6, 7, 31, Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 9.0 ft, from floodmark, discharge, 5,780 ft<sup>3</sup>/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0545	*847	*4.02				

Minimum discharge, 3.4 ft<sup>3</sup>/s Oct. 12-17, gage height, 0.84 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	8.2	188	187	13	89	180	18	258	10	18	10
2	7.9	7.5	144	160	12	77	155	21	138	9.6	11	10
3	6.1	6.7	153	129	12	62	146	33	102	9.8	9.5	8.6
4	5.2	6.5	136	112	11	53	132	24	74	11	8.4	7.8
5	4.7	28	110	100	11	72	111	21	77	9.1	7.2	7.4
6	4.3	22	105	82	11	56	101	20	60	9.8	6.7	6.6
7	4.2	15	84	74	11	49	87	21	45	15	20	5.9
8	4.2	12	71	65	10	52	85	19	40	28	36	32
9	4.3	10	60	60	9.8	52	76	17	36	28	15	30
10	4.0	24	62	52	9.5	47	65	16	31	22	10	52
11	3.7	27	113	47	9.2	45	62	15	26	29	8.8	33
12	3.6	23	98	43	70	144	56	26	29	25	8.0	22
13	3.5	19	127	40	75	124	51	30	26	35	7.3	18
14	3.6	17	134	37	52	117	47	20	23	22	6.9	15
15	3.5	15	141	39	42	101	46	20	20	40	6.5	13
16	3.6	14	134	37	38	84	44	27	20	56	11	11
17	3.6	13	128	34	33	76	40	24	21	32	9.9	10
18	3.8	12	115	31	30	62	36	30	19	25	7.1	9.8
19	4.6	12	119	28	29	54	34	24	17	21	5.9	9.2
20	11	10	119	25	28	53	33	20	15	18	5.9	8.5
21	8.0	9.8	99	20	28	46	30	19	14	16	5.5	7.9
22	11	9.7	168	18	38	41	28	18	12	25	5.1	7.4
23	19	9.1	145	18	146	58	27	16	14	16	4.7	7.4
24	11	9.5	131	17	201	96	25	15	13	12	4.5	8.2
25	8.2	9.1	116	17	207	96	26	13	13	11	10	8.2
26	7.7	8.8	89	15	166	77	25	12	10	13	12	7.1
27	8.0	8.8	84	16	138	75	23	12	9.4	14	18	17
28	7.4	27	99	16	106	76	21	118	9.1	11	8.9	17
29	13	445	244	15	---	85	20	61	12	9.6	8.0	9.8
30	15	206	252	14	---	79	19	41	12	8.9	12	8.8
31	9.8	---	203	13	---	110	---	48	---	20	18	---
TOTAL	213.8	1044.7	3971	1561	1546.5	2308	1831	819	1195.5	611.8	325.8	418.6
MEAN	6.90	34.8	128	50.4	55.2	74.5	61.0	26.4	39.9	19.7	10.5	14.0
MAX	19	445	252	187	207	144	180	118	258	56	36	52
MIN	3.5	6.5	60	13	9.2	41	19	12	9.1	8.9	4.5	5.9
CFSM	.18	.92	3.40	1.34	1.46	1.98	1.62	.70	1.06	.52	.28	.37
IN.	.21	1.03	3.92	1.54	1.53	2.28	1.81	.81	1.18	.60	.32	.41

CAL YR 1984 TOTAL 33120.6 MEAN 90.5 MAX 2230 MIN 3.5 CFSM 2.40 IN. 32.68  
WTR YR 1985 TOTAL 15846.7 MEAN 43.4 MAX 445 MIN 3.5 CFSM 1.15 IN. 15.64

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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 abutment of abandoned bridge 0.9 mi downstream from Ramsey Run, 4 mi downstream from Little Pine Creek, 4 mi south of Waterville, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--944 mi<sup>2</sup>.

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.--Estimated daily discharges: Nov. 22, Jan. 9 to Feb. 24. Records good except those for estimated daily discharges, which are fair. Flood flows subject to regulation by Little Pine Creek Reservoir 8.5 mi upstream, capacity 24,900 acre-ft. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 1,418 ft<sup>3</sup>/s, 20.37 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft<sup>3</sup>/s June 23, 1972, gage height, 22.76 ft, from flood-marks, from rating curve extended above 22,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum observed, 25 ft<sup>3</sup>/s Sept. 25-27, 1964; minimum gage height observed, 0.97 ft Sept. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1215	(a)	*7.93	Feb. 25	1100	*8,530	6.15

(a) Backwater from pipe-line construction.

Minimum discharge, 115 ft<sup>3</sup>/s, Oct. 16-18; minimum gage height, 1.70 ft, Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	428	2740	4600	490	2860	5200	491	2300	258	226	389
2	166	488	2720	4130	460	2420	5260	490	2070	240	257	276
3	181	459	2400	3220	440	2020	4530	567	1420	224	206	248
4	176	455	2860	2760	420	1690	3930	591	1140	229	175	224
5	154	590	2430	2460	400	1620	3230	528	1020	241	157	198
6	149	748	2230	2070	380	1700	2790	501	955	225	142	182
7	123	354	1930	1790	360	1380	2470	497	780	235	143	174
8	123	302	1550	1610	340	1370	2220	542	671	266	694	171
9	123	273	1350	1500	330	1570	2060	478	635	559	756	468
10	131	296	1230	1400	330	1440	1800	444	564	530	454	517
11	134	460	1550	1300	400	1380	1640	422	491	456	342	555
12	132	533	1910	1200	1000	3500	1520	412	462	388	283	440
13	123	470	2150	1100	2000	5770	1390	423	500	352	252	335
14	119	422	2760	1000	2100	4880	1290	435	485	342	236	278
15	119	410	3270	1100	1800	3790	1210	382	424	344	217	247
16	117	393	3350	1000	1500	2990	1160	376	383	446	214	225
17	115	381	3170	920	1300	2530	1080	385	383	473	277	204
18	116	365	2820	840	1200	2080	983	421	424	359	272	189
19	121	326	2450	800	1100	1720	925	470	406	297	204	177
20	150	281	2700	680	1000	1570	898	410	362	262	180	168
21	157	252	2310	600	940	1400	847	359	323	235	163	162
22	174	215	2750	580	920	1200	773	335	318	252	154	148
23	218	194	3510	620	1500	1190	729	318	315	505	143	142
24	264	224	3090	640	6600	2010	691	295	346	331	135	136
25	224	229	2760	640	8160	2840	659	277	327	268	139	134
26	196	213	2190	640	6500	2700	649	265	284	251	163	134
27	219	205	1960	620	4860	2560	620	254	249	263	218	141
28	267	236	1760	600	3550	2470	572	433	229	248	208	197
29	296	3430	3850	580	---	2520	554	915	233	215	185	281
30	369	3330	5910	560	---	2500	521	609	255	186	181	201
31	462	---	5350	520	---	2580	---	507	---	178	289	---
TOTAL	5566	16962	83010	42080	50380	72250	52201	13832	18754	9658	7665	7341
MEAN	180	565	2678	1357	1799	2331	1740	446	625	312	247	245
MAX	462	3430	5910	4600	8160	5770	5260	915	2300	559	756	555
MIN	115	194	1230	520	330	1190	521	254	229	178	135	134
CFSM	.19	.60	2.84	1.44	1.91	2.47	1.84	.47	.66	.33	.26	.26
IN.	.22	.67	3.27	1.66	1.99	2.85	2.06	.55	.74	.38	.30	.29

CAL YR 1984 TOTAL 716022 MEAN 1956 MAX 34000 MIN 115 CFSM 2.07 IN. 28.22  
WTR YR 1985 TOTAL 379699 MEAN 1040 MAX 8160 MIN 115 CFSM 1.10 IN. 14.96



## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 highway bridge, 0.5 mi downstream from Grays Run, and 2.6 mi northeast of Trout Run.

DRAINAGE AREA.--173 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.--Estimated daily discharges: Oct. 3 to Nov. 28, Jan. 9-31, Feb. 3-11. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years, 284 ft<sup>3</sup>/s, 22.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft<sup>3</sup>/s June 22, 1972, gage height, 20.19 ft, from flood-mark in gage shelter, from rating curve extended above 5,300 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 3.2 ft<sup>3</sup>/s Sept. 27, 1936; minimum daily, 4.0 ft<sup>3</sup>/s Sept. 19-24, 27, 28, 1936, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0615	*3,920	*7.32	June 1	0445	2,960	6.23

Minimum daily discharge, 19 ft<sup>3</sup>/s Oct. 16,17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	50	606	524	72	381	715	90	1320	54	129	86
2	42	45	457	462	71	343	604	97	623	49	87	78
3	37	40	467	375	70	296	544	146	435	50	66	69
4	31	50	454	329	69	255	511	131	326	50	53	58
5	28	80	353	301	68	310	466	110	321	51	42	50
6	25	110	335	259	67	303	421	102	307	87	35	42
7	24	88	289	242	65	235	379	105	225	98	57	39
8	24	72	251	225	62	250	372	98	192	98	174	62
9	26	60	223	160	60	262	363	89	170	112	120	102
10	25	74	217	140	57	239	311	85	149	104	90	167
11	23	120	323	138	56	226	293	81	126	110	74	154
12	21	145	309	133	80	638	272	87	131	88	63	118
13	21	130	340	130	187	594	246	281	130	76	53	102
14	20	115	375	125	152	516	229	154	114	62	45	90
15	20	100	368	117	131	444	220	122	101	112	40	78
16	19	88	353	111	111	377	212	144	97	223	53	68
17	19	80	339	107	101	348	194	133	102	129	63	59
18	20	74	312	103	96	305	177	154	104	94	45	50
19	21	72	302	100	95	258	168	136	101	80	36	43
20	27	66	332	90	93	261	164	114	90	76	33	38
21	35	60	286	84	92	233	153	99	83	70	30	34
22	38	60	508	80	96	206	143	94	75	95	26	31
23	64	58	460	85	264	236	133	85	83	80	23	30
24	60	56	390	88	610	374	130	80	76	61	21	34
25	50	54	349	84	991	402	129	73	81	51	79	39
26	47	52	285	82	691	315	126	69	65	70	82	35
27	46	52	275	79	576	291	115	67	57	87	97	86
28	45	90	270	78	442	290	108	398	53	67	79	150
29	56	2070	655	80	---	320	104	341	59	50	58	103
30	69	785	751	78	---	309	97	187	64	40	67	82
31	60	---	572	75	---	381	---	159	---	83	104	---
TOTAL	1080	4996	11806	5064	5525	10198	8099	4111	5860	2557	2024	2177
MEAN	34.8	167	381	163	197	329	270	133	195	82.5	65.3	72.6
MAX	69	2070	751	524	991	638	715	398	1320	223	174	167
MIN	19	40	217	75	56	206	97	67	53	40	21	30
CFSM	.20	.97	2.20	.94	1.14	1.90	1.56	.77	1.13	.48	.38	.42
IN.	.23	1.07	2.54	1.09	1.19	2.19	1.74	.88	1.26	.55	.44	.47

CAL YR 1984	TOTAL	144005	MEAN	393	MAX	8130	MIN	19	CFSM	2.27	IN.	30.97
WTR YR 1985	TOTAL	63497	MEAN	174	MAX	2070	MIN	19	CFSM	1.01	IN.	13.65

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA

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, 350 ft upstream from Hagermans Run.

DRAINAGE AREA.--5,682 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1895 to current year. Monthly discharge only for some periods, published in WSP 1302.

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, on left bank, 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 12 to Feb. 11. 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 and City of Williamsport landline telemeters at station.

AVERAGE DISCHARGE.--90 years, 8,953 ft<sup>3</sup>/s, 21.46 in/yr, adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 279,000 ft<sup>3</sup>/s June 23, 1972, gage height, 34.75 ft, from rating curve extended above 210,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 33.57 ft; minimum, 162 ft<sup>3</sup>/s Sept. 17, 1943; minimum gage height, -0.78 ft Sept. 13, 1983; minimum daily discharge, 251 ft<sup>3</sup>/s Sept. 13, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 32.4 ft June 1, 1889, discharge, about 252,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,500 ft<sup>3</sup>/s Apr. 2, gage height, 12.07 ft; minimum, 980 ft<sup>3</sup>/s Aug. 24, gage height, -0.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1430	2370	18700	28200	3100	20400	40500	3910	9820	2240	1800	2990
2	1480	2120	17200	24800	3050	17000	48500	4000	12500	2150	1650	3000
3	1490	1930	16100	20600	3000	13900	39800	5490	9950	2040	1450	2370
4	1530	1860	17200	16800	2900	12000	32900	7930	8150	1960	1290	2030
5	1500	2150	16900	14800	2900	10900	28000	9690	7650	1980	1180	1830
6	1400	3770	16200	13200	2900	11100	24100	8260	7280	2030	1120	1580
7	1370	6720	14600	11600	2850	10400	21100	7780	6610	2150	1160	1380
8	1340	6090	12200	10300	2750	9440	18600	7430	5910	2350	1560	1320
9	1320	5020	10500	9090	2700	9780	16900	6720	5200	2990	3960	2140
10	1330	3980	9170	6880	2700	10100	15000	5880	4770	4420	3160	2510
11	1330	6190	9530	5530	2750	9690	13800	5270	4450	4560	2270	4680
12	1310	9900	11600	5200	3850	11900	12700	4950	4060	4350	1900	6480
13	1290	9510	13100	5400	8400	36200	11600	5240	3840	3910	1640	4730
14	1250	7920	15500	5600	10200	34300	10700	5420	4130	3560	1440	3230
15	1230	6670	18200	5200	13400	26300	10200	4630	3880	3160	1290	2490
16	1200	5770	19200	4300	11100	20700	9460	4320	3570	3130	1240	2160
17	1150	5300	17900	4100	9150	16500	8900	4310	3580	3300	1360	1940
18	1150	4930	16100	3800	7750	14400	8180	4550	4420	3260	1610	1740
19	1180	4570	13900	3600	7120	12000	7430	5040	4810	2780	1810	1530
20	1290	4180	14400	3300	6770	10500	6940	4890	4620	2460	1570	1370
21	1310	3900	16100	2900	6060	9480	6650	4560	4110	2200	1350	1280
22	1530	3600	18600	2900	5950	8480	6210	3980	3680	2040	1190	1200
23	1800	3330	23700	3500	6630	7950	5830	3720	3360	2070	1080	1150
24	1880	3130	24200	4000	20100	10800	5750	3480	3130	2120	1010	1120
25	2020	3130	21100	4100	43000	20900	5470	3270	3080	1920	1170	1050
26	2340	3000	17800	4000	44100	23800	5250	3070	2840	1750	1230	1040
27	2440	2870	14700	3800	33200	21400	4900	2900	2550	1760	1740	1280
28	2300	3130	13300	3600	25400	18900	4620	3170	2380	1770	1810	2060
29	2360	15200	17600	3500	---	18700	4340	4750	2280	1750	1580	1940
30	2260	21600	31700	3400	---	32400	4130	5120	2300	1660	1850	1730
31	2490	---	32200	3300	---	34000	---	4900	---	1780	2640	---
TOTAL	49300	163840	529200	241300	293780	524320	438460	158630	148910	79600	51110	65350
MEAN	1590	5461	17070	7784	10490	16910	14620	5117	4964	2568	1649	2178
MAX	2490	21600	32200	28200	44100	36200	48500	9690	12500	4560	3960	6480
MIN	1150	1860	9170	2900	2700	7950	4130	2900	2280	1660	1010	1040
CFSM	.28	.96	3.00	1.37	1.85	2.98	2.57	.90	.87	.45	.29	.38
IN.	.32	1.07	3.46	1.58	1.92	3.43	2.87	1.04	.97	.52	.33	.43

CAL YR 1984 TOTAL 4543570 MEAN 12410 MAX 170000 MIN 1150 CFSM 2.18 IN. 29.75  
WTR YR 1985 TOTAL 2743800 MEAN 7517 MAX 48500 MIN 1010 CFSM 1.32 IN. 17.96

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1980 to November 1984, April 1985 to September 1985.

pH: July 1980 to November 1984, April 1985 to September 1985.

WATER TEMPERATURE: July 1980 to November 1984, April 1985 to September 1985.

INSTRUMENTATION.--Water-quality monitor at station.

REMARKS.--Water-quality monitor shut down December 1 to March 31. Other interruptions in the record were due to malfunctions of the equipment. U.S. Army Corps of Engineers satellite and landline telemeters at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1980-83): Maximum, 483 micromhos Sept. 25, 1983; minimum 85 micromhos June 6, 7, 1982.

pH: Maximum, 8.0 units Sept. 16, 18, 30, Oct. 1, 1980; minimum, 5.3 units May 12, 1981.

WATER TEMPERATURE: Maximum, 28.5°C July 21, 1980; minimum, 0.5°C on many days during winter periods.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER			
												JANUARY
1	389	382	385	467	446	459						
2	390	384	387	---	---	---						
3	387	378	383	---	---	---						
4	378	347	361	---	---	---						
5	356	346	349	---	---	---						
6	376	355	364	---	---	---						
7	389	376	383	---	---	---						
8	394	383	388	361	311	323						
9	395	391	394	317	303	314						
10	397	391	394	313	297	303						
11	399	392	396	319	300	314						
12	401	393	397	300	207	263						
13	403	396	398	214	207	211						
14	409	402	406	213	202	207						
15	410	406	408	202	199	200						
16	413	408	411	202	199	201						
17	416	411	413	203	200	202						
18	419	412	416	209	203	206						
19	420	413	415	213	208	210						
20	417	406	412	221	213	217						
21	419	414	417	224	220	223						
22	418	410	414	227	222	225						
23	412	405	409	234	226	230						
24	406	391	400	239	232	234						
25	405	390	399	241	237	240						
26	414	402	409	245	240	243						
27	401	390	395	251	247	249						
28	408	397	405	252	244	250						
29	407	403	405	244	222	235						
30	417	404	412	221	165	178						
31	446	417	439	---	---	---						
MONTH	446	346	399	467	165	247						

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CM AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1							---	---	---	254	249	252
2							---	---	---	255	248	251
3							---	---	---	252	249	251
4							---	---	---	252	234	245
5							---	---	---	274	234	252
6							174	165	170	297	265	287
7							181	172	176	263	235	240
8							188	181	185	235	230	233
9							191	187	189	231	226	228
10							197	188	192	228	222	225
11							202	192	198	225	222	224
12							206	201	204	223	216	219
13							209	203	206	220	216	218
14							213	207	210	225	218	220
15							217	212	214	229	222	224
16							221	217	219	229	219	223
17							222	218	220	223	215	218
18							226	221	223	220	214	216
19							227	224	226	230	220	225
20							231	225	229	238	230	233
21							233	229	231	244	238	241
22							232	229	230	244	240	242
23							236	228	231	252	242	248
24							239	232	235	258	251	256
25							241	237	239	257	252	255
26							246	241	243	253	250	251
27							244	236	241	258	252	254
28							244	238	242	258	253	256
29							245	239	243	268	226	244
30							253	244	247	270	256	262
31							---	---	---	266	242	256
MONTH							253	165	218	297	214	240
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	250	207	235	252	238	245	294	281	287	353	334	342
2	269	211	245	268	254	263	312	288	296	358	341	349
3	203	168	181	273	270	272	323	304	313	373	359	364
4	191	168	180	273	270	271	325	318	322	393	366	383
5	219	191	203	270	266	269	321	324	326	381	349	365
6	207	195	199	273	264	269	329	322	327	351	339	346
7	199	191	194	---	---	---	335	322	328	354	348	351
8	211	191	197	---	---	---	355	335	344	357	351	354
9	223	207	215	---	---	---	369	334	356	359	349	354
10	242	223	233	---	---	---	361	323	340	352	328	345
11	234	223	226	---	---	---	364	341	357	344	320	331
12	223	219	221	---	---	---	367	337	356	352	297	334
13	226	215	221	268	235	248	339	263	298	359	293	329
14	226	219	223	281	238	257	264	232	247	363	336	350
15	238	230	233	304	283	296	238	234	236	340	328	335
16	238	230	235	299	277	290	239	237	238	328	312	322
17	234	230	231	305	287	296	252	239	243	312	301	308
18	242	230	235	305	279	294	268	252	257	297	285	289
19	258	242	250	281	273	276	288	269	278	289	277	283
20	258	246	253	277	270	273	293	287	289	285	277	282
21	254	242	245	289	271	280	299	293	296	289	281	284
22	266	254	263	309	289	298	313	300	308	297	289	292
23	262	254	259	311	299	307	330	312	323	301	289	298
24	254	242	250	309	297	303	344	331	338	305	301	303
25	242	230	235	305	296	300	342	333	339	312	305	308
26	238	234	236	301	274	285	334	311	319	316	312	316
27	234	226	230	278	264	272	357	321	335	320	312	316
28	234	230	232	286	275	280	389	357	378	316	289	307
29	238	234	235	297	281	288	389	376	381	328	293	313
30	254	238	246	301	295	298	379	351	365	352	328	340
31	---	---	---	300	285	292	351	326	335	---	---	---
MONTH	269	168	228	311	235	281	389	232	315	393	277	326

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	7.30	7.20	7.30	6.80	6.70	6.80						
2	7.20	7.20	7.20	---	---	---						
3	7.30	7.20	7.30	---	---	---						
4	7.40	7.30	7.30	---	---	---						
5	7.40	7.40	7.40	---	---	---						
6	7.40	7.30	7.40	---	---	---						
7	7.40	7.30	7.30	---	---	---						
8	7.30	7.20	7.30	7.00	6.80	6.90						
9	7.20	7.10	7.20	7.10	7.00	7.10						
10	7.20	7.10	7.10	7.20	7.10	7.10						
11	7.20	7.10	7.20	7.30	7.20	7.20						
12	7.20	7.10	7.10	7.30	6.90	7.10						
13	7.20	7.10	7.20	6.90	6.80	6.90						
14	7.20	7.20	7.20	7.00	6.90	6.90						
15	7.30	7.20	7.20	7.20	7.00	7.10						
16	7.30	7.20	7.20	7.20	7.20	7.20						
17	7.40	7.20	7.30	7.30	7.20	7.20						
18	7.40	7.20	7.30	7.20	7.20	7.20						
19	7.60	7.30	7.40	7.20	7.20	7.20						
20	7.40	7.30	7.40	7.20	7.20	7.20						
21	7.40	7.30	7.30	7.20	7.20	7.20						
22	7.30	7.30	7.30	7.20	7.20	7.20						
23	7.40	7.30	7.30	7.20	7.20	7.20						
24	7.30	7.20	7.30	7.20	7.20	7.20						
25	7.30	7.20	7.20	7.30	7.20	7.20						
26	7.20	7.10	7.20	7.30	7.20	7.30						
27	7.10	7.00	7.10	7.30	7.20	7.30						
28	7.00	7.00	7.00	7.30	7.20	7.20						
29	7.00	6.90	7.00	7.30	7.20	7.30						
30	7.00	6.90	7.00	7.20	6.80	7.00						
31	6.90	6.70	6.70	---	---	---						
MONTH	7.60	6.70	7.22	7.30	6.70	7.13						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1							6.50	6.00	6.40	6.70	6.70	6.70
2							6.30	6.00	6.20	6.80	6.70	6.80
3							6.30	6.20	6.30	6.80	6.80	6.80
4							6.40	6.30	6.30	6.90	6.70	6.80
5							6.30	6.30	6.30	6.70	6.00	6.40
6							6.50	6.30	6.40	6.30	5.80	6.00
7							6.50	6.50	6.50	6.90	6.30	6.70
8							6.50	6.50	6.50	7.10	6.90	7.00
9							6.50	6.50	6.50	7.10	7.00	7.10
10							6.60	6.50	6.50	7.00	7.00	7.00
11							6.60	6.50	6.50	7.00	6.90	6.90
12							6.50	6.50	6.50	6.90	6.90	6.90
13							6.50	6.50	6.50	6.90	6.80	6.90
14							6.50	6.50	6.50	6.90	6.80	6.90
15							6.50	6.50	6.50	6.90	6.90	6.90
16							6.50	6.50	6.50	6.90	6.80	6.90
17							6.50	6.50	6.50	7.00	6.90	6.90
18							6.50	6.50	6.50	7.10	7.00	7.00
19							6.50	6.50	6.50	7.10	7.00	7.00
20							6.50	6.40	6.50	7.00	6.90	6.90
21							6.50	6.50	6.50	6.90	6.80	6.80
22							6.50	6.40	6.50	6.80	6.80	6.80
23							6.50	6.40	6.50	6.90	6.80	6.80
24							6.60	6.50	6.60	7.00	6.90	6.90
25							6.60	6.60	6.60	7.00	7.00	7.00
26							6.60	6.60	6.60	7.00	7.00	7.00
27							6.60	6.60	6.60	7.10	7.00	7.00
28							6.70	6.60	6.60	7.10	7.00	7.00
29							6.80	6.70	6.70	7.20	7.10	7.10
30							6.80	6.70	6.70	7.20	7.00	7.10
31							---	---	---	7.10	6.60	6.90
MONTH							6.80	6.00	6.49	7.20	5.80	6.87



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.80	6.50	6.70	7.10	7.00	7.00	7.40	7.30	7.30	7.20	6.90	7.10
2	6.50	6.40	6.40	7.10	7.10	7.10	7.30	7.30	7.30	7.00	6.90	6.90
3	6.60	6.40	6.50	7.10	7.10	7.10	7.30	7.20	7.30	7.00	6.60	6.80
4	7.00	6.60	6.80	7.10	7.10	7.10	7.30	7.20	7.20	6.60	6.40	6.50
5	7.00	6.80	6.90	7.10	7.00	7.10	7.30	7.20	7.20	6.60	6.40	6.50
6	6.90	6.80	6.90	---	---	---	7.40	7.20	7.30	6.70	6.50	6.60
7	7.00	6.90	7.00	---	---	---	7.30	7.20	7.30	6.80	6.60	6.70
8	7.00	6.90	7.00	---	---	---	7.30	7.20	7.20	6.90	6.70	6.80
9	6.90	6.80	6.80	---	---	---	7.50	7.20	7.30	7.00	6.80	6.90
10	7.00	6.80	6.90	---	---	---	7.50	7.10	7.30	7.30	7.00	7.20
11	7.10	7.00	7.00	---	---	---	7.10	6.80	6.90	7.50	7.20	7.30
12	7.10	7.00	7.10	---	---	---	6.90	6.80	6.90	7.40	7.00	7.20
13	7.10	7.10	7.10	6.90	6.80	6.90	7.10	6.90	7.00	7.10	7.00	7.10
14	7.10	7.10	7.10	6.90	6.80	6.90	7.30	7.00	7.20	7.10	7.00	7.10
15	7.10	7.00	7.10	6.80	6.80	6.80	7.60	7.20	7.40	7.10	7.00	7.10
16	7.00	6.90	7.00	7.00	6.80	6.90	7.50	7.30	7.40	7.20	7.00	7.10
17	7.00	7.00	7.00	7.10	7.00	7.00	7.60	7.30	7.40	7.20	7.10	7.10
18	7.00	7.00	7.00	7.20	7.10	7.10	7.50	7.40	7.40	7.30	7.10	7.20
19	7.00	6.90	7.00	7.30	7.10	7.20	7.40	7.30	7.30	7.40	7.10	7.30
20	6.90	6.80	6.80	7.20	7.10	7.10	7.40	7.30	7.30	7.50	7.20	7.40
21	6.90	6.80	6.90	7.30	7.10	7.20	7.40	7.30	7.40	7.70	7.30	7.50
22	6.90	6.80	6.80	7.30	7.10	7.20	7.30	7.20	7.30	7.70	7.30	7.50
23	7.00	6.90	6.90	7.40	7.20	7.30	7.20	7.10	7.20	7.60	7.30	7.40
24	7.00	6.90	7.00	7.50	7.20	7.30	7.20	7.10	7.10	7.40	7.20	7.40
25	7.10	7.00	7.10	7.50	7.30	7.40	7.10	7.00	7.00	7.50	7.20	7.30
26	7.20	7.10	7.20	7.40	7.30	7.40	7.20	7.00	7.10	7.60	7.30	7.40
27	7.30	7.20	7.20	7.40	7.30	7.30	7.20	7.10	7.20	7.50	7.30	7.40
28	---	---	---	7.40	7.30	7.30	7.30	7.10	7.20	7.60	7.50	7.60
29	---	---	---	7.40	7.20	7.30	7.40	7.20	7.30	7.60	7.50	7.60
30	---	---	---	7.50	7.30	7.40	7.40	7.30	7.30	7.50	7.30	7.50
31	---	---	---	7.40	7.30	7.30	7.30	7.20	7.20	---	---	---
MONTH	7.30	6.40	6.93	7.50	6.80	7.15	7.60	6.80	7.23	7.70	6.40	7.15

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA

LOCATION.--Lat 41°19'31", long 76°54'43", Lycoming County, Hydrologic Unit 02050206, on left bank 500 ft downstream from highway bridge at Loyalsockville, 2.5 mi downstream from Wallis Run, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--443 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1925 to September 1974, October 1975 to current year. Monthly discharge only for some periods, 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 Pennsylvania Department of Transportation datum. Prior to Sept. 16, 1926, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 12, Feb. 16-24. Records good except those for estimated daily discharges, which area fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--59 years, 759 ft<sup>3</sup>/s, 23.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,700 ft<sup>3</sup>/s June 23, 1972, gage height, 14.74 ft, from floodmark in gage well, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 11 ft<sup>3</sup>/s Sept. 25, 26, Nov. 24, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 26, 1975 reached a stage of 14.50 ft from floodmark, discharge, 84,600 ft<sup>3</sup>/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	1200	*9,570	*7.62	June 1	0930	6,630	6.88

Minimum discharge, 60 ft<sup>3</sup>/s Oct. 16, gage height, 2.98 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	142	1840	1300	220	910	1740	273	3610	215	389	383
2	113	130	1350	1160	220	809	1560	289	2020	173	306	274
3	125	120	1210	976	210	709	1330	510	1290	165	198	220
4	111	130	1480	853	200	625	1190	635	972	176	163	187
5	96	182	1100	788	200	674	1110	495	866	202	142	165
6	88	280	1000	676	195	797	1020	436	851	182	135	147
7	82	254	871	649	190	600	963	424	671	338	133	135
8	78	207	720	601	180	631	914	402	579	315	157	155
9	79	179	654	480	180	607	918	354	527	250	166	189
10	77	182	616	450	170	561	826	324	458	324	174	294
11	77	259	864	420	170	529	761	301	392	411	147	440
12	72	468	969	390	220	1270	729	281	358	348	132	302
13	69	412	974	370	588	1560	668	600	375	344	124	222
14	68	341	1050	370	688	1210	628	532	338	446	123	186
15	66	296	972	360	562	1050	607	397	295	323	116	159
16	64	257	884	310	450	897	583	345	275	365	123	150
17	65	250	821	300	390	816	560	341	297	330	139	139
18	64	226	762	290	350	724	502	717	284	231	135	135
19	65	211	716	270	320	610	472	751	261	190	121	130
20	67	202	777	240	290	632	482	567	231	165	112	126
21	75	180	714	220	270	567	525	456	200	153	108	121
22	94	170	1460	200	280	504	470	389	182	467	105	118
23	223	171	1570	210	450	530	429	345	173	352	104	117
24	290	162	1200	220	1700	779	412	299	169	221	103	115
25	199	173	1030	250	2620	912	405	266	188	181	136	113
26	157	163	827	230	1740	766	397	236	186	188	195	119
27	144	154	819	250	1350	690	368	223	154	228	403	336
28	134	193	744	250	1050	671	339	544	143	237	251	1960
29	137	5900	1790	240	---	711	318	1350	152	175	177	776
30	152	2970	2070	230	---	704	300	736	186	146	183	475
31	159	---	1520	220	---	781	---	558	---	159	448	---
TOTAL	3391	14964	33374	13773	15453	23836	21526	14376	16683	8000	5448	8388
MEAN	109	499	1077	444	552	769	718	464	556	258	176	280
MAX	290	5900	2070	1300	2620	1560	1740	1350	3610	467	448	1960
MIN	64	120	616	200	170	504	300	223	143	146	103	113
CFSM	.25	1.13	2.43	1.00	1.25	1.74	1.62	1.05	1.26	.58	.40	.63
IN.	.28	1.26	2.80	1.16	1.30	2.00	1.81	1.21	1.40	.67	.46	.70

CAL YR 1984	TOTAL	351538	MEAN	960	MAX	21300	MIN	64	CFSM	2.17	IN.	29.52
WTR YR 1985	TOTAL	179212	MEAN	491	MAX	5900	MIN	64	CFSM	1.11	IN.	15.05

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 Legislative Route 611, and 1.2 mi east of Sonestown.

DRAINAGE AREA.--23.8 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 9 to Feb. 21. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 48.6 ft<sup>3</sup>/s, 27.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,260 ft<sup>3</sup>/s June 22, 1972, gage height, 8.94 ft, from rating curve extended above 3,400 ft<sup>3</sup>/s; minimum, 0.1 ft<sup>3</sup>/s Sept. 11-13, 1964.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0415	1,140	4.49	July 31	1200	*1,230	*4.60

Minimum discharge, 3.6 ft<sup>3</sup>/s Oct. 1, 7, 13, 14, gage height, 1.57 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	6.0	145	77	8.3	59	97	21	154	14	133	44
2	7.4	7.7	99	69	7.9	51	77	27	77	14	74	37
3	5.2	7.4	135	57	7.5	42	70	59	59	18	51	30
4	4.6	6.6	115	51	7.2	38	66	39	46	20	38	25
5	4.2	20	85	47	7.0	56	62	35	54	14	31	21
6	3.9	16	79	48	6.8	42	82	34	44	16	25	18
7	3.8	12	61	38	6.5	43	71	34	34	38	28	16
8	3.8	11	51	33	6.4	38	76	29	32	22	28	18
9	4.1	11	44	30	6.2	36	69	27	28	21	29	21
10	4.1	16	46	28	6.1	33	58	25	25	20	20	36
11	3.8	66	68	26	6.0	33	54	23	21	21	20	25
12	3.8	57	61	25	45	151	48	36	26	65	18	18
13	3.7	41	69	24	50	99	43	58	22	90	15	16
14	3.8	33	69	26	33	85	41	34	20	48	13	15
15	3.8	28	68	21	26	69	39	28	17	52	12	14
16	3.8	26	62	17	21	58	41	29	20	62	16	12
17	3.8	23	58	15	17	53	39	54	20	37	13	11
18	3.9	20	52	14	16	45	35	116	21	30	11	11
19	4.2	19	52	13	16	44	34	65	16	26	9.6	9.8
20	5.6	17	51	12	15	38	37	51	15	22	9.0	9.1
21	4.7	15	48	11	15	34	37	41	14	24	8.3	8.7
22	22	14	149	10	22	31	33	35	12	25	7.5	8.1
23	23	15	101	11	119	33	31	31	13	19	6.9	7.7
24	9.3	14	84	11	197	44	29	27	30	16	6.6	12
25	6.8	12	72	11	195	39	30	24	21	14	26	11
26	7.3	12	61	9.9	124	34	28	22	15	43	30	8.2
27	8.2	12	54	8.9	94	32	26	22	14	40	24	165
28	6.8	80	64	8.6	70	32	25	115	14	23	16	124
29	7.5	580	136	9.6	---	37	23	71	18	20	13	62
30	7.6	197	104	9.4	---	36	22	45	17	17	80	44
31	6.4	---	84	8.8	---	53	---	43	---	271	70	---
TOTAL	199.7	1394.7	2427	780.2	1150.9	1518	1423	1300	919	1162	881.9	857.6
MEAN	6.44	46.5	78.3	25.2	41.1	49.0	47.4	41.9	30.6	37.5	28.4	28.6
MAX	23	580	149	77	197	151	97	116	154	271	133	165
MIN	3.7	6.0	44	8.6	6.0	31	22	21	12	14	6.6	7.7
CFSM	.27	1.95	3.29	1.06	1.73	2.06	1.99	1.76	1.29	1.58	1.19	1.20
IN.	.31	2.18	3.79	1.22	1.80	2.37	2.22	2.03	1.44	1.82	1.38	1.34

CAL YR 1984 TOTAL 21902.7 MEAN 59.8 MAX 1160 MIN 3.7 CFSM 2.51 IN. 34.23  
WTR YR 1985 TOTAL 14014.0 MEAN 38.4 MAX 580 MIN 3.7 CFSM 1.61 IN. 21.90



## 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", Union County, Hydrologic Unit 02050206, at downstream side of left abutment of Market Street Bridge at Lewisburg, 0.2 mi downstream from Buffalo Creek, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--6,847 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302. 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, and Dec. 7, 1939 to July 2, 1940, nonrecording 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.--Estimated daily discharges: Jan. 11 to Feb. 15. 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.

AVERAGE DISCHARGE.--46 years, 10,860 ft<sup>3</sup>/s, 21.54 in/yr, adjusted 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 300,000 ft<sup>3</sup>/s June 24, 1972, gage height, 34.23 ft, from floodmarks (backwater from Susquehanna River); minimum discharge, 390 ft<sup>3</sup>/s Nov. 16, 1964; gage height, 0.57 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936 reached a stage of 32.1 ft, from floodmarks, (backwater from Susquehanna River); discharge, 287,000 ft<sup>3</sup>/s from slope-area measurement at Watsontown, 8.0 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,100 ft<sup>3</sup>/s Apr. 2, gage height 11.75 ft, (backwater from Susquehanna River); minimum, 1,380 ft<sup>3</sup>/s Aug. 24, gage height 1.22 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	3190	24100	32100	3800	25100	40000	5090	10400	2850	3370	3910
2	2020	2920	21200	28900	3500	21000	51100	5250	16500	2750	2720	4100
3	1990	2620	19300	25200	3100	17400	45900	7500	13600	2650	2290	3500
4	2050	2450	20500	21000	2800	14800	38600	8960	11200	2530	2010	2900
5	2060	2660	20500	18700	2900	13500	33600	11100	10700	2460	1810	2570
6	1950	3220	19400	16700	2900	13000	29600	11100	10300	2490	1660	2310
7	1850	6880	18400	14800	2800	13000	26400	10000	8830	2610	1650	2060
8	1830	7290	15800	13100	2800	11600	23900	9510	7990	2930	2070	1890
9	1840	6290	13300	11500	2700	11300	21500	8840	7010	3410	3060	2240
10	1780	5100	11700	9480	2800	12000	19500	7750	6240	4370	4520	3200
11	1780	5260	11900	7400	4000	11600	17500	6790	5750	5360	3180	4300
12	1770	10600	13800	6400	10000	13000	16100	6420	5260	5270	2560	7020
13	1740	11300	15600	6500	15000	30400	14800	6770	4910	4860	2230	6510
14	1700	9630	17400	6700	18000	38700	13400	7340	4880	4630	1970	4670
15	1660	8160	20300	5900	16000	30800	12700	6510	4860	4170	1830	3430
16	1630	7110	21900	5400	13000	25300	12000	5870	4630	3860	1730	2900
17	1590	6380	21100	4900	11000	21000	11300	5710	4630	3900	1740	2580
18	1570	5940	19600	4900	9700	17900	10500	7200	5060	4020	1810	2320
19	1570	5510	17200	4800	8900	15600	9730	7340	5680	3560	2090	2130
20	1640	5110	16600	4700	8200	13400	9000	7040	5660	3160	2110	1950
21	1780	4760	18100	3500	7800	12100	8600	6530	5090	2840	1870	1810
22	1970	4470	21900	3400	7700	10900	8140	5770	4520	2570	1700	1700
23	2620	4140	25800	4000	15000	10000	7590	5220	4170	2680	1540	1590
24	2660	3910	27800	4700	15700	11700	7290	4870	3810	2620	1410	1550
25	2640	3790	25400	4900	40300	19300	7150	4570	3730	2510	1440	1510
26	2820	3760	22100	4800	48000	26700	6870	4280	3580	2430	1800	1450
27	3270	3590	18700	4600	38800	25600	6410	4040	3250	2420	2800	1750
28	2990	3630	16500	4400	31000	22800	6010	4020	3020	2330	2740	3440
29	3060	20300	18100	4200	---	21400	5660	5820	2930	2230	2380	3510
30	3060	30200	33000	4100	---	29100	5350	6860	2840	2150	2180	2860
31	2990	---	35400	3900	---	37300	---	6120	---	2460	4000	---
TOTAL	65740	200170	622400	295580	348200	597300	526200	210190	191030	99080	70270	87660
MEAN	2121	6672	20080	9535	12440	19270	17540	6780	6368	3196	2267	2922
MAX	3270	30200	35400	32100	48000	38700	51100	11100	16500	5360	4520	7020
MIN	1570	2450	11700	3400	2700	10000	5350	4020	2840	2150	1410	1450
CFSM	.31	.97	2.93	1.39	1.82	2.81	2.56	.99	.93	.47	.33	.43
IN.	.36	1.09	3.38	1.61	1.89	3.25	2.86	1.14	1.04	.54	.38	.48

CAL YR 1984 TOTAL 5341460 MEAN 14590 MAX 157000 MIN 1570 CFSM 2.13 IN. 29.02  
WTR YR 1985 TOTAL 3313820 MEAN 9079 MAX 51100 MIN 1410 CFSM 1.33 IN. 18.00



## WEST BRANCH SUSQUEHANNA RIVER BASIN

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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.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
NOV 14...	1045	1028	2.0	768	9.9	81	300	64	75	61	75
MAR 06...	1030	1028	5.0	760	13.6	101	K4	K16	54	45	54
MAY 15...	1015	1028	1.0	766	8.2	88	K150	1700	76	60	76
SEP 05...	1000	1028	1.0	763	7.2	87	K29	K15	120	93	120

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY FILTER FIELD MG/L AS CACO3	ALKA- LINITY LAB (MG/L AS CACO3)
NOV 14...	18	7.2	4.5	11	0.2	1.5	--	0	14	13
MAR 06...	13	5.2	3.6	12	0.2	0.9	11	0	11	9.0
MAY 15...	19	7.0	4.1	10	0.2	1.2	15	0	15	16
SEP 05...	31	11	7.7	12	0.3	1.9	37	0	30	32

DATE	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 14...	--	1.1	63	5.6	<0.1	4.5	133	110	0.18	3490
MAR 06...	9.0	3.5	47	5.6	<0.1	4.7	85	86	0.12	2940
MAY 15...	16	2.4	57	6.0	<0.1	4.2	140	110	0.19	2460
SEP 05...	30	0.9	84	12	<0.1	1.9	193	170	0.26	1350

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 14...	60	<1	37	1	1	2	6	1	20	1
MAR 06...	<10	<1	34	0.5	2	<1	7	3	35	6
MAY 15...	--	--	29	<0.5	<1	--	<3	--	3	--
SEP 05...	10	<1	38	<0.5	2	<1	<3	12	6	3

(K) Results based on non-ideal colony count.

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 14...	7	600	<0.1	<10	20	<1	<1	99	<6	25
MAR 06...	13	510	<0.1	<10	15	<1	<1	69	<6	46
MAY 15...	5	340	0.2	<10	--	--	--	100	<6	10
SEP 05...	5	39	<0.1	<10	6	<1	<1	200	<6	51

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
OCT 22...	1330	42011	1870	330	8.00	18.5	0.97	1.08	0.03	0.02	0.07
NOV 14...	1045	1028	9720	195	7.40	7.0	--	--	--	--	--
20...	1030	42011	5140	205	8.30	5.0	--	--	--	--	--
DEC 13...	1225	42011	15700	164	7.50	6.0	--	--	--	--	--
JAN 18...	1230	42011	5470	160	8.40	0.0	--	--	--	--	--
FEB 21...	1100	42011	15700	220	6.50	4.0	--	--	--	--	--
MAR 06...	1030	1028	12800	147	6.70	3.0	--	--	--	--	--
21...	1130	42011	12100	180	6.10	6.0	--	--	--	--	--
APR 18...	1330	42011	10900	190	7.30	14.5	--	--	--	--	--
MAY 09...	1115	42011	8880	210	7.30	13.0	--	--	--	--	--
15...	1015	1028	6510	190	7.00	19.0	--	--	--	--	--
JUN 04...	1515	42011	11200	158	7.00	19.0	--	--	--	--	--
JUL 02...	1130	42011	2740	275	7.60	19.5	--	--	--	--	--
AUG 08...	1220	42011	2150	248	7.80	25.0	--	--	--	--	--
SEP 03...	1330	42011	3460	320	8.40	25.5	--	--	--	--	--
05...	1000	1028	2600	300	7.80	25.0	--	--	--	--	--

## WEST BRANCH SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT 22...	1.00	1.10	0.13	0.13	0.17	0.47	0.37	0.6	--	0.5	1.6
NOV 14...	--	0.40	--	0.13	0.17	--	--	0.3	--	--	--
20...	0.70	--	0.05	<0.01	0.01	1.7	--	1.7	--	0.6	2.4
DEC 13...	0.70	--	0.06	0.04	0.05	0.34	0.36	0.4	--	0.4	1.1
JAN 18...	0.90	--	0.08	0.11	0.14	0.22	0.19	0.3	--	0.3	1.2
FEB 21...	0.90	--	0.18	0.23	0.30	0.92	--	1.1	--	--	2.0
MAR 06...	--	0.53	--	0.04	0.05	--	--	0.5	--	--	--
21...	0.60	--	0.05	0.04	0.05	0.25	0.26	0.3	--	0.3	0.9
APR 18...	0.60	--	<0.01	<0.01	0.01	--	--	0.9	--	0.3	1.5
MAY 09...	0.50	--	<0.01	0.03	0.04	--	0.07	0.4	--	0.1	0.9
15...	--	0.56	--	0.09	0.12	--	--	0.2	--	--	--
JUN 04...	0.30	--	0.03	0.02	0.03	0.17	--	0.2	--	--	0.5
JUL 02...	0.90	--	0.07	0.03	0.04	0.53	0.37	0.6	0.2	0.4	1.5
AUG 08...	0.90	--	0.08	0.02	0.03	0.52	0.58	0.6	0.0	0.6	1.5
SEP 03...	0.90	--	0.03	0.07	0.09	0.37	0.63	0.4	0.0	0.7	1.3
05...	--	0.53	--	0.05	0.06	--	--	0.9	--	--	--

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	7.1	0.07	--	0.04	0.06	0.05	0.15	1.3	9	45	--
NOV 14...	--	<0.01	--	<0.01	--	0.01	0.03	--	14	367	60
20...	11	0.02	--	0.01	--	<0.01	--	1.2	4	55	--
DEC 13...	4.9	0.02	--	<0.01	--	<0.01	--	--	12	508	--
JAN 18...	5.3	0.03	--	0.02	--	0.03	0.09	1.8	3	44	--
FEB 21...	8.9	<0.01	--	<0.01	--	<0.01	--	1.4	2	85	--
MAR 06...	--	<0.01	--	<0.01	--	<0.01	--	--	12	415	91
21...	4.0	0.02	--	<0.01	--	<0.01	--	3.8	8	261	--
APR 18...	6.6	<0.01	--	<0.01	--	<0.01	--	1.5	8	235	--
MAY 09...	4.0	0.05	--	<0.01	--	<0.01	--	1.7	6	144	--
15...	--	<0.01	--	<0.01	--	<0.01	--	--	9	158	89
JUN 04...	2.2	<0.01	--	<0.01	--	<0.01	--	2.5	18	542	--
JUL 02...	6.6	0.04	0.12	0.03	--	0.01	0.03	2.3	16	118	--
AUG 08...	6.6	<0.01	--	<0.01	--	0.03	0.09	--	1	5.8	--
SEP 03...	5.8	0.04	0.12	0.06	--	0.02	0.06	1.9	5	47	--
05...	--	0.02	0.06	0.02	--	0.02	0.06	--	--	--	--

## 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 of bridge on State Highway 54, and 0.7 mi north of U.S. Post Office in Washingtonville.

DRAINAGE AREA.--51.3 mi<sup>2</sup>.

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. benchmark).

REMARKS.--Estimated daily discharges: Jan. 9, 16, 20, 21. Records good except those for estimated daily discharges, which are fair. Flow includes diversion from West Branch Susquehanna River. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 75.4 ft<sup>3</sup>/s, 19.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,510 ft<sup>3</sup>/s June 28, 1983, gage height, 10.82 ft, from rating curve extended above 1,300 ft<sup>3</sup>/s; minimum, 11 ft<sup>3</sup>/s Oct. 6-8, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0815	*2,680	*9.39	No other peak greater than base discharge.			

Minimum discharge, 15 ft<sup>3</sup>/s Nov. 3-5, Sept. 23, 24; minimum gage height, 0.69 ft Sept. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	248	127	37	65	310	98	206	22	39	43
2	20	17	117	109	37	55	202	406	59	22	23	34
3	19	16	147	89	36	49	129	226	59	22	21	42
4	19	16	145	81	35	47	97	154	48	22	21	26
5	18	32	106	79	34	50	74	115	285	40	19	24
6	18	30	105	67	35	43	68	95	139	63	19	23
7	17	21	87	68	36	39	58	86	70	19	24	23
8	18	19	74	65	35	41	106	80	57	24	33	23
9	19	31	69	54	35	41	76	86	47	30	23	44
10	19	30	70	50	36	38	65	80	41	33	22	113
11	20	66	169	51	35	37	60	66	35	26	20	65
12	20	91	157	50	258	62	51	57	35	23	21	41
13	21	60	132	50	289	132	48	50	33	36	19	33
14	20	49	106	48	124	85	49	50	30	28	19	30
15	19	42	109	49	84	73	45	45	28	27	20	27
16	19	39	96	48	70	61	45	48	51	26	22	25
17	19	36	87	43	63	55	44	81	45	22	21	22
18	18	35	80	45	60	53	37	144	57	22	20	22
19	17	34	77	45	64	46	35	85	34	22	20	21
20	19	32	85	45	88	43	35	65	29	21	21	21
21	18	32	79	42	64	43	33	56	27	21	20	21
22	37	32	364	38	70	39	32	41	26	22	19	20
23	44	31	180	39	125	37	31	36	24	21	17	18
24	22	32	132	39	159	50	38	34	22	19	17	18
25	18	31	110	40	140	73	53	33	22	30	18	18
26	24	31	84	40	105	53	49	32	22	36	36	41
27	30	31	80	38	91	50	47	31	21	30	206	161
28	21	106	85	38	73	49	44	33	22	22	43	77
29	27	1840	239	38	---	79	43	32	24	21	30	44
30	27	402	252	34	---	71	42	28	23	20	62	33
31	21	---	151	35	---	84	---	35	---	48	71	---
TOTAL	668	3282	4022	1684	2318	1743	2046	2508	1621	840	986	1153
MEAN	21.5	109	130	54.3	82.8	56.2	68.2	80.9	54.0	27.1	31.8	38.4
MAX	44	1840	364	127	289	132	310	406	285	63	206	161
MIN	17	16	69	34	34	37	31	28	21	19	17	18
CFSM	.42	2.12	2.53	1.06	1.61	1.10	1.33	1.58	1.05	.53	.62	.75
IN.	.48	2.38	2.92	1.22	1.68	1.26	1.48	1.82	1.18	.61	.71	.84

CAL YR 1984	TOTAL	35948	MEAN	98.2	MAX	1840	MIN	16	CFSM	1.91	IN.	26.07
WTR YR 1985	TOTAL	22871	MEAN	62.7	MAX	1840	MIN	16	CFSM	1.22	IN.	16.58

## 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 mi<sup>2</sup>. 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 and capacity is 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, 19,380 acre-ft Apr. 1, elevation, 1,172.25 ft; minimum, 3,990 acre-ft Dec. 9, elevation, 1,153.31 ft.

01541340 GLENDALE LAKE.--Lat 40°41'50", long 78°32'15", Cambria County, Hydrologic Unit 02050201, at Glendale Dam on Beaverdam Run, 1 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 mi<sup>2</sup>. 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. Conservation pool elevation is 1,427.00 ft, and capacity is 15,900 acre-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 sluice 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, 29,260 acre-ft Apr. 1, elevation, 1,429.45 ft; minimum, 23,910 acre-ft Sept. 29, 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 mi northeast of Sinnemahoning, and 8 mi upstream from mouth. DRAINAGE AREA, 243 mi<sup>2</sup>. 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 and capacity is 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 and landline 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, 3,110 acre-ft Feb. 25, elevation, 927.03 ft; minimum, 1,480 acre-ft Oct. 6, elevation, 915.24 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 mi<sup>2</sup>. PERIOD OF RECORD, February 1962 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 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 and capacity is 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 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, 51,660 acre-ft June 25, 1972, elevation, 919.13 ft; minimum, no storage June 7, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,170 acre-ft Feb. 24, elevation, 843.33 ft; minimum, 1,600 acre-ft Oct. 30, elevation, 840.08 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 mi upstream from Marsh Creek, and 1.2 mi south of Blanchard. DRAINAGE AREA, 339 mi<sup>2</sup>. 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 and capacity is 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, 4,960 acre-ft Mar. 10, 1971, elevation, 609.37 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,430 acre-ft Sept. 3, elevation, 630.35 ft; minimum, 6,000 acre-ft Dec. 10, elevation, 609.50 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 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>01541180 Curwensville Lake</u>				<u>01541340 Glendale Lake</u>		
Sept. 30.....	1,162.52	9,970	--	1,427.00	25,300	--
Oct. 31.....	1,161.52	9,180	- 12.8	1,427.12	25,490	+ 3.1
Nov. 30.....	1,155.73	5,280	- 65.5	1,427.49	26,080	+ 9.9
Dec. 31.....	1,157.12	6,110	+ 13.5	1,427.91	26,760	+ 11.1
CAL YR 1984.....	--	--	+ 1.7	--	--	+ 2.5
Jan. 31.....	1,154.34	4,510	- 26.0	1,427.27	25,730	- 16.8
Feb. 28.....	1,157.39	6,280	+ 31.9	1,428.11	27,080	+ 24.3
Mar. 31.....	1,169.71	16,610	+168	1,429.34	29,080	+ 32.5
Apr. 30.....	1,158.38	6,920	-163	1,427.35	25,860	- 54.1
May 31.....	1,162.20	9,710	+ 45.4	1,427.57	26,210	+ 5.7
June 30.....	1,161.90	9,460	- 4.2	1,427.15	25,540	- 11.3
July 31.....	1,161.80	9,390	- 1.1	1,427.16	25,560	+ 0.3
Aug. 31.....	1,162.31	9,800	+ 6.7	1,427.01	25,320	- 3.9
Sept. 30.....	1,161.70	9,310	- 8.2	1,426.76	24,940	- 6.4
WTR YR 1985.....	--	--	- 0.09	--	--	- 0.5
<u>01543900 F. F. Sinnemahoning Cr. Reservoir</u>				<u>01544800 Kettle Creek Lake</u>		
Sept. 30.....	915.72	1,530	--	841.02	1,740	--
Oct. 31.....	919.22	1,910	+ 6.2	840.51	1,670	- 1.1
Nov. 30.....	922.40	2,320	+ 6.9	841.20	1,770	+ 1.7
Dec. 31.....	921.52	2,190	- 2.1	840.95	1,730	- 0.6
CAL YR 1984.....	--	--	+ 0.2	--	--	+ 0.9
Jan. 31.....	920.61	2,070	- 2.0	840.86	1,720	- 0.2
Feb. 28.....	921.26	2,160	+ 1.6	841.10	1,760	+ 0.7
Mar. 31.....	920.87	2,100	- 1.0	840.59	1,680	- 1.3
Apr. 30.....	920.83	2,100	0	841.02	1,740	+ 1.0
May 31.....	921.27	2,160	+ 1.0	841.30	1,790	+ 0.8
June 30.....	920.86	2,100	- 1.0	841.78	1,860	+ 1.2
July 31.....	920.89	2,110	+ 0.2	841.50	1,820	- 0.7
Aug. 31.....	921.12	2,140	+ 0.5	841.62	1,840	+ 0.3
Sept. 30.....	920.66	2,080	- 1.0	841.45	1,810	- 0.5
WTR YR 1985.....	--	--	+ 0.8	--	--	+ 0.1
<u>01547480 Foster Joseph Sayers Lake</u>						
Sept. 30.....	629.64	28,190	--			
Oct. 31.....	627.47	24,700	- 56.8			
Nov. 30.....	619.57	14,390	-173			
Dec. 31.....	610.27	6,480	-129			
CAL YR 1984.....	--	--	+ 0.01			
Jan. 31.....	610.00	6,300	- 2.9			
Feb. 28.....	610.03	6,320	+ 0.4			
Mar. 31.....	626.05	22,580	+264			
Apr. 30.....	628.38	26,110	+ 59.3			
May 31.....	630.13	29,030	+ 47.5			
June 30.....	629.89	28,610	- 7.1			
July 31.....	629.65	28,200	- 6.7			
Aug. 31.....	630.33	29,390	+ 19.4			
Sept. 30.....	628.37	26,090	- 55.5			
WTR YR 1985.....	--	--	- 2.9			

## SUSQUEHANNA RIVER BASIN

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01554000 SUSQUEHANNA RIVER AT SUNBURY, PA

LOCATION.--Lat 40°50'04", long 76°49'37", Snyder County, Hydrologic Unit 02050301, on right bank at borough of Shamokin Dam, on grounds of Pennsylvania Power and Light Company generating plant, 1 mi downstream from Shamokin Creek, 1.5 mi downstream from Sunbury Fabridam, and 1.8 mi south of Sunbury.

DRAINAGE AREA.--18,300 mi<sup>2</sup>, approximately (excluding that of Shamokin Creek).

PERIOD FOR RECORD.--October 1937 to current year. June 1918 to September 1918 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 891: 1936(M). WDR PA-79-2: 1978(M).

GAGE.--Water-stage recorder. Datum of gage is 408.61 ft above National Geodetic Vertical Datum of 1929. See WSP 1903 for history of changes prior to Dec. 13, 1937. Dec. 13, 1937 to Mar. 23, 1967, water-stage recorder at site 1.7 mi upstream at datum 11.05 ft higher.

REMARKS.--Estimated daily discharges: Jan. 13 to Feb. 23 and May 26 to June 25. Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 14 flood-control reservoirs which have a capacity of about 809,000 acre-ft and during low flow by Fabridam 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.--48 years, 26,560 ft<sup>3</sup>/s, 19.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 620,000 ft<sup>3</sup>/s June 24, 1972, gage height, 35.80 ft; minimum, 964 ft<sup>3</sup>/s Oct. 16, 1971, gage height, 4.83 ft, result of shutoff at Fabridam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103,000 ft<sup>3</sup>/s Feb. 26, gage height, 15.91 ft; minimum daily, 3,340 ft<sup>3</sup>/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4440	6310	52200	68300	11000	60500	63100	11700	18000	5990	7950	8880
2	4670	6390	52300	62400	11000	49800	87100	11200	24000	5980	7850	8030
3	4800	6560	50700	54900	8800	41400	89300	18700	23000	5840	6940	7100
4	4960	6290	48600	50300	8000	36100	74000	24100	22000	5710	6480	6110
5	4730	6460	47400	45300	7900	33600	63000	24100	20000	5730	6010	5510
6	4610	7120	45500	40100	7800	31500	56000	24200	19000	5670	5540	5020
7	4490	10100	41300	34600	7900	31100	50800	19600	17000	5740	5140	4610
8	4460	11200	36000	30900	7600	30000	46600	18800	15000	6090	5350	4460
9	4370	10700	30700	27800	7400	29400	43200	15200	13000	6430	5790	4700
10	4370	10300	27100	23500	7500	29700	39900	14100	11000	7120	7560	5750
11	4290	10000	26400	19900	7600	33600	36000	15200	10000	8110	6560	7000
12	4230	14900	28800	16600	9000	34700	33000	14700	9400	8150	5650	10100
13	4170	16600	33700	15000	16000	54500	30500	16600	8600	8830	5140	10100
14	4150	15500	37300	14000	26400	89800	28200	14900	7600	10300	4730	8080
15	4100	14100	42400	15000	25900	87100	26500	11800	8700	9570	4450	6800
16	4050	12900	47600	14000	26100	73100	24900	11200	9600	9170	4190	6150
17	3980	11800	46000	13000	24400	59000	23800	11300	12000	9730	4130	5570
18	3880	11100	42000	13000	22000	48800	22000	13500	12000	9700	4150	5090
19	3850	10100	38000	13000	19200	42600	20800	15600	11000	8500	4180	4720
20	3920	9620	35300	8800	18800	36900	19500	15600	10000	7370	4290	4330
21	4040	9220	36300	6400	18300	32300	19400	14400	9400	6670	6270	4060
22	4300	8940	42200	6300	16000	28900	20600	13500	8800	6180	3780	3820
23	5240	8600	50700	7800	16300	27300	20000	11200	7800	6080	3510	3650
24	6060	8200	57200	8600	23600	27800	19000	10900	7600	6290	3350	3500
25	5900	7790	55600	9400	71300	33500	18000	10200	7400	6060	3340	3500
26	5870	7590	48200	10000	101000	44600	16900	9220	7320	5810	3680	3350
27	6100	7360	40900	9700	93900	46700	16000	8800	6790	5970	5090	3960
28	6020	7450	35900	9800	76300	40800	15100	9500	6330	6420	6600	33000
29	6030	28900	35100	10000	---	38100	14200	11000	6270	6030	5600	33400
30	6230	50700	55400	10000	---	45200	13300	13000	6230	5480	5150	37300
31	6040	---	68300	10000	---	56900	---	15000	---	5600	7250	---
TOTAL	148370	352800	1335100	678400	697000	1355300	1050900	448820	354840	216300	165720	257660
MEAN	4785	11760	43070	21880	24890	43720	35030	14480	11830	6977	5345	8589
MAX	6230	50700	68300	68300	101000	89800	89300	24200	24000	10300	7950	37300
MIN	3850	6290	26400	6300	7400	27300	13300	8800	6230	5480	3340	3350
CFSM	.26	.64	2.35	1.20	1.36	2.39	1.91	.79	.65	.38	.29	.47
IN.	.30	.72	2.71	1.38	1.42	2.76	2.14	.91	.75	.44	.33	.54

CAL YR 1984 TOTAL 12567300 MEAN 34340 MAX 323000 MIN 3850 CFSM 1.88 IN. 26  
WTR YR 1985 TOTAL 7061170 MEAN 19350 MAX 101000 MIN 3340 CFSM 1.06 IN. 14

## 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 mi downstream from Trout Run, 1.1 mi upstream from Bennys Run, and 2 mi northwest of Shamokin.

DRAINAGE AREA.--54.2 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1939 to current year. Published as "at Weigh Scales" prior to October 1964.

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.--Estimated daily discharges: Feb. 11 to Mar. 6 and July 12-23. Records good except those for estimated daily discharges, which are fair. Regulation by mine pumps above station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 85.8 ft<sup>3</sup>/s, 21.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,070 ft<sup>3</sup>/s June 22, 1972, gage height, 8.72 ft, from rating curve extended above 560 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 3.2 ft<sup>3</sup>/s Feb. 15, 1940, gage height, 0.42 ft, at site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 31	1330	*740	*4.08	No other peak greater than base discharge.			

Minimum discharge, 28 ft<sup>3</sup>/s Nov. 19-21, 23, 28, gage height 2.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	32	76	64	45	74	78	65	96	65	63	38
2	40	32	69	63	44	72	71	100	67	64	53	38
3	39	31	73	63	43	368	74	190	66	63	52	38
4	38	31	66	63	40	66	74	120	64	62	50	37
5	38	57	62	63	157	64	73	108	98	60	49	36
6	37	36	73	61	102	68	78	109	72	66	48	36
7	38	33	64	61	74	67	77	109	66	61	54	36
8	37	32	61	59	66	67	77	98	66	68	53	56
9	38	31	59	57	63	66	76	94	64	63	47	43
10	38	36	59	56	60	65	75	89	61	57	47	56
11	37	39	58	57	110	66	75	86	58	56	49	38
12	36	33	56	56	220	72	75	89	58	44	46	36
13	35	32	55	56	110	66	74	87	56	40	44	36
14	35	31	53	55	90	64	73	81	56	38	44	36
15	34	31	54	54	78	62	74	78	61	38	44	36
16	34	31	53	53	74	61	87	89	207	47	45	35
17	33	31	53	54	72	61	76	98	88	44	43	35
18	33	31	52	53	70	59	74	103	79	36	43	35
19	35	31	55	53	68	58	73	79	73	34	43	34
20	35	29	53	50	67	58	72	76	71	32	41	33
21	33	30	71	49	66	57	71	77	70	34	41	34
22	53	30	82	49	64	56	71	113	70	44	40	34
23	42	29	66	49	90	65	69	103	69	54	40	33
24	37	29	64	49	100	67	69	78	67	45	41	38
25	36	29	62	49	90	62	68	74	67	46	50	33
26	37	29	61	48	88	57	67	71	65	80	57	35
27	35	29	64	48	84	57	66	69	65	62	40	173
28	35	80	69	47	78	59	67	75	64	50	39	56
29	36	248	69	47	---	69	66	68	72	49	38	45
30	33	93	67	45	---	66	67	66	68	49	49	41
31	32	---	64	44	---	70	---	67	---	148	42	---
TOTAL	1148	1296	1943	1675	2313	2289	2187	2809	2204	1699	1435	1290
MEAN	37.0	43.2	62.7	54.0	82.6	73.8	72.9	90.6	73.5	54.8	46.3	43.0
MAX	53	248	82	64	220	368	87	190	207	148	63	173
MIN	32	29	52	44	40	56	66	65	56	32	38	33
CFSM	.68	.80	1.16	1.00	1.52	1.36	1.35	1.67	1.36	1.01	.85	.79
IN.	.79	.89	1.33	1.15	1.59	1.57	1.50	1.93	1.51	1.17	.98	.89

CAL YR 1984	TOTAL	38709	MEAN	106	MAX	478	MIN	29	CFSM	1.96	IN.	26.57
WTR YR 1985	TOTAL	22288	MEAN	61.1	MAX	368	MIN	29	CFSM	1.13	IN.	15.30

## PENNS CREEK BASIN

129

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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. 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.--Estimated daily discharges: Jan. 11 to Feb. 12 and Feb. 17-22. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 438 ft<sup>3</sup>/s, 19.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft<sup>3</sup>/s June 23, 1972, gage height, 14.85 ft, from flood-mark in gage well, from rating curve extended above 6,800 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 7.0 ft<sup>3</sup>/s Sept. 27, 1932, gage height, 0.85 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 13	0830	*2,400	*5.30				

Minimum discharge, 33 ft<sup>3</sup>/s Nov. 22, gage height, 1.04 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	92	550	616	170	605	2050	250	270	122	227	69
2	156	89	448	625	170	565	1810	344	260	120	140	64
3	134	85	430	565	160	511	1560	919	230	119	104	60
4	121	84	495	529	170	468	1410	682	232	115	91	57
5	116	115	407	520	160	463	1170	573	302	106	85	54
6	113	125	409	479	160	433	1040	521	314	112	79	51
7	110	118	374	456	160	384	945	499	240	122	80	51
8	110	104	354	435	170	377	997	450	216	117	151	57
9	112	96	322	370	170	367	908	404	216	162	142	71
10	118	102	307	339	160	342	800	379	223	150	103	137
11	114	115	510	310	180	328	756	354	197	131	90	163
12	107	121	554	290	250	434	706	336	196	114	84	98
13	100	111	535	250	1560	485	650	351	195	107	76	73
14	97	98	520	220	966	398	609	312	180	114	77	65
15	95	98	524	250	695	374	574	295	172	146	72	61
16	94	99	494	210	589	354	546	298	219	140	71	58
17	94	92	466	190	480	348	506	298	251	111	75	56
18	96	87	444	170	400	338	464	528	243	98	71	54
19	98	86	438	160	380	321	439	366	207	93	68	52
20	100	83	522	150	410	320	422	306	181	89	67	51
21	103	85	501	140	390	306	394	281	186	86	67	50
22	130	79	791	130	370	289	371	264	176	88	63	49
23	166	82	753	120	548	446	351	256	164	84	60	48
24	151	90	705	130	876	1150	339	251	153	78	59	49
25	118	81	681	140	983	1130	329	235	142	81	85	49
26	107	77	593	150	870	968	318	222	134	112	87	47
27	104	75	571	140	772	865	300	211	129	143	82	84
28	102	125	575	140	668	796	286	229	129	116	72	99
29	100	1640	768	140	---	1230	274	249	133	91	67	83
30	100	807	703	150	---	1260	259	215	127	83	68	63
31	97	---	643	160	---	1410	---	231	---	179	70	---
TOTAL	3506	5141	16387	8674	13037	18065	21583	11109	6017	3529	2733	2023
MEAN	113	171	529	280	466	583	719	358	201	114	88.2	67.4
MAX	166	1640	791	625	1560	1410	2050	919	314	179	227	163
MIN	94	75	307	120	160	289	259	211	127	78	59	47
CFSM	.38	.57	1.76	.93	1.55	1.94	2.39	1.19	.67	.38	.29	.22
IN.	.43	.64	2.03	1.07	1.61	2.23	2.67	1.37	.74	.44	.34	.25

CAL YR 1984 TOTAL 232172 MEAN 634 MAX 10000 MIN 75 CFSM 2.11 IN. 28.69  
WTR YR 1985 TOTAL 111804 MEAN 306 MAX 2050 MIN 47 CFSM 1.02 IN. 13.82

## EAST MAHANTANGO CREEK BASIN

01555500 EAST MAHANTANGO CREEK NEAR DALMATIA, PA

LOCATION.--Lat 40°36'40", long 76°54'44", Northumberland County, Hydrologic Unit 02050301, on right bank at highway bridge, 2 mi upstream from mouth, and 3.2 mi south of Dalmatia.

DRAINAGE AREA.--162 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1945 published as Mahantango Creek East near Dalmatia.

REVISED RECORDS.--WSP 891: 1933(M). WSP 1302: 1930(M), 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 401.22 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1929 to Feb. 11, 1930, nonrecording gage, and Feb. 12, 1930 to Nov. 18, 1973, recording gage at present site and datum. Nov. 19, 1973 to June 18, 1974, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 11. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 225 ft<sup>3</sup>/s, 18.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,900 ft<sup>3</sup>/s June 22, 1972, gage height, 26.62 ft, from flood-mark in gage shelter, from rating curve extended above 5,100 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; minimum, 1.3 ft<sup>3</sup>/s Oct. 7, 1957, Nov. 3, 1964; minimum gage height, 0.84 ft Sept. 21, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	1200	3,140	6.89	Feb. 12	2030	*5,220	*8.95

Minimum discharge, 15 ft<sup>3</sup>/s Nov. 25, 26, Sept. 21; minimum gage height, 1.19 ft Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	24	533	150	65	237	384	70	134	66	244	32
2	29	22	338	151	70	221	402	105	114	61	114	26
3	27	21	261	141	75	192	351	682	90	61	74	28
4	23	22	242	133	60	173	312	646	111	57	58	21
5	21	54	182	138	55	172	262	450	116	52	51	18
6	20	108	224	127	65	155	254	363	133	49	41	17
7	19	60	260	123	60	135	230	311	107	54	38	20
8	18	41	218	120	60	133	242	253	94	50	68	23
9	19	39	195	100	65	130	216	213	93	56	59	55
10	19	33	175	97	80	118	195	186	85	56	43	64
11	20	41	182	100	130	114	186	168	70	45	38	101
12	20	45	171	110	1080	134	176	155	68	40	70	52
13	18	39	170	115	2020	147	164	159	64	32	44	42
14	18	36	153	110	785	124	157	140	59	33	31	36
15	18	31	143	100	474	113	150	122	57	38	27	28
16	18	29	134	105	352	104	147	125	439	46	34	30
17	20	27	126	90	287	104	148	162	451	35	31	25
18	20	26	119	80	243	101	130	265	315	30	27	22
19	20	28	118	65	225	91	124	207	217	30	27	20
20	27	27	127	50	220	93	119	158	166	23	31	20
21	30	26	130	45	204	89	112	136	145	22	34	16
22	31	24	505	44	213	84	104	121	118	30	25	17
23	97	28	476	50	309	94	99	113	104	37	23	17
24	62	32	359	60	408	137	94	113	95	30	20	17
25	39	29	295	70	399	146	91	101	80	21	22	17
26	37	26	226	65	352	131	90	94	73	31	36	23
27	29	25	201	62	317	123	85	85	66	76	49	154
28	32	32	201	58	266	125	81	86	66	49	32	382
29	29	2070	199	56	---	157	80	97	71	35	25	172
30	29	1060	182	55	---	167	72	83	69	29	23	113
31	27	---	160	60	---	193	---	77	---	196	27	---
TOTAL	861	4105	7005	2830	8939	4237	5257	6046	3870	1470	1466	1608
MEAN	27.8	137	226	91.3	319	137	175	195	129	47.4	47.3	53.6
MAX	97	2070	533	151	2020	237	402	682	451	196	244	382
MIN	18	21	118	44	55	84	72	70	57	21	20	16
CFSM	.17	.85	1.40	.56	1.97	.85	1.08	1.20	.80	.29	.29	.33
IN.	.20	.94	1.61	.65	2.05	.97	1.21	1.39	.89	.34	.34	.37

CAL YR 1984 TOTAL 101073 MEAN 276 MAX 3820 MIN 17 CFSM 1.70 IN. 23.21  
WTR YR 1985 TOTAL 47694 MEAN 131 MAX 2070 MIN 16 CFSM .81 IN. 10.95



## JUNIATA RIVER BASIN

131

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 at Williamsburg, 2.5 mi upstream from Clover Creek.

DRAINAGE AREA.--291 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1916 to current year. Monthly figures only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WDR PA-71-1: 1954(M), 1960(M), 1961(M).

GAGE.--Water-stage recorder. Datum of gage is 831.78 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad benchmark). Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Sept. 6-12, and 19-24. 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.

AVERAGE DISCHARGE.--69 years, 395 ft<sup>3</sup>/s, 18.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 18.58 ft, from floodmark in gage shelter, from rating curve extended above 14,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 13 ft<sup>3</sup>/s July 24, 1934, gage height, 0.97 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of 19.1 ft, from floodmark, discharge, about 35,500 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 29	1445	*5,310	*10.59	Apr. 1	0530	4,890	10.17

Minimum discharge, 57 ft<sup>3</sup>/s Sept. 29, 30, gage height, 2.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	100	430	419	165	658	4090	200	443	108	84	68
2	129	97	361	446	168	580	2310	527	240	114	80	66
3	101	93	399	382	160	496	1710	2110	208	114	78	66
4	94	94	416	361	132	443	1410	1090	198	113	76	66
5	91	288	336	365	146	444	1110	758	194	106	74	64
6	88	181	350	328	156	383	960	595	183	137	74	64
7	87	142	317	314	154	342	870	501	162	121	75	67
8	89	125	281	307	132	348	989	433	156	193	100	74
9	94	119	274	250	137	335	861	363	157	182	81	80
10	92	132	270	228	142	307	806	328	147	335	75	84
11	90	168	395	249	147	300	777	301	136	191	73	74
12	89	159	491	235	1010	802	695	327	139	143	73	70
13	88	135	457	218	2660	694	637	362	139	127	71	67
14	86	126	478	231	1070	611	596	279	137	122	71	66
15	82	119	560	222	705	543	559	264	131	164	80	66
16	87	119	487	180	526	462	524	280	309	132	79	65
17	89	112	452	204	457	428	454	354	457	113	76	66
18	503	109	408	214	396	392	399	445	227	105	71	66
19	137	118	599	205	399	347	365	293	184	101	69	64
20	129	113	778	139	403	336	343	254	171	98	70	63
21	109	105	874	120	404	304	317	233	173	97	70	62
22	116	99	1880	175	510	281	300	219	152	124	66	60
23	169	97	1110	190	1390	1350	286	237	155	121	65	61
24	134	100	851	182	2290	1930	277	235	140	101	66	63
25	123	99	790	183	2170	1650	275	200	131	96	115	64
26	149	97	562	175	1410	1140	254	183	122	104	114	60
27	127	96	529	165	1040	898	236	172	118	120	86	64
28	112	220	535	166	783	761	233	221	114	99	74	60
29	124	1130	494	164	---	3410	225	234	114	90	70	59
30	123	489	485	154	---	2570	208	184	111	88	67	59
31	108	---	429	158	---	3240	---	204	---	87	72	---
TOTAL	3780	5181	17078	7329	19262	26785	23076	12386	5448	3946	2395	1978
MEAN	122	173	551	236	688	864	769	400	182	127	77.3	65.9
MAX	503	1130	1880	446	2660	3410	4090	2110	457	335	115	84
MIN	82	93	270	120	132	281	208	172	111	87	65	59
CFSM	.42	.59	1.89	.81	2.36	2.97	2.64	1.37	.63	.44	.27	.23
IN.	.48	.66	2.18	.94	2.46	3.42	2.95	1.58	.70	.50	.31	.25

CAL YR 1984	TOTAL	162109	MEAN	443	MAX	7850	MIN	82	CFSM	1.52	IN.	20.72
WTR YR 1985	TOTAL	128644	MEAN	352	MAX	4090	MIN	59	CFSM	1.21	IN.	16.45

## 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 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 5 to Feb. 11, Feb. 16, and Apr. 17 to May 12. Records good except those for estimated daily discharges, which are fair. Prior to Nov. 30, 1952 daily discharges were affected by diversion by West Virginia Pulp and Paper Co. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 76.3 ft<sup>3</sup>/s, 23.49 in/yr, adjusted for diversion from October 1950 to November 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft<sup>3</sup>/s Nov. 25, 1950, gage height, 7.5 ft, from floodmarks, at site and datum then in use, from rating curve extended above 2,100 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 1.4 ft<sup>3</sup>/s Sept. 12, 13, 1973.

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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 940 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 31	2130	*884	*2.98				

Minimum discharge, 4.1 ft<sup>3</sup>/s Sept. 20, 22, 26, 30, gage height -0.04 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	8.5	58	132	24	119	665	75	67	15	9.1	6.1
2	12	8.5	47	128	23	104	399	293	36	15	8.4	5.9
3	9.1	7.7	98	100	22	87	324	233	32	17	7.9	5.6
4	8.7	12	79	91	21	78	268	119	30	18	7.9	4.9
5	8.2	48	64	86	22	82	218	103	36	15	7.5	4.6
6	7.8	22	63	76	21	66	188	96	31	18	7.6	4.9
7	7.7	15	57	64	21	59	170	86	26	17	9.0	5.3
8	8.2	13	84	56	20	61	177	75	25	22	12	5.6
9	9.0	11	46	50	21	57	153	63	31	34	8.3	6.7
10	8.5	17	49	46	20	54	136	55	27	36	7.2	8.0
11	7.8	25	87	44	18	59	124	53	23	24	7.3	8.0
12	7.7	20	89	42	220	325	109	50	31	17	7.1	5.9
13	7.3	17	103	40	261	212	97	47	25	16	5.9	5.3
14	7.2	15	106	37	131	159	89	44	24	26	6.3	5.3
15	7.2	14	128	35	99	127	83	44	22	31	5.9	4.6
16	7.3	14	110	33	80	105	74	46	29	23	7.6	4.6
17	7.5	12	101	31	63	94	67	46	30	18	7.3	4.6
18	9.5	11	85	29	67	82	62	46	26	16	5.9	4.6
19	12	12	164	27	55	72	60	39	22	15	5.9	4.6
20	13	11	175	22	74	68	55	36	21	14	5.9	4.6
21	9.2	9.7	201	19	75	60	51	35	21	14	5.9	4.9
22	16	13	309	21	78	56	48	33	19	15	5.3	4.3
23	18	13	227	21	242	278	46	35	20	13	4.6	4.6
24	12	17	180	20	345	352	44	33	18	11	5.6	5.6
25	10	11	151	21	300	271	40	30	17	11	25	4.9
26	9.9	11	105	19	228	192	38	29	16	14	16	4.3
27	9.5	8.8	96	19	181	157	37	28	16	16	12	5.6
28	9.0	94	116	19	141	140	36	56	16	11	7.6	5.3
29	11	166	110	19	---	580	34	39	16	10	6.4	4.6
30	10	60	138	22	---	385	40	30	15	9.6	6.5	4.3
31	8.9	---	122	24	---	585	---	47	---	9.3	7.1	---
TOTAL	306.2	717.2	3548	1393	2873	5126	3932	2044	768	540.9	252.0	158.1
MEAN	9.88	23.9	114	44.9	103	165	131	65.9	25.6	17.4	8.13	5.27
MAX	18	166	309	132	345	585	665	293	67	36	25	8.0
MIN	7.2	7.7	46	19	18	54	34	28	15	9.3	4.6	4.3
CFSM	.22	.54	2.59	1.02	2.34	3.74	2.97	1.49	.58	.39	.18	.12
IN.	.26	.60	2.99	1.18	2.42	4.32	3.92	1.72	.65	.46	.21	.13

CAL YR 1984 TOTAL 29667.0 MEAN 81.1 MAX 1290 MIN 7.2 CFSM 1.84 IN. 25.03  
WTR YR 1985 TOTAL 21658.4 MEAN 59.3 MAX 665 MIN 4.3 CFSM 1.34 IN. 18.27

## JUNIATA RIVER BASIN

133

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 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 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Jan. 21. Records good. Several measurements of water temperature were made during the year. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--47 years, 374 ft<sup>3</sup>/s, 23.09 in/yr.

EXTREMES PERIOD OF RECORD.--Maximum discharge, 28,600 ft<sup>3</sup>/s June 23, 1972, gage height, 16.98 ft, from rating curve extended above 5,600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 45 ft<sup>3</sup>/s Sept. 26, 1943, Oct. 4, 1949; minimum gage height, 1.41 ft Sept. 26, 1943.

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 ft<sup>3</sup>/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 29	1200	*4,210	*6.81	Apr. 1	0230	3,870	6.55

Minimum discharge, 69 ft<sup>3</sup>/s Sept. 22, 23, gage height, 1.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	97	328	539	155	611	3030	215	528	109	99	85
2	106	95	280	561	154	545	1990	603	316	109	95	83
3	95	96	377	478	146	478	1610	1690	288	113	92	80
4	95	95	398	452	125	437	1360	979	268	126	91	80
5	93	236	337	444	137	443	1120	743	278	109	91	79
6	93	157	344	393	144	385	952	623	250	128	91	77
7	94	119	309	373	141	344	843	559	218	111	92	78
8	94	106	276	358	131	345	937	479	208	173	118	82
9	95	101	262	299	131	324	830	413	208	222	96	97
10	95	115	257	265	131	299	747	371	189	232	92	98
11	93	141	388	291	133	292	697	343	170	192	90	89
12	93	137	418	275	839	899	640	341	181	139	89	81
13	93	126	427	258	1540	725	599	329	170	127	87	78
14	93	112	483	262	789	610	566	280	171	138	90	76
15	93	107	563	248	563	536	537	266	161	183	92	75
16	93	112	511	205	448	470	515	274	308	141	94	75
17	93	112	484	220	398	443	470	348	351	123	93	75
18	115	107	442	225	355	407	425	392	232	114	87	75
19	96	110	604	218	348	366	398	280	189	111	86	74
20	97	107	680	161	341	346	376	246	178	109	87	74
21	95	104	729	130	342	323	347	230	172	108	86	73
22	98	100	1160	188	416	301	325	221	155	114	84	72
23	131	99	888	191	925	951	309	232	161	109	83	73
24	101	100	741	184	1400	1380	294	226	144	105	83	76
25	95	100	676	184	1320	1240	286	198	135	104	120	76
26	98	98	538	174	1060	942	273	183	127	111	123	72
27	98	98	511	163	871	781	252	175	123	119	99	78
28	98	211	546	161	703	692	242	317	119	105	91	75
29	98	676	521	159	---	2710	233	302	118	101	87	73
30	101	339	567	153	---	1890	223	216	113	100	87	71
31	98	---	528	156	---	2370	---	261	---	99	89	---
TOTAL	3053	4313	15573	8368	14186	22885	21426	12335	6229	3984	2884	2350
MEAN	98.5	144	502	270	507	738	714	398	208	129	93.0	78.3
MAX	131	676	1160	561	1540	2710	3030	1690	528	232	123	98
MIN	93	95	257	130	125	292	223	175	113	99	83	71
CFSM	.45	.65	2.28	1.23	2.30	3.35	3.25	1.81	.95	.59	.42	.36
IN.	.52	.73	2.63	1.41	2.40	3.87	3.62	2.09	1.05	.67	.49	.40

CAL YR 1984	TOTAL	142850	MEAN	390	MAX	5170	MIN	93	CFSM	1.77	IN.	24.15
WTR YR 1985	TOTAL	117586	MEAN	322	MAX	3030	MIN	71	CFSM	1.46	IN.	19.88

## 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 at Huntingdon, and 0.8 mi upstream from Standing Stone Creek.

DRAINAGE AREA.--816 mi<sup>2</sup>.

PERIOD OF RECORD.--September 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.--Estimated daily discharges: Jan. 21 to Feb. 10. Records good except those for estimated daily discharges, which are fair. National Weather Service satellite telemeter and U.S. Army Corps of Engineers landline telemeter at station.

AVERAGE DISCHARGE.--44 years, 1,095 ft<sup>3</sup>/s, 18.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft<sup>3</sup>/s, June 23, 1972, gage height, 20.03 ft, from rating curve extended above 22,000 ft<sup>3</sup>/s on basis of computation of peak flow over dam, slope-conveyance study, and Pennsylvania Department of Environmental Resources step-backwater study; minimum discharge recorded, 14 ft<sup>3</sup>/s Feb. 8, 1948, Aug. 2, 1954; minimum gage height recorded, 0.27 ft Feb. 8, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.87 ft, from floodmark, discharge 81,000 ft<sup>3</sup>/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 13	0315	7,610	6.92	Apr. 1	0830	*10,600	*8.36
Mar. 29	1615	10,300	8.25	May 3	0900	6,070	6.08

Minimum discharge, 236 ft<sup>3</sup>/s, Aug. 22, 23, 24, gage height, 1.36 ft; minimum gage height 1.33 ft Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	336	1100	1300	440	1760	9530	668	1300	379	306	271
2	440	324	949	1390	450	1570	6230	1080	962	385	290	262
3	342	316	1010	1220	440	1380	4580	5050	781	404	277	257
4	312	319	1290	1160	390	1250	4060	3000	748	408	273	253
5	306	606	1020	1150	410	1230	3180	2190	732	395	266	272
6	300	641	1010	965	430	1120	2740	1790	710	447	260	286
7	296	468	935	817	450	1000	2390	1570	622	414	264	270
8	299	407	834	792	430	976	2770	1360	583	602	313	294
9	309	377	804	795	420	962	2410	1180	594	658	297	294
10	318	373	780	747	440	891	2230	1060	576	777	265	312
11	302	413	1030	757	444	857	2120	984	522	716	257	320
12	296	389	1290	761	1140	1810	1940	936	522	486	256	300
13	292	433	1230	719	5980	1950	1800	1050	516	475	253	279
14	287	406	1290	746	2710	1590	1690	874	505	421	260	264
15	284	387	1490	710	1820	1440	1600	804	500	542	261	262
16	285	381	1390	631	1420	1280	1520	841	774	482	277	259
17	295	374	1300	652	1260	1190	1400	888	1180	404	280	257
18	634	365	1210	666	1110	1110	1250	1280	734	365	258	256
19	444	366	1270	662	1080	1020	1170	919	605	350	251	252
20	363	371	2100	547	1080	964	1100	779	576	341	255	250
21	344	355	1800	360	1080	911	1030	719	564	334	253	249
22	339	343	4040	480	1160	845	969	685	517	353	242	241
23	447	334	2820	550	2350	2010	925	678	509	387	242	241
24	414	336	2270	540	4260	4500	912	747	473	348	242	247
25	375	339	2060	520	4250	3980	882	647	444	319	326	251
26	367	334	1650	500	3210	2920	850	598	418	341	450	248
27	398	331	1470	440	2520	2370	793	561	405	397	333	316
28	358	495	1520	400	2040	2070	759	696	397	368	290	300
29	351	2680	1490	380	---	6930	731	960	398	318	267	261
30	381	1400	1440	400	---	6240	699	665	388	308	261	252
31	358	---	1360	430	---	6850	---	674	---	307	267	---
TOTAL	10886	14999	45252	22187	43214	64976	64260	35933	18555	13231	8592	8076
MEAN	351	500	1460	716	1543	2096	2142	1159	619	427	277	269
MAX	634	2680	4040	1390	5980	6930	9530	5050	1300	777	450	320
MIN	284	316	780	360	390	845	699	561	388	307	242	241
CFSM	.43	.61	1.79	.88	1.89	2.57	2.62	1.42	.76	.52	.34	.33
IN.	.50	.68	2.06	1.01	1.97	2.96	2.93	1.64	.85	.60	.39	.37

CAL YR 1984 TOTAL 437413 MEAN 1195 MAX 20500 MIN 284 CFSM 1.46 IN. 19.94  
WTR YR 1985 TOTAL 350161 MEAN 959 MAX 9530 MIN 242 CFSM 1.18 IN. 15.96

## JUNIATA RIVER BASIN

135

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, 0.8 mi southeast of Belden, 3.8 mi north of Bedford, and 4.3 mi above mouth.

DRAINAGE AREA.--172 mi<sup>2</sup>.

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

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.--Estimated daily discharges: Jan. 11 to Feb. 8 and June 16-26. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 228 ft<sup>3</sup>/s, 18.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft<sup>3</sup>/s July 20, 1977, gage height, 14.15 ft, from rating curve extended above 9,200 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 12.67 ft and 13.03 ft; minimum, 2.6 ft<sup>3</sup>/s Sept. 6, 1964, gage height 1.03 ft; minimum gage height, 0.92 ft Jan. 8, 1954, result of freeze-up.

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 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	2245	*3,640	*8.85	Apr. 1	0400	3,500	8.65
Feb. 25	0445	2,430	6.89				

Minimum discharge, 6.1 ft<sup>3</sup>/s Sept. 17, 23, gage height 1.15 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	31	326	234	54	407	2960	73	81	26	34	15
2	40	29	258	246	52	336	1430	171	62	27	30	13
3	29	27	279	214	50	276	946	1160	57	31	26	14
4	25	29	270	204	50	242	787	715	55	34	25	12
5	23	117	222	210	54	231	624	465	56	31	23	11
6	22	70	225	178	56	198	525	329	54	38	22	11
7	21	52	180	163	62	168	429	265	48	30	21	11
8	21	45	160	151	56	179	401	217	47	29	23	10
9	23	41	136	115	54	171	358	174	45	119	21	9.9
10	23	49	133	105	55	150	325	146	44	77	19	10
11	22	78	224	100	58	147	313	128	41	63	19	9.8
12	22	74	303	96	987	357	302	124	42	48	17	8.9
13	21	60	289	94	2040	386	288	173	42	43	16	8.6
14	21	56	329	92	907	371	281	127	41	39	16	10
15	22	51	413	105	569	320	263	113	39	76	15	10
16	23	50	355	100	439	267	246	122	46	56	15	9.9
17	25	46	320	95	301	236	216	138	59	44	16	7.2
18	27	44	278	90	283	205	190	189	47	40	16	9.7
19	26	48	511	85	241	167	169	139	40	36	15	7.9
20	28	47	557	80	239	157	151	128	35	34	15	7.9
21	27	41	691	64	239	140	136	113	31	34	15	7.2
22	27	37	1170	66	441	120	126	99	29	66	13	7.8
23	36	35	795	72	1390	1040	117	101	29	71	12	8.6
24	41	37	577	70	2050	1390	139	101	29	49	12	8.6
25	39	35	550	65	2100	1160	122	80	28	43	25	8.1
26	35	34	336	65	1140	788	108	71	28	47	29	9.9
27	34	33	312	62	744	559	97	64	28	58	26	11
28	32	201	304	60	512	434	90	68	28	43	17	7.9
29	36	967	273	56	---	870	83	82	28	38	15	10
30	38	424	262	56	---	1420	77	63	26	36	14	10
31	34	---	233	56	---	2320	---	74	---	34	15	---
TOTAL	877	2888	11271	3449	15223	15212	12299	6012	1265	1440	597	295.9
MEAN	28.3	96.3	364	111	544	491	410	194	42.2	46.5	19.3	9.86
MAX	41	967	1170	246	2100	2320	2960	1160	81	119	34	15
MIN	21	27	133	56	50	120	77	63	26	26	12	7.2
CFSM	.16	.56	2.12	.65	3.16	2.85	2.38	1.13	.25	.27	.11	.06
IN.	.19	.62	2.44	.75	3.29	3.29	2.66	1.30	.27	.31	.13	.06

CAL YR 1984 TOTAL 87654 MEAN 239 MAX 4840 MIN 21 CFSM 1.39 IN. 18.96  
WTR YR 1985 TOTAL 70828.9 MEAN 194 MAX 2960 MIN 7.2 CFSM 1.13 IN. 15.32



## JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA

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 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1911 to current year. Monthly discharge only for some periods, 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.--Estimated daily discharges: Jan. 10 to Feb. 13, June 7 to Sept. 17, and Sept. 27-30. 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.

AVERAGE DISCHARGE.--74 years, 917 ft<sup>3</sup>/s, 16.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,500 ft<sup>3</sup>/s, Mar. 18, 1936, gage height, 24.54 ft, from flood-mark in gage shelter, from rating curve extended above 21,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 39 ft<sup>3</sup>/s, Sept. 6, 7, 12, 1966, gage height, 0.84 ft.

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 ft<sup>3</sup>/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 13	1445	*22,400	*14.59	Apr. 1	1330	11,400	9.68

Minimum daily discharge, 70 ft<sup>3</sup>/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	171	1570	732	230	1840	10300	382	374	150	110	92
2	154	170	1180	756	250	1410	7170	434	413	150	105	90
3	160	164	1030	682	240	1260	4440	3820	313	155	105	88
4	165	158	950	634	240	1040	3560	4270	268	155	102	88
5	145	172	920	634	230	980	2990	2630	253	160	100	86
6	135	242	760	634	230	872	2430	1780	242	160	98	84
7	131	314	732	595	230	750	2000	1380	225	160	100	84
8	128	223	835	581	220	707	1790	1080	210	165	105	88
9	129	195	667	549	230	659	1580	870	200	175	110	98
10	131	189	583	350	240	673	1430	712	190	190	105	96
11	131	193	615	320	290	582	1320	647	180	240	100	92
12	131	211	824	300	900	637	1160	618	180	215	98	90
13	131	272	983	300	16000	1040	1100	697	175	195	98	86
14	131	229	931	350	17800	969	1050	649	175	190	98	82
15	131	209	1000	390	11800	920	967	505	175	200	100	80
16	131	198	1040	340	8060	823	921	467	226	190	102	78
17	133	189	902	310	5260	708	905	552	308	180	105	76
18	134	187	887	320	2260	673	742	689	389	165	102	74
19	135	190	851	310	1050	702	692	719	258	150	100	74
20	140	190	1280	290	965	550	649	525	240	135	101	76
21	143	192	1460	270	1060	541	611	455	225	130	101	76
22	144	182	2960	260	1060	535	574	410	210	120	99	76
23	155	165	2800	250	2560	674	590	413	205	115	99	77
24	160	162	2070	240	5410	3590	738	489	200	110	96	77
25	168	167	1740	240	5770	3830	665	502	190	110	100	78
26	180	166	1540	250	4700	3090	606	382	180	120	105	78
27	181	164	1160	270	3210	2330	545	318	175	120	100	84
28	174	250	1060	270	2340	1800	490	325	170	115	96	74
29	171	3120	991	260	---	2020	450	427	160	110	94	72
30	171	2610	936	250	---	4790	411	454	155	110	94	70
31	171	---	876	240	---	7310	---	370	---	110	92	---
TOTAL	4567	11244	36133	12177	92835	48305	52876	27971	6864	4750	3120	2464
MEAN	147	375	1166	393	3316	1558	1763	902	229	153	101	82.1
MAX	181	3120	2960	756	17800	7310	10300	4270	413	240	110	98
MIN	128	158	583	240	220	535	411	318	155	110	92	70
CFSM	.19	.50	1.54	.52	4.39	2.06	2.33	1.19	.30	.20	.13	.11
IN.	.22	.55	1.78	.60	4.57	2.38	2.60	1.38	.34	.23	.15	.12

CAL YR 1984 TOTAL 379852 MEAN 1038 MAX 21400 MIN 128 CFSM 1.37 IN. 18.69  
WTR YR 1985 TOTAL 303306 MEAN 831 MAX 17800 MIN 70 CFSM 1.10 IN. 14.92

## JUNIATA RIVER BASIN

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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 mi<sup>2</sup>.

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, 589,700 acre-ft March 7, 1979, elevation, 794.81 ft; minimum 2,240 acre-ft March 2, 1973, elevation, 628.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 524,880 acre-ft May 4, elevation, 787.28 ft; minimum, 501,050 acre-ft Sept. 26, elevation, 784.50 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
Sept. 30 .....	785.85	512,700	--
Oct. 31 .....	785.76	511,910	- 12.8
Nov. 30 .....	786.18	515,530	+ 60.8
Dec. 31 .....	786.00	514,000	- 24.9
CAL YR 1984 .....	--	--	- 2.3
Jan. 31 .....	785.52	509,820	- 68.0
Feb. 28 .....	786.20	515,700	+106.
Mar. 31 .....	786.74	520,290	+ 74.6
Apr. 30 .....	786.15	515,280	- 84.2
May 31 .....	786.08	514,680	- 9.8
June 30 .....	786.09	514,760	+ 1.3
July 31 .....	786.03	514,260	- 8.1
Aug. 31 .....	785.47	509,390	- 79.2
Sept. 30 .....	784.50	501,050	-140.
WTR YR 1985 .....	--	--	- 16.1

## 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 mi downstream from Raystown Dam, 4 mi south of Huntingdon, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--960 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1946 to current year. Published as "near Huntingdon" prior to Oct. 1, 1969.

GAGE.--Water-stage recorder. Datum of gage is 597.36 ft above National Geodetic Vertical Datum of 1929 (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 at Raystown Lake (station 01563100) 1 mi upstream. National Weather Service satellite telemeter and U.S. Army Corps of Engineers landline telemeter at station.

AVERAGE DISCHARGE.--39 years, 1,143 ft<sup>3</sup>/s, 16.17 in/yr, adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft<sup>3</sup>/s Nov. 25, 1950, gage height, 16.74 ft, site and datum then in use, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of computation of flow over dam at peak flow; maximum gage height at present site and datum, 18.54 ft Apr. 3, 1970; minimum daily discharge, 5.0 ft<sup>3</sup>/s Oct. 30, 1957, May 18, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 31.0 ft, discharge, 87,000 ft<sup>3</sup>/s, at previous site and datum, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft<sup>3</sup>/s Apr. 1, gage height, 13.27 ft; minimum daily, 189 ft<sup>3</sup>/s many days during September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	197	1950	850	485	2580	11400	466	490	238	212	192
2	204	199	1950	854	485	2300	10900	470	490	212	212	192
3	195	203	1950	851	485	1390	7360	1810	489	212	211	192
4	201	204	1380	849	485	1040	4390	4780	486	212	211	192
5	202	200	1060	850	485	1070	3670	4290	487	210	210	192
6	201	202	1270	849	485	1210	3310	2810	485	208	201	192
7	201	203	1460	850	485	1470	2790	2470	486	208	199	192
8	197	203	1250	850	485	1080	1680	1510	485	209	195	192
9	196	202	1050	849	485	709	1020	1000	485	208	195	190
10	196	200	1050	733	485	660	1020	1010	485	211	195	189
11	197	201	1050	650	485	660	1540	1010	398	212	195	189
12	196	205	1050	589	503	1040	2520	1020	342	212	194	189
13	197	204	1050	550	3480	1460	1950	1020	341	212	194	189
14	197	333	1060	549	7210	1460	1760	1020	297	212	194	189
15	198	442	1060	552	4690	1190	1590	697	267	212	193	189
16	199	447	1060	551	2580	763	1380	485	272	212	193	189
17	198	451	1060	551	2510	764	1030	665	267	212	193	189
18	197	451	1060	549	2390	769	1030	1000	396	212	192	189
19	197	451	1060	551	1910	776	1030	1000	490	212	192	189
20	196	472	1140	553	1160	776	744	682	490	212	192	189
21	197	504	1650	553	859	776	591	485	490	212	192	189
22	198	490	3790	551	859	776	591	485	489	211	192	189
23	201	490	4670	528	2030	999	591	694	487	211	192	189
24	202	490	3220	509	6190	3440	591	834	485	210	193	189
25	200	490	2800	509	7700	5020	771	485	485	211	192	189
26	197	479	2100	510	5110	3900	1010	485	485	213	192	189
27	195	470	1310	509	3220	3270	1020	485	485	212	192	192
28	196	482	1310	509	2770	2110	1020	675	358	212	192	189
29	199	485	1310	509	---	3170	668	713	282	212	192	189
30	198	1280	1310	479	---	6100	466	490	282	212	192	189
31	194	---	1050	472	---	8640	---	490	---	212	192	---
TOTAL	6160	11330	49540	19668	60506	61368	69433	35536	12756	6576	6086	5698
MEAN	199	378	1598	634	2161	1980	2314	1146	425	212	196	190
MAX	218	1280	4670	854	7700	8640	11400	4780	490	238	212	192
MIN	194	197	1050	472	485	660	466	466	267	208	192	189
MEAN†	186	439	1573	566	2267	2055	2230	1136	426	204	117	50
CFSM†	.19	.46	1.64	.59	2.36	2.14	2.32	1.18	.44	.21	.12	.05
IN.†	.22	.51	1.89	.68	2.46	2.47	2.59	1.36	.49	.24	.14	.06

CAL YR 1984 TOTAL 502977 MEAN 1374 MAX 14900 MIN 189 MEAN† 1372 CFSM† 1.43 IN.† 19.46  
WTR YR 1985 TOTAL 344657 MEAN 944 MAX 11400 MIN 189 MEAN† 928 CFSM† 0.97 IN.† 13.13

† Adjusted for change in contents in Raystown Lake.

## JUNIATA RIVER BASIN

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01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA.--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-50, 1956, 1962-75, 1981 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1980 to current year.

INSTRUMENTATION.--Temperature recorder since October 23, 1980.

REMARKS.--Published as "near Huntingdon" prior to October 1974. The temperature recorder measures the water temperature of the outflow from Raystown Lake. Interruptions in the record were due to malfunctions of the instrument. U.S. Army Corps of Engineers landline telemetry at station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: (water years 1981, 1983, 1985): Maximum 28.0°C Aug. 9, 1983; minimum, 0.0°C Jan. 20-22, 26, 27, Feb. 3-5, 7-10, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.5°C Aug. 15; minimum 0.0°C Jan. 20-22, 26, 27, Feb. 3-5, 7-10.

## TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.0	17.5	17.5	12.5	11.0	11.5	8.5	8.0	8.0	6.0	5.5	5.5
2	17.5	13.5	16.0	14.0	11.5	12.5	8.0	8.0	8.0	6.0	5.0	5.5
3	14.5	13.0	13.5	13.0	10.0	11.0	8.0	7.5	8.0	5.0	4.5	5.0
4	15.0	12.0	13.0	11.5	10.5	11.0	7.5	7.0	7.5	5.0	4.5	5.0
5	14.0	12.0	12.5	12.5	11.0	11.5	7.5	7.0	7.0	5.0	4.5	4.5
6	14.5	11.0	12.0	11.5	11.0	11.0	7.0	6.5	7.0	5.0	4.0	4.5
7	12.0	11.0	12.0	12.5	9.5	10.5	6.5	6.0	6.0	4.5	4.5	4.5
8	12.5	11.5	12.0	12.0	9.0	10.0	6.5	6.0	6.5	4.5	3.5	4.0
9	13.0	11.5	12.0	10.5	10.0	10.0	6.5	6.0	6.5	4.0	3.5	3.5
10	13.5	11.5	12.0	12.0	10.5	11.0	6.5	6.0	6.5	3.5	3.0	3.5
11	13.0	11.5	12.0	11.5	10.5	11.0	6.5	6.0	6.5	3.5	3.0	3.0
12	14.5	11.5	12.5	12.0	11.0	11.5	6.5	6.0	6.0	3.5	3.0	3.0
13	14.0	11.5	12.5	12.0	11.0	11.5	6.5	6.0	6.5	3.5	2.0	3.0
14	14.5	11.5	12.5	12.5	10.0	11.5	6.5	6.0	6.5	4.5	3.0	3.5
15	13.5	11.0	12.0	12.0	11.0	11.5	7.0	6.0	6.5	3.0	1.5	2.5
16	12.5	12.0	12.0	12.0	10.5	11.5	6.5	6.5	6.5	2.5	1.5	2.0
17	13.5	12.0	12.5	11.5	10.0	11.0	7.0	6.5	6.5	2.5	2.0	2.5
18	14.0	12.0	12.5	10.5	10.5	10.5	7.0	6.5	6.5	2.5	2.5	2.5
19	14.0	12.0	12.5	10.5	9.0	10.0	6.5	6.0	6.0	2.5	1.0	2.0
20	14.5	12.0	13.0	9.5	8.5	9.0	6.5	6.0	6.0	1.0	.0	.5
21	14.0	12.0	12.5	9.0	8.0	8.5	6.0	6.0	6.0	.0	.0	.0
22	13.0	12.0	12.5	9.0	7.5	8.0	6.0	5.5	6.0	1.5	.0	.5
23	12.5	10.5	12.0	9.0	7.5	8.0	6.0	5.0	5.5	2.0	.5	1.0
24	12.0	11.5	12.0	9.0	7.5	8.5	5.5	5.0	5.5	2.5	1.0	1.5
25	13.5	11.5	12.5	9.5	8.0	8.5	5.5	5.0	5.0	3.0	.5	1.5
26	13.0	12.0	12.5	9.5	8.0	8.5	5.0	4.5	4.5	1.0	.0	.5
27	14.5	12.0	13.0	9.0	8.0	8.5	5.0	4.5	5.0	1.5	.0	.5
28	14.5	12.5	13.0	9.5	8.5	9.0	6.0	5.0	5.5	2.5	1.0	1.0
29	13.0	11.5	12.5	8.5	7.5	8.0	7.0	6.0	6.5	2.5	.5	1.0
30	14.0	11.0	12.0	8.5	7.5	8.0	6.5	5.0	6.0	2.5	.5	1.0
31	13.0	11.5	12.0	---	---	---	5.5	5.0	5.0	1.0	.5	1.0
MONTH	18.0	10.5	12.5	14.0	7.5	10.0	8.5	4.5	6.5	6.0	.0	2.5

## JUNIATA RIVER BASIN

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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



## JUNIATA RIVER BASIN

141

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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.--No estimated daily discharges. Records good. Flow regulated since October 1972 by Raystown Lake (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 land-line telemeters at station.

AVERAGE DISCHARGE.--48 years, 2,509 ft<sup>3</sup>/s, 16.78 in/yr, adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft<sup>3</sup>/s June 23, 1972, gage height, 33.07 ft from rating curve extended above 39,000 ft<sup>3</sup>/s on basis of runoff comparison with upstream and downstream stations; minimum, 68 ft<sup>3</sup>/s Sept. 13, 1964, gage height, 1.15 ft; minimum daily, 101 ft<sup>3</sup>/s Aug. 21, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 38.2 ft from floodmark, discharge, 165,000 ft<sup>3</sup>/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,900 ft<sup>3</sup>/s Apr. 1, gage height, 14.71 ft; minimum 442 ft<sup>3</sup>/s Sept. 22, gage height, 2.20 ft; minimum daily, 453 ft<sup>3</sup>/s Sept. 22, 23, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	597	3740	2550	1090	4840	24300	1350	2200	708	570	512
2	778	573	3480	2640	1090	4530	20000	1770	1860	652	565	503
3	644	564	3460	2450	1070	3360	13800	9020	1510	665	545	493
4	587	569	3510	2340	971	2660	10100	8990	1430	683	535	479
5	576	854	2580	2330	966	2580	7990	7950	1350	675	526	490
6	570	992	2660	2220	1050	2680	7140	5360	1350	677	518	516
7	568	743	2800	2140	1040	2770	5990	4810	1260	722	579	512
8	562	574	2480	2100	971	2460	5560	3540	1200	704	617	540
9	569	626	2170	1900	959	1960	4240	2610	1210	974	594	571
10	579	629	2160	1710	989	1800	4020	2450	1210	1030	540	558
11	574	720	2610	1640	1010	1740	4160	2340	1020	1090	522	550
12	562	808	2970	1600	2360	2920	5280	2300	967	807	510	528
13	550	736	2840	1460	12200	4050	4370	2390	969	830	511	502
14	545	751	2820	1480	11700	3480	4080	2190	921	714	531	475
15	539	910	3010	1470	8030	3130	3720	1860	825	898	522	471
16	545	897	2940	1310	4600	2380	3490	1570	1240	817	528	470
17	556	896	2800	1350	4330	2270	2870	1890	1920	697	537	468
18	828	891	2680	1380	3960	2170	2680	2980	1400	635	526	463
19	760	892	2720	1380	3540	2060	2570	2400	1330	606	508	466
20	645	902	3890	1220	2760	2000	2280	1880	1230	610	509	464
21	621	936	3950	1010	2300	1930	1950	1460	1220	602	505	463
22	615	899	9050	1180	2440	1840	1850	1390	1080	607	500	453
23	721	886	9100	1280	4750	3140	1880	1500	1090	652	490	453
24	734	893	6520	1250	11100	9570	2320	1910	1070	614	497	458
25	657	901	5620	1240	13400	10800	2010	1330	1030	585	566	453
26	639	888	4590	1190	9730	9500	2230	1250	999	616	722	457
27	670	872	3280	1140	6520	7590	2130	1200	976	699	626	580
28	632	1280	3310	1120	5570	5330	2060	1420	893	664	550	566
29	621	5590	3320	1120	---	11700	1770	2170	756	599	524	498
30	639	3550	3200	1070	---	14900	1400	1370	747	574	512	468
31	621	---	2940	1040	---	17500	---	1340	---	567	502	---
TOTAL	19379	31819	113200	49310	120496	149640	158240	85990	36263	21973	16787	14880
MEAN	625	1061	3652	1591	4303	4827	5275	2774	1209	709	542	496
MAX	828	5590	9100	2640	13400	17500	24300	9020	2200	1090	722	580
MIN	539	564	2160	1010	959	1740	1400	1200	747	567	490	453
MEAN†	612	1122	3627	1523	4409	4902	5191	2764	1210	701	463	356
CFSM†	.30	.55	1.79	.75	2.17	2.41	2.56	1.36	.60	.35	.23	.18
IN.†	.35	.61	2.06	.86	2.26	2.78	2.86	1.57	.67	.39	.26	.20

CAL YR 1984 TOTAL 1075715 MEAN 2939 MAX 32000 MIN 539 MEAN† 2937 CFSM† 1.45 IN.† 19.70  
WTR YR 1985 TOTAL 817977 MEAN 2241 MAX 24300 MIN 453 MEAN† 2225 CFSM† 1.10 IN.† 14.88

† Adjusted for change in contents in Raystown Lake.

## JUNIATA RIVER BASIN

01564500 AUGHWICK 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 mi<sup>2</sup>, includes that of Three Springs Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 618.65 ft above National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Estimated daily discharges: Jan. 11-29. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 245 ft<sup>3</sup>/s, 16.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft<sup>3</sup>/s June 22, 1972, gage height, 19.20 ft, from rating curve extended above 7,100 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 0.8 ft<sup>3</sup>/s Sept. 2-4, 11-13, 1966, gage height, 1.74 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of about 19.3 ft, discharge, about 24,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	1000	2,670	8.48	Apr. 1	0700	2,960	8.85
Feb. 13	0200	*7,150	*13.04				

Minimum discharge, 5.8 ft<sup>3</sup>/s Sept. 20, gage height, 2.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	26	387	142	43	349	2500	120	110	18	18	8.6
2	38	25	276	138	48	314	1430	151	81	19	16	8.1
3	36	23	239	123	42	269	962	1270	66	20	14	8.4
4	26	22	256	113	43	233	809	832	59	20	13	7.7
5	22	34	186	117	44	219	687	556	59	20	11	7.3
6	19	39	181	111	42	195	588	421	57	18	11	7.1
7	18	39	152	101	40	164	495	341	53	18	10	6.8
8	17	30	128	102	40	154	425	275	46	21	11	7.9
9	18	26	137	76	43	151	387	225	47	23	11	9.5
10	19	26	134	63	47	136	359	193	44	27	10	10
11	19	31	225	62	60	126	320	168	39	41	9.7	9.0
12	19	35	292	66	579	153	290	149	36	28	9.2	8.7
13	18	36	276	66	4170	173	258	142	35	21	10	8.4
14	17	31	233	62	1250	136	281	124	34	18	9.6	7.7
15	17	27	210	54	719	124	263	110	34	20	8.8	7.3
16	18	26	186	53	495	112	247	106	68	20	8.3	7.0
17	18	25	166	51	413	107	239	152	98	24	8.8	7.2
18	25	25	153	51	330	105	211	373	66	20	9.9	7.2
19	20	26	165	50	295	97	198	203	46	16	9.8	7.1
20	23	28	279	45	322	95	186	138	40	14	9.1	6.5
21	23	29	317	39	324	94	174	114	40	13	9.2	6.8
22	27	26	832	43	394	87	161	99	38	18	8.5	7.0
23	32	24	554	46	927	280	153	102	33	19	7.7	7.1
24	40	25	399	48	1160	1140	491	146	30	17	7.8	7.5
25	38	26	356	54	889	1060	301	108	27	17	11	8.9
26	32	26	264	54	658	710	241	85	24	19	12	7.7
27	29	25	228	53	535	539	197	74	20	60	13	21
28	26	126	213	53	417	450	166	82	19	52	12	33
29	28	1720	195	50	---	896	148	128	19	28	10	23
30	26	637	175	45	---	1380	129	96	19	20	8.8	15
31	26	---	152	44	---	1670	---	96	---	19	9.1	---
TOTAL	761	3244	7946	2175	14369	11718	13296	7179	1387	708	327.3	294.5
MEAN	24.5	108	256	70.2	513	378	443	232	46.2	22.8	10.6	9.82
MAX	40	1720	832	142	4170	1670	2500	1270	110	60	18	33
MIN	17	22	128	39	40	87	129	74	19	13	7.7	6.5
CFSM	.12	.53	1.25	.34	2.50	1.84	2.16	1.13	.23	.11	.05	.05
IN.	.14	.59	1.44	.39	2.61	2.13	2.41	1.30	.25	.13	.06	.05

CAL YR 1984 TOTAL 110087 MEAN 301 MAX 10000 MIN 13 CFSM 1.47 IN. 19.98  
WTR YR 1985 TOTAL 63404.8 MEAN 174 MAX 4170 MIN 6.5 CFSM .85 IN. 11.51

## SUSQUEHANNA RIVER BASIN

143

01565000 KISHACOQUILLAS CREEK AT REEDSVILLE, PA

LOCATION.--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, 1.0 mi southeast of Reedsville, and 1.0 mi downstream from Honey Creek.

DRAINAGE AREA.--164 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1939 to September 1970, October 1983 to September 1985 (discontinued). Monthly discharge only for October, November 1939, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 551.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 28 to Feb. 24. Records good except those for estimated daily discharges which are fair. Diurnal fluctuation at low flow caused by mills above station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 206 ft<sup>3</sup>/s, 17.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft<sup>3</sup>/s Nov. 25, 1950, gage height, 13.12 ft, from rating curve extended above 2,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum daily, 14 ft<sup>3</sup>/s Jan. 9, 12, 1940, Sept. 2, 3, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage about 1 ft higher than that of Nov. 25, 1950, discharge not determined. Flood of June 23, 1972 reached a stage of 16.17 ft from floodmarks, discharge 16,400 ft<sup>3</sup>/s from rating curve extended above 10,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0300	*1,400	*6.44	Mar. 29	1030	1,150	6.00
Feb. 13	Unknown	1,310	6.29	Apr. 1	0245	1,340	6.34

Minimum daily discharge, 30 ft<sup>3</sup>/s, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	43	309	290	93	316	1200	163	268	82	79	37
2	61	43	263	270	90	296	1000	264	170	81	62	37
3	55	41	323	260	88	268	890	677	148	82	56	36
4	52	43	318	240	86	250	766	487	149	80	52	35
5	51	66	277	230	85	249	645	436	157	79	50	34
6	49	58	281	220	84	223	583	395	156	82	49	34
7	49	52	248	210	83	207	535	363	136	81	50	35
8	48	48	228	190	83	203	543	320	132	78	58	39
9	49	46	210	180	82	194	484	288	147	85	53	42
10	49	49	210	170	82	182	446	264	137	86	48	43
11	47	56	316	160	82	180	424	244	120	82	47	39
12	47	55	297	160	250	322	394	234	144	73	46	36
13	46	51	290	150	800	262	366	244	127	69	45	35
14	45	48	283	160	650	238	346	208	116	67	52	34
15	44	46	293	170	520	229	329	193	109	71	46	33
16	45	45	275	160	480	218	313	192	171	66	44	33
17	44	43	269	150	350	215	290	189	168	61	43	33
18	44	43	260	140	280	204	270	272	163	59	41	32
19	47	44	274	130	250	194	254	200	144	57	41	32
20	57	43	290	120	240	191	242	176	134	55	41	32
21	48	41	309	110	230	178	228	163	140	54	40	32
22	54	40	559	120	270	171	216	154	123	58	39	31
23	69	40	472	140	350	369	210	152	120	56	39	31
24	59	40	456	130	450	552	267	150	110	53	39	31
25	53	41	430	120	430	546	231	138	103	52	51	31
26	50	39	373	120	408	491	214	129	97	66	48	30
27	49	39	353	110	378	461	200	122	93	86	42	43
28	47	108	350	100	339	434	190	146	91	65	39	39
29	48	826	330	100	---	840	180	157	89	58	39	34
30	47	356	320	97	---	718	170	128	85	54	39	33
31	45	---	300	95	---	906	---	141	---	69	38	---
TOTAL	1563	2533	9766	5002	7613	10307	12426	7389	4047	2147	1456	1046
MEAN	50.4	84.4	315	161	272	332	414	238	135	69.3	47.0	34.9
MAX	69	826	559	290	800	906	1200	677	268	86	79	43
MIN	44	39	210	95	82	171	170	122	85	52	38	30
CFSM	.31	.51	1.92	.98	1.66	2.02	2.52	1.45	.82	.42	.29	.21
IN.	.35	.57	2.22	1.13	1.73	2.34	2.82	1.68	.92	.49	.33	.24

CAL YR 1984	TOTAL	106282	MEAN	290	MAX	4750	MIN	39	CFSM	1.77	IN.	24.11
WTR YR 1985	TOTAL	65295	MEAN	179	MAX	1200	MIN	30	CFSM	1.09	IN.	14.81

## JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA  
(National stream-quality accounting network station)

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, 1,000 ft upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, published in WSP 1302.

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.--Estimated daily discharges: Jan. 10 to Feb. 13. Records good except those for estimated daily discharges, which are fair. Flow regulated since October 1972 by Raystown Lake (station 01563100) about 75 mi upstream. National Weather Service satellite and landline telemeters at station.

AVERAGE DISCHARGE.--86 years, 4,296 ft<sup>3</sup>/s, 17.39 in/yr, adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft<sup>3</sup>/s Mar. 19, 1936, gage height, 34.24 ft, from flood-mark in gage shelter, from rating curve extended above 100,000 ft<sup>3</sup>/s; minimum, 195 ft<sup>3</sup>/s July 27, 1966, gage height, 2.81 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889 reached a stage of 35.9 ft from floodmarks, discharge, 209,000 ft<sup>3</sup>/s, from rating curve extended above 100,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,000 ft<sup>3</sup>/s Apr. 2, gage height, 13.64 ft; minimum, 621 ft<sup>3</sup>/s Sept. 21-27; minimum gage height 3.35 ft Sept. 25-27; minimum daily discharge, 621 ft<sup>3</sup>/s Sept. 23, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	886	883	7520	4440	1300	7750	29900	2250	2460	1200	932	695
2	943	872	6320	3850	1400	6850	31700	2350	3240	1180	888	681
3	973	818	5560	3720	1300	6290	23500	7050	3220	1130	843	684
4	1060	785	5580	3620	1300	5020	18000	14500	2610	1120	804	692
5	935	848	5580	3470	1200	4190	13800	12700	2440	1100	740	672
6	858	946	4530	3380	1200	3900	11800	10200	2340	1210	720	642
7	806	1290	4140	3250	1300	3880	10400	7840	2240	1220	734	636
8	804	1260	4020	3130	1200	3790	9250	6890	2030	1180	979	693
9	804	1050	3760	2980	1100	3650	8360	5420	1950	1260	1060	728
10	804	981	3420	2800	1200	3030	6960	4260	1940	1250	877	835
11	804	974	3590	2500	1300	2760	6480	3890	1840	1490	807	864
12	804	1040	4330	2400	2300	3040	6450	3690	1770	1480	779	825
13	799	1050	4880	2300	8000	4060	7310	3760	1630	1390	736	773
14	786	1090	4720	2200	20800	5340	6350	3600	1490	1250	805	752
15	777	1020	4430	2100	15000	4660	5980	3340	1450	1270	875	719
16	777	1040	4400	2000	10400	4280	5510	3120	2150	1170	768	697
17	767	1140	4340	1900	7100	3470	5190	2730	2870	1230	735	670
18	764	1120	4060	1800	6310	3200	4430	3960	3570	1100	721	650
19	785	1150	3860	1600	5670	3060	4100	5150	2800	998	711	639
20	1200	1150	4130	1600	5290	2930	3880	4090	2330	928	716	630
21	1060	1130	5200	1500	4610	2820	3600	3360	2210	899	683	626
22	981	1130	8320	1500	4080	2700	3110	2620	2010	904	669	622
23	1150	1140	14100	1600	5000	2720	2940	2460	1860	915	648	621
24	1070	1110	12300	1700	9350	6490	2900	2460	1730	912	648	623
25	1080	1090	9600	1800	15900	14500	3590	2870	1660	926	695	622
26	1070	1090	8200	1600	15500	14100	3220	2450	1580	995	731	621
27	1000	1090	6980	1700	11700	10900	3250	2070	1470	1150	745	765
28	946	1210	5330	1600	8970	9300	3070	1960	1430	1210	924	882
29	957	8300	5100	1500	---	9410	2910	2330	1420	1100	830	929
30	935	13000	4960	1500	---	19800	2760	3190	1310	1010	737	868
31	898	---	4700	1300	---	20900	---	2540	---	989	707	---
TOTAL	28283	50797	177960	72340	169780	198790	250700	139100	63050	35166	24247	21356
MEAN	912	1693	5741	2334	6064	6413	8357	4487	2102	1134	782	712
MAX	1200	13000	14100	4440	20800	20900	31700	14500	3570	1490	1060	929
MIN	764	785	3420	1300	1100	2700	2760	1960	1310	899	648	621
MEAN†	899	1754	5716	2266	6170	6488	8273	4477	2103	1126	703	572
CFSM†	.27	.52	1.70	.68	1.84	1.93	2.47	1.33	.63	.34	.21	.17
IN.†	.31	.58	1.96	.78	1.92	2.22	2.76	1.53	.70	.39	.24	.19

CAL YR 1984 TOTAL 1843898 MEAN 5038 MAX 87100 MIN 764 MEAN† 5036 CFSM† 1.50 IN.† 20.44  
WTR YR 1985 TOTAL 1231569 MEAN 3374 MAX 31700 MIN 621 MEAN† 3358 CFSM† 1.00 IN.† 13.59

† Adjusted for change in contents in Raystown Lake.

## JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to current year.

WATER TEMPERATURE: October 1944 to September 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 447 ft from left bank.

REMARKS.--Once daily water temperatures and laboratory specific conductance values obtained from sediment samples.  
Agency collection codes: 42011 - Susquehanna River Basin Commission, 1028 - U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 558 microsiemens Oct. 27, 1969; minimum daily, 107 microsiemens Dec. 2, 1984.

WATER TEMPERATURE: Maximum daily, 31.5°C Aug. 27, 1951, July 21, 1980; 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, &lt;1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 365,000 tons June 23, 1972; minimum daily, &lt;.01 ton on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 328 microsiemens Aug. 24; minimum daily, 107 microsiemens Dec. 2.

WATER TEMPERATURE: Maximum daily, 30.5°C Aug. 14; minimum daily, 0.0°C on many days during Jan. and Feb. based on unpublished records.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 180 mg/L Feb. 15; minimum daily mean, 1 mg/L on many days during fall and winter periods.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 10,500 tons Apr. 2; minimum daily, 1.7 tons Sept. 6, 7, 19-26.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
NOV											
15...	1030	1028	0.9	765	14.0	111	K2	K28	130	33	130
JAN											
07...	1015	1028	4.0	756	13.8	103	48	46	91	29	91
MAR											
07...	0900	1028	1.5	781	12.4	92	38	K10	89	32	89
MAY											
16...	0930	1028	1.5	760	8.2	86	290	K2100	95	29	95
JUL											
02...	1030	1028	2.5	765	7.6	86	K120	590	110	33	110
SEP											
04...	1215	1028	6.0	765	10.0	125	K71	140	130	33	130

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY FILTER FIELD MG/L AS CACO3	ALKA- LITY LAB (MG/L AS CACO3)
NOV										
15...	35	9.6	8.5	13	0.3	2.0	105	4.0	94	95
JAN										
07...	25	6.9	6.5	13	0.3	1.3	76	0	62	63
MAR										
07...	24	6.9	6.3	13	0.3	1.3	69	0	57	59
MAY										
16...	26	7.2	6.7	13	0.3	1.5	80	0	67	68
JUL										
02...	31	8.8	6.9	12	0.3	1.4	99	0	82	87
SEP										
04...	34	11	13	18	0.5	2.2	83	18	97	97

(K) Results based on non-ideal colony count.



## JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALKA- LINIT- Y, CAR- BON- ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 15...	94	0.2	30	14	<0.1	0.4	166	160	0.23	457
JAN 07...	62	1.9	24	13	<0.1	4.2	134	120	0.18	1160
MAR 07...	57	--	22	11	<0.1	3.7	133	110	0.18	1480
MAY 16...	66	2.0	23	11	<0.1	2.2	151	120	0.21	1290
JUL 02...	81	1.2	26	13	0.1	0.7	187	140	0.25	596
SEP 04...	98	0.1	30	19	<0.1	1.1	179	190	0.24	335

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 15...	50	<1	43	0	<1	3	<3	2	15	1
JAN 07...	--	--	--	--	--	--	--	--	--	--
MAR 07...	10	<1	39	0.6	<1	<1	<3	1	12	3
MAY 16...	30	<1	41	<0.5	<1	3	<3	4	11	1
JUL 02...	--	--	--	--	--	--	--	--	--	--
SEP 04...	30	2	41	<0.5	<1	<1	<3	12	17	4

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 15...	7	2	<0.1	<10	3	<1	<1	370	<6	4
JAN 07...	--	--	--	--	--	--	--	--	--	--
MAR 07...	<4	8	0.1	<10	1	<1	<1	210	<6	12
MAY 16...	<4	4	<0.1	<10	3	<1	<1	230	<6	8
JUL 02...	--	--	--	--	--	--	--	--	--	--
SEP 04...	6	15	0.9	<10	3	<1	<1	400	<6	26

## JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
OCT 22...	1500	42011	965	225	8.70	20.5	1.08	1.09	0.02	0.01	0.03
NOV 15...	1030	1028	1020	287	8.90	5.5	--	--	--	--	--
20...	1200	42011	1150	265	8.70	4.5	--	--	--	--	--
DEC 14...	1200	42011	4470	209	7.30	7.0	--	--	--	--	--
JAN 07...	1015	1028	3220	225	7.80	3.0	--	--	--	--	--
18...	1330	42011	2000	273	8.50	0.0	--	--	--	--	--
FEB 21...	1300	42011	4600	220	7.80	6.5	--	--	--	--	--
MAR 07...	0900	1028	4130	198	--	4.0	--	--	--	--	--
21...	1315	42011	2800	210	8.00	8.5	--	--	--	--	--
APR 19...	1100	42011	4130	209	7.60	18.0	--	--	--	--	--
MAY 09...	1300	42011	5490	190	7.60	15.0	--	--	--	--	--
16...	0930	1028	3170	230	7.80	17.5	--	--	--	--	--
JUN 04...	1200	42011	2560	238	8.20	19.0	--	--	--	--	--
JUL 02...	1030	1028	1180	265	8.10	21.5	--	--	--	--	--
02...	1400	42011	1180	335	8.50	21.0	--	--	--	--	--
AUG 07...	1500	42011	717	275	9.20	--	--	--	--	--	--
SEP 03...	1430	42011	685	335	9.20	27.0	--	--	--	--	--
04...	1215	1028	693	315	9.20	27.0	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT 22...	1.10	1.10	0.05	0.03	0.04	0.25	0.27	0.3	--	0.3	1.4
NOV 15...	--	1.10	--	<0.01	--	--	--	0.3	--	--	--
20...	1.30	--	0.12	<0.01	0.01	2.3	--	2.4	--	0.2	3.7
DEC 14...	1.30	--	0.03	<0.01	0.01	0.27	--	0.3	--	0.4	1.6
JAN 07...	--	1.50	--	<0.01	--	--	--	0.4	--	--	--
18...	1.50	--	0.04	0.06	0.08	0.46	0.44	0.5	--	0.5	2.0
FEB 21...	1.70	--	0.09	0.07	0.09	0.71	--	0.8	--	--	2.5
MAR 07...	--	1.40	--	0.04	0.05	--	--	1.0	--	--	--
21...	1.40	--	0.07	0.05	0.06	0.63	0.25	0.7	--	0.3	2.1
APR 19...	1.50	--	0.10	<0.01	0.01	0.50	--	0.6	--	0.8	2.1
MAY 09...	1.40	--	<0.01	0.02	0.03	--	0.38	0.4	--	0.4	1.8
16...	--	1.20	--	<0.01	--	--	--	0.2	--	--	--
JUN 04...	1.50	--	0.04	0.02	0.03	0.66	--	0.7	--	--	2.2
JUL 02...	--	0.95	--	0.05	0.06	--	--	0.7	--	--	--
02...	1.20	--	0.09	<0.01	0.01	0.21	--	0.3	0.0	0.4	1.5
AUG 07...	0.20	--	<0.01	1.60	2.1	--	0.0	0.6	0.3	0.3	0.8
SEP 03...	0.70	--	0.02	<0.01	0.01	0.48	--	0.5	0.1	0.4	1.2
04...	--	0.54	--	0.11	0.14	--	--	1.2	--	--	--

## JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	6.2	0.07	--	0.06	0.08	0.06	0.18	2.2	3	7.8	--
NOV 15...	--	<0.01	--	<0.01	--	0.05	0.15	--	3	8.3	58
20...	16	0.07	--	0.05	--	0.04	0.12	2.3	4	12	--
DEC 14...	7.1	0.03	--	0.04	--	0.03	0.09	--	15	181	--
JAN 07...	--	0.03	--	0.04	--	0.04	0.12	--	5	43	65
18...	8.9	0.06	--	0.04	--	0.06	0.18	2.3	5	27	--
FEB 21...	11	0.02	--	<0.01	--	0.03	0.09	3.7	80	994	--
MAR 07...	--	0.02	--	<0.01	--	0.02	0.06	--	4	45	23
21...	9.3	0.13	--	0.02	--	0.02	0.06	3.0	1	7.6	--
APR 19...	9.3	0.06	--	0.03	--	0.04	0.12	2.9	6	67	--
MAY 09...	8.0	0.04	--	0.02	--	0.02	0.06	2.9	16	237	--
16...	--	0.06	--	0.03	--	0.02	0.06	--	17	146	84
JUN 04...	9.7	0.05	0.15	0.06	--	0.06	0.18	3.7	21	145	--
JUL 02...	--	0.04	0.12	0.04	--	0.03	0.09	--	--	--	--
02...	6.6	0.05	0.15	0.03	--	<0.01	--	2.8	9	29	--
AUG 07...	3.5	<0.01	--	<0.01	--	0.87	2.7	5.0	6	12	--
SEP 03...	5.3	0.09	0.28	0.10	--	0.07	0.21	4.0	6	11	--
04...	--	0.07	0.21	0.07	--	0.06	0.18	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV								
15...	0930	585	1020	278	8.95	5.0	2	5.5
15...	0940	535	1020	287	8.95	5.0	1	2.8
15...	0955	485	1020	275	8.95	5.5	1	2.8
15...	1023	435	1020	288	9.00	5.5	1	2.8
15...	1028	385	1020	292	8.80	6.0	1	2.8
15...	1031	335	1020	302	9.00	6.0	2	5.5
15...	1043	285	1020	296	9.00	6.0	2	5.5
15...	1047	235	1020	293	9.05	6.0	2	5.5
15...	1102	155	1020	291	8.90	6.0	2	5.5

## JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	221	179	213	---	185	162	229	229	260	299	199
2	277	227	107	214	---	188	161	220	224	268	294	310
3	282	251	188	218	---	191	169	211	232	263	295	280
4	284	313	177	220	---	208	174	168	241	284	295	234
5	281	298	192	223	---	193	178	153	238	267	280	199
6	286	164	116	220	---	208	183	165	235	258	297	261
7	284	246	140	224	---	213	186	171	221	251	288	317
8	205	258	143	226	---	212	189	176	240	270	280	296
9	287	232	168	231	---	215	190	181	251	290	217	208
10	227	280	194	---	---	216	193	184	242	289	183	312
11	238	247	199	---	---	225	196	194	248	282	282	320
12	268	165	206	---	---	227	200	197	256	288	245	218
13	271	280	210	---	---	220	200	203	256	302	222	327
14	258	291	184	---	174	231	199	201	263	294	245	271
15	279	244	159	---	189	212	200	203	252	289	311	278
16	250	282	193	---	201	208	201	196	251	279	308	285
17	244	300	177	---	214	209	204	201	234	291	217	310
18	288	296	206	---	208	211	206	211	242	288	307	187
19	185	257	200	---	220	213	209	221	230	288	309	272
20	283	151	202	---	214	219	210	220	258	258	303	318
21	281	282	198	---	216	224	212	210	255	242	320	278
22	280	273	189	---	224	225	214	213	239	299	311	255
23	278	266	174	---	225	222	221	215	231	305	316	290
24	204	156	162	---	210	214	224	230	214	283	328	274
25	220	262	167	---	192	181	227	233	253	301	300	321
26	249	161	187	---	181	179	210	233	264	296	190	311
27	288	256	187	---	180	181	214	172	260	289	307	297
28	305	214	192	---	180	186	218	235	274	288	286	321
29	304	185	141	---	---	187	219	208	203	282	308	237
30	284	135	200	---	---	166	223	127	262	294	289	305
31	320	---	213	---	---	170	---	196	---	292	318	---
MEAN	267	240	179	221	202	204	200	199	243	282	282	276

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	16.0	6.0	7.0	---	6.0	7.0	21.0	23.5	22.5	26.0	21.0
2	15.0	14.5	7.0	6.5	---	7.0	6.5	17.0	23.0	22.0	26.0	23.5
3	14.0	13.0	7.0	5.0	---	6.5	6.0	14.0	24.0	24.5	27.0	27.0
4	15.5	10.5	5.5	4.5	---	4.5	7.5	12.5	24.0	26.0	27.0	28.5
5	16.0	12.0	5.0	4.0	---	6.0	9.0	14.0	21.0	28.0	27.5	29.0
6	16.0	10.5	4.0	3.5	---	5.5	10.0	15.0	24.0	26.0	26.0	28.0
7	15.0	10.5	1.5	4.0	---	5.5	10.0	15.0	22.5	26.0	27.0	28.0
8	15.0	9.5	3.0	3.0	---	7.5	8.5	15.5	23.5	25.0	28.0	28.0
9	17.0	9.0	3.5	.5	---	7.5	7.0	16.0	24.0	27.5	29.0	29.0
10	18.0	11.0	4.0	---	---	9.5	8.0	18.0	25.5	27.0	28.5	29.0
11	19.0	10.0	5.0	---	---	11.0	8.0	20.0	25.0	28.0	28.0	24.5
12	20.0	8.5	5.0	---	---	8.0	10.0	20.5	25.0	27.0	29.0	22.0
13	19.0	7.0	7.0	---	---	8.5	11.0	24.0	20.5	29.0	29.0	20.0
14	18.0	7.0	6.5	---	2.0	8.0	12.5	24.0	21.0	28.0	30.5	20.5
15	17.0	7.5	7.5	---	1.0	7.0	13.5	18.5	22.0	28.5	30.0	22.0
16	16.0	7.0	7.0	---	1.0	8.0	15.0	18.0	20.0	29.5	26.0	22.5
17	16.5	7.0	9.5	---	2.5	6.5	14.5	18.0	22.0	28.5	26.5	22.0
18	20.0	5.5	9.0	---	3.5	6.0	16.5	17.0	24.0	29.0	24.0	23.0
19	19.0	5.0	7.0	---	4.5	7.0	18.5	19.0	22.5	29.5	27.0	25.0
20	20.0	4.0	7.5	---	5.0	8.0	20.0	19.0	22.0	29.0	27.0	25.5
21	19.0	4.0	6.0	---	5.0	8.0	21.0	21.5	23.5	29.0	26.0	25.5
22	20.0	4.5	6.0	---	6.0	7.0	22.0	21.0	24.0	28.5	25.0	24.0
23	17.5	4.0	6.0	---	8.5	6.0	22.0	19.0	26.0	27.0	27.0	23.0
24	16.0	5.0	5.0	---	9.5	6.0	17.0	21.0	28.0	27.0	24.5	22.5
25	17.5	6.0	4.5	---	8.5	6.5	17.5	22.0	25.5	27.0	22.5	22.0
26	19.0	6.0	4.5	---	7.0	7.5	19.0	23.0	23.5	26.0	25.0	20.0
27	19.5	6.0	4.0	---	6.5	9.0	19.0	23.0	23.0	25.5	26.0	20.0
28	20.5	9.0	5.5	---	6.0	10.0	17.0	22.0	22.0	27.5	27.0	20.0
29	18.0	6.5	9.5	---	---	12.5	17.5	22.5	24.0	28.0	27.0	21.0
30	18.0	7.0	9.5	---	---	11.0	19.0	20.5	22.0	28.5	25.0	21.0
31	18.0	---	7.5	---	---	8.0	---	20.0	---	25.5	22.5	---
MEAN	17.5	8.0	6.0	4.0	5.0	7.5	13.5	19.0	23.5	27.0	26.5	24.0

## JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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)
OCTOBER			NOVEMBER			DECEMBER			
1	886	1	2.4	883	1	2.4	7520	57	1160
2	943	1	2.5	872	2	4.7	6320	39	665
3	973	1	2.6	818	2	4.4	5560	26	390
4	1060	2	5.7	785	1	2.1	5580	24	362
5	935	1	2.5	848	3	6.9	5580	21	316
6	858	1	2.3	946	2	5.1	4530	14	171
7	806	2	4.4	1290	2	7.0	4140	10	112
8	804	1	2.2	1260	2	6.8	4020	8	87
9	804	1	2.2	1050	2	5.7	3760	10	102
10	804	3	6.5	981	4	11	3420	8	74
11	804	2	4.3	974	2	5.3	3590	4	39
12	804	1	2.2	1040	1	2.8	4330	2	23
13	799	1	2.2	1050	1	2.8	4880	4	53
14	786	1	2.1	1090	1	2.9	4720	4	51
15	777	1	2.1	1020	1	2.8	4430	2	24
16	777	1	2.1	1040	1	2.8	4400	3	36
17	767	1	2.1	1140	1	3.1	4340	2	23
18	764	1	2.1	1120	1	3.0	4060	1	11
19	785	2	4.2	1150	2	6.2	3860	2	21
20	1200	2	6.5	1150	1	3.1	4130	4	45
21	1060	3	8.6	1130	2	6.1	5200	17	239
22	981	2	5.3	1130	1	3.1	8320	67	1550
23	1150	2	6.2	1140	2	6.2	14100	23	876
24	1070	2	5.8	1110	2	6.0	12300	10	332
25	1080	1	2.9	1090	2	5.9	9600	6	156
26	1070	1	2.9	1090	4	12	8200	4	89
27	1000	1	2.7	1090	2	5.9	6980	2	38
28	946	1	2.6	1210	7	29	5330	3	43
29	957	1	2.6	8300	157	4160	5100	2	28
30	935	2	5.0	13000	154	5580	4960	2	27
31	898	1	2.4	---	---	---	4700	8	102
TOTAL	28283	---	110.2	50797	---	9905.1	177960	---	7245
JANUARY			FEBRUARY			MARCH			
1	4440	13	156	1300	2	7.0	7750	10	209
2	3850	10	104	1400	2	7.6	6850	8	148
3	3720	7	70	1300	3	11	6290	7	119
4	3620	4	39	1300	2	7.0	5020	18	244
5	3470	6	56	1200	4	13	4190	13	147
6	3380	4	37	1200	3	9.7	3900	7	74
7	3250	5	44	1300	4	14	3880	5	52
8	3130	8	68	1200	3	9.7	3790	4	41
9	2980	9	72	1100	3	8.9	3650	5	49
10	2800	7	53	1200	2	6.5	3030	4	33
11	2500	4	27	1300	3	11	2760	5	37
12	2400	3	19	2300	60	373	3040	6	49
13	2300	2	12	8000	180	3890	4060	9	99
14	2200	2	12	20800	108	6070	5340	15	216
15	2100	1	5.7	15000	62	2510	4660	10	126
16	2000	1	5.4	10400	30	842	4280	7	81
17	1900	1	5.1	7100	24	460	3470	4	37
18	1800	1	4.9	6310	14	239	3200	3	26
19	1600	2	8.6	5670	11	168	3060	6	50
20	1600	2	8.6	5290	9	129	2930	6	47
21	1500	2	8.1	4610	7	87	2820	5	38
22	1500	1	4.1	4080	5	55	2700	5	36
23	1600	1	4.3	5000	8	108	2720	5	37
24	1700	2	9.2	9350	26	656	6490	23	595
25	1800	3	15	15900	64	2750	14500	82	3220
26	1600	3	13	15500	46	1930	14100	47	1790
27	1700	2	9.2	11700	28	885	10900	26	765
28	1600	2	8.6	8970	17	412	9300	16	402
29	1500	1	4.1	---	---	---	9410	20	508
30	1500	1	4.1	---	---	---	19800	170	9600
31	1300	1	3.5	---	---	---	20900	124	6900
TOTAL	72340	---	890.5	169780	---	21669.4	198790	---	25775



01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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)
APRIL			MAY			JUNE			
1	29900	116	9650	2250	9	55	2460	20	133
2	31700	123	10500	2350	10	63	3240	17	149
3	23500	45	2860	7050	45	1000	3220	21	183
4	18000	27	1310	14500	114	4500	2610	16	113
5	13800	23	857	12700	65	2220	2440	14	92
6	11800	27	860	10200	32	881	2340	17	107
7	10400	24	674	7840	24	508	2240	16	97
8	9250	20	499	6890	20	372	2030	14	77
9	8360	16	361	5420	15	220	1950	13	68
10	6960	16	301	4260	11	127	1940	15	79
11	6480	13	227	3890	11	116	1840	21	104
12	6450	9	157	3690	10	100	1770	17	81
13	7310	12	237	3760	11	112	1630	13	57
14	6350	14	240	3600	13	126	1490	10	40
15	5980	12	194	3340	14	126	1450	18	70
16	5510	18	268	3120	20	168	2150	20	116
17	5190	11	154	2730	24	177	2870	24	186
18	4430	10	120	3960	26	278	3570	38	366
19	4100	12	133	5150	13	181	2800	36	272
20	3880	9	94	4090	14	155	2330	22	138
21	3600	8	78	3360	12	109	2210	27	161
22	3110	7	59	2620	22	156	2010	21	114
23	2940	8	64	2460	20	133	1860	18	90
24	2900	7	55	2460	16	106	1730	20	93
25	3590	22	213	2870	16	124	1660	11	49
26	3220	22	191	2450	13	86	1580	15	64
27	3250	17	149	2070	16	89	1470	12	48
28	3070	15	124	1960	11	58	1430	8	31
29	2910	11	86	2330	6	38	1420	10	38
30	2760	7	52	3190	13	112	1310	11	39
31	---	---	---	2540	13	89	---	---	---
TOTAL	250700	---	30767	139100	---	12585	63050	---	3255
JULY			AUGUST			SEPTEMBER			
1	1200	18	58	932	11	28	695	1	1.9
2	1180	12	38	888	10	24	681	1	1.8
3	1130	11	34	843	7	16	684	1	1.8
4	1120	11	33	804	8	17	692	1	1.9
5	1100	16	48	740	13	26	672	1	1.8
6	1210	12	39	720	8	16	642	1	1.7
7	1220	12	40	734	8	16	636	1	1.7
8	1180	14	45	979	13	34	693	1	1.9
9	1260	16	54	1060	7	20	728	1	2.0
10	1250	14	47	877	2	4.7	835	1	2.3
11	1490	11	44	807	1	2.2	864	1	2.3
12	1480	14	56	779	2	4.2	825	1	2.2
13	1390	13	49	736	1	2.0	773	2	4.2
14	1250	13	44	805	1	2.2	752	1	2.0
15	1270	16	55	875	2	4.7	719	1	1.9
16	1170	14	44	768	1	2.1	697	1	1.9
17	1230	9	30	735	1	2.0	670	1	1.8
18	1100	14	42	721	1	1.9	650	1	1.8
19	998	20	54	711	1	1.9	639	1	1.7
20	928	34	85	716	1	1.9	630	1	1.7
21	899	10	24	683	3	5.5	626	1	1.7
22	904	6	15	669	2	3.6	622	1	1.7
23	915	8	20	648	2	3.5	621	1	1.7
24	912	11	27	648	2	3.5	623	1	1.7
25	926	8	20	695	1	1.9	622	1	1.7
26	995	9	24	731	1	2.0	621	1	1.7
27	1150	12	37	745	1	2.0	765	1	2.1
28	1210	8	26	924	1	2.5	882	1	2.4
29	1100	10	30	830	1	2.2	929	1	2.5
30	1010	9	25	737	1	2.0	868	1	2.3
31	989	9	24	707	1	1.9	---	---	---
TOTAL	35166	---	1211	24247	---	257.4	21356	---	59.8
YEAR	1231569		113730.4						

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--January 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.--Estimated daily discharges: Nov. 5 to Dec. 5, Jan. 4-9, and Jan. 20 to Feb. 11. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 18.7 ft<sup>3</sup>/s, 16.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,780 ft<sup>3</sup>/s Nov. 1, 1956, gage height, 10.39 ft from rating curve extended above 2,700 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 1.5 ft<sup>3</sup>/s Feb. 2, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	Unknown	398	5.91	Aug. 14	2000	375	5.83
Feb. 12	1800	*412	*5.96				

Minimum discharge, 3.3 ft<sup>3</sup>/s Sept. 18-20, gage height, 2.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	5.2	28	15	6.0	20	113	9.9	13	6.9	4.8	4.0
2	6.1	5.3	22	14	5.8	19	71	26	10	7.0	4.4	4.0
3	5.7	5.0	19	12	6.4	17	57	75	9.8	6.8	4.3	3.9
4	5.4	5.2	22	11	5.8	16	45	36	9.5	6.5	4.3	3.8
5	5.3	7.8	14	11	5.6	16	37	27	9.7	6.3	4.2	3.7
6	5.2	7.0	18	11	5.8	13	33	23	9.4	7.4	4.3	3.7
7	5.3	6.2	14	10	5.6	13	27	20	8.3	6.1	4.2	3.6
8	5.4	5.6	14	10	5.2	13	25	17	9.0	6.3	5.2	3.6
9	5.5	5.4	14	9.6	5.6	12	25	15	9.6	6.0	4.1	4.4
10	5.3	5.2	17	9.4	6.0	11	23	15	8.3	6.8	4.0	4.0
11	5.2	5.6	26	10	6.4	12	21	14	7.4	5.8	4.0	3.6
12	5.2	6.2	21	9.9	156	17	19	13	7.4	5.2	4.0	3.6
13	5.2	5.8	19	9.6	106	12	18	12	7.0	5.2	3.8	3.5
14	5.2	5.6	16	9.9	48	12	18	12	6.8	5.1	4.0	3.5
15	5.1	5.4	16	9.6	32	11	18	12	7.0	5.5	11	3.5
16	5.1	5.2	14	8.3	25	11	17	12	47	5.1	5.7	3.5
17	5.2	5.0	14	9.1	23	11	15	26	23	4.6	5.1	3.5
18	5.2	5.0	14	9.3	22	10	14	44	17	4.6	4.7	3.5
19	5.1	5.8	15	9.3	24	9.8	14	19	12	4.6	4.7	3.4
20	5.2	5.4	16	6.6	23	10	14	16	13	4.6	4.5	3.5
21	5.2	5.2	40	5.6	23	9.5	13	15	11	4.7	4.3	3.5
22	7.6	5.6	64	6.6	32	9.3	13	13	9.7	6.8	4.2	3.5
23	7.1	5.2	39	7.0	47	17	12	16	9.1	4.9	4.1	3.8
24	6.1	5.6	31	7.4	45	28	12	14	8.4	4.6	4.3	3.9
25	5.8	5.0	27	7.8	35	29	12	12	7.7	5.0	5.6	3.7
26	5.8	4.8	21	7.0	29	24	11	11	7.1	10	4.8	3.6
27	5.4	4.5	20	6.6	26	21	11	11	6.9	8.0	4.3	6.9
28	5.2	10	19	7.0	22	20	11	15	7.0	5.1	4.1	4.3
29	5.8	110	18	6.8	---	67	10	13	7.0	4.8	4.0	3.8
30	5.5	50	17	6.6	---	54	10	11	6.7	4.7	4.1	3.7
31	5.3	---	16	6.2	---	91	---	11	---	5.5	4.1	---
TOTAL	173.8	318.8	665	279.2	782.2	635.6	739	585.9	324.8	180.5	179.2	114.5
MEAN	5.61	10.6	21.5	9.01	27.9	20.5	24.6	18.9	10.8	5.82	5.78	3.82
MAX	8.1	110	64	15	156	91	113	75	47	10	40	6.9
MIN	5.1	4.5	14	5.6	5.2	9.3	10	9.9	6.7	4.6	3.8	3.4
CFSM	.37	.71	1.43	.60	1.86	1.37	1.64	1.26	.72	.39	.39	.25
IN.	.43	.79	1.65	.69	1.94	1.58	1.83	1.45	.81	.45	.44	.28

CAL YR 1984	TOTAL	10396.9	MEAN	28.4	MAX	1180	MIN	4.5	CFSM	1.89	IN.	25.78
WTR YR 1985	TOTAL	4978.5	MEAN	13.6	MAX	156	MIN	3.4	CFSM	.91	IN.	12.35

## SHERMAN CREEK BASIN

153

01568000 SHERMAN CREEK AT SHERMANS DALE, PA

LOCATION.--Lat 40°19'24", long 77°10'09", Perry County, Hydrologic Unit 02050305, on left bank on downstream side of bridge on State Highway 34 at Shermans Dale, and 1.2 mi upstream from Fishing Run.

DRAINAGE AREA.--200 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some months, published in WSP 1302. Prior to October 1962, published as "at Shermans Dale".

REVISED RECORDS.--WSP 1302: 1930(M), WSP 1502: 1933, 1934(M), 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 422.63 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 29, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 11. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--56 years, 288 ft<sup>3</sup>/s, 19.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft<sup>3</sup>/s June 23, 1972, gage height, 18.09 ft, from rating curve extended above 18,000 ft<sup>3</sup>/s; minimum, 3.9 ft<sup>3</sup>/s Dec. 1, 1930; minimum gage height, 0.62 ft Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1927 reached a stage of 20.34 ft, from floodmark, discharge, about 44,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0700	3,510	6.63	Feb. 12	2030	*4,590	*7.57

Minimum discharge, 21 ft<sup>3</sup>/s Sept. 21, gage height, 0.83 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	50	437	217	90	327	1590	123	357	73	76	29
2	73	49	334	210	80	309	1010	177	259	75	60	29
3	63	47	315	190	75	278	794	976	202	79	50	28
4	53	47	349	181	70	256	688	564	187	80	46	28
5	48	81	261	188	65	257	561	388	166	86	43	27
6	46	72	296	171	70	232	498	312	159	93	40	26
7	45	64	268	163	70	209	438	272	134	92	40	25
8	47	55	221	158	60	210	391	234	125	70	45	26
9	48	51	226	136	60	204	367	205	142	68	43	34
10	49	53	215	130	60	189	351	188	127	67	39	38
11	48	59	318	120	205	182	346	173	105	67	37	30
12	47	69	323	110	1190	228	314	168	97	57	37	26
13	47	62	286	105	2740	210	288	167	90	124	37	25
14	47	56	257	120	932	184	276	143	88	90	39	24
15	46	51	242	100	561	172	269	131	85	72	122	23
16	45	50	228	90	395	160	266	144	332	71	58	23
17	47	48	220	85	340	157	247	190	366	58	45	23
18	49	49	206	80	301	153	223	644	227	51	40	23
19	52	56	211	70	301	145	213	303	165	48	39	23
20	56	55	279	65	299	146	202	228	156	46	38	22
21	54	52	281	55	276	139	190	196	188	45	37	22
22	80	58	901	65	324	132	181	178	133	62	35	22
23	131	51	584	80	661	176	173	189	121	65	32	23
24	87	53	459	100	733	429	168	229	107	51	32	23
25	67	47	410	95	607	496	167	174	100	50	41	23
26	61	47	320	90	489	400	160	146	89	137	43	23
27	57	45	290	85	430	347	147	130	80	328	41	73
28	54	149	278	80	361	318	139	144	79	120	35	63
29	56	2390	266	80	---	868	134	254	81	75	31	43
30	55	701	246	75	---	847	126	167	76	62	30	31
31	53	---	222	75	---	946	---	148	---	70	30	---
TOTAL	1777	4717	9749	3569	11845	9306	10917	7685	4623	2532	1361	878
MEAN	57.3	157	314	115	423	300	364	248	154	81.7	43.9	29.3
MAX	131	2390	901	217	2740	946	1590	976	366	328	122	73
MIN	45	45	206	55	60	132	126	123	76	45	30	22
CFSM	.29	.78	1.57	.57	2.11	1.50	1.82	1.24	.77	.41	.22	.15
IN.	.33	.88	1.81	.66	2.20	1.73	2.03	1.43	.86	.47	.25	.16

CAL YR 1984	TOTAL	143594	MEAN	392	MAX	9320	MIN	44	CFSM	1.96	IN.	26.71
WTR YR 1985	TOTAL	68959	MEAN	189	MAX	2740	MIN	22	CFSM	.94	IN.	12.83

## SHERMAN CREEK BASIN

01568000 SHERMAN CREEK AT SHERMANS DALE, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964, 1969, October 1984 to current year.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 22...	1600	66	170	8.40	21.0	0.58	0.02	<0.01	0.60	0.59
NOV 20...	1330	60	283	8.20	6.5	--	--	--	1.10	--
DEC 14...	1045	258	149	7.70	7.0	--	--	--	1.50	--
FEB 21...	1345	272	150	7.90	5.5	--	--	--	1.80	--
MAR 21...	1415	129	136	7.90	9.0	--	--	--	1.10	--
APR 19...	0915	201	127	7.80	19.5	--	--	--	0.70	--
MAY 09...	1430	205	130	7.30	17.0	--	--	--	0.80	--
JUN 04...	1000	177	123	7.70	19.0	--	--	--	0.80	--
JUL 02...	1040	70	180	8.00	19.0	--	--	--	1.00	--
AUG 07...	1545	40	160	8.80	--	--	--	--	0.60	--
SEP 04...	0815	29	237	8.00	22.0	--	--	--	0.50	--

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
OCT 22...	0.02	0.03	0.04	0.38	0.27	0.4	--	0.3	1.0	4.4
NOV 20...	0.03	<0.01	0.01	0.67	--	0.7	--	0.3	1.8	8.0
DEC 14...	0.02	0.02	0.03	0.38	0.38	0.4	--	0.4	1.9	8.4
FEB 21...	0.06	0.05	0.06	0.64	--	0.7	--	--	2.5	11
MAR 21...	0.05	0.01	0.01	0.25	0.29	0.3	--	0.3	1.4	6.2
APR 19...	<0.01	0.01	0.01	--	1.1	2.6	--	1.1	3.3	15
MAY 09...	<0.01	0.03	0.04	--	0.37	0.5	--	0.4	1.3	5.8
JUN 04...	<0.01	0.01	0.01	--	0.79	0.9	0.1	0.8	1.7	7.5
JUL 02...	0.09	0.05	0.06	0.31	0.35	0.4	0.0	0.4	1.4	6.2
AUG 07...	0.02	<0.01	0.01	0.88	--	0.9	0.3	0.6	1.5	6.6
SEP 04...	0.10	0.05	0.06	0.20	0.35	0.3	0.0	0.4	0.8	3.5

## SHERMAN CREEK BASIN

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01568000 SHERMAN CREEK AT SHERMANS DALE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT									
22...	0.02	--	<0.01	<0.01	<0.01	--	1.9	5	0.89
NOV									
20...	<0.01	--	<0.01	--	<0.01	--	1.3	56	9.0
DEC									
14...	0.01	--	<0.01	--	0.01	0.03	--	8	5.6
FEB									
21...	<0.01	--	<0.01	--	0.01	0.03	2.7	5	3.7
MAR									
21...	<0.01	--	<0.01	--	<0.01	--	2.1	5	1.7
APR									
19...	0.06	--	0.03	--	0.03	0.09	2.5	6	3.3
MAY									
09...	<0.01	--	<0.01	--	<0.01	--	2.2	6	3.3
JUN									
04...	<0.01	--	<0.01	--	<0.01	--	3.1	11	5.3
JUL									
02...	0.02	0.06	0.02	--	<0.01	--	2.6	13	2.5
AUG									
07...	0.10	0.31	<0.01	--	0.03	0.09	--	8	0.86
SEP									
04...	0.04	0.12	0.05	--	0.01	0.03	2.2	10	0.78



## CLARK CREEK BASIN

01568400 DeHART RESERVOIR NEAR CARSONVILLE, PA

LOCATION.--Lat 40°27'50", long 76°44'50", Dauphin County, Hydrologic Unit 02050305, at dam on Clark Creek, 1.8 mi southeast of Carsonville, and 15.3 mi upstream from mouth.

DRAINAGE AREA.--21.7 mi<sup>2</sup>.

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. Crest of spillway raised 4 ft in November 1954. Storage began Jan. 21, 1940. Capacity at elevation 644.00 ft is 18,480 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. There are no gates on spillway and 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, 18,560 acre-ft May 20, elevation 644.17 ft; minimum, 14,900 acre-ft Nov. 28, elevation, 637.92 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
Sept. 30 .....	641.50	17,020	--
Oct. 31 .....	639.58	15,890	- 18.4
Nov. 30 .....	639.33	15,730	- 2.7
Dec. 31 .....	641.50	17,020	+ 21.0
CAL YR 1984 .....	--	--	- 2.2
Jan. 31 .....	640.92	16,680	- 5.5
Feb. 28 .....	641.58	17,060	+ 6.8
Mar. 31 .....	641.92	17,260	+ 3.3
Apr. 30 .....	642.83	17,790	+ 8.9
May 31 .....	644.08	18,520	+ 11.9
June 30 .....	643.75	18,330	- 3.2
July 31 .....	642.17	17,410	- 15.0
Aug. 31 .....	640.17	16,240	- 19.0
Sept. 30 .....	638.08	14,990	- 21.0
WTR YR 1985 .....	--	--	- 2.8

## CLARK CREEK BASIN

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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 mi upstream from mouth.

DRAINAGE AREA.--22.5 mi<sup>2</sup>.

PERIOD OF RECORD.--September 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.--Estimated daily discharges: Jan. 8 to Feb. 11. Records good except those for estimated daily discharges, which are fair. Flow regulated since 1941 by DeHart Reservoir (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.--47 years, 40.1 ft<sup>3</sup>/s, 24.20 in/yr, adjusted for storage and diversion since 1941.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft<sup>3</sup>/s June 22, 1972, gage height, 10.98 ft, from rating curve extended above 2,400 ft<sup>3</sup>/s on basis of computation of peak flow over dam; minimum daily, 0.2 ft<sup>3</sup>/s Jan. 29 to Feb. 3, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101 ft<sup>3</sup>/s June 18, gage height, 2.37 ft; minimum daily, 3.0 ft<sup>3</sup>/s many days in Sept.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	6.0	5.3	4.6	3.7	3.3	5.6	3.9	5.7	4.9	3.3	3.2
2	6.0	6.0	5.1	4.6	3.7	3.2	5.1	4.5	4.9	4.9	3.3	3.2
3	6.0	6.0	5.3	4.4	3.7	3.2	5.1	6.3	4.7	5.0	3.3	3.2
4	6.0	6.0	5.2	4.5	3.5	3.2	5.1	4.7	6.1	4.9	3.3	3.1
5	6.0	6.4	5.1	4.5	3.7	3.2	4.9	4.4	8.3	4.9	3.3	3.0
6	6.0	5.3	5.4	4.4	3.7	3.3	5.0	4.4	5.7	4.9	3.3	3.0
7	6.0	5.1	5.3	4.4	3.7	3.3	5.0	4.3	4.7	4.9	3.3	3.0
8	6.0	5.0	5.1	4.3	3.6	3.3	5.0	4.3	4.1	4.9	3.4	3.3
9	6.0	5.4	5.1	4.2	3.7	3.3	4.9	4.2	4.1	4.9	3.3	3.1
10	6.0	5.6	5.1	4.2	3.7	3.3	4.9	4.2	3.9	4.8	3.3	3.1
11	6.0	5.8	5.2	4.2	3.9	4.1	4.7	4.1	4.0	4.8	3.3	3.0
12	6.0	5.6	5.2	4.2	8.5	4.9	4.6	4.2	4.1	4.8	3.2	3.0
13	6.0	5.6	5.1	4.1	5.9	4.8	4.6	4.1	3.9	4.8	3.3	3.0
14	6.0	5.1	5.1	4.2	5.1	4.7	4.6	4.0	3.8	4.8	3.3	3.0
15	6.0	4.8	5.1	4.2	4.2	4.6	4.6	4.2	3.9	3.9	3.3	3.0
16	6.0	4.8	5.1	4.0	3.2	4.6	4.6	4.3	9.9	3.3	3.3	3.0
17	6.0	4.8	5.1	3.8	3.2	4.6	4.4	4.6	18	3.3	3.3	3.0
18	6.0	4.8	5.1	3.7	3.2	4.6	4.4	5.9	52	3.3	3.3	3.0
19	6.0	4.8	5.1	3.6	3.3	4.5	4.4	8.0	5.8	3.3	3.3	3.0
20	6.0	4.7	7.1	3.5	3.3	4.5	4.4	10	5.5	3.3	3.3	3.0
21	6.0	4.6	6.1	3.4	3.3	4.8	4.4	11	5.4	3.4	3.3	3.0
22	6.2	4.6	5.8	3.4	3.3	5.0	4.4	11	5.5	3.7	3.3	3.0
23	6.0	4.6	5.2	3.4	3.5	5.3	4.4	12	5.2	3.3	3.3	3.0
24	6.0	4.6	4.9	3.6	3.6	5.5	5.7	13	5.1	3.3	3.3	3.0
25	6.0	4.6	4.6	3.7	3.5	5.6	5.8	9.5	5.0	3.3	3.4	3.0
26	6.0	4.6	4.6	3.7	3.5	6.1	4.6	7.1	5.2	3.9	3.2	3.0
27	6.0	4.6	4.6	3.7	3.4	5.5	3.9	5.7	5.1	3.4	3.2	4.0
28	6.1	6.2	4.6	3.7	3.3	4.9	3.9	8.2	5.1	3.3	3.2	3.1
29	6.0	8.8	4.6	3.7	---	4.6	3.9	10	5.0	3.3	3.2	3.0
30	6.0	5.5	4.6	3.7	---	4.5	3.9	6.3	4.9	3.3	3.2	3.0
31	6.0	---	4.5	3.7	---	5.1	---	5.3	---	3.4	3.2	---
TOTAL	186.4	160.3	159.3	123.3	107.9	135.4	140.8	197.7	214.6	126.2	101.8	92.3
MEAN	6.01	5.34	5.14	3.98	3.85	4.37	4.69	6.38	7.15	4.07	3.28	3.08
MAX	6.2	8.8	7.1	4.6	8.5	6.1	5.8	13	52	5.0	3.4	4.0
MIN	6.0	4.6	4.5	3.4	3.2	3.2	3.9	3.9	3.8	3.3	3.2	3.0
(†)	21.2	21.4	21.3	22.0	22.4	23.2	22.5	21.7	21.9	22.6	23.3	22.4
MEAN†	8.81	24.0	47.4	20.5	33.1	30.9	36.1	40.0	25.8	11.7	7.58	4.48
CFSM†	.39	1.07	2.11	.91	1.47	1.37	1.60	1.78	1.15	.52	.34	.20
IN.†	.45	1.19	2.43	1.05	1.53	1.58	1.78	2.05	1.28	.60	.39	.22

CAL YR 1984 TOTAL 12803.6 MEAN 35.0 MAX 616 MIN 4.5 MEAN† 53.9 CFSM† 2.40 IN.† 32.64  
WTR YR 1985 TOTAL 1746.0 MEAN 4.78 MAX 52 MIN 3.0 MEAN† 24.1 CFSM† 1.07 IN.† 14.56

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

‡ Adjusted for diversion and change in reservoir contents.

## STONY CREEK BASIN

01568750 STONY CREEK AT WATER TANK TRAIL NEAR DAUPHIN, PA

LOCATION.--Lat 40°24'51", long 76°46'50", Dauphin County, Hydrologic Unit 02050305, on right bank at Water Tank Trail, 3.8 mi downstream from Rattling Run and 9 mi northeast of Dauphin.

DRAINAGE AREA.--21.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to Sept. 1976 (published as "Stony Creek below Pump-Storage Reservoir near Dauphin"), October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Feb. 12. Records fair, except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 5,110 ft<sup>3</sup>/s Sept. 26, 1975, gage height 8.66 ft, from rating curve extended above 150 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 5.8 ft<sup>3</sup>/s Aug. 24, 1985; minimum gage height, 1.55 ft Aug. 15, 16, 21-24, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	Unknown	Unknown	Unknown	June 16	1945	*373	a*3.90

(a) Maximum recorded, but may have been higher during period of no gage height record Nov. 29.

Minimum discharge, 5.8 ft<sup>3</sup>/s Aug. 24, minimum gage height, 1.55 ft Aug. 15, 16, 21-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	11	50	27	16	35	64	23	28	20	22	7.1
2	14	12	37	29	16	34	55	31	25	22	17	7.1
3	13	11	37	28	15	33	44	92	23	21	11	6.8
4	12	11	42	26	15	32	43	83	28	20	9.1	6.7
5	12	13	36	26	14	33	41	46	28	19	8.5	6.4
6	12	12	34	25	14	33	41	37	26	18	8.2	6.4
7	12	12	32	24	13	31	39	34	23	19	7.9	6.4
8	12	11	28	24	13	31	43	31	23	17	10	8.4
9	13	11	26	21	13	31	41	29	24	19	9.5	11
10	12	11	26	19	12	30	37	28	22	17	7.8	8.4
11	11	11	28	18	12	30	35	26	19	16	7.4	6.9
12	11	12	31	17	45	40	34	26	17	15	7.1	7.1
13	11	11	29	16	94	40	33	35	16	14	7.1	7.0
14	11	11	26	16	65	35	32	33	16	13	8.0	7.1
15	11	11	26	15	40	32	32	27	15	14	6.7	7.1
16	11	10	26	13	32	30	33	30	114	13	6.3	7.1
17	12	10	26	15	31	30	38	47	175	12	6.4	7.1
18	12	13	26	14	28	28	33	63	75	10	6.4	7.1
19	11	12	25	14	28	28	32	46	43	10	6.5	7.1
20	11	11	27	11	28	28	30	33	34	9.9	6.5	7.1
21	12	11	28	10	27	27	28	29	32	9.8	6.1	7.1
22	17	12	53	13	29	27	28	27	28	18	6.3	7.1
23	15	11	52	15	42	29	27	29	27	14	6.3	7.1
24	14	12	39	16	61	35	26	30	26	9.8	5.9	7.1
25	13	11	34	17	61	37	27	26	24	9.1	12	7.1
26	12	10	31	16	50	33	26	24	22	24	13	7.3
27	12	10	29	15	42	30	25	23	21	27	9.1	26
28	12	25	28	16	38	29	25	26	21	18	6.5	32
29	13	150	29	17	---	33	25	31	22	13	6.6	18
30	12	111	28	17	---	33	24	26	21	11	6.8	10
31	12	---	27	16	---	38	---	24	---	11	6.8	---
TOTAL	386	590	996	566	894	995	1041	1095	1018	483.6	264.8	274.2
MEAN	12.5	19.7	32.1	18.3	31.9	32.1	34.7	35.3	33.9	15.6	8.54	9.14
MAX	18	150	53	29	94	40	64	92	175	27	22	32
MIN	11	10	25	10	12	27	24	23	15	9.1	5.9	6.4
CFSM	.57	.90	1.47	.84	1.46	1.47	1.58	1.61	1.55	.71	.39	.42
IN.	.66	1.00	1.69	.96	1.52	1.69	1.77	1.86	1.73	.82	.45	.47

WTR YR 1985 TOTAL 8603.6 MEAN 23.6 MAX 175 MIN 5.9 CFSM 1.08 IN. 14.61

## STONY CREEK BASIN

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01568750 STONY CREEK AT WATER TANK TRAIL NEAR DAUPHIN, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-76, October 1984 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1974 to July 1976

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 24.0°C Aug. 4, 1975; minimum, 0.0°C on many days during winter periods.

INSTRUMENTATION.--Automatic pumping sampler since October 1984.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
NOV												
21...	0900	11	--	6.80	2.0	<0.10	0.12	<0.01	0.01	0.68	--	0.8
DEC												
13...	0900	30	55	7.20	7.0	<0.10	0.03	<0.01	0.01	0.17	--	0.2
JAN												
17...	1400	21	50	6.70	0.0	<0.10	0.02	0.01	0.01	0.38	0.29	0.4
FEB												
22...	1140	29	60	6.80	3.5	0.10	0.04	0.07	0.09	0.46	--	0.5
MAR												
22...	1315	27	28	7.00	5.0	<0.10	0.08	0.02	0.03	0.22	0.28	0.3
APR												
19...	1230	33	29	7.20	16.5	0.10	<0.01	0.04	0.05	--	0.36	1.2
MAY												
10...	1100	28	25	6.20	12.0	<0.10	<0.01	0.04	0.05	--	0.46	0.4
JUN												
05...	1623	28	30	7.00	16.0	<0.10	0.01	0.02	0.03	0.39	--	0.4
16...	0915	35	27	6.00	--	<0.10	0.03	0.06	0.08	0.47	0.14	0.5
16...	1645	87	28	6.20	20.5	<0.10	0.07	0.07	0.09	0.93	0.33	1.0
16...	1815	234	33	5.50	--	0.20	0.12	0.07	0.09	1.6	0.53	1.7
16...	2015	373	34	5.20	--	0.20	0.07	0.07	0.09	1.2	0.93	1.3
16...	2245	311	33	5.20	--	<0.10	2.10	0.96	1.2	2.5	0.64	4.6
17...	0715	207	39	5.10	--	<0.10	0.05	0.05	0.06	0.45	0.45	0.5
18...	0215	104	34	5.10	--	<0.10	0.10	0.08	0.10	0.4	0.32	0.5
JUL												
01...	1330	21	23	5.60	17.0	<0.10	0.07	0.03	0.04	0.23	0.27	0.3
AUG												
07...	1245	8.0	27	6.80	--	<0.10	0.02	<0.01	0.01	0.28	--	0.3
SEP												
04...	1015	8.3	26	6.90	21.5	0.20	0.04	0.03	0.04	0.16	0.17	0.2

## STONY CREEK BASIN

01568750 STONY CREEK AT WATER TANK TRAIL NEAR DAUPHIN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV												
21...	--	0.2	--	--	<0.01	--	<0.01	<0.01	--	1.1	5	0.15
DEC												
13...	--	0.3	--	--	<0.01	--	<0.01	0.01	0.03	--	3	0.24
JAN												
17...	--	0.3	--	--	0.02	--	0.02	0.02	0.06	1.3	2	0.11
FEB												
22...	--	--	0.6	2.7	<0.01	--	<0.01	0.02	0.06	1.4	2	0.16
MAR												
22...	--	0.3	--	--	0.04	--	<0.01	<0.01	--	1.8	1	0.07
APR												
19...	--	0.4	1.3	5.8	<0.01	--	0.03	0.02	0.06	3.0	2	0.18
MAY												
10...	--	0.5	--	--	0.02	--	0.04	<0.01	--	1.8	4	0.30
JUN												
05...	--	--	--	--	<0.01	--	<0.01	<0.01	--	2.9	6	0.46
16...	0.3	0.2	--	--	0.03	0.09	<0.01	<0.01	--	4.7	16	1.5
16...	0.6	0.4	--	--	0.05	0.15	<0.01	<0.01	--	11	75	18
16...	1.1	0.6	1.9	8.4	0.05	0.15	<0.01	<0.01	--	17	191	121
16...	0.3	1.0	1.5	6.6	0.05	0.15	<0.01	<0.01	--	13	70	70
16...	3.0	1.6	--	--	0.55	1.7	0.09	0.03	0.09	13	32	27
17...	0.0	0.5	--	--	0.03	0.09	<0.01	<0.01	--	8.3	11	6.1
18...	0.1	0.4	--	--	0.02	0.06	<0.01	<0.01	--	4.8	7	2.0
JUL												
01...	0.0	0.3	--	--	0.01	0.03	0.01	<0.01	--	3.9	4	0.22
AUG												
07...	0.0	0.3	--	--	<0.01	--	<0.01	<0.01	--	4.6	1	0.02
SEP												
04...	0.0	0.2	0.4	1.8	0.04	0.12	0.04	0.01	0.03	1.8	5	0.11



## CONODOGUINET CREEK BASIN

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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, 3.1 mi west of New Kingstown, and 3.7 mi east of Carlisle.

DRAINAGE AREA.--21.6 mi<sup>2</sup>.

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.--Estimated daily discharges: Jan. 21, 22, Aug. 26 to Sept. 30. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 45.4 ft<sup>3</sup>/s, 28.54 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft<sup>3</sup>/s Jan. 24, 1979, gage height, 6.53 ft, from rating curve extended above 680 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow part of Aug. 15, 1976.

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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 27	0145	*133	*4.49	No other peak greater than base discharge.			

Minimum discharge recorded, 21 ft<sup>3</sup>/s Aug. 21, gage height, 3.52 ft, but may have been less during period of faulty gage height record Aug. 26 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	27	44	36	27	39	51	32	37	28	26	29
2	30	27	41	37	27	40	49	46	33	27	26	28
3	30	27	43	36	26	40	46	63	31	27	26	28
4	29	27	39	35	26	39	45	46	33	27	25	28
5	29	41	38	35	26	39	44	42	34	26	24	26
6	29	28	42	34	27	38	43	40	32	34	24	25
7	29	27	38	33	26	37	41	40	31	28	24	26
8	28	27	37	33	26	37	40	39	32	27	29	29
9	28	26	36	32	26	36	43	36	32	27	25	38
10	27	27	35	32	26	35	40	36	31	28	24	35
11	27	31	35	33	26	35	41	35	31	26	24	32
12	26	28	34	32	70	36	39	35	30	26	24	26
13	26	27	34	32	64	34	40	34	30	26	23	24
14	25	26	34	31	55	34	37	34	29	25	25	23
15	25	26	33	31	50	33	36	33	30	25	26	22
16	25	26	33	32	47	33	38	38	39	24	24	22
17	25	26	33	33	45	32	36	41	32	24	23	22
18	29	27	33	32	44	31	37	41	30	23	23	23
19	28	27	35	31	43	31	35	36	30	23	23	22
20	30	26	33	30	42	31	36	35	31	23	23	22
21	29	26	42	28	41	31	36	36	29	23	22	21
22	36	26	42	25	40	31	34	35	29	26	23	21
23	30	25	40	27	41	39	33	41	32	25	23	21
24	29	25	39	27	40	38	33	36	29	24	25	24
25	28	25	39	27	39	38	33	36	28	29	32	23
26	28	25	37	27	38	36	33	35	28	41	27	22
27	28	25	37	27	37	36	34	34	27	58	26	49
28	28	41	36	27	39	35	34	36	30	32	28	33
29	28	78	36	27	---	45	33	34	28	29	30	24
30	27	48	35	27	---	40	32	33	28	28	28	21
31	27	---	35	27	---	44	---	35	---	28	28	---
TOTAL	878	898	1148	956	1064	1123	1152	1173	926	867	783	789
MEAN	28.3	29.9	37.0	30.8	38.0	36.2	38.4	37.8	30.9	28.0	25.3	26.3
MAX	36	78	44	37	70	45	51	63	39	58	32	49
MIN	25	25	33	25	26	31	32	32	27	23	22	21
CFSM	1.31	1.38	1.71	1.43	1.76	1.68	1.78	1.75	1.43	1.30	1.17	1.22
IN.	1.51	1.55	1.98	1.65	1.83	1.93	1.98	2.02	1.59	1.49	1.35	1.36

CAL YR 1984	TOTAL	19132	MEAN	52.3	MAX	176	MIN	25	CFSM	2.42	IN.	32.95
WTR YR 1985	TOTAL	11757	MEAN	32.2	MAX	78	MIN	21	CFSM	1.49	IN.	20.25

## 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, 0.4 mi downstream from Hogestown Run, and 1 mi northeast of Hogestown.

DRAINAGE AREA.--470 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1911 to September 1917, October 1929 to September 1958, June 1967 to current year. Monthly discharges only for some periods, published in WSP 1302. October 1917 to December 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania. 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, non-recording gage at site 1,000 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 15 to Feb. 10 and Feb. 12 to Mar. 29. Records good except those for estimated daily discharges, which are fair. Since June 1969 the Riverton Consolidated Water Co. diverts water, equivalent to a mean daily discharge of about 6.0 ft<sup>3</sup>/s, just upstream from the gage for municipal water supply. Several measurements of water temperature were made during the year. National Weather Service landline tele-meter at station.

AVERAGE DISCHARGE.--53 years (1911-17, 1929-58, 1967-85), 591 ft<sup>3</sup>/s, 17.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft<sup>3</sup>/s June 23, 1972, gage height, 17.01 ft, from flood-mark in gage shelter; minimum, 24 ft<sup>3</sup>/s Dec. 16, 1930; minimum daily, 26 ft<sup>3</sup>/s Dec. 23, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 13	1615	*4,650	*6.94	No other peak greater than base discharge.			
Minimum discharge, 76 ft <sup>3</sup> /s Sept. 18-22, 26, gage height, 0.95 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	153	1270	375	185	735	1880	266	478	174	213	113
2	194	148	881	379	180	640	1680	306	456	171	211	110
3	193	145	711	369	170	590	1350	895	360	174	179	104
4	181	143	750	341	175	585	1210	1290	333	187	157	110
5	171	212	628	347	185	490	1030	786	330	174	145	109
6	156	189	621	338	190	480	906	628	315	176	145	100
7	152	178	673	350	175	470	783	552	290	197	144	100
8	153	160	557	318	170	438	713	489	270	177	169	99
9	153	149	505	302	200	394	664	434	278	162	157	118
10	153	153	482	238	225	370	657	397	277	168	163	119
11	155	160	492	231	231	403	600	367	252	162	148	100
12	150	182	523	248	1600	420	570	346	231	154	134	95
13	147	181	505	235	3680	370	532	352	223	146	138	89
14	145	168	466	216	2760	339	498	316	216	171	137	83
15	145	155	442	220	1550	330	481	296	211	150	169	84
16	145	148	427	215	1070	315	488	305	281	141	146	84
17	147	142	407	210	860	300	470	340	471	134	149	82
18	148	140	405	210	770	295	429	722	408	127	133	81
19	154	153	389	200	710	285	404	666	320	123	126	81
20	165	150	481	180	770	318	388	475	273	120	120	80
21	154	152	539	160	760	309	371	396	252	116	115	81
22	173	148	898	180	750	297	354	387	241	124	114	81
23	320	139	988	190	1000	410	338	379	233	128	118	85
24	314	131	798	210	1200	600	327	440	227	125	117	84
25	220	134	622	200	1080	900	338	431	216	120	154	81
26	195	132	613	190	990	780	327	355	200	173	143	103
27	190	132	570	200	900	700	314	316	185	674	157	234
28	168	150	493	190	810	640	298	311	181	586	144	149
29	171	1760	504	180	---	620	290	401	181	335	135	129
30	167	2540	439	180	---	1290	276	373	180	259	121	108
31	165	---	396	175	---	1510	---	342	---	222	122	---
TOTAL	5434	8627	18475	7577	23346	16623	18966	14359	8369	6050	4523	3076
MEAN	175	288	596	244	834	536	632	463	279	195	146	103
MAX	320	2540	1270	379	3680	1510	1880	1290	478	674	213	234
MIN	145	131	389	160	170	285	276	266	180	116	114	80
CFSM	.37	.61	1.27	.52	1.77	1.14	1.34	.99	.59	.41	.31	.22
IN.	.43	.68	1.46	.60	1.85	1.32	1.50	1.14	.66	.48	.36	.24

CAL YR 1984 TOTAL 282545 MEAN 772 MAX 14000 MIN 131 CFSM 1.64 IN. 22.36  
WTR YR 1985 TOTAL 135425 MEAN 371 MAX 3680 MIN 80 CFSM .79 IN. 10.72

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, 3,670 ft upstream from sanitary dam, in Harrisburg, and 1.7 mi upstream from Paxton Creek. Water-quality sampling site 600 ft upstream.

DRAINAGE AREA.--24,100 mi<sup>2</sup>, approximately.

## 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 and concrete control. 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.--Estimated daily discharges: Jan. 13 to Feb. 11. 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 telemeter at station.

COOPERATION.--Daily discharges through Safe Harbor Dam provided by Safe Harbor Water Power Corporation.

AVERAGE DISCHARGE.--95 years, 34,341 ft<sup>3</sup>/s, 19.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020,000 ft<sup>3</sup>/s June 24, 1972, gage height, 32.57 ft, from flood-mark; minimum 1,600 ft<sup>3</sup>/s Nov. 29, 1930, result of freezeup. Minimum daily discharge since construction of sanitary dam and not affected by freezeup, 1,700 ft<sup>3</sup>/s Sept. 18, 1964; minimum gage height, 1.83 ft Sept. 13, 1964.

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 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 3	0900	*129,000	*9.63				

Minimum discharge, 4,200 ft<sup>3</sup>/s Aug. 24, Sept. 26, gage height 3.07.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5740	7610	60000	70100	14000	74400	90300	16200	16600	8540	7620	6950
2	5960	7420	57900	66500	13000	60200	113000	15500	21400	8190	9550	9740
3	6090	7590	55900	59400	13000	51300	125000	21200	31000	8110	9670	8860
4	6240	7730	53900	53800	12000	44100	104000	40500	26300	8030	8430	8250
5	6410	8400	52200	49700	12000	39500	83600	40200	23200	7690	7920	7220
6	6110	8220	50300	45300	11000	37200	70500	37800	23200	7580	7280	6460
7	5950	8620	47500	40700	10000	35500	63200	32900	22900	7810	6840	5940
8	5810	10900	43300	36100	9800	34800	56900	27900	19000	7740	6810	5590
9	5790	12700	38400	33500	9000	33800	53200	25500	16800	8080	6900	5640
10	5750	12300	33800	29800	8000	32800	48300	20400	15800	8390	7090	5660
11	5600	11900	31100	25800	12000	33600	44700	19200	14100	8930	8260	6380
12	5570	11500	32400	21100	16700	36700	41500	19600	13200	10100	8100	7450
13	5470	15100	36000	17000	39600	40000	40200	19200	12200	10000	7110	10100
14	5370	17000	40000	16000	51600	74100	37300	20900	11500	10500	6520	10900
15	5270	16000	42800	16000	34600	92800	35000	18500	11000	11900	6250	9120
16	5230	14700	47600	16000	29400	80600	32800	15900	12600	11300	5780	7950
17	5200	13700	49700	17000	25300	65300	31100	15800	15400	10700	5400	7120
18	5180	13000	46700	18000	23900	53500	28900	16900	16700	11100	5140	6550
19	5100	12600	43200	17000	23000	46600	26500	20900	15400	10900	5100	6020
20	5180	11700	40400	13000	21700	41600	25200	21300	14700	9970	5100	5640
21	5650	11100	40300	9000	20900	37100	23800	19600	14000	8820	5150	5230
22	5610	10700	46700	8800	22300	33400	23200	17900	12800	8460	5990	4970
23	6420	10500	59600	7800	22700	31100	24200	16800	12300	7760	6350	4720
24	7130	10200	66500	7400	26300	32100	23000	14900	11300	7340	4430	4560
25	7840	9850	65100	13000	48800	43500	22400	14600	10400	7540	4720	4390
26	7730	9470	58200	15000	110000	52400	21600	14000	9890	8150	4680	4230
27	7420	9250	50600	14000	114000	56900	20200	12600	9820	8250	4530	5260
28	7460	9460	43700	15000	93500	51900	19300	11700	9280	8710	5150	5640
29	7670	20700	40100	16000	---	48000	18300	12000	8830	8450	7560	35600
30	7400	64100	44700	15000	---	55900	17300	14200	8610	7890	6880	30700
31	7640	---	64900	15000	---	73900	---	16900	---	7400	6230	---
TOTAL	190990	394020	1483500	797800	848100	1524600	1364500	631500	460230	274330	202540	252840
MEAN	6161	13130	47850	25740	30290	49180	45480	20370	15340	8849	6534	8428
MAX	7840	64100	66500	70100	114000	92800	125000	40500	31000	11900	9670	35600
MIN	5100	7420	31100	7400	8000	31100	17300	11700	8610	7340	4430	4230
CFSM	.26	.54	1.99	1.07	1.26	2.04	1.89	.85	.64	.37	.27	.35
IN.	.29	.61	2.29	1.23	1.31	2.35	2.11	.97	.71	.42	.31	.39

CAL YR 1984 TOTAL 15292300 MEAN 41780 MAX 417000 MIN 5100 CFSM 1.73 IN. 23.60  
WTR YR 1985 TOTAL 8424950 MEAN 23080 MAX 125000 MIN 4230 CFSM .96 IN. 13.00

## 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: October 1963 to September 1968, April 1970 to September 1979, April 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.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCARB TOT FLD MG/L AS CACO3
NOV											
16...	0930	1028	1.4	763	9.6	78	28	58	120	61	120
JAN											
07...	1245	1028	9.5	760	13.3	104	150	27	74	31	74
MAR											
05...	0930	1028	4.5	768	12.6	99	K11	K5	74	49	74
MAY											
14...	1045	1028	1.7	765	9.0	103	60	K2100	99	51	99
JUL											
03...	1030	1028	2.0	762	8.5	99	38	K22	120	46	120
SEP											
06...	0930	1028	1.5	765	6.4	80	K24	170	120	66	120

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY FILTER FIELD MG/L AS CACO3	ALKA- LINITY LAB (MG/L AS CACO3)
NOV										
16...	32	9.1	8.3	13	0.3	1.8	69	0	57	61
JAN										
07...	21	5.3	6.3	15	0.3	1.1	52	0	42	40
MAR										
05...	21	5.3	6.1	15	0.3	1.3	30	0	25	38
MAY										
14...	27	7.7	7.5	14	0.3	1.6	59	0	49	54
JUL										
03...	33	10	10	15	0.4	1.5	95	0	70	67
SEP										
06...	30	11	13	19	0.5	2.2	52	6.6	54	54

DATE	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV										
16...	57	0.7	55	14	<0.1	2.3	173	160	0.24	6960
JAN										
07...	43	2.1	30	12	<0.1	4.3	123	110	0.17	13300
MAR										
05...	25	1.5	30	10	<0.1	4.3	113	93	0.15	12100
MAY										
14...	48	0.5	47	12	<0.1	2.1	186	130	0.25	11400
JUL										
03...	78	1.2	58	16	<0.1	1.3	212	180	0.29	4670
SEP										
06...	54	0.2	64	20	<0.1	1.2	196	180	0.27	3460

(K) Results based on non-ideal colony count.

## SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 16...	50	<1	32	0	<1	3	<3	1	14	2
MAR 05...	30	<1	30	<0.5	<1	<1	<3	4	67	3
MAY 14...	--	--	28	<0.5	<1	--	<3	--	8	--
SEP 06...	20	1	33	<0.5	<1	<1	<3	6	6	5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 16...	10	70	<0.1	<10	6	<1	<1	180	<6	5
MAR 05...	7	140	0.2	<10	2	<1	<1	110	<6	11
MAY 14...	9	7	<0.1	<10	--	--	--	150	<6	<3
SEP 06...	10	12	<0.1	<10	2	<1	<1	230	<6	10



## SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

## RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
NOV 16...	0930	1028	14900	<2.9	<0.4	2.8	<0.4	2.4	<0.4	0.04	0.19
MAR 05...	0930	1028	39700	<2.0	0.9	2.0	0.8	1.7	0.7	0.04	0.17

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)
OCT 23...	0930	42011	6420	283	8.30	18.0	1.38	1.38	0.02	0.02	0.07
NOV 16...	0930	1028	14900	297	8.20	6.5	--	--	--	--	--
NOV 21...	1030	42011	11000	345	7.50	4.0	--	--	--	--	--
DEC 14...	0900	42011	39900	187	7.30	6.0	--	--	--	--	--
JAN 07...	1245	1028	40100	200	7.60	5.0	--	--	--	--	--
FEB 22...	1230	42011	22000	230	8.20	6.5	--	--	--	--	--
MAR 05...	0930	1028	39700	190	7.50	5.5	--	--	--	--	--
MAR 22...	1200	42011	33500	184	8.40	6.0	--	--	--	--	--
APR 19...	1430	42011	26200	220	7.20	18.0	--	--	--	--	--
MAY 10...	1345	42011	18600	228	8.20	23.0	--	--	--	--	--
MAY 14...	1045	1028	22700	260	8.30	22.0	--	--	--	--	--
JUN 05...	1340	42011	23000	235	7.50	20.0	--	--	--	--	--
JUL 02...	1245	42011	8160	315	8.30	22.5	--	--	--	--	--
JUL 03...	1030	1028	8160	316	8.10	23.0	--	--	--	--	--
AUG 08...	1500	42011	6760	300	8.20	30.5	--	--	--	--	--
SEP 04...	1345	42011	8160	360	8.70	28.5	--	--	--	--	--
SEP 06...	0930	1028	6540	310	8.60	27.0	--	--	--	--	--

## SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT											
23...	1.40	1.40	0.06	0.03	0.04	0.54	0.57	0.6	--	0.6	2.0
NOV											
16...	--	1.30	--	0.05	0.06	--	--	0.3	--	--	--
21...	1.40	--	<0.01	<0.01	0.01	--	--	1.9	--	0.1	3.3
DEC											
14...	1.30	--	0.08	0.03	0.04	0.22	0.07	0.3	--	0.1	1.6
JAN											
07...	--	1.00	--	0.01	0.01	--	--	0.5	--	--	--
FEB											
22...	1.50	--	0.07	0.12	0.15	0.53	--	0.6	--	--	2.1
MAR											
05...	--	1.30	--	0.07	0.09	--	--	1.2	--	--	--
22...	1.10	--	0.04	0.03	0.04	0.56	0.27	0.6	--	0.3	1.7
APR											
19...	1.10	--	<0.01	<0.01	0.01	--	--	1.4	--	1.6	2.5
MAY											
10...	1.20	--	<0.01	0.02	0.03	--	0.58	1.0	--	0.6	2.2
14...	--	0.83	--	0.04	0.05	--	--	0.4	--	--	--
JUN											
05...	1.00	--	<0.01	<0.01	0.01	--	--	0.3	--	--	1.3
JUL											
02...	1.00	--	0.07	0.07	0.09	0.63	0.43	0.7	0.2	0.5	1.7
03...	--	0.92	--	0.02	0.03	--	--	0.9	--	--	--
AUG											
08...	0.30	--	<0.01	0.11	0.14	--	0.49	0.9	0.3	0.6	1.2
SEP											
04...	0.60	--	0.08	0.02	0.03	0.62	0.38	0.7	0.3	0.4	1.3
06...	--	0.61	--	0.06	0.08	--	--	0.9	--	--	--

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
23...	8.9	0.04	--	0.03	0.02	0.02	0.06	1.7	6	104	--
NOV											
16...	--	<0.01	--	<0.01	--	0.01	0.03	--	9	362	83
21...	15	0.02	--	0.01	--	<0.01	--	1.9	12	355	--
DEC											
14...	7.1	0.04	--	<0.01	--	0.01	0.03	--	15	1620	--
JAN											
07...	--	0.02	--	<0.01	--	<0.01	--	--	6	650	91
FEB											
22...	9.3	0.05	--	<0.01	--	0.03	0.09	1.8	14	830	--
MAR											
05...	--	0.03	--	<0.01	--	0.02	0.06	--	24	2570	86
22...	7.5	0.04	--	<0.01	--	<0.01	--	2.7	11	995	--
APR											
19...	11	0.02	--	0.01	--	0.02	0.06	2.8	11	778	--
MAY											
10...	9.7	0.05	--	0.05	--	0.01	0.03	2.5	13	653	--
14...	--	<0.01	--	<0.01	--	<0.01	--	--	24	1470	93
JUN											
05...	5.8	<0.01	--	<0.01	--	0.01	0.03	3.3	25	1560	--
JUL											
02...	7.5	0.05	0.15	0.05	--	<0.01	--	3.5	5	110	--
03...	--	0.03	0.09	0.02	--	<0.01	--	--	--	--	--
AUG											
08...	5.3	<0.01	--	<0.01	--	0.08	0.25	11	13	237	--
SEP											
04...	5.8	0.05	0.15	0.03	--	<0.01	--	5.6	13	286	--
06...	--	0.04	0.12	0.03	--	0.01	0.03	--	--	--	--

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1940 to September 1950. Annual maximum, water years 1974-84. Oct. 1984 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.--Estimated daily discharges: Oct 1 to Nov. 27 and Jan. 8 to Feb. 11. Records good except those for Oct. 1 to Nov. 27, which are fair and Jan. 8 to Feb. 11, which are poor.

AVERAGE DISCHARGE.--11 years (water years 1941-1950, 1985) 14.5 ft<sup>3</sup>/s, 17.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft<sup>3</sup>/s Sept. 26, 1975, gage height, 13.25 ft, from rating curve extended above 2,800 ft<sup>3</sup>/s on basis of peak flow through culvert; minimum, 0.1 ft<sup>3</sup>/s or less at times during summer months during some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972 reached a stage of 13.45 ft, from floodmarks, discharge, 3,300 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0100	426	4.97	Feb. 12	1615	*854	*5.82
Feb. 12	1300	505	5.15				

Minimum discharge, 0.24 ft<sup>3</sup>/s Sept. 8, 20, gage height, 2.01 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	1.4	16	11	2.4	9.4	50	3.6	16	2.2	3.0	.54
2	2.1	2.0	12	14	2.4	8.7	31	22	5.1	2.3	1.7	.51
3	1.6	1.8	18	11	2.4	7.6	29	59	17	2.3	1.2	.40
4	1.2	1.8	13	8.9	2.3	7.1	25	18	12	4.7	1.1	.36
5	1.2	14	9.0	9.3	2.3	8.1	21	14	11	3.2	.93	.32
6	1.2	4.0	21	7.8	2.3	6.0	21	11	7.2	3.9	.84	.28
7	1.2	2.9	14	7.4	2.3	5.1	17	9.4	5.1	3.0	.84	.28
8	1.2	2.4	10	6.1	2.3	6.0	17	7.6	5.8	2.6	3.7	.43
9	1.2	2.3	9.2	5.6	2.3	5.1	15	6.1	5.9	2.7	1.3	3.0
10	1.2	2.4	9.2	5.3	2.3	4.6	13	5.3	4.4	2.5	.96	.94
11	1.2	2.9	9.4	5.1	3.0	5.2	11	4.7	3.7	1.9	.92	.48
12	1.1	3.6	7.7	4.9	221	14	9.9	4.5	3.4	1.4	.77	.40
13	1.1	2.0	7.5	4.8	67	8.2	9.2	4.4	3.1	1.2	.66	.36
14	.98	1.8	7.7	4.7	32	7.2	8.6	3.6	2.9	1.1	1.1	.32
15	.98	1.8	9.1	4.5	23	6.1	8.6	3.3	5.0	1.5	2.1	.32
16	.98	1.8	9.1	4.3	18	5.2	8.8	11	40	1.2	1.3	.32
17	.98	1.8	8.9	4.1	16	5.2	8.5	31	11	.88	1.1	.32
18	.98	1.8	6.8	3.9	15	4.6	7.6	27	11	.78	.75	.32
19	.98	2.9	6.9	3.7	18	4.3	7.5	12	6.1	.73	.74	.28
20	1.1	2.4	7.5	3.4	17	4.3	7.2	8.5	5.4	.68	.64	.28
21	1.1	2.1	23	2.8	16	4.0	6.8	7.2	4.9	.66	.54	.32
22	4.2	2.1	47	2.7	17	3.8	6.4	6.2	3.8	2.1	.50	.28
23	3.6	2.0	23	2.6	25	11	6.2	9.9	4.4	1.3	.49	.32
24	2.1	2.0	19	2.5	22	17	5.5	7.3	3.1	.75	1.1	.40
25	1.8	1.8	18	2.5	18	15	6.0	5.2	2.6	2.1	6.8	.36
26	1.6	1.6	13	2.5	15	10	5.9	4.4	2.4	14	1.9	.36
27	1.4	1.6	13	2.5	13	9.2	4.9	3.9	2.2	7.8	1.1	41
28	1.4	57	10	2.5	10	8.8	4.6	9.2	2.2	2.4	.78	3.9
29	2.5	111	10	2.4	---	25	4.3	6.2	2.5	1.9	.61	2.1
30	1.8	25	9.3	2.4	---	19	3.8	4.1	2.2	1.6	.62	1.3
31	1.4	---	9.4	2.4	---	37	---	5.5	---	6.2	.66	---
TOTAL	49.38	264.0	406.7	157.6	589.3	291.8	380.3	335.1	211.4	81.58	40.75	60.80
MEAN	1.59	8.80	13.1	5.08	21.0	9.41	12.7	10.8	7.05	2.63	1.31	2.03
MAX	4.2	111	47	14	221	37	50	59	40	14	6.8	41
MIN	.98	1.4	6.8	2.4	2.3	3.8	3.8	3.3	2.2	.66	.49	.28
CFSM	.14	.79	1.17	.45	1.88	.84	1.13	.96	.63	.23	.12	.18
IN	.16	.88	1.35	.52	1.96	.97	1.26	1.11	.70	.27	.14	.20

WTR YR 1985 TOTAL 2868.71 MEAN 7.86 MAX 221 MIN .28 CFSM .70 IN. 9.53

## PAXTON CREEK BASIN

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01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1985 to current year.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT										
19...	1135	2.0	450	8.40	16.0	0.38	0.02	<0.01	0.40	0.36
NOV										
21...	1000	3.8	430	8.40	4.0	--	--	--	0.70	--
DEC										
14...	0930	7.8	290	8.30	7.0	--	--	--	1.20	--
JAN										
17...	0945	9.8	367	8.20	0.0	--	--	--	1.00	--
FEB										
22...	1030	16	280	7.20	5.5	--	--	--	1.40	--
MAR										
22...	1115	20	312	7.90	7.5	--	--	--	--	--
APR										
19...	1100	7.0	315	9.10	20.0	--	--	--	0.40	--
MAY										
10...	1000	5.8	332	7.30	13.5	--	--	--	1.00	--
JUN										
05...	1430	9.6	388	8.30	16.0	--	--	--	1.20	--
15...	2302	36	227	7.40	--	--	--	--	<0.10	--
16...	0032	96	235	7.60	--	--	--	--	0.80	--
16...	0122	129	188	7.60	--	--	--	--	0.60	--
16...	0247	61	162	7.50	--	--	--	--	0.90	--
16...	0345	90	135	7.30	--	--	--	--	0.90	--
16...	0602	86	155	7.50	--	--	--	--	1.00	--
16...	0933	29	172	7.30	--	--	--	--	0.70	--
JUL										
02...	0933	2.2	400	8.70	17.5	--	--	--	0.80	--
AUG										
07...	1145	2.1	425	8.50	--	--	--	--	0.60	--
SEP										
04...	1200	2.0	456	8.50	26.5	--	--	--	0.50	--
26...	1230	0.6	434	8.10	--	--	--	--	0.40	--
27...	0430	30	216	7.00	--	--	--	--	<0.10	--
27...	0530	35	258	7.40	--	--	--	--	0.20	--
27...	0630	49	309	7.60	--	--	--	--	0.20	--
27...	0730	51	338	7.60	--	--	--	--	0.20	--
27...	0830	65	286	7.60	--	--	--	--	0.50	--
27...	0930	115	205	7.60	--	--	--	--	0.50	--
27...	1030	149	183	7.60	--	--	--	--	0.50	--
27...	1130	139	181	7.60	--	--	--	--	0.60	--
27...	1230	92	176	7.50	--	--	--	--	0.70	--
27...	1300	70	176	7.50	--	--	--	--	0.70	--
27...	1400	43	178	7.40	--	--	--	--	0.60	--
27...	1500	32	188	7.60	--	--	--	--	0.70	--
27...	1645	22	207	7.40	--	--	--	--	0.80	--
27...	1815	16	232	7.50	--	--	--	--	0.90	--
27...	2145	9.3	254	7.60	--	--	--	--	0.90	--
28...	0015	7.3	271	7.60	--	--	--	--	1.00	--
28...	0245	5.7	284	7.60	--	--	--	--	1.00	--

## PAXTON CREEK BASIN

01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
OCT										
19...	<0.01	0.02	0.03	--	0.28	0.5	--	0.3	0.9	4.0
NOV										
21...	<0.01	<0.01	0.01	--	--	2.1	--	0.7	2.8	12
DEC										
14...	0.04	<0.01	0.01	0.26	--	0.3	--	0.4	1.5	6.6
JAN										
17...	0.04	0.04	0.05	0.76	0.36	0.8	--	0.4	1.8	8.0
FEB										
22...	<0.01	0.03	0.04	--	--	0.5	--	--	1.9	8.4
MAR										
22...	--	0.06	0.08	--	0.24	--	--	0.3	--	--
APR										
10...	<0.01	<0.01	0.01	--	--	1.1	--	0.6	1.5	6.6
MAY										
10...	0.03	0.06	0.08	0.47	0.44	0.5	--	0.5	1.5	6.6
JUN										
05...	0.04	--	--	0.36	--	0.4	--	--	1.6	7.1
15...	0.19	0.05	0.06	1.5	0.45	1.7	1.2	0.5	--	--
16...	0.05	0.08	0.1	3.1	0.62	3.2	2.5	0.7	4.0	18
16...	0.13	0.04	0.05	2.3	0.36	2.4	2.0	0.4	3.0	13
16...	0.15	<0.01	0.01	2.0	--	2.2	1.8	0.4	3.1	14
16...	0.11	0.02	0.03	1.5	0.58	1.6	1.0	0.6	2.5	11
16...	0.15	0.07	0.09	2.4	1.1	2.5	1.3	1.2	3.5	15
16...	0.19	0.06	0.08	2.1	1.1	2.3	1.1	1.2	3.0	13
JUL										
02...	0.07	0.07	0.09	0.53	0.33	0.6	0.2	0.4	1.4	6.2
AUG										
07...	0.03	<0.01	0.01	0.37	--	0.4	0.0	0.4	1.0	4.4
SEP										
04...	0.06	--	--	0.44	--	0.5	0.0	--	1.0	4.4
26...	0.07	0.05	0.06	1.9	0.35	2.0	1.6	0.4	2.4	11
27...	0.08	0.07	0.09	2.0	0.43	2.1	1.6	0.5	--	--
27...	0.11	0.04	0.05	2.2	0.36	2.3	1.9	0.4	2.5	11
27...	0.14	0.06	0.08	1.3	0.34	1.4	1.0	0.4	1.6	7.1
27...	0.10	0.04	0.05	1.1	0.36	1.2	0.8	0.4	1.4	6.2
27...	0.12	0.05	0.06	1.4	0.55	1.5	0.9	0.6	2.0	8.9
27...	0.24	0.04	0.05	2.8	0.36	3.0	2.6	0.4	3.5	15
27...	0.24	0.05	0.06	2.1	0.45	2.3	1.8	0.5	2.8	12
27...	0.15	0.03	0.04	1.3	0.37	1.5	1.1	0.4	2.1	9.3
27...	0.16	0.04	0.05	1.8	0.36	2.0	1.6	0.4	2.7	12
27...	0.13	0.03	0.04	1.3	0.37	1.4	1.0	0.4	2.1	9.3
27...	0.18	0.04	0.05	1.5	0.46	1.7	1.2	0.5	2.3	10
27...	0.13	0.04	0.05	1.1	0.46	1.2	0.7	0.5	1.9	8.4
27...	0.15	0.07	0.09	1.2	1.3	1.4	0.0	1.4	2.2	9.7
27...	0.16	0.07	0.09	1.2	0.63	1.4	0.7	0.7	2.3	10
27...	0.11	0.06	0.08	0.99	0.44	1.1	0.6	0.5	2.0	8.9
28...	0.09	0.05	0.06	1.1	0.55	1.2	0.6	0.6	2.2	9.7
28...	0.08	0.03	0.04	0.92	0.47	1.0	0.5	0.5	2.0	8.9



## PAXTON CREEK BASIN

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01571000 PAXTON CREEK NEAR PENBROOK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT									
19...	0.03	--	<0.01	0.03	0.02	0.06	3.0	6	0.03
NOV									
21...	<0.01	--	0.02	--	<0.01	--	2.5	8	0.08
DEC									
14...	<0.01	--	<0.01	--	0.02	0.06	--	15	0.32
JAN									
17...	0.03	--	0.03	--	0.02	0.06	2.4	6	0.16
FEB									
22...	<0.01	--	<0.01	--	0.02	0.06	2.5	7	0.3
MAR									
22...	--	--	0.06	--	0.04	0.12	2.9	3	0.16
APR									
19...	<0.01	--	<0.01	--	0.01	0.03	2.8	3	0.06
MAY									
10...	0.01	--	0.01	--	0.02	0.06	2.3	6	0.09
JUN									
05...	<0.01	--	<0.01	--	<0.01	--	4.0	26	0.67
15...	0.06	0.18	<0.01	--	<0.01	--	67	4050	394
16...	0.07	0.21	<0.01	--	<0.01	--	20	1430	371
16...	0.06	0.18	0.03	--	<0.01	--	21	805	280
16...	0.06	0.18	0.02	--	<0.01	--	17	854	141
16...	0.10	0.31	0.01	--	<0.01	--	23	2420	588
16...	0.14	0.43	0.03	--	0.02	0.06	--	534	124
16...	0.07	0.21	<0.01	--	<0.01	--	15	338	26
JUL									
02...	0.03	0.09	0.01	--	<0.01	--	2.8	11	0.06
AUG									
07...	<0.01	--	<0.01	--	0.04	0.12	24	16	0.09
SEP									
04...	0.05	0.15	--	--	--	--	3.8	30	0.16
26...	0.04	0.12	0.02	--	0.01	0.03	3.5	18	0.03
27...	0.23	0.71	0.02	--	0.02	0.06	11	383	11
27...	0.30	0.92	0.08	--	0.06	0.18	13	540	51
27...	0.16	0.49	0.04	--	0.03	0.09	9.7	353	35
27...	0.14	0.43	0.04	--	0.03	0.09	11	426	66
27...	0.16	0.49	0.10	--	0.09	0.28	10	265	36
27...	0.14	0.43	0.05	--	0.05	0.15	13	761	136
27...	0.19	0.58	0.04	--	0.03	0.09	14	816	196
27...	0.46	1.4	0.05	--	0.04	0.12	22	761	279
27...	0.45	1.4	0.04	--	0.03	0.09	21	720	290
27...	0.30	0.92	0.05	--	0.03	0.09	19	548	212
27...	0.30	0.92	0.04	--	0.02	0.06	15	346	93
27...	0.26	0.80	0.05	--	0.03	0.09	11	252	43
27...	0.21	0.64	0.04	--	0.03	0.09	10	168	16
27...	0.19	0.58	0.06	--	0.04	0.12	9.4	110	6.2
27...	0.15	0.46	0.05	--	0.03	0.09	8.3	82	3.3
28...	0.10	0.31	0.04	--	0.02	0.06	8.0	68	2.0
28...	0.13	0.40	0.04	--	0.02	0.06	6.3	56	1.4

## PAXTON CREEK BASIN

01571090 PAXTON CREEK AT HARRISBURG, PA

LOCATION.--Lat 40°14'54", long 76°51'56", Dauphin County, Hydrologic Unit 02050305, on left bank 400 ft downstream from Sycamore Street Bridge in Harrisburg, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--27.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to September 1985 (discontinued).

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

REMARKS.--Estimated daily discharges: Feb. 12, Sept. 6-30. Records fair except those for estimated daily discharges, which are poor. During high flow periods an unknown quantity of water is diverted from Wildwood Lake located 4.1 mi upstream, into the Susquehanna River. Peak flows and daily discharges reported during these periods do not include the diverted flow. Natural base flows are also affected to an unknown degree by industrial effluent discharges.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,850 ft<sup>3</sup>/s, Feb. 12, 1985, gage height 7.15 ft, from rating curve extended above 120 ft<sup>3</sup>/s; minimum, 3.5 ft<sup>3</sup>/s, Aug. 22, 1985, gage height 1.36 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	1030	*2,850	*7.15	June 3	2015	1,510	6.15
May 17	1330	819	5.31	July 26	2030	744	5.19
May 28	1500	941	5.49	Sept 27	1030	2,540	6.96
June 1	0115	1,190	5.81				

Minimum daily discharge, 4.4 ft<sup>3</sup>/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	18	18	78	14	107	9.8	13	5.6
2				---	23	16	172	86	18	10	10	5.7
3				---	15	15	288	124	41	10	9.1	6.0
4				---	12	16	96	24	31	22	8.6	6.1
5				---	13	17	32	20	29	12	8.4	6.1
6				---	19	16	27	19	20	12	8.2	7.0
7				---	13	15	22	18	17	11	8.2	6.9
8				---	7.9	15	22	16	17	13	28	7.1
9				13	6.3	15	22	16	17	11	8.6	20
10				11	8.9	14	20	15	17	26	7.9	10
11				11	12	16	19	14	15	9.8	7.4	8.4
12				10	1000	21	18	14	15	9.8	7.8	7.8
13				9.7	88	17	17	14	13	9.3	7.9	7.4
14				12	47	19	16	14	13	8.8	17	7.2
15				16	27	38	16	13	16	9.0	7.7	7.1
16				16	20	18	17	37	58	8.8	5.9	7.0
17				16	18	13	18	113	20	8.2	5.1	6.9
18				19	18	13	17	41	19	7.5	4.8	6.7
19				19	20	13	16	20	16	7.0	6.1	6.6
20				14	19	13	15	18	22	6.7	4.7	6.4
21				8.1	20	13	14	17	14	6.7	4.4	6.6
22				7.6	21	13	14	16	14	7.5	4.5	6.4
23				9.0	24	31	12	28	22	6.6	4.5	6.6
24				8.6	23	27	11	18	15	6.4	14	8.6
25				9.7	23	21	12	16	12	12	25	7.8
26				9.0	131	17	11	15	14	75	7.9	7.0
27				6.7	155	16	10	14	11	20	6.1	120
28				7.9	43	16	12	84	11	9.7	6.0	25
29				7.9	---	50	13	18	10	9.0	5.9	18
30				7.7	---	28	13	15	9.8	9.1	5.9	15
31				10	---	56	---	18	---	28	5.9	---
TOTAL				---	1845.1	626	1070	909	653.8	411.7	274.5	373.0
MEAN				---	65.9	20.2	35.7	29.3	21.8	13.3	8.85	12.4
MAX				---	1000	56	288	124	107	75	28	120
MIN				---	6.3	13	10	13	9.8	6.4	4.4	5.6
CFSM				---	2.42	.74	1.31	1.08	.80	.49	.33	.46
IN.				---	2.52	.86	1.46	1.24	.89	.56	.38	.51

## PAXTON CREEK BASIN

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01571090 PAXTON CREEK AT HARRISBURG, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 TO August 1985 (discontinued).

INSTRUMENTATION.--Automatic pumping sampler October 1984 to August 1985.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
19...	1000	--	390	8.30	--	0.31	0.42	0.09	0.03	0.1	0.40
NOV											
21...	1200	--	440	8.20	2.5	--	--	--	--	--	--
DEC											
13...	1445	12	380	7.50	10.5	--	--	--	--	--	1.00
JAN											
17...	1200	16	500	7.30	3.0	--	--	--	--	--	0.90
FEB											
22...	0845	19	390	7.20	5.0	--	--	--	--	--	1.40
MAR											
22...	0930	12	409	7.20	7.0	--	--	--	--	--	0.60
APR											
19...	1300	18	370	7.50	19.0	--	--	--	--	--	0.50
MAY											
10...	0830	15	383	7.10	16.0	--	--	--	--	--	0.70
JUN											
05...	1400	24	337	7.40	19.0	--	--	--	--	--	1.20
15...	2007	55	400	6.90	--	--	--	--	--	--	0.30
15...	2245	53	268	7.30	--	--	--	--	--	--	0.20
16...	0245	32	323	7.60	--	--	--	--	--	--	1.20
16...	0330	167	300	7.40	--	--	--	--	--	--	<0.10
16...	0430	131	258	7.50	--	--	--	--	--	--	0.80
16...	0930	69	277	7.50	--	--	--	--	--	--	1.00
16...	1422	44	249	7.40	--	--	--	--	--	--	0.60
JUL											
02...	1330	10	455	7.10	21.0	--	--	--	--	--	<0.10
AUG											
07...	1030	9.0	424	7.20	--	--	--	--	--	--	<0.10

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT										
19...	0.45	1.90	1.40	1.8	1.1	1.4	3.0	--	2.8	3.4
NOV										
21...	--	--	1.10	1.4	--	0.4	--	--	1.5	--
DEC										
13...	--	0.62	0.59	0.76	0.78	0.61	1.4	--	1.2	2.4
JAN										
17...	--	1.10	1.10	1.4	2.3	1.5	3.4	--	2.6	4.3
FEB										
22...	--	1.50	1.40	1.8	3.1	--	4.6	--	--	6.0
MAR										
22...	--	2.40	1.80	2.3	3.5	3.2	5.9	--	5.0	6.5
APR										
19...	--	1.20	1.10	1.4	4.7	1.8	5.9	--	2.9	6.4
MAY										
10...	--	2.40	2.20	2.8	6.6	5.5	9.0	--	7.7	9.7
JUN										
05...	--	0.83	0.79	1.0	2.5	2.3	3.3	0.2	3.1	4.5
15...	--	13.0	3.30	4.3	22	6.4	35	25	9.7	35
15...	--	0.09	0.07	0.09	0.71	0.43	0.8	0.3	0.5	1.0
16...	--	0.68	0.61	0.79	2.6	0.39	3.3	2.3	1.0	4.5
16...	--	2.80	0.82	1.1	0.0	1.9	2.1	0.0	2.7	--
16...	--	0.32	0.22	0.28	2.3	0.68	2.6	1.7	0.9	3.4
16...	--	0.64	0.54	0.70	2.0	1.1	2.6	1.0	1.6	3.6
16...	--	0.17	0.15	0.19	2.2	0.65	2.4	1.6	0.8	3.0
JUL										
02...	--	3.60	3.40	4.4	3.5	1.9	7.1	1.8	5.3	--
AUG										
07...	--	6.50	5.80	7.5	4.5	4.2	11	1.0	10	--

## PAXTON CREEK BASIN

01571090 PAXTON CREEK AT HARRISBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT										
19...	15	0.61	--	0.51	0.44	0.38	1.2	8.6	8	--
NOV										
21...	--	--	--	0.29	--	0.19	0.58	4.2	10	--
DEC										
13...	11	0.28	--	0.20	--	0.14	0.43	--	10	0.32
JAN										
17...	19	0.53	--	0.40	--	0.29	0.89	5.3	4	0.17
FEB										
22...	27	0.63	--	0.47	--	0.42	1.3	4.7	10	0.51
MAR										
22...	29	4.80	--	3.90	--	1.70	5.2	6.5	12	0.39
APR										
19...	28	0.75	--	0.67	--	0.32	0.98	19	32	1.6
MAY										
10...	43	0.77	--	0.51	--	0.53	1.6	6.8	35	1.4
JUN										
05...	20	0.67	2.1	0.56	--	0.41	1.3	8.8	48	3.1
15...	160	7.60	23	1.10	--	0.38	1.2	370	1150	171
15...	4.4	0.03	0.09	0.01	--	<0.01	--	28	130	18
16...	20	0.32	0.98	0.08	--	0.06	0.18	12	88	7.6
16...	--	1.40	4.3	0.07	--	0.05	0.15	39	824	372
16...	15	0.30	0.92	0.03	--	0.03	0.09	13	402	142
16...	16	0.22	0.67	0.08	--	0.06	0.18	10	323	60
16...	13	0.22	0.67	0.07	--	0.05	0.15	16	291	35
JUL										
02...	--	1.10	3.4	0.89	--	0.63	1.9	44	25	0.68
AUG										
07...	--	1.20	3.7	1.00	--	0.98	3.0	36	86	2.1

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, 150 ft downstream from Olmsted Mill dam, 1 mi southeast of Camp Hill, and 3.1 mi upstream from mouth.

DRAINAGE AREA.--216 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1909 to December 1919, June 1954 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to June 1954, published as "at Olmsteds 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.--Estimated daily discharges: Jan. 21-28. Records good except those for estimated daily discharges, which are fair. The Mechanicsburg Water Co. diverts water at a point about 4 mi upstream from station for municipal water supply, equivalent to a mean daily discharge of 1.1 ft<sup>3</sup>/s. Several measurements of water temperature were made during the year. National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--41 years (1909-1919, 1954-85), 293 ft<sup>3</sup>/s, 18.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft<sup>3</sup>/s Sept. 26, 1975, gage height, 18.77 ft, from floodmarks; minimum, 23 ft<sup>3</sup>/s Sept. 12, 1966, gage height, 0.17 ft; minimum daily, 67 ft<sup>3</sup>/s Sept. 13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1953 reached a stage of 9.4 ft from floodmarks, discharge 3,940 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	0530	1,310	4.37	Feb. 12	2145	*1,850	*5.59

Minimum discharge, 91 ft<sup>3</sup>/s Sept. 6, gage height, 0.71 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	161	354	218	173	276	594	169	319	130	158	108
2	203	162	298	229	177	268	502	233	258	145	137	107
3	179	158	279	237	169	253	453	895	238	128	129	106
4	171	155	276	219	156	238	441	625	258	136	125	106
5	163	259	252	221	158	241	418	431	250	128	120	103
6	162	248	289	215	172	230	374	373	231	125	121	103
7	159	191	293	210	167	218	332	350	212	141	119	104
8	159	178	254	207	154	217	310	326	212	131	149	106
9	161	172	246	197	148	216	304	299	215	126	142	115
10	158	171	243	189	164	204	312	284	211	127	128	133
11	157	174	247	193	157	199	302	274	199	121	121	126
12	158	179	242	194	723	216	291	272	187	118	117	109
13	159	173	233	192	1090	210	275	267	181	128	115	106
14	156	166	227	194	545	201	264	252	175	126	112	103
15	155	162	223	193	383	193	259	234	169	123	111	100
16	157	161	220	173	314	185	262	254	230	125	111	103
17	157	160	215	187	289	181	259	405	234	118	112	106
18	160	160	213	190	273	179	240	924	197	112	113	104
19	167	164	212	190	273	173	234	515	174	111	111	104
20	201	166	219	172	286	171	224	381	162	107	111	103
21	179	161	230	120	268	171	216	337	163	106	111	104
22	193	157	335	130	288	166	202	381	156	109	108	102
23	209	155	286	140	401	188	199	361	168	114	109	104
24	188	157	250	150	409	333	194	424	156	106	112	106
25	178	155	247	150	365	347	195	327	153	107	127	104
26	173	154	236	160	333	279	191	290	143	191	130	104
27	170	154	231	160	319	245	183	271	136	427	124	318
28	168	200	232	170	289	229	177	276	137	216	115	232
29	170	1140	230	174	---	304	176	292	142	156	111	127
30	172	587	225	167	---	395	172	265	137	143	109	115
31	165	---	217	169	---	421	---	271	---	167	110	---
TOTAL	5302	6540	7754	5710	8643	7347	8555	11258	5803	4348	3728	3571
MEAN	171	218	250	184	309	237	285	363	193	140	120	119
MAX	209	1140	354	237	1090	421	594	924	319	427	158	318
MIN	155	154	212	120	148	166	172	169	136	106	108	100
CFSM	.79	1.01	1.16	.85	1.43	1.10	1.32	1.68	.89	.65	.56	.55
IN.	.91	1.13	1.34	.98	1.49	1.27	1.47	1.94	1.00	.75	.64	.62

CAL YR 1984 TOTAL 147862 MEAN 404 MAX 3750 MIN 154 CFSM 1.87 IN. 25.47  
WTR YR 1985 TOTAL 78559 MEAN 215 MAX 1140 MIN 100 CFSM 1.00 IN. 13.53



## SWATARA CREEK BASIN

01571827 SWATARA CREEK BELOW RAVINE, PA

LOCATION.--Lat 40°33'47", long 76°23'53", Schuylkill County, Hydrologic Unit 02050305, on right bank on State Highway 125, 0.8 mi south of Ravine, and 1.0 mi north of State Highway 443.

DRAINAGE AREA.--46.3 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 8 to Feb. 11. Records good except those for estimated daily discharges and Feb. 13 to Apr. 15, May 2, 3, and Sept. 27, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 655 ft<sup>3</sup>/s Sept. 27, 1985, gage height, 6.73 ft; minimum, 12 ft<sup>3</sup>/s Sept. 7, 8, 1985, gage height, 4.40 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 27	1130	*655	*6.73	No other peak greater than base discharge			
Minimum discharge, 12 ft <sup>3</sup> /s Sept. 7, 8, gage height, 4.40 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	72	36	96	111	39	54	29	32	17
2			---	75	37	94	88	68	41	28	23	16
3			---	70	34	87	83	251	41	30	20	15
4			---	68	34	83	83	143	41	25	19	14
5			---	68	33	87	78	123	47	24	18	13
6			---	64	34	73	83	109	42	24	17	13
7			---	64	32	68	78	100	35	24	23	12
8			---	59	29	73	91	90	37	25	39	24
9			57	49	30	68	77	83	36	28	23	19
10			55	48	32	62	73	79	32	26	21	31
11			52	47	34	61	71	74	29	24	19	22
12			50	48	151	88	67	77	29	22	21	17
13			49	49	174	80	66	104	29	20	19	16
14			48	50	103	72	64	72	28	22	17	15
15			46	46	80	64	63	64	27	25	19	15
16			39	39	75	66	66	84	120	21	17	15
17			51	38	67	66	68	90	85	20	17	16
18			50	38	66	63	61	99	57	19	17	15
19			49	36	66	62	61	71	43	18	17	15
20			54	25	62	64	57	63	39	18	17	14
21			60	23	62	58	53	59	36	18	16	14
22			135	29	70	53	51	56	32	20	15	14
23			92	31	115	57	49	55	42	18	15	15
24			87	37	150	69	48	55	34	16	14	23
25			83	36	141	71	46	49	30	19	24	19
26			78	33	123	65	43	47	28	54	25	17
27			73	33	115	68	41	43	27	42	17	252
28			78	36	103	70	40	44	27	24	16	89
29			83	36	---	76	38	43	32	21	15	47
30			78	35	---	75	38	41	32	19	20	35
31			73	35	---	71	---	42	---	40	20	---
TOTAL			---	1417	2088	2210	1936	2417	1212	763	612	859
MEAN			---	45.7	74.6	71.3	64.5	78.0	40.4	24.6	19.7	28.6
MAX			---	75	174	96	111	251	120	54	39	252
MIN			---	23	29	53	38	39	27	16	14	12
CFSM			---	.99	1.61	1.54	1.39	1.68	.87	.53	.43	.62
IN.			---	1.14	1.68	1.78	1.56	1.94	.97	.61	.49	.69

## SWATARA CREEK BASIN

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01571827 SWATARA CREEK BELOW RAVINE, PA--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: January 1985 to current year.

INSTRUMENTATION.--Automatic sediment pumping sampler since January 1985.

COOPERATION.--Chemical analysis performed by Pa. Department of Environmental Resources, Bureau of Laboratories.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 542 mg/L Sept. 27, 1985; minimum daily mean, 1 mg/L July 13, 18, 19, and Sept. 4, 1985.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 554 tons Sept. 27, 1985; minimum daily, .04 ton Sept. 4, 1985.

## WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS CACO3)
FEB 1985											
20...	0930	62	186	5.90	2.5	16	13.2	<10	87	86	13
MAR											
21...	1200	57	235	5.60	7.0	17	11.9	<10	88	86	9.9
APR											
18...	1415	69	224	5.60	14.5	15	9.9	19	78	77	6.0
MAY											
28...	1310	38	258	5.60	17.5	14	9.2	<10	92	90	4.5
JUN											
25...	1010	31	280	6.40	15.5	1.5	9.8	<10	120	110	2.5
JUL											
24...	0950	17	330	6.10	14.5	1.7	10.0	<10	140	140	5.5
AUG											
28...	1545	16	330	5.10	24.0	1.8	8.6	<10	140	130	5.5
SEP											
19...	1430	15	390	4.80	21.0	50	8.7	<10	170	170	17

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, TOTAL (MG/L AS F)
FEB 1985											
20...	15	12	6.5	14	0.3	1.2	1	2.4	89	10	<0.1
MAR											
21...	14	13	3.9	9	0.2	1.7	1	6.8	100	8.0	<0.1
APR											
18...	13	11	3.7	9	0.2	0.71	2	7.3	85	5.0	<0.1
MAY											
28...	16	13	1.8	4	0.1	0.54	2	9.7	100	10	<0.1
JUN											
25...	21	16	1.6	3	0.1	0.58	4	2.7	160	10	<0.1
JUL											
24...	24	19	6.1	9	0.2	0.92	3	4.3	140	9.0	<0.1
AUG											
28...	24	19	4.8	7	0.2	0.68	2	28	140	10	<0.1
SEP											
19...	30	24	5.1	6	0.2	0.68	1	31	180	10	0.2

## SWATARA CREEK BASIN

01571827 SWATARA CREEK BELOW RAVINE, PA--Continued

WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, SETTLE- ABLE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
FEB 1985											
20...	--	138	--	--	--	14	<2	0.12	0.12	<0.01	<0.01
MAR											
21...	<4.9	188	--	--	--	26	<2	0.11	0.11	0.01	<0.01
APR											
18...	<4.9	122	--	--	--	<2	<2	0.10	0.10	0.01	<0.01
MAY											
28...	8.3	274	150	0.37	28	8	<2	0.17	0.15	0.02	0.02
JUN											
25...	8.8	196	220	0.27	16	6	<2	0.09	0.09	0.01	0.01
JUL											
24...	9.7	172	210	0.23	7.9	4	<2	0.28	0.28	<0.01	<0.01
AUG											
28...	9.9	258	210	0.35	11	12	<2	0.22	0.22	<0.01	<0.01
SEP											
19...	12	312	270	0.42	13	16	<2	0.32	0.32	<0.01	<0.01

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
FEB 1985											
20...	0.12	0.12	0.12	0.12	--	--	<0.20	<0.20	--	0.07	0.06
MAR											
21...	0.12	0.11	0.08	0.06	0.20	0.20	0.28	0.28	0.40	0.05	0.05
APR											
18...	0.11	0.10	0.13	0.12	0.21	0.20	0.34	0.32	0.45	0.11	0.06
MAY											
28...	0.19	0.17	0.07	0.06	--	--	<0.20	<0.20	--	0.06	0.04
JUN											
25...	0.10	0.10	0.09	0.09	0.11	0.11	0.20	0.20	0.30	0.07	0.05
JUL											
24...	0.28	0.28	0.08	0.08	0.03	0.02	0.11	0.10	0.39	0.02	0.02
AUG											
28...	0.22	0.22	0.03	0.02	--	--	<0.20	<0.20	--	0.02	0.02
SEP											
19...	0.32	0.32	0.09	0.09	--	--	<0.20	<0.20	--	0.03	0.01

DATE	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
FEB 1985											
20...	<0.01	<0.01	a520	a<150	a<4	a<4	a50	2700	2000	a<4	1200
MAR											
21...	<0.01	<0.01	1200	390	<500	<50	<50	3000	2000	<45	1600
APR											
18...	<0.01	<0.01	540	<40	<500	<50	11	1800	710	<45	1100
MAY											
28...	0.01	<0.01	130	<40	<500	<50	<10	1700	510	<45	1300
JUN											
25...	<0.01	<0.01	<40	<40	<500	<50	<10	1000	1000	<45	1500
JUL											
24...	<0.01	<0.01	<40	<40	<1000	<50	<10	540	290	<45	1500
AUG											
28...	<0.01	<0.01	260	90	<1000	<50	<10	730	330	<45	1700
SEP											
19...	<0.01	<0.01	1600	1600	<1000	110	29	4500	1500	<45	2200

(a) Laboratory detection limits for these constituents changed several times during the year.

## SWATARA CREEK BASIN

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01571827 SWATARA CREEK BELOW RAVINE, PA--Continued

WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
FEB 1985										
20...	1200	<2.0	70	120	<1.0	<1.0	--	--	9	1.5
MAR										
21...	1300	<2.0	<50	140	<1.0	<1.0	--	--	9	1.4
APR										
18...	1100	<2.0	<25	90	<1.0	<1.0	--	--	19	3.5
MAY										
28...	1200	<2.0	42	90	1.5	<1.0	<0.01	<1	9	0.92
JUN										
25...	1500	<2.0	<25	40	1.2	1.0	<0.01	<1	3	0.25
JUL										
24...	1500	<2.0	33	70	<1.0	<1.0	<0.01	<1	2	0.09
AUG										
28...	1700	<2.0	33	<10	<1.0	<1.0	<0.01	<1	1	0.04
SEP										
19...	2200	<2.0	99	230	<1.0	<1.0	<0.01	<1	16	0.65

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), JANUARY 1985 TO SEPTEMBER 1985

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	72	10	1.9	36	9	.87	96	11	2.9
2	75	11	2.2	37	3	.30	94	5	1.3
3	70	12	2.3	34	5	.46	87	5	1.2
4	68	9	1.7	34	5	.46	83	9	2.0
5	68	8	1.5	33	8	.71	87	11	2.6
6	64	10	1.7	34	11	1.0	73	6	1.2
7	64	15	2.6	32	6	.52	68	5	.92
8	59	9	1.4	29	16	1.3	73	10	2.0
9	49	20	2.6	30	20	1.6	68	6	1.1
10	48	19	2.5	32	16	1.4	62	8	1.3
11	47	3	.38	34	11	1.0	61	8	1.3
12	48	5	.65	151	121	80	88	5	1.2
13	49	5	.66	174	37	20	80	7	1.5
14	50	3	.41	103	19	5.3	72	7	1.4
15	46	4	.50	80	13	2.8	64	6	1.0
16	39	4	.42	75	9	1.8	66	4	.71
17	38	4	.41	67	6	1.1	66	4	.71
18	38	8	.82	66	13	2.3	63	4	.68
19	36	9	.87	66	34	6.1	62	8	1.3
20	25	12	.81	62	9	1.5	64	12	2.1
21	23	61	3.8	62	8	1.3	58	9	1.4
22	29	9	.70	70	9	1.7	53	8	1.1
23	31	15	1.3	115	16	5.0	57	7	1.1
24	37	23	2.3	150	15	6.1	69	10	1.9
25	36	10	.97	141	14	5.3	71	15	2.9
26	33	4	.36	123	10	3.3	65	4	.70
27	33	3	.27	115	26	8.1	68	11	2.0
28	36	6	.58	103	11	3.1	70	5	.95
29	36	7	.68	---	---	---	76	9	1.8
30	35	4	.38	---	---	---	75	10	2.0
31	35	8	.76	---	---	---	71	12	2.6
TOTAL	1417	---	38.43	2088	---	164.42	2210	---	46.87

(a) Laboratory detection limits for this constituent changed several times during the year.

## SWATARA CREEK BASIN

01571827 SWATARA CREEK BELOW RAVINE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), JANUARY 1985 TO SEPTEMBER 1985

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)
APRIL			MAY			JUNE			
1	111	36	12	39	9	.95	54	30	4.4
2	88	10	2.4	68	33	8.3	41	7	.77
3	83	10	2.2	251	91	68	41	30	3.3
4	83	9	2.0	143	12	4.5	41	12	1.3
5	78	8	1.7	123	9	3.0	47	24	3.0
6	83	18	4.0	109	5	1.5	42	11	1.2
7	78	12	2.5	100	4	1.1	35	4	.38
8	91	15	3.7	90	10	2.4	37	11	1.1
9	77	7	1.5	83	4	.90	36	8	.78
10	73	7	1.4	79	4	.85	32	8	.69
11	71	10	1.9	74	9	1.8	29	3	.23
12	67	5	.90	77	28	8.3	29	7	.55
13	66	9	1.6	104	26	8.1	29	11	.86
14	64	16	2.8	72	6	1.2	28	7	.53
15	63	7	1.2	64	5	.86	27	7	.51
16	66	13	2.3	84	22	5.0	120	302	100
17	68	21	3.9	90	15	3.6	85	51	15
18	61	20	3.3	99	16	4.3	57	8	1.2
19	61	15	2.5	71	18	3.5	43	8	.93
20	57	14	2.2	63	13	2.2	39	10	1.1
21	53	9	1.3	59	11	1.8	36	6	.58
22	51	10	1.4	56	11	1.7	32	2	.17
23	49	5	.66	55	18	2.7	42	35	4.0
24	48	9	1.2	55	15	2.2	34	12	1.1
25	46	8	.99	49	8	1.1	30	3	.24
26	43	9	1.0	47	11	1.4	28	5	.38
27	41	13	1.4	43	6	.70	27	11	.80
28	40	13	1.4	44	18	2.1	27	12	.87
29	38	12	1.2	43	3	.35	32	15	1.3
30	38	6	.62	41	11	1.2	32	5	.43
31	---	---	---	42	9	1.0	---	---	---
TOTAL	1936	---	67.17	2417	---	146.61	1212	---	147.70
JULY			AUGUST			SEPTEMBER			
1	29	7	.55	32	25	2.6	17	7	.32
2	28	4	.30	23	10	.62	16	12	.52
3	30	6	.49	20	6	.32	15	17	.69
4	25	6	.41	19	8	.41	14	1	.04
5	24	7	.45	18	5	.24	13	9	.32
6	24	4	.26	17	5	.23	13	8	.28
7	24	5	.32	23	149	36	12	10	.32
8	25	13	.88	39	325	50	24	200	22
9	28	15	1.1	23	5	.31	19	25	1.3
10	26	4	.28	21	5	.28	31	483	59
11	24	2	.13	19	5	.26	22	10	.59
12	22	2	.12	21	10	.57	17	11	.50
13	20	1	.05	19	2	.10	16	7	.30
14	22	7	.42	17	3	.14	15	4	.16
15	25	15	1.0	19	9	.46	15	8	.32
16	21	4	.23	17	4	.18	15	9	.36
17	20	16	.86	17	4	.18	16	14	.60
18	19	1	.05	17	30	1.4	15	10	.41
19	18	1	.05	17	5	.23	15	12	.49
20	18	2	.10	17	6	.28	14	11	.42
21	18	8	.39	16	5	.22	14	10	.38
22	20	8	.43	15	5	.20	14	11	.42
23	18	7	.34	15	3	.12	15	10	.41
24	16	4	.17	14	4	.15	23	18	1.1
25	19	35	1.8	24	25	1.6	19	7	.36
26	54	351	102	25	40	2.7	17	17	.78
27	42	97	15	17	3	.14	252	542	554
28	24	10	.65	16	11	.48	89	34	8.9
29	21	7	.40	15	11	.45	47	12	1.5
30	19	6	.31	20	51	4.0	35	8	4.0
31	40	157	25	20	6	.32	---	---	---
TOTAL	763	---	154.54	612	---	105.19	859	---	660.79
YEAR	13514		1531.72						



## SWATARA CREEK BASIN

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01572030 SWATARA CREEK NEAR SUEDBERG, PA

LOCATION.--Lat 40°31'29", long 76°27'24", Schuylkill County, Hydrologic Unit 02050305, on right bank 0.6 mi east of Suedberg, 0.7 mi upstream from unnamed tributary, and 1.2 mi downstream from Interstate Highway 81.

DRAINAGE AREA.--124 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 8 to Feb. 13. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 1,550 ft<sup>3</sup>/s, Sept. 27, 1985, gage height, 7.33 ft, but may have been more during period of faulty gage-height record Feb. 9-13; minimum discharge, 21 ft<sup>3</sup>/s, Sept. 20, 22, 1985, gage height, 3.38 ft.

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	2130	<sup>a</sup> Unknown	<sup>b</sup> 11.2	Sept. 27	1400	*1,550	7.33

(a) Backwater from ice.

(b) Approximate.

Minimum discharge, 21 ft<sup>3</sup>/s Sept. 20, 22, gage height, 3.38 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	182	71	216	310	86	93	52	122	31
2			---	196	72	201	260	136	70	49	68	30
3			---	189	67	181	241	571	74	62	52	30
4			---	181	66	168	229	352	85	50	46	28
5			---	191	65	185	205	270	86	44	43	27
6			---	170	66	161	208	234	83	43	40	24
7			---	165	63	146	188	212	68	48	38	22
8			---	130	58	156	208	181	69	46	72	39
9			---	110	59	145	184	163	68	57	45	39
10			---	100	62	132	168	154	58	68	37	50
11			---	100	120	127	163	145	50	57	33	43
12			---	100	390	187	155	139	50	49	35	32
13			---	110	540	173	147	183	50	44	33	28
14			---	110	350	158	141	139	50	41	30	27
15			---	100	260	147	138	123	49	46	31	24
16			---	86	230	134	141	152	187	42	28	24
17			---	85	205	130	147	170	207	37	28	25
18			---	84	179	125	133	190	140	35	27	24
19			---	78	179	120	127	139	105	34	29	24
20			---	54	185	119	122	122	88	31	29	22
21			156	45	171	112	115	115	81	31	27	22
22			489	56	187	109	108	108	71	42	26	22
23			386	60	303	116	104	106	80	35	24	24
24			308	72	379	140	101	109	67	30	23	39
25			268	71	351	140	100	97	57	31	53	36
26			215	65	294	117	97	90	50	72	50	31
27			203	64	265	113	91	80	46	91	36	689
28			211	70	236	113	85	81	46	51	32	350
29			218	71	---	124	85	87	57	41	29	156
30			198	69	---	119	84	75	57	36	31	110
31			180	70	---	140	---	75	---	143	40	---
TOTAL			---	3234	5473	4454	4585	4884	2342	1538	1237	2072
MEAN			---	104	195	144	153	158	78.1	49.6	39.9	69.1
MAX			---	196	540	216	310	571	207	143	122	689
MIN			---	45	58	109	84	75	46	30	23	22
CFSM			---	.84	1.58	1.16	1.23	1.27	.63	.40	.32	.56
IN.			---	.97	1.64	1.34	1.37	1.47	.70	.46	.37	.62

## SWATARA CREEK BASIN

01572030 SWATARA CREEK NEAR SUEDBERG, PA--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: January 1985 to current year.

INSTRUMENTATION.--Automatic sediment pumping sampler since January 1985.

COOPERATION.--Chemical analysis performed by Pa. Department of Environmental Resources, Bureau of Laboratories.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 473 mg/L, Sept. 27, 1985; minimum daily mean, 1 mg/L July 14, 18, Aug. 19, Sept. 1, 19, 1985.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1100 tons Sept. 27, 1985; minimum daily .06 tons Sept. 19, 1985.

## WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS CACO3)
FEB 1985											
20...	1140	185	145	6.70	2.0	7.9	13.2	<10	42	36	2.0
MAR											
21...	1410	112	140	6.60	7.0	2.5	12.6	<10	46	38	4.0
APR											
18...	1630	133	147	6.50	16.0	2.2	11.2	<10	44	38	3.0
MAY											
28...	1145	72	184	6.70	19.5	2.9	8.4	<10	58	51	3.0
JUN											
25...	1230	57	224	6.90	20.5	1.1	8.3	<10	65	53	3.0
JUL											
24...	1210	30	280	6.70	22.0	<1.0	9.4	<10	86	72	4.5
AUG											
28...	1350	30	265	7.30	24.0	<1.0	9.9	17	84	72	2.0
SEP											
19...	1210	24	330	6.80	17.5	1.1	9.4	20	110	100	3.0

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, TOTAL (MG/L AS F)
FEB 1985											
20...	8.0	5.4	5.6	22	0.4	1.4	6	2.3	35	9.0	<0.1
MAR											
21...	7.7	6.4	4.4	17	0.3	1.7	8	3.9	47	8.0	<0.1
APR											
18...	8.0	5.8	4.6	18	0.3	0.75	6	3.7	50	2.0	<0.1
MAY											
28...	11	7.5	3.0	10	0.2	0.70	7	2.7	60	15	<0.1
JUN											
25...	13	8.1	9.1	23	0.5	0.69	12	2.9	88	10	<0.1
JUL											
24...	16	11	17	30	0.8	1.1	14	5.4	100	9.0	<0.1
AUG											
28...	16	11	14	26	0.7	1.0	12	1.2	100	11	<0.1
SEP											
19...	21	15	14	21	0.6	1.0	10	3.1	130	11	<0.1

## SWATARA CREEK BASIN

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01572030 SWATARA CREEK NR SUEDBERG, PA--Continued

WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SETTLE- ABLE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
FEB 1985											
20...	--	8	--	--	--	18	<2	1.5	1.5	0.01	0.01
MAR											
21...	<4.9	112	--	--	--	24	<2	0.78	0.78	<0.01	<0.01
APR											
18...	<4.9	62	--	--	--	2	<2	0.65	0.61	0.01	<0.01
MAY											
28...	7.2	312	110	0.42	61	4	<2	0.59	0.55	0.02	0.02
JUN											
25...	6.7	140	150	0.19	22	2	<2	0.58	0.58	0.02	0.02
JUL											
24...	4.7	138	170	0.19	11	2	<2	0.40	0.40	<0.01	<0.01
AUG											
28...	5.5	194	170	0.26	16	2	<2	0.57	0.57	0.01	<0.01
SEP											
19...	5.9	262	210	0.36	17	<2	<2	0.69	0.67	0.01	0.01

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
FEB 1985											
20...	1.50	1.50	0.11	0.11	0.21	--	0.32	<0.20	1.8	0.08	0.08
MAR											
21...	0.78	0.78	0.07	0.07	0.19	0.19	0.26	0.26	1.0	0.05	0.05
APR											
18...	0.66	0.61	0.08	0.08	0.18	0.18	0.26	0.26	0.92	0.10	0.05
MAY											
28...	0.61	0.57	0.09	0.07	--	--	<0.20	<0.20	--	0.07	0.05
JUN											
25...	0.60	0.60	0.05	0.05	0.31	0.31	0.36	0.36	0.96	0.08	0.06
JUL											
24...	0.40	0.40	<0.02	<0.02	--	--	0.22	0.18	0.62	0.03	0.03
AUG											
28...	0.58	0.57	0.30	0.29	0.50	0.39	0.80	0.68	1.4	0.04	0.03
SEP											
19...	0.70	0.68	0.46	0.46	0.54	0.54	1.0	1.0	1.7	0.03	0.02

DATE	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
FEB 1985											
20...	<0.01	<0.01	290	<150	<4	<4	<50	720	330	<4	390
MAR											
21...	<0.01	<0.01	650	310	<500	<50	<50	560	140	<45	540
APR											
18...	0.01	<0.01	170	<40	<500	<50	<10	380	11	<45	420
MAY											
28...	0.01	<0.01	<120	<40	<500	<50	<10	210	<10	<45	510
JUN											
25...	0.01	<0.01	<40	<40	<500	<50	<10	90	86	<45	490
JUL											
24...	<0.01	<0.01	<40	<40	<1000	<50	<10	170	26	<45	220
AUG											
28...	<0.01	<0.01	110	<40	<1000	<50	<10	200	25	<45	510
SEP											
19...	0.01	<0.01	440	320	<1000	100	<10	660	470	<45	830

(a) Laboratory detection limits for these constituents changed several times during the year.

## SWATARA CREEK BASIN

01572030 SWATARA CREEK NR SUEDBERG, PA--Continued

WATER-QUALITY DATA, FEBRUARY 1985 TO SEPTEMBER 1985

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
FEB 1985										
20...	390	<2.0	<sup>a</sup> <50	40	<1.0	<1.0	--	--	9	4.5
MAR										
21...	530	<2.0	<50	40	<1.0	<1.0	--	--	6	1.8
APR										
18...	410	<2.0	<25	30	<1.0	<1.0	--	--	3	1.1
MAY										
28...	510	<2.0	49	50	1.0	<1.0	<0.01	<1	1	0.19
JUN										
25...	490	<2.0	<25	<10	4.1	2.4	<0.01	<1	9	1.4
JUL										
24...	210	<2.0	<25	40	2.5	2.0	<0.01	<1	2	0.16
AUG										
28...	510	<2.0	37	<10	3.6	3.6	<0.01	<1	<1	--
SEP										
19...	830	<2.0	86	60	4.4	3.2	<0.01	<1	1	0.06

## SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), JANUARY 1985 TO SEPTEMBER 1985

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	182	7	3.4	71	4	.77	216	9	5.2
2	196	14	7.4	72	2	.39	201	7	3.8
3	189	6	3.1	67	2	.36	181	6	2.9
4	181	5	2.4	66	3	.53	168	5	2.3
5	191	5	2.6	65	3	.53	185	10	5.0
6	170	3	1.4	66	3	.53	161	9	3.9
7	165	3	1.3	63	4	.68	146	8	3.2
8	130	3	1.1	58	4	.63	156	7	2.9
9	110	4	1.2	59	5	.80	145	11	4.3
10	100	4	1.1	62	6	1.0	132	10	3.6
11	100	4	1.1	120	4	1.3	127	12	4.1
12	100	5	1.4	390	131	262	187	35	18
13	110	5	1.5	540	145	231	173	20	9.3
14	110	7	2.1	350	34	33	158	12	5.1
15	100	10	2.7	260	20	14	147	9	3.6
16	86	12	2.8	230	15	9.3	134	8	2.9
17	85	12	2.8	205	11	6.1	130	7	2.5
18	84	17	3.9	179	9	4.3	125	5	1.7
19	78	15	3.2	179	9	4.3	120	5	1.6
20	54	17	2.5	185	20	10	119	5	1.6
21	45	17	2.1	171	8	3.7	112	6	1.8
22	56	17	2.6	187	12	6.1	109	5	1.5
23	60	17	2.8	303	25	20	116	7	2.2
24	72	20	3.9	379	30	31	140	11	4.2
25	71	25	4.8	351	25	24	140	6	2.3
26	65	20	3.5	294	20	16	117	6	1.9
27	64	15	2.6	265	19	14	113	12	3.7
28	70	12	2.3	236	14	8.9	113	10	3.1
29	71	10	1.9	---	---	---	124	10	3.3
30	69	8	1.5	---	---	---	119	6	1.9
31	70	6	1.1	---	---	---	140	10	4.6
TOTAL	3234	---	78.1	5473	---	705.22	4454	---	118.0

(a) Laboratory detection limits for this constituent changed several times during the year.

01572030 SWATARA CREEK NEAR SUEDBERG, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), JANUARY 1985 TO SEPTEMBER 1985

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)
APRIL			MAY			JUNE			
1	310	40	34	86	3	.70	93	10	2.5
2	260	12	8.8	136	14	5.3	70	4	.76
3	241	11	7.2	571	111	192	74	15	4.1
4	229	10	6.2	352	15	15	85	15	3.4
5	205	8	4.4	270	13	9.5	86	18	4.2
6	208	21	12	234	13	8.2	83	13	2.9
7	188	17	8.6	212	12	6.9	68	12	2.2
8	208	15	8.4	181	9	4.4	69	13	2.4
9	184	10	5.0	163	10	4.4	68	12	2.2
10	168	9	4.1	154	11	4.6	58	14	2.2
11	163	8	3.5	145	9	3.5	50	9	1.2
12	155	7	2.9	139	7	2.6	50	8	1.1
13	147	6	2.4	183	25	12	50	7	.95
14	141	5	1.9	139	13	4.9	50	7	.95
15	138	5	1.9	123	11	3.7	49	7	.93
16	141	12	4.6	152	20	8.2	187	136	88
17	147	10	4.0	170	13	6.0	207	65	42
18	133	6	2.2	190	18	9.2	140	22	8.3
19	127	5	1.7	139	6	2.3	105	14	4.0
20	122	4	1.3	122	4	1.3	88	13	3.1
21	115	3	.93	115	3	.93	81	12	2.6
22	108	3	.87	108	4	1.2	71	10	1.9
23	104	3	.84	106	5	1.4	80	14	3.0
24	101	3	.82	109	6	1.8	67	9	1.6
25	100	3	.81	97	6	1.6	57	9	1.4
26	97	3	.79	90	5	1.2	50	6	.81
27	91	3	.74	80	5	1.1	46	4	.50
28	85	2	.46	81	1	.22	46	2	.25
29	85	5	1.1	87	8	1.9	57	5	.77
30	84	3	.68	75	7	1.4	57	4	.62
31	---	---	---	75	5	1.0	---	---	---
OTAL	4585	---	133.14	4884	---	318.45	2342	---	190.84
JULY			AUGUST			SEPTEMBER			
1	52	2	.28	122	58	21	31	1	.08
2	49	2	.26	68	20	3.7	30	3	.24
3	62	20	3.3	52	6	.84	30	5	.41
4	50	6	.81	46	6	.75	28	8	.60
5	44	3	.36	43	5	.58	27	5	.36
6	43	4	.46	40	3	.32	24	2	.13
7	48	3	.39	38	8	.82	22	4	.24
8	46	3	.37	72	68	15	39	13	9.5
9	57	7	1.1	45	14	1.7	39	13	1.4
10	68	10	1.8	37	5	.50	50	19	2.8
11	57	6	.92	33	2	.18	43	16	2.0
12	49	5	.66	35	3	.28	32	8	.69
13	44	2	.24	33	5	.45	28	7	.53
14	41	1	.11	30	4	.32	27	6	.44
15	46	8	.99	31	10	.84	24	6	.39
16	42	4	.45	28	5	.38	24	5	.32
17	37	2	.20	28	3	.23	25	4	.27
18	35	1	.09	27	2	.15	24	2	.13
19	34	2	.18	29	1	.08	24	1	.06
20	31	2	.17	29	2	.16	22	6	.36
21	31	12	1.0	27	2	.15	22	5	.30
22	42	15	1.7	26	2	.14	22	5	.30
23	35	5	.47	24	3	.19	24	4	.26
24	30	2	.16	23	3	.19	39	20	2.1
25	31	10	.84	53	22	3.1	36	6	.58
26	72	37	10	50	10	1.4	31	4	.33
27	91	85	22	36	4	.39	689	473	1100
28	51	16	2.2	32	4	.35	350	40	44
29	41	10	1.1	29	3	.23	156	22	9.3
30	36	6	.58	31	15	1.3	110	20	5.9
31	143	153	112	40	5	.54	---	---	---
TOTAL	1538	---	165.19	1237	---	56.26	2072	---	1184.02
YEAR	29819		2949.22						



## SWATARA CREEK BASIN

01572200 SWATARA CREEK AT INWOOD, PA

LOCATION.--Lat 40°28'38", long 76°31'26", Lebanon County, Hydrologic Unit 02050305, at single lane steel truss bridge 100 ft east of State Highway 72, and 1.9 mi north of Lickdale at Inwood.

DRAINAGE AREA.--167 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1969, 1982 to current year. Prior to water year 1982, published as "at Swatara Gap".

REMARKS.--Miscellaneous discharge data included in this report.

COOPERATION.--Chemical analysis performed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS CACO3)
FEB 1985											
20...	1345	248	123	6.80	3.5	5.8	12.8	<10	34	27	1.0
MAR											
21...	1605	154	122	6.70	7.5	2.5	12.0	<10	36	27	3.5
APR											
18...	1800	171	129	6.50	16.0	2.0	10.4	<10	41	35	3.0
MAY											
28...	0945	93	148	6.80	19.5	2.7	8.4	70	46	39	2.5
JUN											
25...	1450	78	172	6.90	22.5	1.1	9.0	<10	48	40	2.0
JUL											
24...	1355	38	215	6.90	23.0	<1.0	9.0	<10	65	54	3.0
AUG											
28...	1145	38	210	7.00	23.5	1.6	8.2	14	70	59	2.5
SEP											
19...	0920	32	285	6.65	16.5	<1.0	8.4	<10	95	87	3.0

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, TOTAL (MG/L AS F)
FEB 1985											
20...	6.6	4.3	5.4	25	0.4	1.1	7	2.1	27	8.0	<0.1
MAR											
21...	6.6	4.8	4.5	20	0.3	1.4	9	3.5	38	7.0	<0.1
APR											
18...	7.5	5.4	3.5	16	0.2	0.65	6	3.6	40	5.0	<0.1
MAY											
28...	8.8	5.9	1.3	6	0.1	0.46	7	2.2	42	13	<0.1
JUN											
25...	9.5	6.0	6.0	21	0.4	0.60	8	2.0	63	8.0	<0.1
JUL											
24...	12	8.3	12	28	0.6	1.0	11	2.7	74	9.0	<0.1
AUG											
28...	14	8.7	9.8	23	0.5	0.90	11	2.1	72	10	<0.1
SEP											
19...	18	12	11	20	0.5	0.90	8	3.5	110	10	<0.1

01572200 SWATARA CREEK AT INWOOD, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, SETTLE- ABLE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
FEB 1985											
20...	--	46	--	--	--	14	<2	1.3	1.3	0.01	0.01
MAR											
21...	<4.9	100	--	--	--	20	<2	0.71	0.71	0.01	0.01
APR											
18...	<4.9	54	--	--	--	2	<2	0.64	0.64	0.01	<0.01
MAY											
28...	6.6	220	85	0.30	55	4	<2	0.51	0.50	0.02	0.02
JUN											
25...	6.3	102	110	0.14	21	4	<2	0.54	0.54	0.02	0.02
JUL											
24...	4.2	94	130	0.13	9.6	4	<2	0.28	0.28	<0.01	<0.01
AUG											
28...	4.1	150	130	0.20	15	2	<2	0.54	0.54	<0.01	<0.01
SEP											
19...	5.7	180	180	0.24	16	<2	<2	0.54	0.54	<0.01	<0.01

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
FEB 1985											
20...	--	--	0.08	0.08	--	--	<0.20	<0.20	--	0.08	0.08
MAR											
21...	0.72	0.72	0.07	0.07	0.30	0.17	0.37	0.24	1.1	0.06	0.06
APR											
18...	0.65	0.64	0.05	0.05	0.09	0.09	0.14	0.14	0.79	0.10	0.05
MAY											
28...	0.53	0.52	0.07	0.06	--	--	<0.20	<0.20	--	0.07	0.05
JUN											
25...	0.56	0.56	0.04	0.04	0.18	0.16	0.22	0.20	0.78	0.07	0.05
JUL											
24...	0.28	0.28	0.03	0.03	0.21	0.21	0.24	0.24	0.52	0.02	0.02
AUG											
28...	0.54	0.54	0.02	0.02	--	--	<0.20	<0.20	--	0.04	0.02
SEP											
19...	--	--	0.02	0.02	0.26	0.26	0.28	0.28	--	0.03	0.01

DATE	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
FEB 1985											
20...	<0.01	<0.01	190	a<150	a<4	a<4	a<50	490	a130	a<4	300
MAR											
21...	<0.01	<0.01	860	<470	<500	<50	<50	300	<100	<45	410
APR											
18...	0.01	0.01	170	<40	1700	<50	<10	220	<10	<45	320
MAY											
28...	0.02	<0.01	<40	<40	1100	<50	<10	140	<10	96	230
JUN											
25...	<0.01	<0.01	<40	<40	<500	<50	<10	<10	<10	<45	240
JUL											
24...	<0.01	<0.01	<40	<40	<1000	<50	<10	160	18	<45	<10
AUG											
28...	<0.01	<0.01	50	<40	<1000	<50	<10	200	35	<45	160
SEP											
19...	<0.01	<0.01	480	310	<1000	110	10	600	430	<45	280

(a) Laboratory detection limits for these constituents changed several times during the year.

## SWATARA CREEK BASIN

01572200 SWATARA CREEK AT INWOOD, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
FEB 1985										
20...	300	<2.0	<sup>a</sup> <50	40	<1.0	<1.0	--	--	9	6.0
MAR										
21...	410	<2.0	<50	40	1.7	1.7	--	--	6	2.5
APR										
18...	300	<2.0	<25	30	<1.0	<1.0	--	--	2	0.92
MAY										
28...	230	<2.0	75	40	<1.0	<1.0	<0.01	<1	4	1.0
JUN										
25...	240	<2.0	31	<10	1.0	<1.0	<0.01	<1	5	1.1
JUL										
24...	<10	<2.0	<25	<10	2.2	2.2	<0.01	<1	1	0.1
AUG										
28...	150	<2.0	<25	<10	5.0	5.0	<0.01	<1	<1	--
SEP										
19...	260	<2.0	64	40	2.4	1.4	<0.01	<1	3	0.26

(a) Laboratory detection limits for this constituent changed several times during the year.

## SWATARA CREEK BASIN

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01573000 SWATARA CREEK AT HARPER TAVERN, PA

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 mi northwest of Annville, and 8.5 mi downstream from Little Swatara Creek.

DRAINAGE AREA.--337 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. 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.

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.--Estimated daily discharges: Jan. 9 to Feb. 11. Records good except those for estimated daily discharges, which are poor. During periods of low flow about 6.0 ft<sup>3</sup>/s is diverted above station each day for municipal supply for city of Lebanon. Several measurements of water temperature were made during the year. National Weather Service landline telemeter at station.

AVERAGE DISCHARGE.--66 years, 572 ft<sup>3</sup>/s 23.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,700 ft<sup>3</sup>/s June 23, 1972, gage height, 23.72 ft from floodmark in gage shelter, from rating curve extended above 25,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 6.0 ft<sup>3</sup>/s Aug. 21, 1965, gage height, -0.10 ft; minimum observed gage height, -0.32 ft Sept. 24, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 25.6 ft, from floodmark, discharge 88,000 ft<sup>3</sup>/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 29	1200	5,420	7.77	Feb. 13	0630	*9,840	*11.02
Feb. 13	0300	6,680	8.82				

Minimum discharge, 53 ft<sup>3</sup>/s Oct. 7-9, 15, minimum gage height, -0.08 ft Oct. 7.

REVISIONS.--The peak gage heights, annual maximum (\*), and minimum gage height reported for water year 1984 have been revised as shown in the following table. They supersede figures published in the annual data report for 1984.

Date	Time	Discharge (ft <sup>3</sup> /s (m <sup>3</sup> /s))	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s (m <sup>3</sup> /s))	Gage height (ft) (m)
Dec. 14	1200	*9940 282	*11.19 3.411	June 30	1715	5790 164	8.09 2.466
Feb. 15	0500	7160 203	9.20 2.804	July 1	2100	5030 142	7.42 2.262
Apr. 6	0300	6450 183	8.64 2.633	July 6	0430	5390 153	7.74 2.359
May 30	0115	9160 259	10.66 3.249				

Minimum discharge, 52 ft<sup>3</sup>/s (1.47 m<sup>3</sup>/s) Oct. 10, 11, 12, gage height, -0.14 ft (-0.043 m).

## SWATARA CREEK BASIN

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	80	1100	435	140	556	1070	163	205	127	741	76
2	78	78	771	538	130	515	837	259	188	119	253	66
3	77	72	746	589	120	449	723	1480	146	182	170	64
4	67	69	943	473	110	400	718	1060	296	156	134	60
5	61	297	620	494	120	457	598	727	242	119	115	56
6	57	377	888	435	130	410	586	598	252	111	101	54
7	54	184	876	402	130	333	547	530	188	134	94	59
8	53	130	627	390	120	345	576	432	171	118	121	80
9	55	110	558	280	120	350	510	365	179	115	136	124
10	62	108	515	230	130	305	443	330	159	112	96	104
11	61	123	512	210	140	285	392	302	135	113	83	116
12	58	165	457	200	1260	481	380	287	122	94	76	92
13	56	141	410	200	4280	545	359	384	116	84	75	70
14	55	108	372	200	1430	398	338	318	108	77	125	64
15	55	92	385	200	969	358	330	250	104	77	80	60
16	57	89	374	190	723	324	368	289	486	80	74	59
17	59	87	357	190	631	312	369	478	855	71	73	55
18	60	81	347	170	551	294	296	574	444	65	65	56
19	61	91	333	150	576	276	277	383	315	60	66	56
20	64	95	395	130	607	277	272	289	246	59	67	55
21	81	81	414	90	536	262	259	253	228	57	63	54
22	106	77	1400	90	567	243	239	240	188	95	59	54
23	423	74	1160	100	871	263	226	241	175	104	55	54
24	195	75	904	110	1070	382	215	260	181	70	55	57
25	131	74	818	130	1030	408	216	215	147	65	120	75
26	118	71	645	120	854	319	215	192	125	122	160	68
27	123	70	572	120	750	281	190	174	115	236	109	1280
28	102	109	592	130	630	269	182	174	110	151	77	1240
29	101	3500	594	140	---	308	178	211	125	93	68	432
30	104	1780	517	140	---	316	167	178	129	77	66	274
31	87	---	440	140	---	372	---	157	---	673	69	---
TOTAL	2790	8488	19642	7416	18725	11093	12076	11793	6480	3816	3646	5014
MEAN	90.0	283	634	239	669	358	403	380	216	123	118	167
MAX	423	3500	1400	589	4280	556	1070	1480	855	673	741	1280
MIN	53	69	333	90	110	243	167	157	104	57	55	54
CFSM	.27	.84	1.88	.71	1.99	1.06	1.20	1.13	.64	.36	.35	.50
IN.	.31	.94	2.17	.82	2.07	1.22	1.33	1.30	.72	.42	.40	.55
CAL YR 1984	TOTAL	259485	MEAN	709	MAX	6480	MIN	53	CFSM	2.10	IN.	28.64
WTR YR 1985	TOTAL	110979	MEAN	304	MAX	4280	MIN	53	CFSM	.90	IN.	12.25



## SWATARA CREEK BASIN

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01573160 QUITTAPAHILLA CREEK NEAR BELLEGROVE, PA

LOCATION.--Lat 40°20'34", long 76°33'46", Lebanon County, Hydrologic Unit 02050305, on right bank 210 ft downstream from bridge on L.R. 38001, 0.7 mi downstream from Killinger Creek, and 1.8 mi south of Bellegrove.

DRAINAGE AREA.--74.2 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Mar. 4 to May 24. 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.

AVERAGE DISCHARGE.--9 years, 107 ft<sup>3</sup>/s, 19.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,800 ft<sup>3</sup>/s Jan. 24, 1979, gage height, 13.27 ft, from rating curve extended above 1,900 ft<sup>3</sup>/s; minimum, 28 ft<sup>3</sup>/s Oct. 26-29, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 537 ft<sup>3</sup>/s Sept. 27, gage height, 6.99 ft; minimum daily, 46 ft<sup>3</sup>/s Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	62	96	70	53	89	120	49	66	59	87	52
2	75	64	90	72	52	86	74	90	63	60	63	53
3	72	62	93	71	52	84	70	150	62	68	61	51
4	71	63	90	69	52	72	68	100	63	73	59	50
5	70	76	87	69	52	71	66	80	70	68	54	49
6	70	66	95	67	51	70	64	74	65	76	53	49
7	69	63	90	65	51	69	62	72	63	82	55	53
8	67	62	89	64	51	67	60	70	62	62	81	58
9	68	61	85	64	51	66	59	69	63	63	60	53
10	67	62	84	63	51	64	57	68	61	63	59	63
11	66	65	83	63	51	63	56	66	60	58	58	59
12	67	61	82	63	173	68	54	64	61	58	56	51
13	69	60	80	63	159	88	52	66	59	60	56	49
14	67	61	79	61	118	74	51	70	61	63	72	51
15	65	59	80	61	109	70	50	61	59	70	57	47
16	65	58	78	60	106	67	60	70	74	60	56	48
17	66	58	77	60	103	64	76	85	66	62	56	47
18	64	60	76	59	101	62	70	98	65	57	57	49
19	64	59	76	59	100	61	67	82	61	57	52	48
20	66	58	75	58	99	60	64	70	59	59	51	48
21	66	57	77	57	98	59	63	76	64	58	50	49
22	80	58	87	57	97	56	60	74	60	58	50	51
23	98	57	79	55	101	60	59	72	63	54	51	47
24	71	57	78	55	101	70	58	71	58	55	53	50
25	67	56	76	55	98	86	56	71	58	54	70	49
26	65	55	75	55	97	70	55	67	59	71	55	46
27	66	55	74	54	94	64	54	66	57	81	53	286
28	65	58	75	53	90	66	52	65	57	56	53	142
29	67	158	72	53	---	68	52	65	62	51	51	82
30	64	101	71	53	---	72	50	62	65	51	52	72
31	64	---	70	53	---	78	---	62	---	118	54	---
TOTAL	2137	1952	2519	1881	2411	2164	1859	2305	1866	1985	1795	1902
MEAN	68.9	65.1	81.3	60.7	86.1	69.8	62.0	74.4	62.2	64.0	57.9	63.4
MAX	98	158	96	72	173	89	120	150	74	118	87	286
MIN	64	55	70	53	51	56	50	49	57	51	50	46
CFSM	.93	.88	1.10	.82	1.16	.94	.84	1.00	.84	.86	.78	.85
IN.	1.07	.98	1.26	.94	1.21	1.08	.93	1.16	.94	1.00	.90	.95

CAL YR 1984 TOTAL 51017 MEAN 139 MAX 637 MIN 55 CFSM 1.87 IN. 25.58  
WTR YR 1985 TOTAL 24776 MEAN 67.9 MAX 286 MIN 46 CFSM .92 IN. 12.42

## 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. Water-quality samples collected from bridge on State Highway 39.

DRAINAGE AREA.--483 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and gated concrete control. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26-28 and Jan. 11 to Feb. 11. Records fair except those for estimated daily discharges, which are poor. Daily discharge adjusted during periods of diversion which occurred intermittently throughout the year. National Weather Service landline telemeter at station.

COOPERATION.--Records of daily diversion furnished by Hershey Chocolate Company.

AVERAGE DISCHARGE.--10 years, 802 ft<sup>3</sup>/s, 22.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft<sup>3</sup>/s Sept. 27, 1975, gage height, 15.36 ft; minimum daily, 59 ft<sup>3</sup>/s Sept. 21, 24, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 13	1130	*6,440	*5.88				

Minimum daily discharge, 59 ft<sup>3</sup>/s Sept. 21, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	105	1240	524	200	689	1180	224	299	185	909	110
2	148	107	875	613	190	645	999	330	303	185	365	105
3	139	97	786	696	180	581	852	1620	251	221	246	95
4	128	96	1030	571	180	530	826	1300	329	255	207	88
5	114	270	715	581	180	551	708	851	369	198	180	83
6	105	437	887	546	200	546	656	702	348	176	160	77
7	100	241	1020	497	210	453	638	626	295	223	150	94
8	100	172	732	480	200	446	642	553	262	187	193	84
9	107	147	651	378	190	461	595	477	279	180	219	113
10	105	146	598	291	180	425	527	433	257	175	169	150
11	108	162	593	270	180	394	477	400	228	166	145	141
12	107	188	552	260	1060	556	460	386	209	150	129	142
13	105	186	506	240	4360	665	431	443	199	138	125	102
14	106	152	463	230	1950	516	409	430	195	135	199	95
15	106	129	468	220	1260	465	395	348	187	145	153	85
16	88	121	471	210	948	437	397	388	433	135	128	73
17	65	124	435	210	826	415	493	617	1060	127	125	66
18	69	127	431	230	749	395	372	754	613	109	121	69
19	72	134	416	200	764	378	350	557	457	104	107	64
20	85	136	467	180	798	369	347	414	353	101	103	63
21	105	130	489	160	722	344	329	367	350	102	98	59
22	140	127	1540	170	736	309	308	379	289	132	91	67
23	433	121	1340	180	1040	320	292	364	264	156	85	60
24	272	119	1050	180	1260	455	279	390	256	134	86	59
25	163	124	943	190	1200	500	276	333	226	110	168	91
26	140	110	764	180	1020	409	278	304	196	164	224	115
27	138	105	671	170	897	351	255	280	179	316	175	859
28	132	126	680	170	772	329	242	273	171	264	132	1770
29	128	3510	668	170	---	400	235	319	184	181	110	617
30	127	2170	611	180	---	423	225	286	198	142	100	380
31	120	---	538	180	---	473	---	259	---	416	102	---
TOTAL	3996	9919	22630	9357	22452	14230	14473	15407	9239	5412	5504	5976
MEAN	129	331	730	302	802	459	482	497	308	175	178	199
MAX	433	3510	1540	696	4360	689	1180	1620	1060	416	909	1770
MIN	65	96	416	160	180	309	225	224	171	101	85	59
CFSM	.27	.69	1.51	.63	1.66	.95	1.00	1.03	.64	.36	.37	.41
IN.	.31	.76	1.74	.72	1.73	1.10	1.11	1.19	.71	.42	.42	.46

CAL YR 1984	TOTAL	341687	MEAN	934	MAX	7930	MIN	65	CFSM	1.93	IN.	26.32
WTR YR 1985	TOTAL	138595	MEAN	380	MAX	4360	MIN	59	CFSM	.79	IN.	10.67

## SWATARA CREEK BASIN

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01573560 SWATARA CREEK NEAR HERSHEY, PA--Continued

## WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
22...	1415	126	420	8.10	18.0	4.17	3.88	0.03	0.02	0.07	4.20
NOV											
20...	1509	126	320	8.00	8.5	--	--	--	--	--	4.20
DEC											
14...	1030	459	225	7.70	6.5	--	--	--	--	--	3.10
JAN											
17...	1340	322	290	7.80	0.5	--	--	--	--	--	13.0
FEB											
22...	1040	712	235	7.70	4.5	--	--	--	--	--	3.20
MAR											
22...	1010	305	240	8.00	5.5	--	--	--	--	--	2.70
APR											
19...	0900	355	240	8.00	18.0	--	--	--	--	--	2.30
MAY											
10...	1200	419	235	7.40	21.0	--	--	--	--	--	2.40
JUN											
05...	1045	347	240	8.00	20.0	--	--	--	--	--	2.10
JUL											
01...	1000	184	295	7.70	20.5	--	--	--	--	--	3.10
AUG											
07...	1730	143	370	8.20	28.0	--	--	--	--	--	4.10
SEP											
04...	1130	70	425	8.50	26.0	--	--	--	--	--	4.10
26...	1730	100	470	8.30	18.0	--	--	--	--	--	4.90
27...	0100	110	425	8.10	19.0	--	--	--	--	--	4.40
27...	0430	138	430	8.10	19.0	--	--	--	--	--	4.30
27...	0830	204	405	8.10	17.0	--	--	--	--	--	3.80
27...	1015	330	395	8.30	17.0	--	--	--	--	--	3.60
27...	1345	725	360	8.00	17.0	--	--	--	--	--	3.50
27...	1935	1690	255	8.10	18.5	--	--	--	--	--	2.00
27...	2230	2730	225	7.90	18.0	--	--	--	--	--	1.50
28...	0110	3030	210	7.70	17.0	--	--	--	--	--	1.70
28...	0425	2740	190	7.60	16.5	--	--	--	--	--	1.60
28...	0700	2260	180	7.40	16.0	--	--	--	--	--	1.50
28...	1230	1490	190	7.60	17.0	--	--	--	--	--	1.90
28...	1830	1070	195	7.40	18.0	--	--	--	--	--	2.10
29...	0900	649	215	7.50	15.0	--	--	--	--	--	2.70
29...	2115	469	250	7.40	18.0	--	--	--	--	--	3.20
30...	1000	373	265	7.60	17.0	--	--	--	--	--	3.60

## SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH <sub>4</sub> )	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH <sub>4</sub> + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT 22...	3.90	<0.01	0.03	0.04	--	0.47	0.5	--	0.5	4.7
NOV 20...	--	0.16	0.14	0.18	0.34	0.36	0.5	--	0.5	4.7
DEC 14...	--	0.09	0.10	0.13	0.51	0.20	0.6	--	0.3	3.7
JAN 17...	--	0.16	0.19	0.24	0.74	0.71	0.9	--	0.9	14
FEB 22...	--	0.17	0.15	0.19	0.13	--	0.3	--	--	3.5
MAR 22...	--	0.05	0.05	0.06	0.35	0.25	0.4	--	0.3	3.1
APR 19...	--	<0.01	<0.01	0.01	--	--	2.0	--	0.5	4.3
MAY 10...	--	0.05	0.03	0.04	1.2	0.67	1.2	--	0.7	3.6
JUN 05...	--	0.05	0.02	0.03	0.35	--	0.4	--	--	2.5
JUL 01...	--	0.06	0.09	0.12	0.94	0.41	1.0	0.5	0.5	4.1
AUG 07...	--	0.04	<0.01	0.01	0.56	--	0.6	0.1	0.5	4.7
SEP 04...	--	0.02	0.04	0.05	0.58	0.36	0.6	0.2	0.4	4.7
26...	--	0.08	0.07	0.09	0.92	0.93	1.0	0.0	1.0	5.9
27...	--	0.07	0.07	0.09	0.83	1.1	0.9	0.0	1.2	5.3
27...	--	0.08	0.06	0.08	0.82	0.84	0.9	0.0	0.9	5.2
27...	--	0.06	0.07	0.09	1.1	0.53	1.2	0.6	0.6	5.0
27...	--	0.07	0.06	0.08	0.93	0.84	1.0	0.1	0.9	4.6
27...	--	0.05	0.05	0.06	0.95	0.75	1.0	0.2	0.8	4.5
27...	--	0.16	0.14	0.18	2.1	0.46	2.3	1.7	0.6	4.3
27...	--	0.16	0.12	0.15	2.5	0.58	2.7	2.0	0.7	4.2
28...	--	0.24	0.23	0.30	3.5	0.67	3.7	2.8	0.9	5.4
28...	--	0.21	0.47	0.61	4.1	0.53	4.3	3.3	1.0	5.9
28...	--	0.17	0.19	0.24	0.63	3.2	0.8	0.0	3.4	2.3
28...	--	0.18	0.14	0.18	3.2	0.66	3.4	2.6	0.8	5.3
28...	--	0.14	0.12	0.15	1.4	0.68	1.5	0.7	0.8	3.6
29...	--	0.13	0.12	0.15	0.97	0.48	1.1	0.5	0.6	3.8
29...	--	0.11	0.11	0.14	0.59	0.59	0.7	0.0	0.7	3.9
30...	--	0.08	0.08	0.10	0.62	0.92	0.7	0.0	1.0	4.3

## SWATARA CREEK BASIN

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01573560 SWATARA CREEK NEAR HERSHEY, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT										
22...	21	0.07	--	0.05	0.06	0.05	0.15	1.5	11	3.7
NOV										
20...	21	0.06	--	0.04	--	0.04	0.12	2.2	4	1.4
DEC										
14...	16	0.07	--	<0.01	--	0.03	0.09	--	12	15
JAN										
17...	62	0.07	--	0.06	--	0.05	0.15	1.9	4	3.5
FEB										
22...	15	0.04	--	0.02	--	0.01	0.03	2.3	2	3.8
MAR										
22...	14	0.18	--	0.07	--	0.03	0.09	2.2	7	5.8
APR										
19...	19	0.02	--	<0.01	--	0.01	0.03	2.5	5	4.8
MAY										
10...	16	0.03	--	0.02	--	0.02	0.06	2.1	18	20
JUN										
05...	11	0.04	0.12	0.01	--	0.04	0.12	3.1	23	22
JUL										
01...	18	0.05	0.15	0.03	--	0.02	0.06	2.9	14	7.0
AUG										
07...	21	<0.01	--	<0.01	--	0.09	0.28	5.5	11	4.2
SEP										
04...	21	0.08	0.25	0.07	--	0.05	0.15	3.8	11	2.1
26...	26	0.08	0.25	0.05	--	0.04	0.12	--	8	2.2
27...	23	0.07	0.21	0.04	--	0.03	0.09	3.7	11	3.3
27...	23	0.07	0.21	0.04	--	0.04	0.12	3.3	15	5.6
27...	22	0.08	0.25	0.04	--	0.03	0.09	3.6	8	4.4
27...	20	0.10	0.31	0.04	--	0.03	0.09	3.6	29	26
27...	20	0.10	0.31	0.05	--	0.04	0.12	3.5	26	51
27...	19	0.29	0.89	0.07	--	0.05	0.15	7.9	145	660
27...	19	0.92	2.8	0.07	--	0.05	0.15	16	607	4470
28...	24	0.92	2.8	0.08	--	0.06	0.18	19	652	5340
28...	26	0.67	2.1	0.05	--	0.03	0.09	13	460	3410
28...	10	0.03	0.09	0.25	--	0.07	0.21	12	332	2020
28...	23	0.27	0.83	0.03	--	0.02	0.06	10	192	771
28...	16	0.18	0.55	0.03	--	0.02	0.06	7.4	91	263
29...	17	0.10	0.31	0.03	--	0.03	0.09	5.5	27	47
29...	17	0.08	0.25	0.03	--	0.03	0.09	4.5	14	18
30...	19	0.07	0.21	0.03	--	0.02	0.06	4.0	12	12



## 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, 0.7 mi downstream from Little Conewago Creek, and 1.5 mi north of Manchester. Water-quality samples collected from bridge on State Highway 181.

DRAINAGE AREA.--510 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1302. 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.--Estimated daily discharges: Jan. 6-9, 20, 21, Feb. 12 and July 17. Records good except those for estimated daily discharges, which are fair. Occasional slight regulation since October 1959 by Conewago Lake, capacity, 3,570 acre-ft. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--57 years, 588 ft<sup>3</sup>/s, 15.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,200 ft<sup>3</sup>/s, Sept. 26, 1975, gage height, 32.11 ft, from flood-marks, from rating curve extended above 45,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 1.9 ft<sup>3</sup>/s, Oct. 13, 1941; minimum gage height, 1.03 ft Aug. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	2145	ice jam	*14.65	Feb. 13	0230	*15,600	13.88

Minimum discharge, 33 ft<sup>3</sup>/s Sept. 22, 23, 24, gage height, 2.15 ft.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	201	1100	287	142	493	1910	150	261	89	201	56
2	131	176	775	344	170	462	1370	200	229	91	172	52
3	155	160	629	751	217	411	906	3360	352	90	137	51
4	119	106	710	506	231	364	826	2070	467	90	110	52
5	94	185	524	435	189	355	778	836	286	80	96	54
6	86	515	704	350	177	353	676	570	240	72	88	53
7	78	307	1340	290	180	305	555	459	219	98	83	44
8	75	181	690	260	169	281	474	381	202	126	126	43
9	73	139	518	220	158	286	447	318	183	116	263	48
10	72	123	469	200	146	279	466	280	197	89	180	49
11	72	123	462	193	150	255	436	251	185	73	121	62
12	72	144	432	199	1500	265	391	234	155	70	98	51
13	72	143	382	217	10700	316	362	243	138	61	85	51
14	72	132	356	244	1980	294	335	229	124	90	78	46
15	71	114	329	226	1140	248	319	200	117	95	72	42
16	71	101	326	167	852	228	319	196	203	146	70	39
17	106	96	311	177	701	213	332	821	323	186	65	38
18	115	94	299	203	667	204	293	2800	318	138	63	37
19	119	97	284	197	698	197	263	1300	205	95	62	36
20	130	99	318	134	759	186	252	619	155	75	61	36
21	135	105	383	115	687	183	237	451	139	70	63	35
22	142	106	1090	151	671	180	225	555	119	66	62	34
23	152	95	898	135	956	192	214	505	115	61	60	33
24	213	90	556	144	1140	702	202	614	112	54	69	35
25	168	86	478	159	1030	1150	196	499	172	56	76	35
26	134	86	435	163	829	842	197	355	149	82	75	35
27	120	84	364	159	734	546	191	287	112	4630	95	480
28	104	115	360	149	610	500	178	257	99	1140	101	667
29	153	4390	348	143	---	543	169	250	92	368	93	287
30	253	3110	331	140	---	1110	158	237	88	228	76	148
31	258	---	304	138	---	1380	---	234	---	188	63	---
TOTAL	3725	11503	16505	7196	27583	13323	13677	19761	5756	8913	3064	2729
MEAN	120	383	532	232	985	430	456	637	192	288	98.8	91.0
MAX	258	4390	1340	751	10700	1380	1910	3360	467	4630	263	667
MIN	71	84	284	115	142	180	158	150	88	54	60	33
CFSM	.24	.75	1.04	.46	1.93	.84	.89	1.25	.38	.56	.19	.18
IN.	.27	.84	1.20	.52	2.01	.97	1.00	1.44	.42	.65	.22	.20

CAL YR 1984 TOTAL 313369 MEAN 856 MAX 12600 MIN 59 CFSM 1.68 IN. 22.87  
WTR YR 1985 TOTAL 133735 MEAN 366 MAX 10700 MIN 33 CFSM .72 IN. 9.75

## WEST CONEWAGO CREEK BASIN

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01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1962-73, 1975-77, October 1984 to current year.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT										
19...	1345	119	238	8.40	16.0	0.39	0.01	<0.01	0.40	0.42
NOV										
20...	1325	99	300	7.90	3.0	--	--	--	2.20	--
DEC										
13...	1435	379	278	7.80	5.0	--	--	--	3.20	--
JAN										
17...	1500	171	250	8.70	0.5	--	--	--	3.50	--
FEB										
21...	1420	685	220	7.80	5.5	--	--	--	2.70	--
MAR										
21...	1445	183	240	8.00	8.0	--	--	--	1.70	--
APR										
18...	1500	267	225	9.20	19.0	--	--	--	1.20	--
MAY										
10...	0950	283	215	7.80	19.0	--	--	--	2.50	--
JUN										
05...	1220	289	205	8.10	20.0	--	--	--	1.90	--
JUL										
01...	1200	89	246	7.70	20.5	--	--	--	1.80	--
AUG										
07...	1538	80	265	9.20	29.5	--	--	--	0.30	--
SEP										
04...	0945	53	330	8.50	25.0	--	--	--	0.30	--
26...	1445	35	335	8.10	18.0	--	--	--	0.40	--
27...	0230	43	575	8.20	19.0	--	--	--	0.50	--
27...	0530	56	380	8.10	18.0	--	--	--	0.50	--
27...	0700	68	360	8.10	18.0	--	--	--	0.50	--
27...	1215	1040	270	7.90	17.0	--	--	--	1.40	--
27...	1500	1190	255	7.50	17.0	--	--	--	1.70	--
27...	1630	1030	165	7.70	--	--	--	--	1.00	--
27...	2105	555	200	8.00	18.0	--	--	--	0.90	--
27...	2345	369	200	7.80	17.0	--	--	--	0.90	--
28...	0305	650	220	7.80	17.0	--	--	--	0.70	--
28...	0540	722	220	7.70	17.0	--	--	--	0.50	--
28...	1100	781	280	8.20	18.0	--	--	--	0.50	--
28...	2000	573	225	7.60	--	--	--	--	1.00	--
29...	0730	317	270	7.70	15.0	--	--	--	0.90	--
29...	1915	205	270	7.80	18.0	--	--	--	1.20	--
30...	0845	155	270	7.70	17.0	--	--	--	1.30	--

## WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
OCT										
19...	<0.01	0.02	0.03	--	0.28	1.2	--	0.3	1.6	7.1
NOV										
20...	0.08	<0.01	--	1.6	--	1.7	--	0.3	3.9	17
DEC										
13...	0.10	0.04	0.05	0.3	0.26	0.4	--	0.3	3.6	16
JAN										
17...	0.08	0.10	0.13	0.52	0.40	0.6	--	0.5	4.1	18
FEB										
21...	0.24	0.21	0.27	0.56	--	0.8	--	--	3.5	15
MAR										
21...	0.04	0.03	0.04	0.56	0.77	0.6	--	0.8	2.3	10
APR										
18...	<0.01	0.02	0.03	--	1.6	1.6	--	1.6	2.8	12
MAY										
10...	0.02	0.03	0.04	0.58	0.47	0.6	--	0.5	3.1	14
JUN										
05...	0.06	0.03	0.04	0.84	0.97	0.9	0.0	1.0	2.8	12
JUL										
01...	0.04	0.06	0.08	0.56	0.34	0.6	0.2	0.4	2.4	11
AUG										
07...	0.01	0.02	0.03	0.39	0.18	0.4	0.2	0.2	0.7	3.1
SEP										
04...	0.02	0.04	0.05	0.88	0.36	0.9	0.5	0.4	1.2	5.3
26...	0.09	0.10	0.13	0.81	0.50	0.9	0.3	0.6	1.3	5.8
27...	0.07	0.07	0.09	0.83	0.53	0.9	0.3	0.6	1.4	6.2
27...	0.05	0.05	0.06	0.65	0.45	0.7	0.2	0.5	1.2	5.3
27...	0.08	0.06	0.08	0.72	0.54	0.8	0.2	0.6	1.3	5.8
27...	0.16	0.11	0.14	1.5	0.49	1.7	1.1	0.6	3.1	14
27...	0.67	0.61	0.79	3.2	0.59	3.9	2.7	1.2	5.6	25
27...	0.20	0.18	0.23	4.4	1.2	4.6	3.2	1.4	5.6	25
27...	0.18	0.15	0.19	1.2	0.55	1.4	0.7	0.7	2.3	10
27...	0.17	0.12	0.15	1.1	0.58	1.3	0.6	0.7	2.2	9.7
28...	0.10	0.06	0.08	0.9	0.34	1.0	0.6	0.4	1.7	7.5
28...	0.10	0.05	0.06	0.7	0.55	0.8	0.2	0.6	1.3	5.8
28...	0.10	0.08	0.10	1.3	0.42	1.4	0.9	0.5	1.9	8.4
28...	0.11	0.08	0.10	0.99	0.52	1.1	0.5	0.6	2.1	9.3
29...	0.09	0.09	0.12	1.1	0.51	1.2	0.6	0.6	2.1	9.3
29...	0.06	0.06	0.08	0.94	0.64	1.0	0.3	0.7	2.2	9.7
30...	0.06	0.04	0.05	0.84	0.66	0.9	0.2	0.7	2.2	9.7

## WEST CONEWAGO CREEK BASIN

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01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT									
19...	0.18	--	0.14	0.17	0.14	0.43	2.9	22	7.1
NOV									
20...	0.25	--	0.23	--	0.20	0.61	--	6	1.6
DEC									
13...	0.12	--	0.07	--	0.10	0.31	--	5	5.1
JAN									
17...	0.15	--	0.14	--	0.13	0.40	2.3	4	1.8
FEB									
21...	0.10	--	0.08	--	0.11	0.34	3.6	2	3.7
MAR									
21...	0.13	--	0.07	--	0.08	0.25	4.1	9	4.4
APR									
18...	0.09	--	0.08	--	0.06	0.18	3.7	13	9.4
MAY									
10...	0.15	--	0.11	--	0.10	0.31	3.6	18	14
JUN									
05...	0.13	0.40	0.10	--	0.13	0.40	2.8	29	23
JUL									
01...	0.16	0.49	0.14	--	0.17	0.52	4.7	23	5.5
AUG									
07...	<0.01	--	<0.01	--	<0.01	--	8.6	25	5.4
SEP									
04...	0.24	0.74	0.20	--	0.22	0.67	7.5	26	3.7
26...	0.38	1.2	0.29	--	0.25	0.77	--	5	0.47
27...	0.35	1.1	0.30	--	0.27	0.83	4.5	15	1.7
27...	0.34	1.0	0.30	--	0.26	0.80	4.1	11	1.7
27...	0.35	1.1	0.30	--	0.25	0.77	4.7	19	3.5
27...	0.86	2.6	0.60	--	0.53	1.6	10	333	939
27...	1.50	4.6	0.78	--	0.67	2.1	12	538	1730
27...	0.79	2.4	0.36	--	0.29	0.89	13	458	1270
27...	0.49	1.5	0.25	--	0.22	0.67	9.2	170	255
27...	0.41	1.3	0.24	--	0.21	0.64	7.6	115	115
28...	0.34	1.0	0.15	--	0.13	0.40	4.6	126	221
28...	0.33	1.0	0.14	--	0.12	0.37	7.3	127	248
28...	0.37	1.1	0.22	--	0.18	0.55	6.2	81	171
28...	0.44	1.4	0.31	--	0.26	0.80	7.1	79	122
29...	0.46	1.4	0.37	--	0.31	0.95	6.9	34	29
29...	0.40	1.2	0.33	--	0.28	0.86	6.5	23	13
30...	0.38	1.2	0.30	--	0.26	0.80	6.8	22	9.2

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 county highway bridge No. 132, 0.1 mi downstream from unnamed tributary, 0.3 mi downstream from east boundary of Spring Grove, and 7 mi southwest of York.

DRAINAGE AREA.--75.5 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1929 to September 1964, November 1965 to current year. Monthly discharge only for some periods, published in WSP 1302. 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 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.--54 years (1929-64, 1966-85), 75.8 ft<sup>3</sup>/s, 13.63 in/yr, adjusted for diversion since March 1961 and for storage since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft<sup>3</sup>/s June 22, 1972, gage height, 15.57 ft, from flood-mark in gage shelter, from rating curve extended above 1,400 ft<sup>3</sup>/s on basis of computations of flow over dam at gage height 6.80 ft and at peak flow; no flow part of day Oct. 26, 1947; minimum daily, 0.6 ft<sup>3</sup>/s Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,040 ft<sup>3</sup>/s Feb. 12, gage height, 9.68 ft minimum daily, 42 ft<sup>3</sup>/s Jan. 21, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	59	112	62	90	60	122	50	47	49	52	52
2	63	58	84	117	92	62	84	89	49	52	48	53
3	54	54	85	80	69	56	73	341	52	49	49	53
4	55	55	72	67	63	57	67	102	52	53	48	52
5	54	116	60	67	71	66	64	70	56	48	51	53
6	50	66	162	58	73	58	55	61	55	50	51	52
7	55	57	101	58	66	55	53	60	49	60	52	52
8	56	53	78	59	67	65	65	50	51	52	106	53
9	57	56	68	65	70	63	65	49	56	46	61	62
10	56	57	65	63	68	60	59	49	47	44	58	62
11	56	64	63	64	67	61	56	50	49	44	56	51
12	57	50	56	67	1730	74	56	55	50	46	57	49
13	60	52	57	67	313	65	55	81	47	82	56	52
14	56	49	58	67	123	62	57	47	56	49	55	51
15	55	49	56	66	89	64	59	53	56	69	55	50
16	56	50	52	60	73	60	58	62	68	71	56	51
17	56	50	54	68	64	60	56	90	68	50	58	51
18	56	50	53	68	58	58	53	161	47	46	58	52
19	55	60	55	71	62	56	58	63	48	51	58	51
20	60	57	56	60	63	56	54	49	49	48	52	50
21	50	53	68	42	62	60	55	55	48	50	69	50
22	79	52	90	66	69	62	60	73	50	52	52	49
23	128	52	69	64	78	83	58	69	47	52	52	50
24	77	51	66	67	73	96	53	64	52	51	53	52
25	58	51	66	67	70	81	56	52	53	57	74	49
26	59	50	58	65	66	66	51	50	51	223	53	50
27	57	52	72	62	62	68	49	48	50	670	63	284
28	61	105	66	69	56	64	53	53	51	71	52	53
29	148	722	61	68	---	91	53	57	49	59	53	42
30	63	170	58	67	---	126	52	43	48	51	54	46
31	57	---	47	68	---	102	---	62	---	59	53	---
TOTAL	1982	2520	2168	2059	3907	2119	1809	2258	1551	2454	1765	1777
MEAN	63.9	84.0	69.9	66.4	140	68.4	60.3	72.8	51.7	79.2	56.9	59.2
MAX	148	722	162	117	1730	126	122	341	68	670	106	284
MIN	50	49	47	42	56	55	49	43	47	44	48	42
MEAN†	38.5	79.5	94.3	53.7	179	65.6	62.8	88.9	33.4	64.1	25.3	28.8
CFSM†	.51	1.05	1.25	.71	2.37	.87	.83	1.18	.44	.85	.34	.38
IN.†	.57	1.17	1.44	.82	2.47	1.00	.93	1.36	.49	.98	.39	.42

CAL YR 1984 TOTAL 41674 MEAN 114 MAX 860 MIN 37 MEAN† 114 CFSM† 1.51 IN.† 20.58  
WTR YR 1985 TOTAL 26369 MEAN 72.2 MAX 1730 MIN 42 MEAN† 56.4 CFSM† .75 IN.† 10.14

† Adjusted for change in contents in Lake Marburg.



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 mi southwest of York.

DRAINAGE AREA.--117 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only prior to October 1931, published in WSP 1302. 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. Non-recording gage June 22, 1972 to Jan. 12, 1973 at present site.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 27 and Sept. 27-30. Records good except those for estimated daily discharges, which are poor. Regulation at low flow by pumping station upstream. Some regulation during entire period of record from reservoirs of York Water Company, combined capacity, 8,092 acre feet. Diversion above station for municipal supply of city of York. Several measurements of water temperature were made during the year.

COOPERATION.--Records of diversion provided by York Water Co.

AVERAGE DISCHARGE.--58 years, 136 ft<sup>3</sup>/s, 15.79 in/yr, adjusted for diversion and, since October 1966, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft<sup>3</sup>/s June 22, 1972, gage height, 22.62 ft, from floodmarks, from rating curve extended above 6,300 ft<sup>3</sup>/s on basis of slope-area, contracted-opening, and contracted-opening and flow-over-road measurements of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 3,710 ft<sup>3</sup>/s Sept. 27, gage height 6.95 ft, from outside floodmark; maximum gage height 13.73 ft Feb. 12, due to ice jam, discharge, unknown but may have been higher than peak on Sept. 27; minimum daily discharge, 0.98 ft<sup>3</sup>/s Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	53	213	84	33	96	190	21	68	34	55	11
2	53	50	170	127	34	100	112	68	55	33	33	17
3	18	43	156	121	34	94	125	539	55	35	29	10
4	14	41	152	96	35	94	122	183	61	57	28	5.6
5	15	130	132	103	36	93	112	140	58	36	25	4.2
6	14	78	287	96	37	79	97	119	59	28	18	1.1
7	14	51	208	92	38	78	90	99	43	59	19	1.1
8	19	45	169	84	40	86	79	87	47	36	94	11
9	16	43	158	70	42	81	86	78	49	77	47	20
10	15	45	149	62	45	74	265	71	45	36	28	24
11	14	55	137	56	47	74	318	70	34	29	26	8.4
12	14	59	127	52	300	87	93	66	33	24	21	7.2
13	15	39	105	58	2700	70	45	185	26	39	14	.98
14	15	34	110	47	1120	69	38	81	25	22	14	1.1
15	14	33	110	46	530	62	39	62	28	23	13	1.2
16	13	31	108	45	200	61	38	69	92	31	9.2	1.2
17	10	25	97	44	150	61	43	121	84	16	14	1.2
18	13	37	93	43	133	56	32	174	43	9.7	17	5.4
19	15	59	97	42	125	51	30	104	32	13	22	2.0
20	22	47	105	41	120	54	29	81	26	6.6	13	1.2
21	21	37	104	33	120	52	30	72	28	10	30	1.2
22	22	36	158	42	115	53	27	100	25	11	22	1.5
23	153	39	112	59	128	79	24	93	27	13	13	1.5
24	107	35	107	48	130	113	23	110	59	6.7	14	3.6
25	71	38	110	43	132	104	26	79	72	5.1	52	2.0
26	48	34	91	38	123	75	28	68	29	112	42	1.7
27	41	32	92	36	110	67	25	65	26	1120	29	710
28	50	63	92	35	112	68	23	59	30	119	29	170
29	330	1210	92	34	---	93	22	117	29	65	8.3	68
30	92	290	85	34	---	141	18	70	29	45	17	42
31	63	---	89	33	---	124	---	78	---	44	7.0	---
TOTAL	1360	2812	4015	1844	6769	2489	2229	3329	1317	2195.1	802.5	1136.38
MEAN	43.9	93.7	130	59.5	242	80.3	74.3	107	43.9	70.8	25.9	37.9
MAX	330	1210	287	127	2700	141	318	539	92	1120	94	710
MIN	10	25	85	33	33	51	18	21	25	5.1	7.0	.98
(†)	25.5	25.5	24.7	26.4	26.0	28.2	25.3	25.6	24.7	24.7	26.6	27.3
MEAN†	69.4	119	155	85.9	268	108	99.6	133	68.6	95.5	52.5	65.2
CFSM†	.59	1.02	1.32	.73	2.29	.92	.85	1.14	.59	.82	.45	.56
IN.†	.68	1.14	1.52	.84	2.38	1.06	.95	1.31	.66	.95	.52	.62

CAL YR 1984 TOTAL 64959.4 MEAN 177 MAX 1710 MIN 8.4 MEAN† 201 CFSM† 1.72 IN.† 23.43  
WTR YR 1985 TOTAL 30297.98 MEAN 83.0 MAX 2700 MIN .98 MEAN† 109 CFSM† .93 IN.† 12.64

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

‡ Adjusted for diversion and change in reservoir contents.

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 Richland Avenue Bridge, 2 mi downstream from South Branch Codorus Creek, and 2 mi southwest of York. Water-quality samples collected from Richland Avenue Bridge.

DRAINAGE AREA.--222 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to current year. October 1915 to August 1923, 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 (Corps of Engineers benchmark). Prior to Sept. 30, 1932, nonrecording gage at site 1.6 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 20-23, May 13-20, July 27-29, and Sept. 14-30. Records good except those for estimated daily discharges, which are fair. Regulation at low flows by mills and pumping station upstream. Diversion above station 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. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite and landline telemeters at station.

COOPERATION.--Records of diversion provided by York Water Co.

AVERAGE DISCHARGE.--45 years, 247 ft<sup>3</sup>/s, 15.07 in/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft<sup>3</sup>/s June 22, 1972, gage height, 26.36 ft from flood-mark in gage shelter, from rating curve extended above 6,600 ft<sup>3</sup>/s on basis of slope-area measurements at gage height 20.11 ft and at peak flow; minimum 3.0 ft<sup>3</sup>/s Oct. 25, 1966, gage height, 1.40 ft, result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,070 ft<sup>3</sup>/s Feb. 12, gage height, 14.25 ft; minimum daily, 49 ft<sup>3</sup>/s Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	124	386	194	171	182	334	69	145	91	135	60
2	135	127	302	304	250	187	219	145	122	97	99	70
3	82	111	302	194	168	178	211	1030	128	95	97	64
4	74	107	262	195	125	168	201	343	139	124	93	59
5	76	278	265	181	142	180	185	240	134	95	89	55
6	69	173	569	169	162	160	164	204	140	85	80	52
7	72	131	347	166	139	153	151	184	110	137	83	52
8	79	116	293	151	117	164	146	167	115	108	200	66
9	77	115	260	146	128	166	157	154	128	144	135	85
10	76	119	245	158	135	154	325	147	111	95	104	107
11	75	137	224	152	129	150	389	145	96	82	100	64
12	76	133	209	151	3360	177	154	141	97	73	92	58
13	80	105	185	157	2450	160	110	310	84	122	78	51
14	78	99	189	151	1690	154	104	130	82	76	77	52
15	75	98	192	118	388	142	106	162	102	94	76	51
16	76	96	176	152	303	139	109	210	178	127	69	50
17	72	86	172	149	255	138	114	310	185	76	80	51
18	75	99	165	150	233	133	95	490	112	58	85	55
19	76	137	186	122	224	122	94	230	95	63	93	51
20	94	122	172	102	222	125	90	167	83	57	66	50
21	78	103	271	93	203	127	90	155	85	60	101	50
22	87	100	238	120	209	129	90	200	83	67	89	50
23	309	103	196	136	245	165	87	178	82	68	64	49
24	192	100	203	140	251	246	80	211	124	58	70	54
25	151	101	177	137	252	216	82	162	156	56	138	51
26	114	96	167	133	223	166	83	149	93	235	116	55
27	110	94	184	123	217	154	76	140	87	1570	105	800
28	114	503	175	137	193	147	74	135	93	175	95	248
29	506	1690	164	129	---	190	73	190	90	142	62	90
30	179	533	161	118	---	283	68	140	85	121	73	112
31	138	---	154	135	---	254	---	158	---	128	62	---
TOTAL	3622	5936	7191	4663	12584	5209	4261	6796	3364	4579	2906	2762
MEAN	117	198	232	150	449	168	142	219	112	148	93.7	92.1
MAX	506	1690	569	304	3360	283	389	1030	185	1570	200	800
MIN	69	86	154	93	117	122	68	69	82	56	62	49
(†)	25.5	25.5	24.7	26.4	26.0	28.2	25.3	25.6	24.7	24.7	26.6	27.3
MEAN†	117	219	281	164	513	194	170	261	118	158	88.6	90.5
CFSM†	.53	.99	1.27	.74	2.31	.87	.77	1.18	.53	.71	.40	.41
IN.†	.61	1.10	1.46	.85	2.40	1.00	.86	1.36	.59	.82	.46	.46

CAL YR 1984 TOTAL 121791 MEAN 333 MAX 2430 MIN 68 MEAN† 358 CFSM† 1.61 IN.† 21.98  
WTR YR 1985 TOTAL 63873 MEAN 175 MAX 3360 MIN 49 MEAN† 196 CFSM† 0.88 IN.† 11.98

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

‡ Adjusted for diversion and change in reservoir contents.

## CODORUS CREEK BASIN

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01575500 CODORUS CREEK NEAR YORK, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1966-67, October 1984 to current year.

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
19...	1630	79	775	8.10	19.0	2.47	2.38	0.03	0.02	0.07	2.50
NOV											
20...	1105	129	640	7.90	6.0	--	--	--	--	--	2.90
DEC											
13...	1200	189	540	7.60	9.0	--	--	--	--	--	3.90
JAN											
18...	1230	151	594	7.80	4.0	--	--	--	--	--	3.60
FEB											
21...	1230	208	510	8.00	7.5	--	--	--	--	--	3.80
MAR											
21...	1245	132	582	8.20	9.0	--	--	--	--	--	3.50
APR											
18...	1200	96	660	8.00	17.0	--	--	--	--	--	3.20
MAY											
09...	1420	164	605	7.70	20.0	--	--	--	--	--	3.30
JUN											
04...	1320	126	600	7.60	24.0	--	--	--	--	--	3.30
JUL											
01...	1310	82	825	7.90	20.5	--	--	--	--	--	2.80
25...	1600	53	--	8.00	26.5	--	--	--	--	--	2.20
26...	0500	88	825	7.20	23.0	--	--	--	--	--	2.20
26...	0755	122	800	8.10	23.0	--	--	--	--	--	2.00
26...	1100	189	810	6.80	24.5	--	--	--	--	--	2.00
26...	1300	198	700	7.30	26.5	--	--	--	--	--	1.80
26...	1421	233	675	7.50	26.5	--	--	--	--	--	1.80
26...	1710	338	650	7.60	26.5	--	--	--	--	--	2.00
AUG											
07...	1433	90	1000	7.80	28.5	--	--	--	--	--	3.00
SEP											
02...	1400	78	1000	7.70	27.0	--	--	--	--	--	2.10
26...	1250	64	1250	7.80	20.0	--	--	--	--	--	2.10
27...	0500	86	975	8.20	19.0	--	--	--	--	--	1.70
27...	0940	609	525	8.30	19.0	--	--	--	--	--	1.50
27...	1421	2690	222	7.70	19.0	--	--	--	--	--	1.50
27...	1829	2610	201	7.40	19.0	--	--	--	--	--	1.50
27...	2345	950	235	7.40	17.5	--	--	--	--	--	1.90
28...	0300	548	250	7.50	17.5	--	--	--	--	--	2.10
28...	0630	383	258	7.50	17.0	--	--	--	--	--	2.10
28...	1700	171	365	7.80	20.0	--	--	--	--	--	2.40

## CODORUS CREEK BASIN

01575500 CODORUS CREEK NEAR YORK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT										
19...	2.40	0.05	0.05	0.06	1.0	0.75	1.1	--	0.8	3.6
NOV										
20...	--	<0.01	<0.01	0.01	--	--	1.5	--	0.6	4.4
DEC										
13...	--	0.14	0.11	0.14	0.66	0.39	0.8	--	0.5	4.7
JAN										
18...	--	0.08	0.09	0.12	0.92	0.71	1.0	--	0.8	4.6
FEB										
21...	--	0.12	0.13	0.17	0.78	--	0.9	--	--	4.7
MAR										
21...	--	0.07	0.07	0.09	0.73	0.73	0.8	--	0.8	4.3
APR										
18...	--	<0.01	<0.01	0.01	--	--	2.0	--	0.6	5.2
MAY										
09...	--	0.03	0.06	0.08	0.87	0.64	0.9	--	0.7	4.2
JUN										
04...	--	0.11	0.08	0.10	1.4	1.4	1.5	0.0	1.5	4.8
JUL										
01...	--	0.08	0.08	0.10	1.3	0.62	1.4	0.7	0.7	4.2
25...	--	0.30	0.31	0.40	1.1	1.1	1.4	0.0	1.4	3.6
26...	--	0.13	0.14	0.18	0.77	0.56	0.9	0.2	0.7	3.1
26...	--	0.10	0.09	0.12	0.70	0.51	0.8	0.2	0.6	2.8
26...	--	0.08	0.08	0.10	0.92	0.52	1.0	0.4	0.6	3.0
26...	--	0.10	0.09	0.12	1.1	0.51	1.2	0.6	0.6	3.0
26...	--	0.08	0.08	0.10	0.72	0.52	0.8	0.2	0.6	2.6
26...	--	0.19	0.20	0.26	1.4	0.60	1.6	0.8	0.8	3.6
AUG										
07...	--	0.12	0.67	0.86	1.6	0.33	1.7	0.7	1.0	4.7
SEP										
02...	--	0.05	0.06	0.08	1.2	1.3	1.2	0.0	1.4	3.3
26...	--	0.09	0.08	0.10	1.4	1.2	1.5	0.2	1.3	3.6
27...	--	0.06	0.08	0.10	1.2	0.72	1.3	0.5	0.8	3.0
27...	--	0.15	0.12	0.15	3.2	0.88	3.3	2.3	1.0	4.8
27...	--	0.18	0.16	0.21	1.6	0.74	1.8	0.9	0.9	3.3
27...	--	0.15	0.11	0.14	1.2	0.59	1.4	0.7	0.7	2.9
27...	--	0.13	0.10	0.13	1.6	0.70	1.7	0.9	0.8	3.6
28...	--	0.11	0.09	0.12	1.5	0.81	1.6	0.7	0.9	3.7
28...	--	0.10	0.09	0.12	1.1	0.61	1.2	0.5	0.7	3.3
28...	--	0.10	0.09	0.12	1.1	0.71	1.2	0.4	0.8	3.6

CODORUS CREEK BASIN

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01575500 CODORUS CREEK NEAR YORK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT										
19...	16	0.13	--	0.05	0.10	0.09	0.28	17	13	2.8
NOV										
20...	19	0.12	--	0.07	--	0.06	0.18	16	10	3.5
DEC										
13...	21	0.08	--	0.03	--	0.06	0.18	--	10	5.1
JAN										
18...	20	0.10	--	0.07	--	0.06	0.18	13	3	1.2
FEB										
21...	21	0.11	--	0.09	--	0.09	0.28	9.8	11	6.2
MAR										
21...	19	0.97	--	0.07	--	0.07	0.21	13	6	2.1
APR										
18...	23	0.08	--	0.06	--	0.03	0.09	14	9	2.3
MAY										
09...	19	0.07	--	0.06	--	0.05	0.15	12	20	8.9
JUN										
04...	21	0.11	0.34	0.08	--	0.08	0.25	13	24	8.2
JUL										
01...	19	0.08	0.25	0.06	--	0.05	0.15	15	25	5.5
25...	16	0.08	0.25	0.06	--	0.07	0.21	--	15	2.1
26...	14	0.09	0.28	0.11	--	0.08	0.25	20	40	9.5
26...	12	0.18	0.55	0.07	--	0.08	0.25	21	57	19
26...	13	0.11	0.34	0.09	--	0.10	0.31	20	77	39
26...	13	0.18	0.55	0.12	--	0.10	0.31	18	67	36
26...	12	0.12	0.37	0.08	--	0.09	0.28	18	76	48
26...	16	0.12	0.37	0.07	--	0.08	0.25	20	261	238
AUG										
07...	21	<0.01	--	<0.01	--	0.09	0.28	34	13	3.2
SEP										
02...	15	0.11	0.34	0.10	--	0.09	0.28	23	14	2.9
26...	16	0.13	0.40	0.09	--	0.07	0.21	16	21	3.6
27...	13	0.18	0.55	0.10	--	0.07	0.21	17	26	6.0
27...	21	1.20	3.7	0.15	--	0.11	0.34	27	903	1490
27...	15	0.73	2.2	0.21	--	0.18	0.55	12	710	5160
27...	13	0.50	1.5	0.14	--	0.07	0.21	12	381	2680
27...	16	0.45	1.4	0.14	--	0.11	0.34	11	205	526
28...	16	0.37	1.1	0.11	--	0.09	0.28	11	139	206
28...	15	0.28	0.86	0.09	--	0.07	0.21	10	99	102
28...	16	0.17	0.52	0.08	--	0.07	0.21	6.3	40	18



## CODORUS CREEK BASIN

01575585 CODORUS CREEK AT PLEASUREVILLE, PA

LOCATION.--Lat 40°01'07", long 76°41'36", York County, Hydrologic Unit 02050306, on right bank at downstream side of Sherman Street Bridge, 1.0 mi northeast of Pleasureville, 2.0 mi upstream from Dee Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--267 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 15. Records good except those for estimated daily discharges, which are fair. Regulation at low flows by mills and pumping station of York Water Co. above gage. Diversion above station 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.

COOPERATION.--Records of diversion provided by York Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft<sup>3</sup>/s Feb. 12, 1985, gage height, 11.55 ft, from rating curve extended above 2,900 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum daily 72 ft<sup>3</sup>/s Sept. 22, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft<sup>3</sup>/s Feb. 12, 1985, gage height, 11.55 ft; minimum daily, 72 ft<sup>3</sup>/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	200	487	200	239	229	382	106	191	132	196	91
2	210	200	372	337	308	239	286	308	151	141	123	99
3	150	190	353	336	219	227	267	1530	263	143	117	97
4	120	170	340	246	165	217	261	499	247	204	113	92
5	115	400	287	253	177	242	238	330	177	139	110	88
6	110	300	603	228	208	210	214	270	182	195	100	86
7	115	290	490	220	182	199	193	253	147	175	127	81
8	120	190	358	214	153	213	188	225	151	156	289	131
9	120	185	324	197	165	214	206	202	166	191	181	157
10	120	195	301	192	173	199	323	191	151	150	128	135
11	115	215	287	192	172	195	467	187	131	124	121	98
12	118	205	267	191	5150	236	204	204	134	115	117	87
13	125	180	245	192	3510	216	161	381	120	158	106	76
14	125	160	234	202	2130	207	146	227	115	128	107	76
15	120	140	245	197	463	194	165	185	145	146	104	75
16	120	130	231	161	371	190	164	216	334	187	98	75
17	115	120	222	196	321	187	170	417	306	121	103	77
18	120	136	216	195	300	183	140	521	185	94	104	80
19	120	177	223	193	287	171	122	282	157	99	121	78
20	140	163	233	168	284	160	132	211	149	92	95	76
21	130	142	256	163	266	170	129	205	139	93	144	73
22	135	133	356	200	266	172	131	255	133	99	132	72
23	470	135	265	178	299	233	130	258	140	104	99	75
24	300	129	239	180	305	309	123	285	159	94	103	82
25	240	133	250	176	307	282	126	203	236	122	225	80
26	185	130	218	176	283	224	129	181	141	401	151	79
27	170	129	217	160	276	203	113	168	142	2030	131	2200
28	180	292	229	180	252	200	114	168	138	291	128	519
29	760	2320	224	158	---	247	114	240	134	175	97	198
30	300	764	210	157	---	342	108	174	128	140	103	174
31	230	---	203	177	---	323	---	225	---	224	98	---
TOTAL	5688	8253	8985	6215	17231	6833	5651	9107	5092	6663	3971	5407
MEAN	183	275	290	200	615	220	188	294	170	215	128	180
MAX	760	2320	603	337	5150	342	467	1530	334	2030	289	2200
MIN	110	120	203	157	153	160	108	106	115	92	95	72
(†)	25.5	25.5	24.7	26.4	26.0	28.2	25.3	25.6	24.7	24.7	26.6	27.3
MEAN†	183	296	339	214	679	246	216	336	176	225	123	178
CFSM†	.69	1.11	1.27	.80	2.54	.92	.81	1.26	.66	.84	.46	.67
IN.†	.80	1.24	1.46	.92	2.64	1.06	.90	1.45	.74	.97	.53	.75

WTR YR 1985 TOTAL 89096 MEAN 244 MAX 5150 MIN 72 MEAN† 265 CFSM† 0.99 IN.† 13.47

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

‡ Adjusted for diversion and change in reservoir contents.

## CODORUS CREEK BASIN

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01575585 CODORUS CREEK AT PLEASUREVILLE, PA--Continued

## WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
19...	1500	120	834	8.20	18.5	2.74	0.26	3.00	3.00	1.70
NOV										
20...	1218	164	720	7.70	6.0	--	--	3.30	--	0.54
DEC										
13...	1330	253	580	7.80	10.0	--	--	4.00	--	0.37
JAN										
18...	1335	196	584	7.90	3.5	--	--	3.70	--	0.38
FEB										
21...	1320	270	525	7.50	7.0	--	--	4.10	--	0.51
MAR										
21...	1400	171	590	7.70	9.0	--	--	3.30	--	0.76
APR										
18...	1330	145	635	7.40	17.0	--	--	3.60	--	0.62
MAY										
09...	1315	200	560	7.50	18.5	--	--	3.50	--	0.68
JUN										
04...	1448	212	580	7.30	23.0	--	--	3.40	--	0.53
JUL										
01...	1200	141	780	7.80	20.5	--	--	3.00	--	0.76
25...	1640	89	1000	7.50	25.0	--	--	2.40	--	0.42
26...	0405	118	600	7.30	24.0	--	--	2.10	--	0.53
26...	0700	526	675	7.20	24.0	--	--	2.00	--	0.92
26...	0900	392	510	7.80	23.0	--	--	1.70	--	0.34
26...	1155	292	490	7.20	25.0	--	--	1.30	--	0.25
26...	1800	272	590	7.50	25.0	--	--	1.60	--	0.36
AUG										
07...	1300	109	950	7.80	27.0	--	--	2.70	--	0.78
SEP										
02...	1245	92	875	7.30	25.5	--	--	2.60	--	1.90
26...	1345	78	1100	7.30	21.0	--	--	2.40	--	2.80
27...	0230	167	1090	8.00	20.0	--	--	3.00	--	3.10
27...	0700	787	465	8.00	19.5	--	--	1.30	--	0.60
27...	1030	3400	168	8.10	19.0	--	--	0.60	--	0.32
27...	1520	3400	260	7.60	19.0	--	--	1.70	--	0.27
27...	1938	3550	235	7.40	19.5	--	--	1.50	--	0.21
28...	0025	1420	220	7.30	17.5	--	--	1.60	--	0.27
28...	0405	731	250	7.40	17.5	--	--	1.90	--	0.26
28...	0705	547	275	7.40	17.5	--	--	2.10	--	0.25
28...	1750	261	360	7.90	20.0	--	--	2.40	--	0.42

## CODORUS CREEK BASIN

01575585 CODORUS CREEK AT PLEASUREVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
OCT									
19...	1.80	2.3	1.9	1.1	3.6	--	2.9	6.6	29
NOV									
20...	0.44	0.57	2.5	0.66	3.0	--	1.1	6.3	28
DEC									
13...	0.38	0.49	0.63	0.72	1.0	--	1.1	5.0	22
JAN									
18...	0.36	0.46	1.2	0.84	1.6	--	1.2	5.3	23
FEB									
21...	0.51	0.66	0.89	--	1.4	--	--	5.5	24
MAR									
21...	0.75	0.97	0.94	0.65	1.7	--	1.4	5.0	22
APR									
18...	0.61	0.79	1.1	0.39	1.7	--	1.0	5.3	23
MAY									
09...	0.62	0.80	1.1	0.68	1.8	--	1.3	5.3	23
JUN									
04...	0.48	0.62	0.47	--	1.0	--	--	4.4	19
JUL									
01...	0.74	0.95	1.0	0.86	1.8	0.2	1.6	4.8	21
25...	0.43	0.55	0.58	0.67	1.0	0.0	1.1	3.4	15
26...	0.52	0.67	1.1	0.58	1.6	0.5	1.1	3.7	16
26...	1.90	2.4	2.3	0.0	3.2	1.8	1.4	5.2	23
26...	0.31	0.40	1.4	0.39	1.7	1.0	0.7	3.4	15
26...	0.24	0.31	0.75	0.36	1.0	0.4	0.6	2.3	10
26...	0.35	0.45	0.94	0.55	1.3	0.4	0.9	2.9	13
AUG									
07...	0.67	0.86	1.2	1.1	2.0	0.2	1.8	4.7	21
SEP									
02...	1.80	2.3	1.7	1.2	3.6	0.6	3.0	6.2	27
26...	2.80	3.6	1.5	1.3	4.3	0.2	4.1	6.7	30
27...	3.00	3.9	1.8	1.1	4.9	0.8	4.1	7.9	35
27...	0.75	0.97	2.5	1.4	3.1	0.9	2.2	4.4	19
27...	0.35	0.45	2.9	0.65	3.2	2.2	1.0	3.8	17
27...	0.24	0.31	2.0	0.56	2.3	1.5	0.8	4.0	18
27...	0.19	0.24	1.9	0.81	2.1	1.1	1.0	3.6	16
28...	0.23	0.30	1.3	0.77	1.6	0.6	1.0	3.2	14
28...	0.24	0.31	1.9	0.66	2.2	1.3	0.9	4.1	18
28...	0.24	0.31	1.7	0.66	2.0	1.1	0.9	4.1	18
28...	0.43	0.55	1.2	0.87	1.6	0.3	1.3	4.0	18

## CODORUS CREEK BASIN

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01575585 CODORUS CREEK AT PLEASUREVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT									
19...	0.39	--	0.18	0.26	0.17	0.52	14	22	7.1
NOV									
20...	0.16	--	0.10	--	0.09	0.28	14	9	4.0
DEC									
13...	0.14	--	0.03	--	0.08	0.25	--	21	14
JAN									
18...	0.33	--	0.17	--	0.12	0.37	13	13	6.9
FEB									
21...	0.13	--	0.07	--	0.09	0.28	7.6	14	10
MAR									
21...	0.20	--	0.16	--	0.09	0.28	1.9	13	6.0
APR									
18...	0.24	--	0.22	--	0.19	0.58	11	15	5.9
MAY									
09...	0.17	--	0.11	--	0.08	0.25	9.4	43	23
JUN									
04...	0.20	0.61	0.13	--	0.13	0.40	11	48	27
JUL									
01...	0.13	0.40	0.11	--	0.08	0.25	14	47	18
25...	0.13	0.40	0.13	--	0.14	0.43	--	23	5.5
26...	0.21	0.64	0.19	--	0.17	0.52	17	32	10
26...	0.35	1.1	0.14	--	0.12	0.37	27	315	447
26...	0.22	0.67	0.13	--	0.14	0.43	18	166	176
26...	0.18	0.55	0.12	--	0.14	0.43	12	89	70
26...	0.15	0.46	0.10	--	0.10	0.31	12	71	52
AUG									
07...	0.11	0.34	<0.01	--	0.09	0.28	30	25	7.4
SEP									
02...	0.53	1.6	0.48	--	0.46	1.4	17	24	6.0
26...	0.43	1.3	0.25	--	0.18	0.55	16	19	4.0
27...	0.60	1.8	0.20	--	0.14	0.43	17	109	49
27...	0.99	3.0	0.21	--	0.16	0.49	13	295	627
27...	1.30	4.0	0.15	--	0.11	0.34	21	940	8620
27...	1.20	3.7	0.18	--	0.15	0.46	22	866	7950
27...	0.69	2.1	0.22	--	0.10	0.31	14	384	3680
28...	0.54	1.7	0.12	--	0.09	0.28	11	268	1030
28...	0.45	1.4	0.14	--	0.11	0.34	11	177	349
28...	0.43	1.3	0.13	--	0.10	0.31	10	142	210
28...	0.22	0.67	0.09	--	0.07	0.21	6.7	53	37

## 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 mi<sup>2</sup>. 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 times each year, elevation, 623.00 ft; minimum, 35,520 acre-ft Dec. 3, 1978 elevation, 612.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 46,600 acre-ft June 1, elevation, 622.19 ft; minimum 40,410 acre-ft Sept. 26, elevation, 616.92 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 mi southwest of York. DRAINAGE AREA, 93.7 mi<sup>2</sup>. 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 times each year.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,760 acre-ft Feb. 13, elevation, 407.45 ft; minimum, 8 acre-ft July 18, elevation, 371.72 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>01574390 Lake Marburg</u>				<u>01574700 Indian Rock Dam</u>		
Sept. 30 .....	620.50	44,360	--	371.88	9.2	--
Oct. 31 .....	619.16	42,800	-25.4	372.14	11.0	+ 0.04
Nov. 30 .....	618.91	42,530	- 4.5	374.28	33.7	+ 0.38
Dec. 31 .....	620.25	44,030	+24.4	374.34	34.6	+ 0.01
CAL YR 1984 .....	--	--	+ 0.08	--	--	- 0.03
Jan. 31 .....	619.58	43,250	-12.7	376.03	60.6	+ 0.42
Feb. 28 .....	621.29	45,410	+38.9	372.49	13.8	- 0.84
Mar. 31 .....	621.16	45,240	- 2.8	372.88	17.3	+ 0.06
Apr. 30 .....	621.27	45,390	+ 2.5	371.77	8.4	- 0.15
May 31 .....	622.02	46,380	+16.1	372.63	15.1	+ 0.12
June 30 .....	621.20	45,290	-18.3	371.99	19.9	- 0.09
July 31 .....	620.50	44,360	-15.1	372.84	17.0	+ 0.12
Aug. 31 .....	618.80	42,420	-31.6	372.30	12.3	- 0.08
Sept. 30 .....	617.10	40,610	-30.4	378.15	103	+ 1.52
WTR YR 1985 .....	--	--	- 5.2	--	--	+ 0.13



## SUSQUEHANNA RIVER BASIN

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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 mi downstream from Marietta. Records include flow of Chickies Creek.

DRAINAGE AREA.--25,990 mi<sup>2</sup>, approximately, includes that of Chickies Creek.

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.--Estimated daily discharges: Jan. 13 to Feb. 24. 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 at discharges below 8,000 ft<sup>3</sup>/s caused by hydroelectric plant 9.7 mi upstream.

COOPERATION.--Daily discharges through Safe Harbor Dam provided by Safe Harbor Water Power Corporation.

AVERAGE DISCHARGE.--54 years, 36,900 ft<sup>3</sup>/s, 19.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080,000 ft<sup>3</sup>/s June 23, 1972, gage height, 64.54 ft, from floodmarks; minimum, 618 ft<sup>3</sup>/s Sept. 26, 1932, gage height, 30.89 ft, when York Haven powerplant was shut down to obtain current-meter measurements of low flow; minimum daily, 1,380 ft<sup>3</sup>/s Sept. 26, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889 reached a stage of 58.2 ft from floodmark, discharge, about 630,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137,000 ft<sup>3</sup>/s Apr. 3, gage height, 43.24 ft; minimum, 3,740 ft<sup>3</sup>/s Sept. 26, gage height, 32.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6760	8200	71100	76500	14900	86700	96400	17700	18400	9060	9360	6350
2	6710	7970	65600	75000	14600	70300	118000	17300	18000	8690	9070	8400
3	6580	7810	63300	68700	13500	59500	134000	24600	31100	8370	10400	9830
4	6650	7890	61300	61000	12900	50400	116000	41300	31800	8350	9490	9060
5	6640	8940	58400	56100	12600	44100	95800	46700	26500	8240	8630	8080
6	6510	9640	57200	51000	11600	40500	81200	43100	24300	7850	7950	7210
7	6350	9120	55100	45500	11300	38100	72400	38100	25600	8100	7490	6380
8	6510	9360	49200	39800	10800	37300	65200	31600	22300	8330	7730	6220
9	6130	12200	43200	35300	9400	36300	60800	28700	19200	8230	7840	6230
10	6140	13100	37700	31400	10800	35100	54900	24900	17700	8370	7290	6430
11	6200	12700	34000	28200	10500	34600	50700	20400	16100	8940	7700	6590
12	6000	12500	33900	23200	19400	38700	46100	21300	14400	9350	9090	6950
13	6010	12600	36700	17700	40700	40200	43600	21100	13500	10200	8020	8460
14	5810	17300	41600	19200	55300	68300	41000	21500	12100	10300	7150	10800
15	5720	17400	44700	21000	51900	100000	38500	21300	11200	11400	8920	10300
16	5720	16200	49900	18300	42400	91100	35700	18500	12400	11900	6470	8840
17	5600	14900	54400	17500	37000	76200	33800	17300	15500	11300	5900	7830
18	5750	14000	52000	18400	33200	61900	31700	22000	17800	10700	5650	7080
19	5640	13400	47800	18200	32300	52700	29100	22900	17800	11300	5850	6670
20	5890	12600	44000	15700	30900	46500	27400	23800	16200	10700	5450	6190
21	5530	11700	42600	9000	31600	40900	25800	22700	15300	9570	5560	5600
22	6450	11200	49400	8200	29300	36400	24800	21400	14200	9000	5720	5530
23	7020	10600	63600	7800	28800	33600	25100	19400	13100	8370	6700	5480
24	7590	10600	72900	9600	32700	33700	25000	18200	12300	7510	5800	5080
25	8120	10200	73200	13200	45100	43400	23800	16200	11800	7480	5270	4870
26	8360	9910	67200	15600	108000	55400	23500	15600	10400	8150	5750	4580
27	8020	9810	58200	14800	124000	62900	21900	14300	10000	14000	5310	8780
28	7920	9320	49900	15400	106000	59700	20800	12700	9790	11700	5250	10600
29	8600	22700	44300	16500	---	54100	19600	12800	9220	9560	6050	21100
30	8210	67400	43700	16200	---	58000	18600	13100	8940	8750	7850	36200
31	8030	---	65300	15900	---	78800	---	17100	---	8270	6840	---
TOTAL	207170	411270	1631400	879900	981500	1665400	1501200	707600	496950	292040	221550	261720
MEAN	6683	13710	52630	28380	35050	53720	50040	22830	16570	9421	7147	8724
MAX	8600	67400	73200	76500	124000	100000	134000	46700	31800	14000	10400	36200
MIN	5530	7810	33900	7800	9400	33600	18600	12700	8940	7480	5250	4580
CFSM	.26	.53	2.03	1.09	1.35	2.07	1.93	.88	.64	.36	.27	.34
IN.	.30	.59	2.34	1.26	1.40	2.38	2.15	1.01	.71	.42	.32	.37

CAL YR 1984 TOTAL 17205720 MEAN 47010 MAX 446000 MIN 5530 CFSM 1.81 IN. 24.63  
WTR YR 1985 TOTAL 9257700 MEAN 25360 MAX 134000 MIN 4580 CFSM .98 IN. 13.25

## CONESTOGA RIVER BASIN

01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA

LOCATION.--Lat 40°07'42", long 75°58'40", Lancaster County, Hydrologic Unit 02050306, on left bank of drainage ditch below cornfield, 500 ft west of unnamed tributary to Conestoga River, and 1.1 mi southeast of Churchtown.

DRAINAGE AREA.--0.03 mi<sup>2</sup>.

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

INSTRUMENTATION.--Automatic sediment pumping sampler since January 1983.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
22...	2010	1.1	1.0	1.0	0.08	0.06	1.1	1.1	0.36
22...	2020	3.4	0.85	--	0.11	--	0.96	--	0.55
22...	2030	1.6	0.89	--	0.09	--	0.98	--	0.52
22...	2035	2.5	1.3	--	0.13	--	1.4	--	0.50
22...	2037	2.1	0.69	0.69	0.31	0.16	1.0	0.85	21
22...	2045	1.4	<sup>a</sup> 1.2	<sup>a</sup> 1.3	0.15	0.08	1.4	1.4	2.3
22...	2215	1.1	0.35	--	0.22	--	0.57	--	5.6
22...	2245	1.1	0.31	--	0.18	--	0.49	--	3.7
22...	2330	0.45	0.37	0.30	0.12	0.09	0.49	0.39	3.8
22...	2345	0.27	0.14	--	0.35	--	0.49	--	3.5
JAN 1985									
02...	1010	0.36	12	--	0.06	--	12	--	0.22
02...	1055	0.47	13	--	0.04	--	13	--	0.18
02...	1210	0.16	15	--	0.06	--	15	--	0.26
FEB									
12...	0915	0.29	2.0	--	0.05	--	2.1	--	0.72
12...	1130	1.8	0.97	--	0.03	--	1.0	--	0.34
12...	1200	1.9	0.89	--	0.03	--	0.92	--	0.32
12...	1213	2.0	0.85	--	0.03	--	0.88	--	0.30
12...	1215	2.0	0.93	--	0.03	--	0.96	--	0.38
12...	1245	2.2	0.81	--	0.03	--	0.84	--	0.29
12...	1628	2.3	1.2	--	0.04	--	1.2	--	0.24
13...	1325	1.2	1.0	--	0.05	--	1.1	--	0.32
13...	1440	1.2	1.1	--	0.05	--	1.1	--	0.31
13...	1855	0.82	1.3	--	0.06	--	1.4	--	0.30
MAY									
03...	0405	0.15	24	21	0.34	0.19	25	22	0.58
03...	0505	0.08	24	23	0.29	0.20	24	24	0.48
03...	0650	0.08	27	27	0.26	0.24	28	28	0.35
03...	0835	0.08	28	27	0.26	0.24	29	28	0.31
21...	1837	2.8	--	--	--	--	2.4	--	--
21...	1842	11	--	--	--	--	3.0	--	--
21...	1847	12	--	--	--	--	3.0	--	--
JUN									
16...	1550	0.02	3.9	--	0.68	--	4.6	--	0.55
16...	1635	0.02	20	20	1.1	1.1	21	21	1.1
16...	1715	0.57	4.5	--	1.3	--	5.8	--	0.99
16...	1725	2.5	3.8	--	0.55	--	4.3	--	1.3
16...	1730	1.3	4.1	--	0.46	--	4.6	--	1.3
16...	1740	1.0	4.8	4.8	0.35	0.22	5.2	5.0	1.3
16...	1840	0.98	7.0	--	0.51	--	7.6	--	1.5
16...	1925	0.29	9.4	9.2	0.51	0.31	9.9	9.5	1.3
16...	2040	0.02	13	12	0.64	0.53	14	13	0.66
16...	2225	0.36	6.2	--	0.53	--	6.7	6.0	1.2
16...	2310	0.07	13	12	0.57	0.46	14	13	1.4
17...	0040	0.01	16	16	0.66	0.59	17	17	0.66

(a) Results within limits of analytical precision.

CONESTOGA RIVER BASIN

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01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
22...	0.33	16	0.87	16	1.2	17	12	0.42
22...	--	15	--	16	--	17	7.8	--
22...	--	9.5	--	10	--	11	5.2	--
22...	--	13	--	14	--	15	7.8	--
22...	17	48	17	69	34	70	21	4.0
22...	2.2	17	3.2	19	5.4	20	7.6	1.9
22...	--	16	--	22	--	23	8.8	--
22...	--	13	--	17	--	17	8.0	--
22...	3.1	3.6	3.1	7.4	6.2	7.9	7.8	4.2
22...	--	6.5	--	10	--	10	7.6	--
JAN 1985								
02...	--	--	--	--	--	--	5.5	--
02...	--	--	--	--	--	--	4.2	--
02...	--	--	--	--	--	--	1.3	--
FEB								
12...	--	1.3	--	2.0	--	4.1	1.2	--
12...	--	1.1	--	1.4	--	2.4	1.1	--
12...	--	0.58	--	0.90	--	1.8	1.1	--
12...	--	0.50	--	0.80	0.80	1.7	1.1	--
12...	--	1.0	--	1.4	1.4	2.4	1.3	--
12...	--	0.81	--	1.1	--	1.9	2.0	--
12...	--	1.6	--	1.8	--	3.0	2.4	--
13...	--	0.78	--	1.1	--	2.2	1.2	--
13...	--	0.69	--	1.0	--	2.1	1.1	--
13...	--	1.2	--	1.5	--	2.9	1.1	--
MAY								
03...	0.42	a5.8	a6.0	6.4	6.4	31	1.8	0.27
03...	0.39	--	1.2	--	1.6	--	--	0.29
03...	0.32	4.5	3.7	4.8	4.0	33	0.61	0.30
03...	0.30	4.1	2.7	4.4	3.0	33	0.53	0.27
21...	--	--	--	8.6	--	11	7.4	--
21...	--	--	--	16	--	19	11	--
21	--	--	--	10	--	13	13	--
JUN								
16...	--	17	--	18	--	23	2.5	--
16...	0.88	6.1	2.7	7.2	3.6	28	6.5	0.16
16...	--	93	--	94	--	100	6.9	--
16...	--	6.7	--	8.0	--	12	5.1	--
16...	--	5.6	--	6.9	--	12	3.7	--
16...	1.1	3.3	1.2	4.6	2.3	9.8	2.1	0.21
16...	--	4.7	--	6.2	--	14	4.3	--
16...	1.1	6.0	0.10	7.3	1.2	17	2.1	0.23
16...	0.66	2.3	0.74	3.0	1.4	17	2.9	0.29
16...	1.2	7.6	3.8	8.8	5.0	15	2.3	1.8
16...	1.2	4.2	0.70	5.6	1.9	20	1.9	0.17
17...	0.66	2.4	0.54	3.1	1.2	20	2.0	0.18

(a) Results within limits of analytical precision.

## CONESTOGA RIVER BASIN

01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JUL 1985									
06...	1900	1.0	26	22	0.33	0.29	26	22	0.83
06...	1930	0.42	--	--	--	--	30	--	--
06...	2030	0.04	--	--	--	--	13	--	--
08...	1700	1.0	4.9	2.8	0.83	0.32	5.7	3.1	0.32
08...	1830	0.08	--	--	--	--	5.5	--	--
08...	2030	0.01	5.4	0.26	0.33	0.20	5.7	4.6	0.17
08...	2345	0.60	--	--	--	--	5.3	--	--
09...	0015	0.11	4.6	4.1	0.16	0.10	4.8	4.2	0.33
09...	0145	0.02	4.5	4.2	0.31	0.22	4.8	4.4	0.25
22...	b0055	0.16	--	--	--	--	3.1	--	--
22...	b0125	0.01	2.5	2.1	0.11	0.06	2.6	2.2	0.30
25...	1900	1.1	--	--	--	--	1.5	--	--
25...	2145	0.82	1.7	1.6	0.09	0.04	1.8	1.6	0.21
25...	2400	0.07	2.0	1.7	0.13	0.06	2.2	1.8	0.43
26...	1907	0.82	--	--	--	--	1.7	--	--
26...	1922	2.0	--	--	--	--	1.1	--	--
26...	2137	0.77	--	--	--	--	0.86	--	--
26...	2237	0.55	--	--	--	--	1.5	--	--
27...	0122	0.01	--	--	--	--	2.4	--	--
27...	0152	0.01	--	--	--	--	2.2	--	--
27...	0222	0.36	--	--	--	--	2.2	--	--
27...	0252	0.08	--	--	--	--	2.6	--	--
27...	0322	0.05	--	--	--	--	2.2	--	--
27...	0422	0.98	--	--	--	--	1.1	--	--
27...	0850	<0.01	--	--	--	--	4.4	--	--
31...	1450	3.3	--	--	--	--	1.8	--	--
31...	1515	1.2	--	--	--	--	0.82	--	--
31...	1530	1.4	--	--	--	--	1.0	--	--
31...	1600	0.82	--	--	--	--	0.88	--	--
31...	1645	0.47	--	--	--	--	1.1	--	--
31...	1745	0.10	--	--	--	--	1.1	--	--
31...	1815	<0.01	--	--	--	--	1.1	--	--
31...	1915	1.6	--	--	--	--	1.2	--	--
31...	1930	1.1	--	--	--	--	0.96	--	--
31...	2015	0.47	--	--	--	--	1.3	--	--
31...	2045	0.16	--	--	--	--	1.2	--	--
31...	2130	0.01	--	--	--	--	1.3	--	--
31...	2255	7.0	--	--	--	--	1.1	--	--
31...	2300	6.3	--	--	--	--	0.80	--	--
31...	2315	1.2	--	--	--	--	0.64	--	--

(b) Times for these samples estimated on basis of precipitation records.

CONESTOGA RIVER BASIN

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01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JUL 1985								
06...	0.72	1.5	0.78	2.3	1.5	28	1.3	0.11
06...	--	--	--	1.5	--	32	1.2	--
06...	--	--	--	2.5	--	15	4.0	--
08...	0.20	9.3	0.44	9.6	0.64	15	4.1	0.13
08...	--	--	--	3.8	--	9.3	4.5	--
08...	0.09	0.83	0.79	1.0	0.88	6.7	5.0	0.30
08...	--	--	--	7.6	--	13	3.2	--
09...	0.21	1.1	0.79	1.4	1.0	6.2	7.5	0.16
09...	0.15	1.9	0.55	2.2	0.70	7.0	3.5	0.23
22...	--	--	--	2.2	--	5.3	3.1	--
22...	0.22	1.5	0.88	1.8	1.1	4.4	1.4	0.22
25...	--	--	--	2.0	--	3.5	1.4	--
25...	0.13	1.3	0.47	1.5	0.60	3.3	1.9	0.23
25...	0.29	1.6	0.91	2.0	1.2	4.2	2.9	0.29
26...	--	--	--	18	--	20	2.8	--
26...	--	--	--	1.4	--	2.5	5.0	--
26...	--	--	--	1.2	--	2.1	1.5	--
26...	--	--	--	2.0	--	3.5	2.0	--
27...	--	--	--	1.5	--	3.9	1.2	--
27...	--	--	--	1.2	--	3.4	0.96	--
27...	--	--	--	1.2	--	3.4	0.96	--
27...	--	--	--	1.7	--	4.3	0.97	--
27...	--	--	--	1.6	--	3.8	0.30	--
27...	--	--	--	1.9	--	3.0	1.3	--
27...	--	--	--	1.1	--	5.5	0.63	--
31...	--	--	--	17	--	19	5.3	--
31...	--	--	--	5.2	--	6.0	2.5	--
31...	--	--	--	4.2	--	5.2	2.0	--
31...	--	--	--	1.8	--	2.7	3.4	--
31...	--	--	--	2.6	--	3.7	2.5	--
31...	--	--	--	2.0	--	3.1	1.5	--
31...	--	--	--	2.2	--	3.3	1.9	--
31...	--	--	--	5.6	--	6.8	2.8	--
31...	--	--	--	6.0	--	7.0	1.8	--
31...	--	--	--	9.2	--	10	2.1	--
31...	--	--	--	1.6	--	2.8	2.4	--
31...	--	--	--	1.8	--	3.1	1.5	--
31...	--	--	--	28	--	29	7.2	--
31...	--	--	--	15	--	16	6.2	--
31...	--	--	--	5.2	--	5.8	2.8	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
AUG 1985										
01...	0100	1.1	--	--	0.64	--	--	3.2	3.8	2.3
01...	0145	0.88	--	--	0.70	--	--	2.2	2.9	2.8
01...	0230	0.60	--	--	0.90	--	--	6.0	6.9	3.4
01...	0330	0.18	--	--	0.70	--	--	2.0	2.7	2.6
01...	0430	0.03	--	--	0.72	--	--	1.8	2.5	2.1
07...	2200	3.0	0.90	0.10	1.0	0.22	9.6	9.8	11	4.6
07...	2220	1.0	0.59	0.09	0.68	0.09	7.1	7.2	7.9	1.8
07...	2250	1.0	0.53	0.09	0.62	0.08	5.9	6.0	6.6	1.1
07...	2320	1.0	0.57	0.03	0.60	0.04	4.4	4.4	5.0	1.4
08...	0035	1.0	0.55	0.07	0.62	0.09	1.7	1.8	2.4	1.9
08...	0150	0.98	0.72	0.08	0.80	0.09	0.01	0.10	0.90	2.1
08...	0405	0.52	0.78	0.08	0.86	0.09	2.1	2.2	3.1	1.4
08...	0520	0.11	0.71	0.09	0.80	0.08	0.82	0.90	1.7	1.5
08...	0550	0.55	0.91	0.09	1.0	0.17	18	18	19	8.0
08...	0620	0.08	0.71	0.11	0.82	0.12	0.48	0.60	1.4	2.6
08...	0835	0.02	0.89	0.09	0.98	0.09	0.91	1.0	2.0	1.2



## CONESTOGA RIVER BASIN

01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
SEP 1985									
26...	2340	0.26	0.32	--	0.04	--	0.36	--	0.48
26...	2355	0.17	0.43	--	0.03	--	0.46	--	0.22
27...	0010	0.76	0.23	0.30	0.13	0.02	0.36	0.32	0.40
27...	0040	0.62	0.42	--	0.04	--	0.46	--	0.09
27...	0110	1.2	0.29	--	0.03	--	0.32	--	0.08
27...	0210	1.3	0.32	--	0.02	--	0.34	--	0.06
27...	0240	1.2	0.26	0.26	0.06	0.02	0.32	0.28	0.09
27...	0340	1.1	0.26	0.26	0.06	0.02	0.32	0.28	0.10
27...	0410	1.8	0.39	--	0.03	--	0.42	--	0.06
27...	0440	1.0	0.36	0.36	0.06	0.02	0.42	0.38	0.07
27...	0555	0.56	0.38	0.38	0.06	0.02	0.44	0.40	0.08
27...	0610	2.1	0.39	--	0.03	--	0.42	--	0.07
27...	0625	1.1	0.32	0.30	0.02	0.02	0.34	0.32	0.04
27...	0710	1.8	0.36	--	0.02	--	0.38	--	0.05
27...	0740	1.1	0.41	0.40	0.05	0.02	0.46	0.42	0.04
27...	0755	2.6	0.33	--	0.03	--	0.36	--	0.04
27...	0810	1.3	0.41	0.40	0.05	0.02	0.46	0.42	0.09
27...	0840	1.2	0.43	0.43	0.05	0.01	0.48	0.44	0.10
27...	0910	1.4	0.40	--	0.02	--	0.42	--	0.05
27...	0940	1.9	0.38	--	0.02	--	0.40	--	0.05
27...	0950	3.6	0.26	0.26	0.06	0.01	0.32	0.27	0.08
27...	1010	2.4	0.35	0.35	0.05	0.01	0.40	0.36	0.07
27...	1040	2.5	0.36	--	0.02	--	0.38	--	0.08
27...	1055	1.8	0.36	0.36	0.06	0.01	0.42	0.37	0.10
27...	1140	2.1	0.41	--	0.03	--	0.44	--	0.05
27...	1155	1.5	0.43	0.43	0.05	0.01	0.48	0.44	0.20
27...	1310	1.1	0.26	--	0.02	--	0.28	--	0.05
27...	1425	1.1	0.21	0.21	0.01	0.01	0.22	0.22	0.06
27...	1600	1.1	0.15	--	0.01	--	0.16	--	0.06
27...	1615	1.1	--	0.19	--	0.01	--	0.20	--
27...	2015	1.1	0.12	--	0.02	--	0.14	--	0.02
27...	2130	0.90	--	--	--	<0.01	--	0.16	--
27...	2145	0.90	0.17	--	0.01	--	0.18	--	0.06
27...	2245	0.70	--	0.21	--	0.01	--	0.22	--
27...	2300	0.67	0.23	--	0.01	--	0.24	--	0.02
28...	0045	0.56	0.23	--	0.01	--	0.24	--	0.03
28...	0115	0.32	--	0.21	--	0.01	--	0.22	--
28...	0130	0.28	0.23	--	0.01	--	0.24	--	0.02

(a) Results within limits of analytical precision.

CONESTOGA RIVER BASIN

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01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
SEP 1985								
26...	--	1.1	--	1.6	--	2.0	1.0	--
26...	--	0.56	--	0.78	--	1.2	0.67	--
27...	0.26	5.2	1.6	5.6	1.9	6.0	1.4	0.23
27...	--	0.75	--	0.84	--	1.3	0.73	--
27...	--	0.70	--	0.78	--	1.1	0.66	--
27...	--	0.74	--	0.80	--	1.1	0.62	--
27...	0.05	1.5	1.4	1.6	1.4	1.9	0.70	0.37
27...	0.08	1.6	1.6	1.7	1.7	2.0	0.46	0.23
27...	--	1.3	--	1.4	--	1.8	0.63	--
27...	0.04	2.1	0.80	2.2	0.84	2.6	0.50	0.25
27...	0.04	1.6	1.4	1.7	1.4	2.1	0.60	0.34
27...	--	2.2	--	2.3	--	2.7	0.70	--
27...	0.03	0.68	0.51	0.72	0.54	1.1	0.56	0.27
27...	--	0.71	--	0.76	--	1.1	0.61	--
27...	0.04	0.53	0.53	0.57	0.57	1.0	0.56	0.28
27...	--	0.74	--	0.78	--	1.1	0.68	--
27...	0.06	0.52	0.52	0.61	0.58	1.1	0.55	0.30
27...	0.06	0.54	0.54	0.64	0.60	1.1	0.52	0.30
27...	--	0.63	--	0.68	--	1.1	0.61	--
27...	--	1.2	--	1.2	--	1.6	0.65	--
27...	0.04	1.5	0.46	1.6	0.50	1.9	0.60	0.23
27...	0.04	1.3	0.62	1.4	0.66	1.8	0.50	0.21
27...	--	7.0	--	7.1	--	7.5	0.58	--
27...	0.07	1.8	0.91	1.9	0.98	2.3	0.56	0.22
27...	--	0.87	--	0.92	--	1.4	0.58	--
27...	0.16	1.7	1.6	1.9	1.8	2.4	0.47	0.23
27...	--	0.59	--	0.64	--	0.92	0.45	--
27...	0.06	1.4	1.4	1.5	1.5	1.7	0.62	0.29
27...	--	0.38	--	0.44	--	0.60	0.47	--
27...	0.09	--	1.6	--	1.7	--	--	0.32
27...	--	0.56	--	0.58	--	0.72	0.40	--
27...	0.04	--	0.90	--	0.94	--	--	0.20
27...	--	0.50	--	0.56	--	0.74	0.42	--
27...	0.05	--	1.7	--	1.7	--	--	0.19
27...	--	0.48	--	0.50	--	0.74	0.37	--
28...	--	0.41	--	0.44	--	0.68	0.38	--
28...	0.02	--	0.76	--	0.78	--	--	0.28
28...	--	0.42	--	0.44	--	0.68	0.50	--

## CONESTOGA RIVER BASIN

01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984									
22...	2013	1.4	<1.0	<2.0	<4.0	<2.0	<4.0	<4.0	<20
22...	2055	0.85	<1.0	<2.0	<4.0	<2.0	<4.0	<4.0	<20
JUN 1985									
16...	1620	0.10	<0.50	300	<2.0	370	<2.0	<2.0	<10
16...	1725	2.5	<0.50	70	<2.0	88	<2.0	<2.0	<10
16...	1835	0.98	<0.50	100	<2.0	130	<2.0	<2.0	<10
16...	2025	0.04	<0.50	280	<2.0	320	<2.0	<2.0	<10
16...	2240	0.45	<0.50	81	<2.0	120	<2.0	<2.0	<10
17...	0025	0.02	<0.50	210	<2.0	280	<2.0	<2.0	<10
JUL									
06...	1945	0.68	<1.0	7.5	<4.0	70	<4.0	<4.0	<20
08...	1800	0.55	<1.0	2.8	<4.0	26	<4.0	<4.0	<20
09...	0030	0.08	<1.0	4.7	<4.0	30	<4.0	<4.0	<20
25...	2000	1.1	<1.0	<2.0	<4.0	2.8	<4.0	<4.0	<20
31...	1545	1.1	<0.50	2.7	<2.0	<2.0	<2.0	<2.0	<10
31...	1715	0.36	<0.50	13	<2.0	7.4	<2.0	<2.0	<10
31...	1945	1.0	<0.50	2.0	<2.0	1.8	<2.0	<2.0	<10
31...	2115	0.02	<0.50	13	<2.0	5.1	<2.0	<2.0	<10
31...	2345	1.1	<0.50	<1.0	<2.0	1.0	<2.0	<2.0	<10
AUG									
01...	0315	0.47	<0.50	3.8	<2.0	2.6	<2.0	<2.0	<10
07...	2335	1.0	<1.0	<2.0	<4.0	1.1	<4.0	<4.0	<20
08...	0435	0.47	<0.50	4.1	<2.0	2.8	<2.0	<2.0	<10
08...	0820	0.02	<0.50	3.6	<2.0	2.0	<2.0	<2.0	<10
SEP									
27...	0140	1.2	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
27...	0655	1.4	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
27...	0945	3.5	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
27...	1026	2.7	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
27...	1541	1.1	<0.20	<0.80	<0.80	<0.40	<0.80	<0.80	<4
28...	0100	0.54	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10

## CONESTOGA RIVER BASIN

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01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984					
22...	2020	3.4	9560	88	--
22...	2030	1.6	4260	18	--
22...	2035	2.5	11300	76	--
22...	2040	2.0	4770	26	91
22...	2115	0.60	1430	2.3	--
22...	2300	0.91	2120	5.2	--
22...	2345	0.27	1230	0.90	--
28...	1945	2.4	8330	54	--
28...	2145	1.6	7800	34	--
28...	2250	0.85	3470	8.0	98
NOV					
28...	2155	1.1	36000	107	--
28...	2159	1.1	32800	97	88
28...	2203	1.1	27600	82	--
28...	2207	1.4	33000	125	--
29...	0100	1.2	1400	4.5	90
29...	0125	1.2	848	2.7	--
29...	0136	1.2	763	2.5	--
29...	0148	1.2	713	2.3	--
29...	0159	1.2	707	2.3	--
29...	0210	1.2	608	2.0	--
29...	0221	1.2	611	2.0	--
29...	0225	1.2	3570	12	86
29...	0228	1.3	5780	20	--
29...	0232	1.3	5440	19	--
29...	0236	1.2	2660	8.6	85
JAN 1985					
02...	0955	0.27	7280	5.3	--
02...	1025	0.36	3500	3.4	60
02...	1110	0.45	2280	2.8	--
02...	1155	0.21	756	0.43	--
FEB					
12...	0900	0.21	326	0.18	--
12...	1130	1.8	496	2.4	82
12...	1210	2.0	482	2.6	--
12...	1215	2.0	721	3.9	--
12...	1245	2.2	777	4.6	--
12...	1628	2.3	16100	100	--
13...	1320	1.2	231	0.75	--
13...	1356	1.2	234	0.76	--
13...	1855	0.82	228	0.50	--
MAY					
03...	0350	0.13	395	0.14	--
03...	0520	0.08	111	0.02	--
03...	0705	0.08	65	0.01	--
03...	0905	0.08	239	0.05	--
21...	1837	2.8	4040	31	--
21...	1842	11	26400	784	99
21...	1847	12	32900	1070	--
JUN					
16...	1605	0.13	4800	1.7	98
16...	1620	0.10	2090	0.56	--
16...	1720	2.5	33600	227	92
16...	1730	1.3	4520	16	--
16...	1755	1.0	2630	7.1	--
16...	1840	0.98	1820	4.8	85
16...	1855	0.65	2320	4.1	--
16...	1910	0.57	1780	2.7	--
16...	2240	0.45	4680	5.7	--

## CONESTOGA RIVER BASIN

01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued  
 INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL 1985					
06...	1930	0.42	1860	2.1	--
08...	1645	1.1	31300	93	87
08...	1830	0.08	5240	1.1	--
08...	2000	0.03	1380	0.11	94
08...	2305	2.4	21700	141	91
09...	0130	0.02	1310	0.07	--
22...	0040	0.82	14300	32	--
25...	1900	1.1	2570	7.6	88
25...	2345	0.10	884	0.24	--
26...	1907	0.82	16600	37	--
26...	1922	2.0	3600	19	--
26...	2137	0.77	770	1.6	--
26...	2237	0.55	1520	2.3	--
27...	0122	0.01	441	0.01	--
27...	0152	0.01	403	0.01	--
27...	0222	0.36	3050	3.0	--
27...	0252	0.08	1310	0.28	--
27...	0322	0.05	750	0.10	--
27...	0407	0.85	4690	11	--
27...	0422	0.98	1860	4.9	--
31...	1450	3.3	18800	168	--
31...	1515	1.2	2950	9.6	--
31...	1530	1.4	4190	16	--
31...	1615	0.79	1180	2.5	<0.01
31...	1645	0.47	959	1.2	--
31...	1715	0.36	767	0.75	--
31...	1745	0.10	456	0.12	--
31...	1815	<0.01	332	<0.01	--
31...	1915	1.6	13200	57	60
31...	1930	1.1	2340	6.9	--
31...	2030	0.20	697	0.38	--
31...	2100	0.10	329	0.09	--
31...	2145	0.01	268	0.01	90
31...	2315	1.2	4540	15	77
31...	2330	1.1	2440	7.2	--
AUG					
01...	0115	1.1	938	2.8	--
01...	0200	0.88	784	1.9	--
01...	0215	0.82	698	1.5	--
01...	0245	0.55	908	1.3	84
01...	0300	0.50	599	0.81	--
01...	0345	0.13	368	0.13	--
01...	0430	0.03	300	0.02	--
07...	2200	3.0	33100	268	49
07...	2220	1.0	3650	9.9	--
07...	2230	4.0	20300	219	77
07...	2250	1.0	2820	7.6	48
07...	2300	1.0	1460	3.9	--
08...	0050	1.0	910	2.5	--
08...	0205	0.82	903	2.0	--
08...	0420	0.50	507	0.68	--
08...	0535	0.07	660	0.12	95
08...	0550	0.55	23400	35	--
08...	0635	0.05	805	0.11	--
08...	0850	0.02	221	0.01	--

(b) Time for this sample estimated on the basis of precipitation records.



## CONESTOGA RIVER BASIN

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01576083 AGRICULTURAL FIELD RUNOFF SITE NO. 1 NEAR CHURCHTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
SEP 1985					
26...	2340	0.26	1650	1.2	88
26...	2355	0.17	749	0.34	--
27...	0025	0.94	2410	6.1	73
27...	0055	1.2	1470	4.8	--
27...	0125	1.3	2230	7.8	--
27...	0155	1.2	1040	3.4	--
27...	0225	1.2	743	2.4	67
27...	0355	1.1	263	0.78	--
27...	0410	1.8	2980	14	76
27...	0425	1.4	1320	5.0	--
27...	0455	1.0	440	1.2	--
27...	0540	0.54	420	0.61	83
27...	0640	1.0	527	1.4	--
27...	0710	1.8	2420	12	--
27...	0725	1.1	735	2.2	--
27...	0740	1.1	2720	8.1	81
27...	0825	1.3	1070	3.8	--
27...	0855	1.2	392	1.3	75
27...	0925	1.4	634	2.4	--
27...	0940	1.9	2610	13	--
27...	0945	3.5	3350	32	73
27...	0955	2.4	1930	13	--
27...	1014	2.4	1820	12	--
27...	1025	2.7	1470	11	--
27...	1047	1.8	2070	10	73
27...	1110	1.6	1180	5.1	--
27...	1140	2.1	2360	13	--
27...	1210	1.3	457	1.6	72
27...	1325	1.1	227	0.67	--
27...	1440	1.1	190	0.56	--
27...	1540	1.1	337	1.0	--
27...	1541	1.1	145	0.43	--
27...	1645	1.1	155	0.46	--
27...	2100	1.1	107	0.32	--
27...	2200	0.87	167	0.39	--
27...	2315	0.62	99	0.17	--
28...	0050	0.62	119	0.20	--
28...	0145	0.24	61	0.04	--

## CONESTOGA RIVER BASIN

015760831 LITTLE CONESTOGA CREEK, SITE 1, NEAR MORGANTOWN, PA

LOCATION.--Lat 40°09'42", long 75°55'14", Lancaster County, Hydrologic Unit 02050306, on upstream side of Valley View Road bridge, 0.2 mi west of intersection of Valley View Road and Maxwell School Road, and 1.6 mi west of Morgantown.

DRAINAGE AREA.--0.34 mi<sup>2</sup>.

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

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984										
16...	1625	0.19	79	13.5	<0.01	<0.01	2.5	2.5	0.06	0.04
NOV										
08...	1500	0.19	75	9.5	<0.01	<0.01	2.5	2.4	0.05	0.05
27...	1535	0.07	77	9.5	0.01	<0.01	3.0	3.0	0.03	0.02
DEC										
27...	1010	0.10	79	5.0	<0.01	<0.01	3.2	3.2	<0.01	<0.01
JAN 1985										
09...	1200	0.10	83	3.5	<0.01	<0.01	3.3	3.2	0.03	0.03
FEB										
08...	1130	0.10	78	1.0	<0.01	<0.01	3.0	3.0	0.02	0.02
25...	1445	0.29	78	11.0	<0.01	<0.01	3.3	3.3	0.02	0.02
MAR										
19...	1445	0.28	69	9.0	<0.01	<0.01	3.2	3.2	0.04	0.04
APR										
10...	1115	0.16	74	9.5	<0.01	<0.01	3.0	3.0	0.03	0.03
MAY										
06...	1330	0.22	69	15.0	<0.01	<0.01	3.0	3.0	0.02	0.02
JUN										
03...	1400	0.21	67	15.0	0.01	<0.01	2.8	2.8	0.02	0.02
JUL										
01...	0952	0.14	69	13.5	0.02	0.01	2.4	2.3	0.04	0.03
25...	1545	0.14	69	--	<0.01	<0.01	3.3	3.3	0.02	0.02
AUG										
20...	1315	0.15	75	18.0	<0.01	<0.01	2.4	2.4	0.02	0.02
SEP										
16...	1440	0.06	78	15.0	<0.01	<0.01	2.5	2.5	<0.01	<0.01

CONESTOGA RIVER BASIN

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015760831 LITTLE CONESTOGA CREEK, SITE 1, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 1984									
16...	0.52	0.52	0.58	0.56	3.1	0.05	0.05	9	<0.01
NOV									
08...	0.79	0.49	0.84	0.54	3.3	0.07	0.04	42	0.02
27...	0.56	0.56	0.59	0.58	3.6	0.09	0.07	31	0.01
DEC									
27...	--	--	0.40	0.40	3.6	0.07	0.07	35	0.01
JAN 1985									
09...	0.53	0.35	0.56	0.38	3.9	0.06	0.05	7	<0.01
FEB									
08...	0.38	0.38	0.40	0.40	3.4	0.08	0.08	2	<0.01
25...	0.48	0.48	0.50	0.50	3.8	0.07	0.04	22	0.02
MAR									
19...	0.32	0.27	0.36	0.31	3.6	0.05	0.05	24	0.02
APR									
10...	0.47	0.41	0.50	0.44	3.5	0.08	0.08	10	<0.01
MAY									
06...	0.68	0.36	0.70	0.38	3.7	0.06	0.06	13	0.01
JUN									
03...	0.38	0.38	0.40	0.40	3.2	0.05	0.05	13	0.01
JUL									
01...	0.34	0.33	0.38	0.36	2.8	0.06	0.05	12	<0.01
25...	0.42	0.42	0.44	0.44	3.7	0.05	0.05	12	<0.01
AUG									
20...	0.48	0.22	0.50	0.24	2.9	0.06	0.05	12	<0.01
SEP									
16...	--	--	0.28	0.28	2.8	0.05	0.04	6	<0.01

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984									
16...	1625	0.19	<0.10	<0.10	<0.20	<0.10	<0.20	0.60	<1
MAY 1985									
06...	1330	0.22	<0.10	<0.20	<0.20	<0.10	<0.20	<0.20	<1
JUL									
25...	1545	0.14	<0.10	<0.20	<0.20	<0.10	<0.20	<0.20	<1
AUG									
20...	1315	0.15	<0.10	<0.20	<0.20	<0.10	<0.20	<0.20	<1

## CONESTOGA RIVER BASIN

015760832 LITTLE CONESTOGA CREEK, SITE 2, NEAR MORGANTOWN, PA

LOCATION.--Lat 40°09'06", long 75°55'05", Lancaster County, Hydrologic Unit 02050306, on upstream side of farm lane bridge, 0.1 mi west of farm lane intersection with Maxwell School Road near Mast Cemetery, and 1.5 mi west of Morgantown.

DRAINAGE AREA.--0.60 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1983 to February 1985 (discontinued).

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, OCTOBER 1984 TO FEBRUARY 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
OCT 1984									
16...	1535	148	18.0	0.20	0.19	4.6	4.6	0.27	0.27
NOV									
08...	1350	160	11.0	0.17	0.17	3.5	3.4	0.28	0.28
27...	1510	158	9.0	0.05	0.05	4.6	4.2	0.08	0.06
DEC									
27...	1120	184	2.0	0.04	0.04	4.6	4.4	0.08	0.08
JAN 1985									
09...	1100	168	0.0	0.03	0.03	5.1	5.1	0.16	0.16
FEB									
25...	1510	--	13.0	0.03	0.03	4.3	4.3	0.08	0.08

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)
OCT 1984								
16...	2.2	0.43	2.5	0.70	7.1	0.39	0.24	76
NOV								
08...	1.1	1.1	1.4	1.4	4.9	0.20	0.16	20
27...	0.74	0.66	0.82	0.72	5.4	0.15	0.15	29
DEC								
27...	0.58	0.56	0.66	0.64	5.3	0.15	0.15	5
JAN 1985								
09...	0.79	0.74	0.95	0.90	6.1	0.16	0.15	11
FEB								
25...	0.64	0.54	0.72	0.62	5.0	0.17	0.13	19

## PESTICIDE ANALYSES, OCTOBER 1984 TO FEBRUARY 1985

DATE	TIME	ALA-CHLOR TOTAL RECOVER (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METOLA-CHLOR IN WHOLE WATER (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
OCT 1984								
16...	1535	<0.10	<0.10	<0.20	<0.10	<0.20	0.30	<1

CONESTOGA RIVER BASIN

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0157608325 LITTLE CONESTOGA CREEK, SITE 2A, NEAR MORGANTOWN, PA

LOCATION.--Lat 40°08'58", long 75°55'06", Lancaster County, Hydrologic Unit 02050306, on upstream side of farm lane bridge, 0.2 mi north of farm lane intersection with State Highway 23, and 1.5 mi west of Morgantown.

DRAINAGE AREA.--0.99 mi<sup>2</sup>.

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

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984										
16...	1405	0.20	147	18.0	0.19	0.18	3.0	2.8	0.20	0.19
NOV										
08...	1425	0.42	157	10.0	0.08	0.08	3.6	3.6	0.11	0.11
27...	1440	0.14	--	10.5	0.08	0.08	4.3	4.2	0.07	0.07
DEC										
27...	1055	0.27	180	1.5	0.03	0.03	4.6	4.4	0.04	0.04
JAN 1985										
09...	1050	0.14	170	0.0	0.03	0.03	5.1	5.1	0.08	0.08
FEB										
25...	1540	0.47	150	13.0	0.05	0.05	4.4	4.4	0.10	0.10
MAR										
19...	1330	0.42	119	12.0	0.04	0.04	3.6	3.6	0.06	0.06
APR										
10...	1145	0.17	118	12.0	0.05	0.05	3.3	3.3	0.08	0.08
MAY										
06...	1400	0.20	143	--	0.33	0.29	3.3	3.3	0.30	0.30
JUN										
03...	1315	0.21	152	--	0.79	0.73	2.5	2.5	0.66	0.66
JUL										
01...	1155	0.15	121	21.0	0.67	0.52	1.6	1.6	0.13	0.13
25...	1600	--	175	--	0.17	0.11	0.86	0.80	2.9	2.2
AUG										
20...	1237	0.12	153	26.5	0.22	0.22	2.3	2.3	0.36	0.35
SEP										
16...	1355	0.06	220	25.0	0.41	0.31	2.5	2.4	1.4	1.3



## CONESTOGA RIVER BASIN

0157608325 LITTLE CONESTOGA CREEK SITE 2A, NEAR MORGANTOWN, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT 1984									
16...	1.8	1.8	2.0	2.0	5.0	0.30	0.20	26	0.01
NOV									
08...	1.5	1.4	1.6	1.5	5.2	0.16	0.13	13	0.02
27...	0.83	0.83	0.90	0.90	5.2	0.15	0.15	--	--
DEC									
27...	0.46	0.46	0.50	0.50	5.1	0.14	0.14	13	0.01
JAN 1985									
09...	0.82	0.82	0.90	0.90	6.0	0.14	0.13	1	<0.01
FEB									
25...	0.80	0.70	0.90	0.80	5.3	0.21	0.15	29	0.04
MAR									
19...	0.64	0.44	0.70	0.50	4.3	0.14	0.14	23	0.03
APR									
10...	0.82	0.72	0.90	0.80	4.2	0.26	0.22	24	0.01
MAY									
06...	1.7	1.5	2.0	1.8	5.3	--	<0.01	43	0.02
JUN									
03...	6.3	6.3	7.0	7.0	9.5	0.58	0.32	129	0.07
JUL									
01...	0.67	0.55	0.80	0.68	2.4	0.36	0.30	17	0.01
25...	11	11	14	13	14	1.10	0.35	250	--
AUG									
20...	2.1	2.1	2.5	2.4	4.8	0.36	0.33	39	0.01
SEP									
16...	14	11	15	12	17	1.80	0.61	261	0.04

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984									
16...	1405	0.20	0.10	<0.10	<0.20	<0.10	<0.20	0.20	<1

## CONESTOGA RIVER BASIN

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015760833 LITTLE CONESTOGA CREEK, SITE 3, NEAR MORGANTOWN, PA

LOCATION.--Lat 40°08'50", long 75°55'24", Lancaster County, Hydrologic Unit 02050306, on upstream side of farm lane bridge, 0.15 mi north of State Highway 23, 1.1 mi upstream from small right bank tributary, and 1.8 mi west of Morgantown.

DRAINAGE AREA.--1.34 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1983 to February 1985 (discontinued).

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, OCTOBER 1984 TO FEBRUARY 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984									
16...	1245	370	15.0	0.14	0.14	8.0	7.8	0.07	0.07
NOV									
08...	1240	390	10.5	0.11	0.11	9.5	9.5	0.10	0.09
27...	1415	389	10.0	0.12	0.12	8.8	8.6	0.10	0.10
DEC									
27...	1150	390	3.5	0.04	0.04	10	10	0.02	0.02
JAN 1985									
09...	1240	420	2.5	0.03	0.03	11	11	0.04	0.04
FEB									
25...	1600	310	13.0	0.05	0.05	9.0	9.0	0.16	0.16

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)
OCT 1984								
16...	0.95	0.85	1.0	0.92	9.0	0.26	0.12	56
NOV								
08...	0.90	0.90	1.0	0.99	10	0.14	0.10	22
27...	0.90	0.90	1.0	1.0	9.8	0.15	0.14	32
DEC								
27...	0.61	0.61	0.63	0.63	11	0.12	0.11	11
JAN 1985								
09...	0.56	0.56	0.60	0.60	12	0.12	0.10	3
FEB								
25...	0.66	0.54	0.82	0.70	9.8	0.16	0.11	23

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984								
16...	1245	<0.10	0.30	<0.20	<0.10	<0.20	<0.20	<1

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA

LOCATION.--Lat 40°08'47", long 75°55'37", Lancaster County, Hydrologic Unit 02050306, on right bank 10 ft upstream from culvert under farm lane, 0.2 mi north of State Highway 23, 1.0 mi upstream from right-bank tributary, and 2.1 mi west of Morgantown.

DRAINAGE AREA.--1.42 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 17. Records poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283 ft<sup>3</sup>/s, July 7, 1984, gage height, 5.42 ft, from outside floodmark, from rating curve extended above 66 ft<sup>3</sup>/s on basis of slope area measurement of peak flow; minimum, 0.02 ft<sup>3</sup>/s, Sept. 18, 1985, but may have been less during period of ice effect Jan. 19-23, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	--	--	ice jam	Sept. 27	1100	*269	*5.36

Minimum discharge, 0.02 ft<sup>3</sup>/s Sept. 18, but may have been less during period of ice effect Jan. 19-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.24	.46	.18	.10	.52	.49	.25	.52	.23	.36	.13
2	.74	.25	.36	.60	.10	.50	.39	.55	.48	.22	.26	.14
3	.30	.20	.61	.35	.10	.50	.42	3.2	.47	.22	.26	.18
4	.26	.18	.41	.31	.07	.55	.35	.69	.46	.20	.27	.21
5	.24	.49	.36	.41	.07	.58	.35	.59	.46	.20	.28	.21
6	.21	.20	2.4	.40	.09	.50	.38	.59	.42	.55	.28	.25
7	.22	.17	.59	.35	.08	.50	.35	.54	.41	.31	1.9	.27
8	.22	.15	.48	.34	.07	.52	.35	.47	.44	.30	1.9	.44
9	.22	.15	.41	.30	.07	.51	.35	.48	.42	.29	.27	.48
10	.22	.14	.38	.25	.07	.50	.35	.48	.40	.27	.24	.36
11	.22	.16	.34	.24	.08	.55	.35	.46	.38	.27	.23	.27
12	.21	.13	.30	.23	30	.61	.34	.48	.39	.27	.24	.21
13	.20	.12	.29	.22	4.0	.51	.32	.69	.38	.29	.23	.18
14	.20	.12	.26	.22	1.2	.50	.32	.46	.37	.31	2.3	.17
15	.21	.12	.28	.22	.88	.50	.34	.45	.37	.33	.27	.17
16	.20	.12	.25	.18	.81	.50	.35	.46	1.7	.40	.27	.15
17	.18	.11	.24	.17	.85	.50	.29	.85	.53	.37	.24	.12
18	.18	.13	.22	.17	.92	.47	.30	.72	.35	.38	.26	.07
19	.18	.16	.26	.17	.78	.43	.32	.54	.30	.37	.24	.13
20	.26	.11	.23	.12	.65	.42	.32	.49	.31	.36	.22	.13
21	.21	.10	.32	.06	.60	.41	.31	2.2	.29	.33	.35	.13
22	.69	.11	.43	.06	.79	.42	.29	.79	.28	.44	.22	.13
23	.96	.10	.27	.07	.91	.52	.28	.92	.29	.34	.20	.16
24	.28	.09	.26	.08	.79	.49	.29	.67	.29	.31	.16	.13
25	.16	.08	.26	.08	.64	.45	.32	.57	.29	.71	.64	.11
26	.14	.08	.22	.08	.59	.40	.26	.56	.31	.59	.35	.20
27	.12	.10	.22	.07	.57	.40	.22	.56	.32	1.1	.18	40
28	1.3	.34	.20	.07	.52	.42	.23	.62	.31	.30	.16	1.7
29	2.0	4.4	.18	.07	---	.39	.20	.56	.25	.29	.14	.87
30	.34	.61	.16	.07	---	.35	.19	.58	.24	.28	.15	.67
31	.28	---	.17	.08	---	.42	---	.55	---	.38	.16	---
TOTAL	11.61	9.46	11.82	6.22	46.40	14.84	9.62	22.02	12.43	11.21	13.23	48.37
MEAN	.37	.32	.38	.20	1.66	.48	.32	.71	.41	.36	.43	1.61
MAX	2.0	4.4	2.4	.60	30	.61	.49	3.2	1.7	1.1	2.3	.40
MIN	.12	.08	.16	.06	.07	.35	.19	.25	.24	.20	.14	.07
CFSM	.26	.23	.27	.14	1.17	.34	.23	.50	.29	.25	.30	1.13
IN.	.30	.25	.31	.16	1.22	.39	.25	.58	.33	.29	.35	1.27

WTR YR 1985 TOTAL 217.23 MEAN .60 MAX 40 MIN .06 CFSM .42 IN. 5.69

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

## WATER-QUALITY RECORDS

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

INSTRUMENTATION.--Automatic sediment pumping sampler since April 1984.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical analyses by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
MAR 1984										
08...	1130	2.8	344	1.0	0.02	0.02	8.6	8.2	0.30	0.29
27...	1140	1.8	300	12.0	0.04	0.04	8.5	8.0	0.37	0.37
APR										
26...	1155	2.0	284	18.0	0.04	0.04	7.3	7.1	0.15	0.15
MAY										
02...	1645	1.4	--	--	0.04	0.04	7.6	7.4	0.20	0.20
03...	2358	16	--	--	0.11	0.11	2.0	2.0	6.3	6.3
04...	0145	60	--	--	0.06	0.03	3.2	3.2	3.6	3.6
04...	0255	34	--	--	0.07	0.05	1.8	1.7	3.3	3.1
04...	0400	24	--	--	0.06	0.04	2.5	1.5	3.1	2.5
04...	0805	9.2	--	--	0.05	0.05	4.2	4.2	2.0	2.0
08...	1920	15	--	--	0.07	--	3.8	--	0.77	--
08...	2215	7.8	--	--	0.59	--	3.2	--	2.4	--
10...	1047	2.5	274	--	0.03	0.03	7.6	7.2	0.21	0.21
26...	1130	2.0	--	--	0.29	--	7.8	--	0.78	--
26...	1755	20	--	--	0.64	0.53	5.8	5.2	1.3	1.3
26...	1810	15	--	--	0.33	0.29	6.3	5.8	6.6	5.9
26...	1900	9.7	--	--	0.18	--	7.6	--	3.6	--
26...	1930	20	--	--	0.44	0.29	5.5	4.6	3.2	2.4
26...	1945	29	--	--	0.17	--	4.4	--	4.8	--
26...	2000	31	--	--	0.14	--	5.5	--	3.3	--
26...	2030	29	--	--	0.13	0.13	5.2	4.4	3.3	2.4
26...	2100	19	--	--	0.14	--	5.8	--	3.4	--
26...	2145	11	--	--	0.18	--	6.3	--	2.9	--
26...	2345	6.2	--	--	0.28	0.24	6.9	5.8	2.1	1.7
29...	1150	21	--	--	0.48	0.33	1.7	1.3	2.3	1.5
29...	1235	30	--	--	0.09	0.07	2.0	1.5	0.98	0.70
29...	1335	43	--	--	0.10	0.07	2.5	2.0	1.1	0.93
29...	1420	49	--	--	0.10	0.07	4.2	3.6	2.0	1.6
29...	1450	33	--	--	0.11	0.09	5.0	5.0	1.9	1.8
29...	1535	23	--	--	0.11	0.08	4.6	3.8	1.9	1.6
29...	1805	13	--	--	0.13	0.13	6.7	6.3	1.8	1.4
30...	0130	8.9	--	--	0.09	--	7.8	--	1.4	--
30...	0330	12	--	--	0.10	--	7.6	--	2.0	--
30...	0600	9.7	--	--	0.10	--	7.6	--	1.2	--
30...	0930	13	--	--	0.10	--	8.6	--	1.4	--
31...	0900	5.4	--	--	0.07	--	7.4	--	0.28	--

Erroneous water-quality data for station 0157608335, Little Conestoga Creek, Site 3A, near Morgantown, Pa. and station 01576085, Little Conestoga Creek near Churchtown, Pa., are published in this report.

The correct data may be obtained by a written request to: Hydrologic Information Specialist, U.S. Geological Survey, WRD, P.O. Box 1107, Harrisburg, Pa. 17108, or by retrieving the data directly from WATSTORE (see page 18 of this report). Corrected water-quality data for these stations for the 1985 water year will be published in the 1986 annual data report, Water Resources Data for Pennsylvania, Volume 2.

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

## WATER-QUALITY DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 1984										
08...	0.50	0.31	0.80	0.60	9.4	0.13	0.08	23	0.17	--
27...	1.0	1.0	1.4	1.4	9.9	0.11	0.08	8	0.04	--
APR										
26...	0.75	0.75	0.90	0.90	8.2	0.11	0.09	17	0.09	--
MAY										
02...	0.70	0.70	0.90	0.90	8.5	0.10	0.07	40	0.15	--
03...	15	3.7	21	10	23	2.5	0.75	--	--	--
04...	1.0	1.0	4.6	4.6	7.8	1.8	0.59	--	--	--
04...	11	1.1	14	4.2	16	4.4	0.32	--	--	--
04...	1.1	0.30	4.2	2.8	6.7	2.3	0.44	--	--	--
04...	0.60	0.60	2.6	2.6	6.8	0.56	0.31	--	--	--
08...	4.4	--	5.2	--	9.0	1.1	--	--	--	--
08...	14	--	16	--	19	3.4	--	--	--	--
10...	0.39	0.39	0.60	0.60	8.2	0.11	0.08	22	0.15	--
26...	2.4	--	3.2	--	11	0.31	--	264	1.4	--
26...	4.9	2.9	6.2	4.2	12	2.2	0.84	--	--	--
26...	21	9.1	28	15	34	3.3	0.66	--	--	--
26...	7.4	--	11	--	19	2.0	--	4560	119	--
26...	16	5.2	19	7.6	25	2.8	0.49	16600	896	--
26...	3.7	--	8.5	--	13	5.3	--	16700	1310	--
26...	6.2	--	9.5	--	15	5.3	--	15800	1320	--
26...	4.4	4.0	7.7	6.4	13	7.0	0.72	--	--	--
26...	4.8	--	8.2	--	14	5.0	--	7530	386	--
26...	1.3	--	4.2	--	10	3.9	--	--	--	--
26...	6.3	0.80	8.4	2.5	15	2.2	0.43	--	--	--
29...	13	3.3	15	4.8	17	5.6	1.9	--	--	--
29...	4.0	1.1	5.0	1.8	7.0	2.0	0.45	--	--	--
29...	5.7	1.1	6.8	2.0	9.3	2.4	0.46	--	--	--
29...	4.2	1.5	6.2	3.1	10	1.6	0.64	--	--	--
29...	2.3	1.6	4.2	3.4	9.2	1.1	0.52	--	--	--
29...	4.1	1.2	6.0	2.8	11	1.4	0.58	--	--	--
29...	3.4	1.7	5.2	3.1	12	1.0	0.45	--	--	--
30...	2.0	--	3.4	--	11	0.41	--	253	6.1	--
30...	2.6	--	4.6	--	12	0.99	--	348	11	--
30...	1.8	--	3.0	--	11	0.44	--	191	5.0	73
30...	2.4	--	3.8	--	12	0.77	--	379	13	--
31...	1.3	--	1.6	--	9.0	0.11	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUN 1984										
05...	1131	2.7	284	18.0	0.04	0.04	7.8	6.9	0.09	0.09
17...	2115	9.7	--	--	0.18	--	4.6	--	1.1	--
17...	2145	7.2	--	--	0.16	--	4.2	--	0.89	--
18...	0330	10	--	--	0.10	--	5.2	--	1.3	--
18...	0530	9.2	--	--	0.10	--	3.3	--	0.82	--
18...	0645	13	--	--	0.12	--	4.2	--	0.72	--
18...	0845	7.5	--	--	0.09	--	4.3	--	0.49	--
26...	1452	1.3	316	22.0	0.10	0.10	8.6	8.6	0.15	0.15
30...	1245	0.75	--	--	0.13	--	8.0	--	0.09	--



CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	
JUN 1984										
05...	0.57	0.51	0.66	0.60	8.5	0.14	0.10	97	0.71	
17...	8.9	--	10	--	15	4.5	--	2990	78	
17...	4.5	--	5.4	--	9.6	3.0	--	2280	44	
18...	5.9	--	7.2	--	12	2.1	--	794	21	
18...	4.2	--	5.0	--	8.3	2.2	--	864	21	
18...	5.3	--	6.0	--	10	1.9	--	875	31	
18...	3.3	--	3.8	--	8.1	0.99	--	342	6.9	
26...	1.0	1.0	1.2	1.2	9.8	0.19	0.13	22	0.08	
30...	1.9	--	2.0	--	10	0.22	--	--	--	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUL 1984										
01...	0730	32	--	--	0.23	--	3.0	--	1.7	--
01...	0800	52	--	--	0.13	--	3.0	--	0.93	--
01...	0845	69	--	--	0.13	--	3.6	--	0.65	--
01...	0930	81	--	--	0.13	--	4.6	--	0.56	--
01...	1015	89	--	--	0.11	--	5.4	--	0.38	--
01...	1100	35	--	--	0.13	--	5.2	--	0.42	--
01...	1310	11	--	--	0.10	--	6.8	--	0.25	--
06...	1030	0.38	--	--	0.13	--	7.9	--	0.26	--
06...	2245	9.7	--	--	0.25	--	5.8	--	0.73	--
06...	2330	33	--	--	0.11	--	2.0	--	0.67	--
06...	2359	55	--	--	0.14	0.08	1.6	1.6	0.65	0.57
07...	0045	229	--	--	0.07	--	1.5	--	0.26	--
07...	0115	269	--	--	0.07	0.04	1.6	1.5	0.20	0.20
07...	0145	197	--	--	0.07	--	1.8	--	0.26	--
07...	0245	145	--	--	0.06	0.04	2.2	2.1	0.22	0.22
07...	0345	51	--	--	0.06	--	2.4	--	0.22	--
07...	0545	17	--	--	0.06	--	3.5	--	0.16	--
07...	0600	16	--	--	--	0.05	--	3.4	--	0.20
07...	1000	9.5	--	--	0.06	--	4.9	--	0.24	--
07...	1230	7.5	--	--	0.05	--	6.2	--	0.18	--
10...	1230	1.2	--	--	0.04	--	15	--	0.04	--
10...	2400	26	--	--	0.40	--	4.1	--	1.7	--
11...	0015	137	--	--	0.11	--	1.9	--	0.61	--
11...	0030	116	--	--	0.08	0.06	1.4	1.3	0.24	0.20
11...	0115	68	--	--	0.06	0.05	1.4	1.4	0.15	0.12
11...	0155	32	--	--	0.06	0.06	1.8	1.8	0.16	0.12
11...	0255	16	--	--	0.06	0.04	2.8	2.8	0.14	0.11
11...	0555	8.2	--	--	0.06	0.06	4.7	2.9	0.20	0.19
11...	1130	3.7	--	--	0.06	0.06	12	11	0.23	0.16
19...	1100	2.0	--	19	0.05	0.05	8.1	8.1	0.03	0.03
27...	0330	2.7	--	--	0.08	--	8.4	--	0.31	--
27...	0645	9.7	--	--	0.24	--	6.9	--	1.2	--
27...	0730	11	--	--	0.22	--	5.2	--	1.2	--
27...	0920	5.4	--	--	0.26	--	4.6	--	0.79	--
AUG										
11...	1425	1.1	342	23.5	0.15	0.15	9.5	9.0	0.08	0.08
SEP										
01...	1630	0.64	410	23.0	0.31	0.29	8.4	8.0	0.28	0.28
25...	1040	0.77	378	18.5	0.35	0.35	8.0	8.0	0.15	0.15

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL 1984										
01...	4.7	--	6.4	--	9.4	7.5	--	2870	248	--
01...	1.6	--	2.5	--	5.5	5.5	--	--	--	--
01...	7.6	--	8.2	--	12	4.3	--	--	--	--
01...	7.8	--	8.4	--	13	3.7	--	--	--	--
01...	5.0	--	5.4	--	11	2.9	--	--	--	--
01...	4.6	--	5.0	--	10	2.9	--	--	--	--
01...	2.2	--	2.4	--	9.2	1.6	--	--	--	--
06...	0.06	--	0.32	--	8.2	3.1	--	--	--	--
06...	3.4	--	4.1	--	9.9	3.2	--	--	--	--
06...	4.9	--	5.6	--	7.6	3.0	--	--	--	--
06...	3.0	0.01	3.7	0.58	5.3	5.1	0.53	--	--	--
07...	1.4	--	1.7	--	3.2	1.5	--	--	--	--
07...	1.0	0.06	1.2	0.26	2.8	1.8	0.57	--	--	--
07...	1.9	--	2.2	--	4.0	1.5	--	--	--	--
07...	1.5	0.16	1.7	0.38	3.9	1.4	0.09	--	--	--
07...	2.0	--	2.2	--	4.6	1.2	--	--	--	--
07...	0.26	--	0.42	--	3.9	0.11	--	--	--	--
07...	--	0.24	--	0.44	--	--	0.36	--	--	--
07...	0.14	--	0.38	--	5.3	0.47	--	--	--	--
07...	0.14	--	0.32	--	6.5	0.30	--	150	3.0	--
10...	0.36	--	0.40	--	15	0.14	--	23	0.08	--
10...	5.2	--	6.9	--	11	5.1	--	2940	206	83
11...	1.4	--	2.0	--	3.9	4.0	--	3880	1440	--
11...	2.3	0.90	2.5	1.1	3.9	1.9	0.53	--	--	--
11...	0.76	0.76	0.91	0.88	2.3	1.5	0.52	--	--	--
11...	3.3	1.4	3.5	1.5	5.3	1.5	0.49	--	--	--
11...	0.86	0.79	1.0	0.90	3.8	1.4	0.48	--	--	--
11...	0.61	0.61	0.81	0.80	5.5	0.62	0.17	--	--	--
11...	1.3	1.0	1.5	1.2	13	0.38	0.14	--	--	--
19...	0.37	0.37	0.40	0.40	8.5	0.08	0.05	3.0	0.02	--
27...	1.5	--	1.8	--	10	0.37	--	--	--	--
27...	6.5	--	7.7	--	15	2.1	--	--	--	--
27...	5.5	--	6.7	--	12	0.17	--	--	--	--
27...	4.0	--	4.8	--	9.4	1.4	--	--	--	--
AUG										
11...	1.4	1.4	1.5	1.5	11	0.15	0.11	82	0.24	--
SEP										
01...	1.7	1.7	2.0	2.0	10	0.37	0.15	74	0.13	--
25...	0.95	0.95	1.1	1.1	9.1	0.21	0.16	20	0.04	--

## CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984										
16...	1345	0.22	370	15.0	0.14	0.14	8.6	7.8	0.05	0.05
24...	1530	0.30	--	--	0.37	--	6.5	--	0.26	--
28...	0300	0.15	--	--	0.57	--	6.5	--	1.3	--
28...	2200	17	--	--	1.0	--	1.4	--	2.8	--
28...	2215	18	--	--	0.31	--	1.9	--	1.5	--
28...	2300	13	--	--	0.24	--	1.6	--	0.81	--
28...	2315	11	--	--	0.24	--	1.8	--	0.77	--
29...	0030	9.6	--	--	0.14	--	3.0	--	0.26	--
29...	0200	7.0	--	--	0.14	0.13	3.2	3.0	0.25	0.24
NOV										
08...	1145	0.30	380	8.5	0.12	0.12	9.5	9.5	0.12	0.12
27...	1230	0.10	370	8.0	0.10	0.10	9.5	9.2	0.08	0.08
29...	0513	6.6	--	--	0.18	--	9.2	--	0.21	--
29...	0730	5.7	--	--	0.23	--	3.2	--	0.96	--
29...	0845	5.4	--	--	0.19	--	4.4	--	1.3	--
DEC										
27...	1215	0.32	380	2.5	0.05	0.05	9.9	9.7	0.03	0.03
JAN 1985										
09...	1245	0.45	420	0.50	0.04	0.04	11	11	0.02	0.02
FEB										
12...	1000	11	--	--	0.04	0.04	3.2	2.8	1.2	1.0
12...	1015	13	--	--	0.05	--	3.2	--	1.4	--
12...	1030	20	--	--	0.10	0.10	3.3	3.3	1.7	0.34
12...	1130	58	--	--	0.04	0.03	1.0	0.78	2.9	1.6
12...	1145	77	--	--	0.04	--	0.90	--	2.7	--
12...	1200	104	--	--	0.04	--	0.90	--	2.7	--
12...	1230	159	--	--	0.04	--	1.0	--	2.2	--
12...	1315	168	--	--	0.04	--	1.0	--	2.1	--
12...	1330	168	--	--	0.04	0.03	1.1	0.90	2.1	1.4
12...	1400	168	--	--	0.04	--	1.1	--	1.8	--
12...	1436	166	--	--	0.04	--	1.1	--	1.6	--
12...	1500	153	--	--	0.04	--	1.1	--	1.7	--
12...	1515	112	--	--	0.04	0.04	1.3	1.2	1.2	1.2
12...	1530	148	--	--	0.04	0.04	1.2	1.1	1.2	1.2
12...	1545	112	--	--	0.05	--	1.2	--	1.2	--
12...	1645	63	--	--	0.04	--	1.4	--	1.2	--
12...	1730	48	--	--	0.04	--	1.6	--	1.2	--
12...	2015	26	--	--	0.04	--	2.5	--	1.1	--
13...	0515	8.3	--	--	0.03	0.03	4.3	4.3	0.66	0.66
13...	1230	6.8	--	--	0.03	0.03	5.0	5.0	0.60	0.60
25...	1345	1.0	340	13.0	0.05	0.05	9.0	9.0	0.13	0.13
MAR										
19...	1340	0.89	315	10.5	0.04	0.03	8.0	8.0	0.09	0.09
APR										
10...	1030	0.53	275	8.0	0.04	0.04	7.6	7.6	0.03	0.03

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT 1984									
16...	0.79	0.79	0.84	0.84	9.4	0.18	0.15	14	0.01
24...	2.5	--	2.8	--	9.3	0.52	--	--	--
28...	1.7	--	3.0	--	9.5	0.30	--	39	0.02
28...	21	--	24	--	25	5.1	--	2830	130
28...	15	--	17	--	19	4.7	--	--	--
28...	8.2	--	9.0	--	11	3.8	--	--	--
28...	6.0	--	6.8	--	8.6	2.6	--	--	--
29...	4.7	--	5.0	--	8.0	2.7	--	1420	37
29...	4.0	2.4	4.2	2.6	7.4	2.4	1.9	--	--
NOV									
08...	0.54	0.54	0.66	0.66	10	0.18	0.14	11	0.01
27...	0.86	0.86	0.94	0.94	10	0.18	0.15	7	<0.01
29...	0.75	--	0.96	--	10	0.19	--	108	1.9
29...	5.8	--	6.8	--	10	3.7	--	2470	38
29...	5.7	--	7.0	--	11	2.9	--	430	6.3
DEC									
27...	0.55	0.33	0.58	0.36	10	0.15	0.14	20	0.02
JAN 1985									
09...	0.58	0.58	0.60	0.60	12	0.14	0.12	4	<0.01
FEB									
12...	3.3	1.7	4.5	2.7	7.7	1.1	0.76	241	7.2
12...	6.2	--	7.6	--	11	1.3	--	14500	508
12...	6.5	0.84	8.2	1.2	12	2.0	0.48	--	--
12...	5.3	1.4	8.2	3.0	9.2	2.2	1.0	--	--
12...	5.5	--	8.2	--	9.1	2.1	--	--	--
12...	5.7	--	8.4	--	9.3	1.9	--	535	150
12...	5.4	--	7.6	--	8.7	2.1	--	--	--
12...	5.3	--	7.4	--	8.5	1.9	--	--	--
12...	4.1	1.8	6.2	3.2	7.3	1.6	1.0	--	--
12...	4.0	--	5.8	--	6.9	1.5	--	490	222
12...	3.8	--	5.4	--	6.5	2.2	--	402	180
12...	--	--	6.2	--	7.3	1.3	--	--	--
12...	4.6	2.6	5.8	3.8	7.1	2.3	1.3	--	--
12...	4.6	3.6	5.8	4.8	7.0	2.5	1.0	--	--
12...	4.2	--	5.4	--	6.6	2.0	--	--	--
12...	5.2	--	6.4	--	7.8	1.3	--	--	--
12...	5.8	--	7.0	--	8.5	2.2	--	--	--
12...	3.7	--	4.8	--	7.3	1.7	--	--	--
13...	1.3	1.2	2.0	1.9	6.3	0.82	0.64	--	--
13...	1.5	1.5	2.1	2.1	7.1	0.72	0.57	--	--
25...	1.0	0.69	1.2	0.82	10	0.18	0.14	7	0.02
MAR									
19...	0.61	0.49	0.70	0.58	8.7	0.14	0.14	61	0.15
APR									
10...	0.73	--	0.76	<0.20	8.4	0.32	0.29	78	0.11

## CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
MAY 1985										
03...	0050	5.7	--	--	0.03	0.03	7.6	7.6	0.02	0.02
03...	0320	6.8	--	--	0.19	0.14	6.3	6.0	0.66	0.55
03...	1515	1.6	--	--	0.27	--	8.8	--	0.42	--
06...	1215	0.89	275	15.5	0.26	0.26	6.3	6.3	0.06	0.05
20...	1200	0.59	--	--	--	--	6.0	--	--	--
21...	1845	2.5	--	--	--	--	6.9	--	--	--
21...	1915	17	--	--	--	--	4.6	--	--	--
21...	1945	21	--	--	--	--	3.3	--	--	--
21...	2045	8.8	--	--	--	--	4.4	--	--	--
21...	2145	6.8	--	--	--	--	4.6	--	--	--
21...	2345	2.9	--	--	--	--	5.2	--	--	--
22...	1000	0.83	--	--	--	--	6.0	--	--	--
JUN										
03...	1145	0.75	274	22.5	0.51	0.51	6.0	6.0	0.04	0.04
16...	1845	1.9	--	--	--	--	3.2	--	--	--
16...	2015	3.4	--	--	--	--	3.0	--	--	--
16...	2130	2.5	--	--	--	--	3.3	--	--	--
16...	2345	2.2	--	--	--	--	4.4	--	--	--
17...	0145	1.1	--	--	--	--	3.3	--	--	--
JUL										
01...	1130	0.27	297	20.0	1.3	1.3	4.6	4.6	0.06	0.06
25...	1515	0.45	364	--	0.08	0.06	5.1	4.8	0.14	0.14
25...	2030	6.2	--	--	0.24	--	1.7	--	2.3	--
25...	2100	4.9	--	--	0.55	--	4.4	--	3.1	--
27...	0600	5.7	--	--	0.46	0.24	4.4	1.9	2.1	2.1
27...	0730	4.0	--	--	0.17	0.16	1.7	1.7	1.5	1.5
AUG										
07...	2245	28	--	--	0.62	--	1.3	--	2.8	--
08...	1215	1.1	--	--	0.30	--	3.8	--	0.96	--
20...	1115	0.28	360	23.5	0.95	0.94	3.9	3.9	0.72	0.72
26...	1045	0.30	--	--	0.68	--	5.3	--	0.57	--
SEP										
16...	1215	0.15	390	20.0	0.44	0.42	7.5	7.5	0.44	0.44
26...	1250	0.21	--	--	0.05	0.05	6.6	6.6	0.02	0.02
27...	1055	229	--	--	0.05	0.04	2.4	2.4	0.60	0.60
27...	1100	269	--	--	0.05	0.04	2.3	2.3	0.60	0.60
27...	1156	242	--	--	0.05	0.04	2.6	2.6	0.48	0.48
27...	1213	230	--	--	0.05	0.04	1.8	1.8	0.43	0.43
27...	1215	232	--	--	0.05	0.04	2.9	2.6	0.48	0.47
27...	1320	11	--	--	0.07	0.06	3.2	3.2	0.54	0.54
27...	1415	9.4	--	--	0.10	0.10	5.5	5.5	0.54	0.54
27...	1620	7.8	--	--	0.10	--	5.9	--	0.55	--
27...	2000	6.2	--	--	0.11	0.10	8.2	7.8	0.78	0.72
28...	1251	1.9	--	--	0.10	0.09	9.9	9.7	0.66	0.66



## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 1985										
03...	1.2	0.46	1.2	0.48	8.8	0.23	0.15	--	--	--
03...	5.0	5.1	5.7	5.6	12	2.5	0.96	--	--	--
03...	1.2	--	1.6	--	10	0.56	--	60	0.26	--
06...	1.1	1.0	1.2	1.1	7.5	0.21	0.20	8	0.02	--
20...	--	--	0.48	--	6.5	2.3	--	129	0.21	--
21...	--	--	7.8	--	15	3.5	--	4950	33	--
21...	--	--	19	--	24	20	--	9750	448	--
21...	--	--	15	--	18	5.0	--	6890	391	95
21...	--	--	17	--	21	4.6	--	4080	97	--
21...	--	--	7.2	--	12	3.2	--	1730	32	99
21...	--	--	5.0	--	10	1.9	--	1060	8.3	--
22...	--	--	2.0	--	8.0	0.39	--	--	--	--
JUN										
03...	0.76	0.66	0.80	0.70	6.8	0.22	0.19	13	0.03	--
16...	--	--	12	--	15	2.0	--	2160	11	98
16...	--	--	6.7	--	9.7	2.4	--	833	7.6	--
16...	--	--	6.2	--	9.5	2.4	--	1290	8.7	--
16...	--	--	6.8	--	11	1.4	--	221	1.3	--
17...	--	--	5.2	--	8.5	1.4	--	361	1.1	--
JUL										
01...	0.04	0.04	0.10	0.10	4.7	0.20	0.14	14	0.01	--
25...	2.4	2.1	2.5	2.2	7.6	0.25	0.16	31	0.04	--
25...	7.1	--	9.4	--	11	3.8	--	234	3.9	--
25...	6.9	--	10	--	14	1.8	--	129	1.7	--
27...	4.3	3.9	6.4	6.0	11	3.5	3.5	--	--	--
27...	4.3	3.7	5.8	5.2	7.5	2.8	2.4	--	--	--
AUG										
07...	29	--	32	--	33	7.3	--	5290	400	88
08...	5.0	--	6.0	--	9.8	1.0	--	81	0.24	--
20...	1.8	1.3	2.5	2.0	6.4	0.35	0.30	17	0.01	--
26...	1.6	--	2.2	--	7.5	0.68	--	--	--	--
SEP										
16...	1.9	1.6	2.3	2.0	9.8	0.50	0.30	30	0.01	--
26...	1.1	0.79	1.1	0.81	7.7	0.13	0.10	--	--	--
27...	4.2	2.0	4.8	2.6	7.2	3.3	1.3	--	--	--
27...	3.8	1.8	4.4	2.4	6.7	3.4	0.86	--	--	--
27...	2.3	2.3	2.8	2.8	5.4	2.7	1.3	--	--	--
27...	4.4	1.8	4.8	2.2	6.6	2.8	0.50	--	--	--
27...	2.9	2.1	3.4	2.6	6.3	2.4	1.5	--	--	--
27...	3.6	2.5	4.1	3.0	7.3	2.2	1.2	--	--	--
27...	3.7	2.3	4.2	2.8	9.7	3.0	0.92	4520	115	35
27...	4.1	--	4.6	--	10	1.6	--	--	--	--
27...	3.2	2.3	4.0	3.0	12	1.4	0.58	--	--	--
28...	1.7	1.7	2.4	2.4	12	0.36	0.23	--	--	--

CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

PESTICIDE ANALYSES, WATER YEAR MARCH 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
MAR 1984									
27...	1140	1.8	<0.10	0.10	<0.20	<0.10	<0.20	0.30	<1
MAY									
10...	1047	2.5	0.10	0.20	<0.20	<0.10	<0.20	0.30	<1
26...	1830	13	56	210	200	250	<0.20	<0.20	<1
26...	1950	29	30	120	160	170	<0.20	<0.20	<1
26...	2105	18	32	86	72	110	<0.20	<0.20	<1
29...	1220	25	<0.10	18	16	18	<0.20	<0.20	<1
29...	1305	37	<0.10	15	12	16	<0.20	<0.20	<1
29...	1350	49	4.4	17	12	14	<0.20	<0.20	<1
29...	1505	29	30	17	14	16	<0.20	<0.20	<1
JUN									
05...	1131	2.7	0.10	0.50	0.50	0.40	<0.20	0.30	<1
26...	1452	1.3	<0.10	0.40	0.20	0.20	<0.20	0.40	<1
JUL									
06...	2315	30	10	2.1	<3.8	1.8	<3.8	14	<19
07...	0200	183	10	3.7	<3.8	2.1	<3.8	4.8	<19
07...	0330	75	10	4.2	<3.8	1.9	<3.8	4	<19
11...	0045	116	10	<1.9	<3.8	1.2	<3.8	10	<19
11...	0210	26	10	<1.9	<3.8	10	<3.8	4.4	<19
11...	0655	7.5	<10	1.9	0.50	0.50	<2.0	3.4	<10
19...	1100	2.0	<0.10	0.40	0.20	0.20	<0.20	0.30	<1
AUG									
11...	1425	1.1	<0.10	0.30	<0.20	<0.10	<0.20	0.80	<1
SEP									
01...	1630	0.64	<0.10	0.30	<0.20	<0.10	<0.20	0.40	<1
25...	1040	0.77	<0.10	0.30	<0.20	<0.10	<0.20	0.40	<1
OCT									
16...	1345	0.22	<0.10	0.30	<0.20	<0.10	<0.20	0.40	<1
28...	2359	11	<20	<2.0	<4.0	2.4	<4.0	11	20
MAY 1985									
03...	1020	4.6	3.5	17	<1.4	<1.4	<1.4	<1.4	<7
03...	1100	3.4	0.70	4.1	<0.20	<0.10	<0.20	<0.20	<1
03...	1130	2.9	3.5	17	<1.4	<1.4	<1.4	<1.4	<7
06...	1215	0.89	<0.10	0.18	<0.20	<0.10	<0.20	<0.20	<1
21...	1945	21	60	<0.10	<0.20	<0.10	<0.20	<0.20	<1
JUL									
25...	1515	0.45	<0.10	0.30	<0.20	0.10	<0.20	0.30	<1
AUG									
20...	1115	0.28	<0.10	<0.20	<0.20	<0.10	<0.20	<0.20	<1

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

## INSTANTANEOUS SUSPENDED-SEDIMENT DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAR 1984				
08...	1130	2.8	23	0.17
15...	1245	--	29	--
15...	1630	--	375	--
16...	1245	--	376	--
17...	1300	--	376	--
19...	1230	--	98	--
20...	1230	--	19	--
21...	1230	--	358	--
21...	1630	--	345	--
22...	1230	--	20	--
23...	1215	--	37	--
24...	1528	--	29	--
26...	1301	--	15	--
27...	1140	1.8	8	0.04
27...	1325	--	29	--
28...	1345	--	235	--
28...	1830	--	641	--
29...	1315	--	52	--
30...	1300	--	107	--
31...	1230	--	28	--
APR				
01...	1245	--	15	--
02...	1240	--	15	--
03...	1330	--	11	--
04...	1515	--	127	--
05...	1300	--	81	--
05...	1730	--	2280	--
05...	1745	--	483	--
06...	1300	--	41	--
07...	1130	--	33	--
09...	1315	--	21	--
10...	1425	--	18	--
11...	1345	--	31	--
12...	1500	--	74	--
13...	1700	--	69	--
14...	1325	--	12	--
16...	1430	--	25	--
17...	1303	--	45	--
18...	1320	--	32	--
19...	1200	1.7	28	0.13
20...	1315	1.4	62	0.23
21...	1230	1.2	27	0.09
24...	1515	1.7	20	0.09
25...	1215	1.4	15	0.06
26...	1155	2.0	17	0.09
27...	1200	1.2	17	0.05
28...	1300	1.2	15	0.05
30...	1130	1.2	19	0.06

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 1984					
01...	1215	1.0	28	0.08	--
01...	1545	1.2	32	0.10	--
02...	1230	1.2	28	0.09	--
02...	1645	1.4	40	0.15	--
03...	2330	16	2400	104	--
04...	0045	21	816	46	--
04...	0115	49	599	79	--
04...	0215	55	5140	763	--
04...	0315	30	4080	330	--
04...	0415	19	1300	67	--
04...	0730	9.2	175	4.3	--
07...	1200	3.7	25	0.25	--
07...	1215	3.7	34	0.34	--
08...	1130	4.3	27	0.31	--
08...	1845	15	40	1.6	--
08...	1945	12	1230	40	--
08...	2115	8.6	750	17	--
09...	0215	5.8	81	1.3	--
10...	1047	2.5	22	0.15	--
10...	1245	2.7	32	0.23	--
11...	1430	2.7	58	0.42	--
12...	1430	2.7	74	0.54	--
13...	1430	2.3	39	0.24	--
14...	1300	2.3	33	0.20	--
16...	1200	2.0	19	0.10	--
17...	1930	2.3	19	0.12	--
18...	1930	2.3	37	0.23	--
20...	1330	2.0	191	1.0	--
22...	1615	1.7	112	0.51	--
23...	1930	3.2	221	1.9	--
25...	1130	2.0	96	0.52	--
25...	1215	2.0	146	0.79	--
26...	1130	2.0	264	1.4	--
26...	1900	9.7	4560	119	--
26...	1925	11	6760	201	--
26...	1930	20	16600	896	--
26...	1945	29	16700	1310	--
26...	2000	31	15800	1320	--
26...	2045	23	9070	563	--
26...	2100	19	7530	386	--
26...	2115	16	8270	357	--
26...	2215	9.5	2920	75	--
26...	2315	7.2	1740	34	--
29...	0815	3.2	166	1.4	--
29...	0830	5.4	250	3.6	--
29...	1200	21	8480	481	96
29...	1245	33	3680	328	--
29...	1315	39	5110	538	--
29...	1400	49	2370	314	96
29...	1430	38	1450	149	--
29...	1515	26	1080	76	91
29...	1615	18	599	29	--
29...	1730	15	384	16	--
29...	2030	12	325	11	--
30...	0130	8.9	253	6.1	--
30...	0330	12	348	11	--
30...	0600	9.7	191	5.0	73
30...	0930	13	379	13	--
JUN					
02...	1300	3.7	62	0.62	--
05...	1131	2.7	97	0.71	--
17...	2115	9.7	2990	78	--
17...	2145	7.2	2280	44	--
18...	0330	10	794	21	--
18...	0530	9.2	864	21	--
18...	0630	14	1140	43	--
18...	0645	13	875	31	--
18...	0845	7.5	342	6.9	--
18...	1130	2.3	108	0.67	--
19...	0130	10	1440	39	--
19...	1130	1.4	141	0.53	88
24...	1230	0.89	64	0.15	--
24...	1830	9.2	862	21	--
24...	1930	7.2	472	9.2	--
25...	1230	1.2	87	0.28	--
26...	1452	1.3	22	0.08	--
29...	1245	0.75	59	0.12	--
30...	1830	7.2	617	12	--

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, MARCH 1984 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL					
01...	0730	32	2870	248	--
01...	0745	40	2400	259	--
01...	0750	45	3880	471	--
01...	0815	74	3830	765	--
01...	0830	112	4140	1250	--
01...	0915	250	3070	2070	--
01...	0945	250	2990	2020	--
01...	1000	215	2400	1390	--
01...	1030	69	1710	319	--
01...	1115	28	1250	95	--
01...	1145	20	1050	57	--
01...	1245	13	691	24	--
06...	1230	0.38	42	0.04	--
06...	2345	37	6890	688	--
07...	0015	137	3800	1410	--
07...	0030	208	3440	1930	93
07...	0100	278	2730	2050	--
07...	0130	272	1540	1130	--
07...	0215	169	1020	465	--
07...	0315	100	737	199	--
07...	0415	34	537	49	--
07...	0500	23	527	33	--
07...	0630	14	329	12	--
07...	0800	11	108	3.2	--
07...	1030	9.2	152	3.8	--
07...	1230	7.5	150	3.0	--
10...	1230	1.2	23	0.08	--
10...	2400	26	2940	206	83
11...	0015	137	3880	1440	--
11...	0100	92	2120	527	--
11...	0145	39	1030	108	--
11...	0245	18	405	20	--
11...	0530	8.2	127	2.8	--
11...	1230	3.2	52	0.45	--
19...	1100	2.0	3	0.02	--
27...	0230	2.0	154	0.83	--
27...	0700	10	440	12	--
27...	0745	11	680	20	--
27...	0900	6.7	368	6.7	66
AUG					
11...	1425	1.1	82	0.24	--
SEP					
01...	1630	0.64	74	0.13	--
25...	1040	0.77	20	0.04	--



## CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984					
16...	1345	0.22	14	0.01	--
28...	0300	0.15	39	0.02	--
28...	2200	17	2830	130	--
28...	2230	17	1380	63	--
28...	2330	11	1380	41	50
29...	0030	9.6	1420	37	--
29...	0100	8.5	882	20	--
29...	0230	6.2	582	9.7	--
NOV					
08...	1145	0.30	11	0.01	--
27...	1230	0.10	7	<0.01	--
29...	0513	6.6	108	1.9	--
29...	0730	5.7	2470	38	--
29...	0845	5.4	430	6.3	--
DEC					
27...	1215	0.32	20	0.02	--
JAN 1985					
09...	1245	0.45	4	<0.01	--
FEB					
11...	1515	6.2	241	4.0	--
12...	1000	11	241	7.2	--
12...	1015	13	14500	508	--
12...	1045	28	3790	287	--
12...	1115	45	1300	158	--
12...	1200	104	535	150	--
12...	1245	163	535	235	--
12...	1345	168	527	239	--
12...	1400	168	490	222	--
12...	1436	166	402	180	--
12...	1445	163	415	183	--
13...	0030	12	156	5.1	--
13...	0500	8.5	103	2.4	--
13...	1600	5.7	94	1.4	--
14...	1545	1.9	31	0.16	--
15...	1615	1.4	22	0.08	--
16...	1630	0.97	19	0.05	--
17...	1515	0.97	10	0.03	--
18...	1700	1.4	18	0.07	--
19...	1700	1.6	16	0.07	--
20...	1600	0.97	16	0.04	--
21...	1015	0.59	10	0.02	--
22...	1515	1.6	28	0.12	--
22...	1700	1.6	46	0.20	--
23...	1615	1.6	6	0.03	--
24...	1745	0.97	11	0.03	--
25...	1200	0.70	15	0.03	--
25...	1345	1.0	7	0.02	--
25...	1630	0.70	7	0.01	--
26...	1645	0.70	7	0.01	--
27...	1700	0.70	9	0.02	--
28...	1545	0.70	11	0.02	--
MAR					
01...	1445	0.70	11	0.02	--
02...	1630	0.59	8	0.01	--
03...	1700	0.59	7	0.01	--
04...	1600	0.70	8	0.02	--
05...	1500	0.70	17	0.03	--
07...	1745	0.59	55	0.09	--
19...	1145	0.50	6	0.01	--
19...	1340	0.89	61	0.15	--

## CONESTOGA RIVER BASIN

0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
10...	1030	0.53	78	0.11	--
MAY					
03...	0100	5.7	7	0.11	--
03...	0130	5.7	17	0.26	--
03...	1045	3.4	66	0.61	82
03...	1100	3.4	60	0.55	--
03...	1515	1.6	60	0.26	--
06...	1215	0.89	8	0.02	--
20...	1200	0.59	129	0.21	--
21...	1845	2.5	4950	33	--
21...	1915	17	9750	448	--
21...	1945	21	6890	391	95
21...	2045	8.8	4080	97	--
21...	2145	6.8	1730	32	99
21...	2345	2.9	1060	8.3	--
JUN					
03...	1145	0.75	13	0.03	--
16...	0700	5.1	140	1.9	--
16...	0730	4.0	86	0.93	--
16...	0800	2.5	92	0.62	--
16...	1845	1.9	2160	11	98
16...	2015	3.4	833	7.6	--
16...	2130	2.5	1290	8.7	--
16...	2345	2.2	221	1.3	--
17...	0145	1.1	361	1.1	--
JUL					
01...	1130	0.27	14	0.01	--
25...	1515	0.45	31	0.04	--
25...	2030	6.2	234	3.9	--
25...	2100	4.9	129	1.7	--
27...	0630	5.7	81	1.2	--
AUG					
07...	2245	28	5290	400	88
08...	1215	1.1	81	0.24	--
14...	0130	18	5050	245	--
14...	0215	11	5270	157	--
14...	0345	7.2	2370	46	--
14...	0515	5.4	844	12	--
14...	0930	0.83	197	0.44	--
14...	1130	0.70	166	0.31	--
20...	1115	0.28	17	0.01	--
SEP					
16...	1215	0.15	30	0.01	--
27...	1415	9.4	4520	115	35

## CONESTOGA RIVER BASIN

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0157608335 LITTLE CONESTOGA CREEK, SITE 3A, NEAR MORGANTOWN, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), MARCH 1984 TO SEPTEMBER 1985

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
MAY 1984			
3...	3.0	180	7.9
4...	13	659	59
26...	5.7	1690	5.7
29...	12	810	57
30...	9.1	180	5.2
JUN			
17...	2.2	294	5.6
18...	4.3	329	6.7
19...	2.2	209	2.5
24...	2.2	153	2.0
30...	1.6	108	1.5
JUL			
1...	25	766	179
6...	2.3	308	23
10...	1.3	41	1.2
11...	11	272	44
27...	3.4	252	3.1
OCT			
28...	1.4	270	8.1
FEB 1985			
11...	0.08	26	0.01
12...	30	501	64
13...	4.0	101	1.1
MAY			
21...	2.3	947	26
JUN			
16...	2.0	359	4.1
AUG			
14...	2.4	729	16

## CONESTOGA RIVER BASIN

015760839 UNNAMED TRIBUTARY TO LITTLE CONESTOGA CREEK, SITE 9, AT CHURCHTOWN, PA

LOCATION.--Lat 40°08'20", long 75°58'14", Lancaster County, Hydrologic Unit 02050306, on upstream side of farm lane bridge, 0.1 mi upstream from mouth, and 0.5 mi northwest of Churchtown.

DRAINAGE AREA.--1.43 mi<sup>2</sup>.

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

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984										
16...	1145	0.46	224	15.0	0.08	0.08	4.2	4.2	0.10	0.09
NOV										
08...	1030	0.42	250	6.0	0.02	0.02	3.0	3.0	0.09	0.09
27...	1145	0.43	278	5.5	0.02	0.02	3.2	3.2	0.05	0.04
DEC										
27...	1345	1.0	410	2.5	0.02	0.02	5.0	5.0	0.04	0.04
JAN 1985										
09...	1405	0.95	308	1.0	0.02	0.02	5.5	5.5	0.04	0.04
FEB										
25...	1245	1.7	287	10.0	0.02	0.02	5.0	5.0	0.04	0.04
MAR										
19...	1235	0.85	255	6.5	0.02	0.02	3.3	3.3	0.05	0.05
APR										
10...	1256	0.79	230	12.5	0.03	0.03	2.8	2.8	0.04	0.04
MAY										
06...	1108	1.4	221	15.5	0.09	0.08	3.0	3.0	0.17	0.17
JUN										
03...	1040	0.78	255	20.5	0.35	0.29	3.2	2.8	0.09	0.09
JUL										
01...	1440	0.58	240	23.0	0.38	0.37	1.3	1.2	0.12	0.12
25...	1500	0.35	249	--	0.19	0.17	1.8	1.8	0.28	0.28
AUG										
20...	1030	0.42	248	22.0	0.16	0.16	2.0	2.0	0.13	0.13
SEP										
16...	1055	0.26	290	15.0	0.22	0.22	2.2	2.2	0.78	0.78

CONESTOGA RIVER BASIN

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015760839 UNNAMED TRIBUTARY TO LITTLE CONESTOGA CREEK, SITE 9, AT CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 1984									
16...	0.71	0.71	0.81	0.80	5.0	0.22	0.19	25	0.03
NOV									
08...	1.1	1.1	1.2	1.2	4.2	0.31	0.29	31	0.03
27...	0.67	0.66	0.72	0.70	3.9	0.19	0.19	18	0.02
DEC									
27...	0.84	0.84	0.88	0.88	5.9	0.33	0.30	29	0.08
JAN 1985									
09...	0.62	0.60	0.66	0.64	6.2	0.43	0.38	7	0.02
FEB									
25...	0.56	0.56	0.60	0.60	5.60	0.14	0.10	13	0.06
MAR									
19...	1.2	0.93	1.2	0.98	4.5	0.22	0.21	13	0.03
APR									
10...	1.8	0.90	1.8	0.94	4.6	0.39	0.27	78	0.17
MAY									
06...	1.8	1.8	2.0	2.0	5.0	0.48	0.30	66	0.25
JUN									
03...	1.6	1.4	1.7	1.5	4.9	0.30	0.26	34	0.07
JUL									
01...	1.1	0.88	1.2	1.0	2.5	0.39	0.32	16	0.02
25...	1.5	1.1	1.8	1.4	3.6	0.42	0.30	74	0.07
AUG									
20...	1.6	0.97	1.7	1.1	3.7	0.41	0.27	--	--
SEP									
16...	9.2	8.0	10	8.8	12	0.61	0.48	151	0.11

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984									
16...	1145	0.46	<0.10	<0.10	<0.20	<0.10	<0.20	<0.20	<1



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, 0.2 mi upstream from unnamed tributary, and 1.6 mi northwest of Churchtown.

DRAINAGE AREA.--5.82 mi<sup>2</sup>, excluding unnamed spring tributary 25 ft downstream of gage.

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

REVISED RECORD.--WDR PA-83-2: 1982 (M).

GAGE.--Water-stage recorder and wooden control. Elevation of gage is 410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 17. Records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,220 ft<sup>3</sup>/s Dec. 12, 1983, gage height, 8.28 ft, from rating curve extended above 230 ft<sup>3</sup>/s on basis of slope-conveyance study and contracted opening measurement at gage height 8.25 ft; minimum discharge, 0.20 ft<sup>3</sup>/s Sept. 3, 1983, gage height, 0.60 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 16, 1982 reached a stage of 8.25 ft, present datum, from flood-marks, discharge 1,210 ft<sup>3</sup>/s, from rating curve extended as explained above. Local residents say the flood in June 1972 reached a stage of about 9.8 ft, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 28	2115	195	4.19	May 21	1930	*847	7.44
Nov. 28	2400	132	3.40	Aug. 7	2330	126	3.31
Feb. 12	1330	---	*7.86	Sept. 27	1115	780	7.26

(a) Ice jam.

Minimum discharge, 0.44 ft<sup>3</sup>/s Jan. 8, result of freezeup; minimum gage height, 0.63 ft., Mar. 21, 22, 23, 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.4	4.9	2.6	2.9	3.9	3.4	1.2	2.5	1.1	2.4	.95
2	4.6	1.3	3.7	5.5	3.1	3.8	2.7	3.2	2.0	1.1	1.1	.95
3	1.8	1.1	5.2	4.1	2.8	3.6	3.1	23	2.0	1.1	1.0	.91
4	1.6	1.1	4.0	3.4	2.3	3.6	3.0	6.9	1.9	1.0	.99	.89
5	1.5	2.9	3.4	4.1	2.4	3.8	3.1	5.1	2.1	.98	.97	.85
6	1.5	1.3	14	3.7	2.5	3.4	3.0	4.4	1.9	2.7	.95	.83
7	1.5	1.1	6.2	3.4	2.2	3.4	2.8	4.0	1.6	2.5	6.1	.83
8	1.5	1.0	5.0	3.3	1.9	3.6	2.7	3.2	1.9	4.7	13	1.3
9	1.5	1.0	4.5	2.8	1.8	3.4	2.7	2.7	1.8	2.1	1.9	1.0
10	1.5	1.0	4.5	2.7	1.9	3.3	2.5	2.6	1.6	1.3	1.4	.97
11	1.5	1.0	3.8	2.6	2.0	3.1	2.5	2.5	1.5	1.1	1.2	.89
12	1.4	.97	3.6	2.6	150	4.0	2.5	2.3	1.5	1.1	1.1	.81
13	1.4	.95	3.4	2.6	15	3.4	2.5	3.6	1.4	1.0	1.0	.80
14	1.4	.90	3.1	2.6	8.0	3.2	2.6	2.2	1.4	.98	4.2	.81
15	1.4	.91	3.2	2.7	6.1	3.0	2.3	1.9	1.4	1.0	1.1	.80
16	1.4	.93	2.9	2.2	5.8	2.8	2.2	2.1	8.3	1.2	1.0	.80
17	1.4	.87	2.8	2.2	5.6	2.8	1.9	4.6	4.7	.94	.99	.78
18	1.3	.91	2.7	2.3	5.7	2.8	1.7	5.1	2.1	.91	.98	.76
19	1.2	1.1	2.8	2.3	5.8	2.8	1.6	2.6	1.7	.90	1.0	.77
20	1.6	.89	2.7	2.1	5.4	2.7	1.6	2.2	1.7	.88	.95	.76
21	1.3	.86	3.2	1.4	5.1	2.6	1.5	48	1.6	.87	1.3	.76
22	5.5	.86	4.8	1.6	5.7	2.6	1.5	8.8	1.4	1.4	1.0	.76
23	5.0	.85	3.3	1.9	6.3	3.4	1.5	6.7	1.4	.94	.96	.83
24	2.4	.87	3.1	2.0	5.5	3.3	1.4	5.3	1.3	.87	.95	.86
25	1.6	.86	3.2	1.9	4.8	3.2	1.4	4.0	1.2	4.5	2.8	.80
26	1.4	.86	2.9	1.9	4.5	2.7	1.3	3.4	1.1	6.2	2.3	.81
27	1.2	.87	2.9	1.7	4.3	2.6	1.2	3.0	1.2	9.7	1.2	159
28	20	6.3	2.8	1.8	4.0	2.7	1.2	2.9	1.3	1.6	1.0	8.2
29	9.4	31	2.8	1.8	---	2.8	1.2	2.9	1.4	1.2	.97	4.8
30	2.1	6.8	2.6	1.8	---	2.6	1.1	2.5	1.2	1.1	.95	3.4
31	1.5	---	2.5	1.9	---	2.7	---	2.5	---	3.2	.95	---
TOTAL	84.9	72.76	120.5	79.5	273.4	97.6	63.7	175.4	58.1	60.17	57.71	197.68
MEAN	2.74	2.43	3.89	2.56	9.76	3.15	2.12	5.66	1.94	1.94	1.86	6.59
MAX	20	31	14	5.5	150	4.0	3.4	48	8.3	9.7	13	159
MIN	1.2	.85	2.5	1.4	1.8	2.6	1.1	1.2	1.1	.87	.95	.76
CFSM	.47	.42	.67	.44	1.68	.54	.36	.97	.33	.33	.32	1.13
IN.	.54	.47	.77	.51	1.75	.62	.41	1.12	.37	.38	.37	1.26

CAL YR 1984 TOTAL 3536.76 MEAN 9.66 MAX 165 MIN .85 CFSM 1.66 IN. 22.61  
WTR YR 1985 TOTAL 1341.42 MEAN 3.68 MAX 159 MIN .76 CFSM .63 IN. 8.57

CONESTOGA RIVER BASIN

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01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: August 1982 to September 1983 (discontinued).

INSTRUMENTATION.--Automatic sediment pumping sampler since August 1982.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION (water year 1983): Maximum daily mean, 1060 mg/L Feb. 3; minimum daily mean, 6 mg/L Jan. 9, 14.

SUSPENDED-SEDIMENT DISCHARGE (water year 1983): Maximum daily, 404 tons Mar. 21; minimum daily, 0.03 ton Nov. 7, Jan. 4, Sept. 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 1984										
16...	1110	1.4	383	16.0	0.14	0.13	4.3	4.3	0.15	0.15
NOV										
08...	0930	1.0	417	6.0	0.06	0.06	6.7	6.7	0.12	0.12
27...	1100	0.86	418	7.0	0.04	0.04	6.9	6.5	0.07	0.05
28...	2330	115	--	--	--	--	--	--	--	--
29...	0045	119	--	--	--	--	--	--	--	--
29...	0059	119	--	--	0.15	--	2.8	--	1.2	--
29...	0250	57	--	--	--	--	--	--	--	--
29...	0300	57	--	--	0.15	0.12	3.3	2.5	1.3	1.0
29...	0445	40	--	--	0.12	--	4.2	--	0.76	--
29...	0530	33	--	--	--	--	--	--	--	--
29...	0820	27	--	--	0.11	--	4.6	--	0.74	--
29...	0900	24	--	--	--	--	--	--	--	--
29...	1130	23	--	--	--	--	--	--	--	--
29...	1200	22	--	--	0.11	0.10	5.2	5.0	0.71	0.67
29...	2259	9.4	--	--	0.05	0.05	4.2	4.2	0.07	0.06
29...	2330	9.4	--	--	0.31	0.26	3.6	3.3	1.5	1.2
29...	2345	9.1	--	--	0.17	0.16	2.9	2.5	0.94	0.67
DEC										
06...	0015	4.5	--	--	--	--	--	--	--	--
06...	0615	26	--	--	--	--	--	--	--	--
06...	0645	25	--	--	--	--	--	--	--	--
06...	0715	24	--	--	--	--	--	--	--	--
27...	1300	3.1	465	2.0	0.02	0.02	8.4	8.4	0.02	0.02
JAN 1985										
09...	1345	4.5	498	0.50	0.03	0.03	10	10	0.06	0.06

## CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984										
16...	1.6	1.4	1.8	1.6	6.1	0.38	0.26	58	0.22	--
NOV										
08...	1.1	0.65	1.2	0.77	7.9	0.27	0.21	34	0.09	--
27...	0.61	0.61	0.68	0.66	7.6	0.14	0.14	265	0.62	--
28...	--	--	--	--	--	--	--	1990	618	90
29...	--	--	--	--	--	--	--	1720	553	89
29...	7.4	--	8.6	--	11	4.2	--	--	--	--
29...	--	--	--	--	--	--	--	856	132	--
29...	4.9	2.8	6.2	3.8	9.5	2.9	1.4	--	--	--
29...	3.3	--	4.1	--	8.3	2.1	--	--	--	--
29...	--	--	--	--	--	--	--	513	46	87
29...	2.9	--	3.6	--	8.2	2.1	--	--	--	--
29...	--	--	--	--	--	--	--	200	13	--
29...	--	--	--	--	--	--	--	150	9.3	--
29...	3.1	2.3	3.8	3.0	9.0	1.4	0.99	--	--	--
29...	1.1	0.74	1.2	0.80	5.4	0.23	0.15	--	--	--
29...	10	3.5	12	4.7	16	6.5	1.8	--	--	--
29...	10	1.8	11	2.5	14	6.3	1.1	--	--	--
DEC										
06...	--	--	--	--	--	--	--	13	0.16	--
06...	--	--	--	--	--	--	--	214	15	78
06...	--	--	--	--	--	--	--	188	13	--
06...	--	--	--	--	--	--	--	172	11	--
27...	0.58	0.54	0.60	0.56	9.0	0.10	0.09	8	0.07	--
JAN 1985										
09...	0.74	0.74	0.80	0.80	11	0.14	0.11	9	0.11	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
FEB 1985										
08...	0945	2.8	475	1.0	0.03	0.03	8.6	8.6	0.26	0.26
11...	1545	2.3	--	--	--	--	--	--	--	--
11...	2345	2.3	--	--	0.07	--	7.8	--	0.24	--
12...	0955	13	--	--	0.10	--	3.2	--	5.4	--
12...	1005	13	--	--	--	--	--	--	--	--
12...	1015	14	--	--	0.16	0.13	3.0	2.5	2.3	2.3
12...	1025	14	--	--	--	--	--	--	--	--
12...	1135	98	--	--	0.24	--	1.6	--	0.06	--
12...	1145	145	--	--	0.09	0.07	1.3	1.2	2.0	2.0
12...	1215	309	--	--	--	--	--	--	--	--
12...	1225	510	--	--	0.07	0.05	1.1	1.1	2.1	2.1
12...	1305	946	--	--	--	--	--	--	--	--
12...	1315	992	--	--	0.05	0.04	1.0	0.98	1.8	1.7
12...	1335	1020	--	--	--	--	--	--	--	--
12...	1345	1010	--	--	0.05	0.04	0.94	0.92	1.7	1.6
12...	1415	1020	--	--	--	--	--	--	--	--
12...	1515	634	--	--	--	--	--	--	--	--
12...	1525	572	--	--	0.04	0.03	1.1	1.1	1.5	1.5
12...	1615	294	--	--	--	--	--	--	--	--
12...	1635	255	--	--	0.04	0.03	1.4	1.4	1.4	1.3
12...	1645	247	--	--	--	--	--	--	--	--
12...	1755	191	--	--	--	--	--	--	--	--
12...	1905	134	--	--	--	--	--	--	--	--
12...	1915	127	--	--	0.04	0.03	2.0	2.0	1.4	1.3
12...	2115	78	--	--	--	--	--	--	--	--
13...	0115	40	--	--	--	--	--	--	--	--
13...	0215	36	--	--	0.03	0.02	4.2	4.2	1.1	1.0
13...	1200	20	--	--	0.03	--	5.8	--	0.66	--
25...	1100	4.9	245	9.0	0.04	0.04	7.6	7.6	0.06	0.06
MAR										
19...	1145	2.8	410	5.0	0.04	0.04	6.9	6.9	0.06	0.06
APR										
10...	1430	2.6	352	13.0	0.05	0.05	5.5	5.5	0.06	0.06

## CONESTOGA RIVER BASIN

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01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 1985										
08...	0.64	0.64	0.90	0.90	9.5	0.17	0.15	7	0.05	--
11...	--	--	--	--	--	--	--	72	0.45	--
11...	1.2	--	1.4	--	9.2	0.18	--	--	--	--
12...	8.6	--	14	--	17	1.6	--	--	--	--
12...	--	--	--	--	--	--	--	768	27	--
12...	8.1	4.5	10	6.8	13	2.5	0.84	--	--	--
12...	--	--	--	--	--	--	--	2050	77	85
12...	12	--	12	--	14	1.9	--	--	--	--
12...	7.8	4.6	9.8	6.6	11	1.8	0.96	--	--	--
12...	--	--	--	--	--	--	--	1720	1430	--
12...	7.3	3.9	9.4	6.0	11	2.4	1.3	--	--	--
12...	--	--	--	--	--	--	--	1980	5060	--
12...	7.2	4.3	9.0	6.0	10	1.9	1.5	--	--	--
12...	--	--	--	--	--	--	--	2570	7080	81
12...	6.3	3.8	8.0	5.4	8.9	1.4	1.3	--	--	--
12...	--	--	--	--	--	--	--	2580	7110	--
12...	--	--	--	--	--	--	--	2050	3510	--
12...	5.5	4.3	7.0	5.8	8.1	1.9	0.80	--	--	--
12...	--	--	--	--	--	--	--	2710	2150	--
12...	5.4	3.1	6.8	4.4	8.2	2.1	1.0	--	--	--
12...	--	--	--	--	--	--	--	1790	1190	--
12...	--	--	--	--	--	--	--	1170	603	--
12...	--	--	--	--	--	--	--	875	317	97
12...	4.6	3.7	6.0	5.0	8.0	1.9	1.1	--	--	--
12...	--	--	--	--	--	--	--	468	99	--
13...	--	--	--	--	--	--	--	321	35	--
13...	3.7	2.4	4.8	3.4	9.0	0.72	0.65	--	--	--
13...	2.3	--	3.0	--	8.8	0.67	--	--	--	--
25...	0.84	0.64	0.90	0.70	8.5	0.19	0.13	25	0.33	--
MAR										
19...	0.46	0.46	0.52	0.52	7.5	0.10	0.10	24	0.18	--
APR										
10...	0.84	0.56	0.90	0.62	6.4	0.12	0.10	10	0.07	--

## CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
MAY 1985										
03...	0030	18	--	--	0.42	0.40	3.6	3.6	0.27	0.24
03...	0100	23	--	--	--	--	--	--	--	--
03...	0200	32	--	--	--	--	--	--	--	--
03...	0300	52	--	--	--	0.17	--	3.0	--	0.77
03...	0330	43	--	--	--	--	--	--	--	--
03...	0400	43	--	--	--	--	--	--	--	--
03...	0500	42	--	--	0.22	0.14	3.4	3.3	0.77	0.66
03...	0530	40	--	--	--	--	--	--	--	--
03...	0700	36	--	--	--	--	--	--	--	--
03...	0730	35	--	--	0.24	0.15	2.8	2.5	0.77	0.66
03...	1000	34	--	--	0.24	0.18	6.0	6.0	0.66	0.66
03...	1030	29	--	--	--	0.15	--	6.3	--	0.66
03...	1130	25	--	--	--	--	--	--	--	--
03...	1345	18	--	--	0.27	--	8.0	--	0.64	--
03...	1415	16	--	--	--	--	--	--	--	--
04...	0100	8.8	--	--	--	--	--	--	--	--
04...	0215	8.4	--	--	0.25	--	7.2	--	0.27	--
06...	1015	4.5	328	16.0	0.19	0.18	5.4	5.4	0.17	0.16
21...	0730	2.0	--	--	--	--	5.2	--	--	--
21...	1845	10	--	--	--	--	5.2	--	--	--
21...	1900	520	--	--	--	--	4.6	--	--	--
21...	1915	759	--	--	--	--	4.4	--	--	--
21...	1930	847	--	--	--	--	4.4	--	--	--
21...	1945	700	--	--	--	--	6.0	--	--	--
21...	2000	426	--	--	--	--	--	--	--	--
21...	2010	226	--	--	--	--	6.7	--	--	--
21...	2150	67	--	--	--	--	6.0	--	--	--
21...	2220	45	--	--	--	--	--	--	--	--
22...	0030	20	--	--	--	--	--	--	--	--
22...	0230	20	--	--	--	--	6.0	--	--	--
22...	1030	7.8	--	--	--	--	8.4	--	--	--
JUN										
03...	0945	2.0	444	20.5	0.73	0.70	5.5	5.5	0.11	0.11
15...	1415	1.4	400	--	--	--	--	--	--	--
16...	0230	3.6	433	--	--	--	--	--	--	--
16...	1830	18	--	--	--	--	4.3	--	--	--
16...	1900	37	--	--	--	--	3.6	--	--	--
16...	1930	27	--	--	--	--	3.3	--	--	--
16...	1935	23	--	--	--	--	3.3	--	--	--
17...	1245	3.1	--	--	--	--	3.6	--	--	--

CONESTOGA RIVER BASIN

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01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 1985										
03...	2.8	2.8	3.1	3.0	6.7	0.40	0.22	--	--	--
03...	--	--	--	--	--	--	--	56	3.5	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	2.4	--	3.2	--	--	0.68	--	--	--
03...	--	--	--	--	--	--	--	1170	136	58
03...	--	--	--	--	--	--	--	--	--	--
03...	5.3	5.3	6.1	6.0	9.5	2.6	0.64	--	--	--
03...	--	--	--	--	--	--	--	872	94	--
03...	--	--	--	--	--	--	--	571	56	--
03...	5.2	1.2	6.0	1.9	8.8	0.92	0.65	--	--	--
03...	3.3	0.84	4.0	1.5	10	1.0	0.64	--	--	--
03...	--	2.1	--	2.8	--	--	0.63	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	0.96	--	1.6	--	9.6	0.71	--	167	8.1	--
03...	--	--	--	--	--	--	--	168	7.3	11
04...	--	--	--	--	--	--	--	188	4.5	--
04...	1.5	--	1.8	--	9.0	0.30	--	73	1.7	--
06...	1.4	1.2	1.6	1.4	7.0	0.26	0.19	37	0.45	--
21...	--	--	1.4	--	6.6	0.33	--	69	0.37	--
21...	--	--	1.4	--	6.6	0.33	--	83	2.2	--
21...	--	--	1.5	--	6.1	0.35	--	92	129	--
21...	--	--	1.4	--	5.8	0.36	--	115	236	90
21...	--	--	12	--	16	17	--	34300	78400	--
21...	--	--	18	--	24	14	--	26300	49800	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	21	--	28	4.8	--	31300	19100	--
21...	--	--	16	--	22	15	--	12800	2320	95
21...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	9.2	--	15	5.0	--	3030	164	--
22...	--	--	2.6	--	11	1.1	--	405	8.5	--
JUN										
03...	1.9	1.1	2.0	1.2	7.5	0.26	0.22	117	0.63	--
15...	--	--	--	--	--	--	--	166	0.63	--
16...	--	--	--	--	--	--	--	61	0.59	--
16...	--	--	3.0	--	7.3	0.62	--	193	9.4	--
16...	--	--	5.8	--	9.4	6.3	--	1430	143	--
16...	--	--	6.8	--	10	3.2	--	1810	132	--
16...	--	--	8.6	--	12	2.9	--	--	--	--
17...	--	--	6.4	--	10	2.7	--	515	4.3	--



## CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUL 1985										
01...	1345	1.1	407	23.0	0.74	0.62	3.0	2.9	0.18	0.18
25...	1345	0.90	446	--	0.18	0.17	1.7	1.7	0.34	0.34
25...	1430	0.90	--	--	0.22	--	1.7	--	0.61	--
25...	1945	45	--	--	0.22	--	1.5	--	0.36	--
25...	2015	31	--	--	0.33	--	2.2	--	1.7	--
25...	2210	11	--	--	0.22	0.17	2.4	1.8	0.72	0.55
26...	0015	7.4	--	--	0.26	--	2.6	--	0.55	--
26...	1145	9.1	--	--	0.29	--	2.2	--	0.99	--
26...	1315	7.1	--	--	0.22	--	2.2	--	1.3	--
26...	2115	11	--	--	0.24	--	2.4	--	1.2	--
26...	2359	10	--	--	0.24	--	1.4	--	2.0	--
27...	0115	15	--	--	0.22	--	1.6	--	1.2	--
27...	0315	11	--	--	0.15	--	1.4	--	1.2	--
27...	0515	22	--	--	0.15	--	1.7	--	0.88	--
27...	0615	27	--	--	0.13	--	1.5	--	0.94	--
27...	0915	13	--	--	0.11	--	1.6	--	0.43	--
27...	1130	9.1	--	--	--	--	--	--	--	--
29...	1500	1.2	--	--	--	--	--	--	--	--
31...	1500	2.3	--	--	--	--	--	--	--	--
31...	1730	11	--	--	--	--	--	--	--	--
31...	1830	9.7	--	--	--	--	--	--	--	--
31...	2100	7.8	--	--	--	--	--	--	--	--
31...	2130	7.4	--	--	--	--	--	--	--	--
31...	2330	5.2	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL 1985										
01...	1.5	1.2	1.7	1.4	4.7	0.44	0.26	75	0.22	--
25...	3.4	3.1	3.7	3.4	5.4	0.56	0.42	77	0.19	--
25...	3.2	--	3.8	--	5.5	0.59	--	96	0.23	--
25...	5.0	--	5.4	--	6.9	2.2	--	1970	239	65
25...	8.1	--	9.8	--	12	3.7	--	1660	139	83
25...	2.7	1.5	3.4	2.0	5.8	1.5	0.47	--	--	--
26...	3.9	--	4.4	--	7.0	1.4	--	898	18	--
26...	4.6	--	5.6	--	7.8	1.5	--	300	7.4	92
26...	5.9	--	7.2	--	9.4	1.4	--	178	3.4	--
26...	6.0	--	7.2	--	9.6	1.6	--	366	11	--
26...	5.8	--	7.8	--	9.2	3.0	--	323	8.7	--
27...	4.0	--	5.2	--	6.8	1.8	--	331	13	89
27...	2.4	--	3.6	--	5.0	2.1	--	313	9.3	--
27...	2.9	--	3.8	--	5.5	1.5	--	371	22	84
27...	4.9	--	5.8	--	7.3	2.4	--	647	47	--
27...	3.2	--	3.6	--	5.2	1.3	--	302	11	--
27...	--	--	--	--	--	--	--	220	5.4	--
29...	--	--	--	--	--	--	--	113	0.37	--
31...	--	--	--	--	--	--	--	53	0.33	93
31...	--	--	--	--	--	--	--	558	17	--
31...	--	--	--	--	--	--	--	179	4.7	--
31...	--	--	--	--	--	--	--	229	4.8	--
31...	--	--	--	--	--	--	--	180	3.6	--
31...	--	--	--	--	--	--	--	167	2.3	--

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 1985										
01...	0200	3.4	--	--	--	--	--	--	--	--
01...	1215	2.0	--	--	--	--	--	--	--	--
07...	1400	0.95	--	--	--	--	--	--	--	--
07...	1415	0.95	--	--	0.17	--	2.6	--	0.10	--
07...	2245	7.8	--	--	0.35	--	1.7	--	0.88	--
07...	2300	66	--	--	--	--	--	--	--	--
07...	2305	66	--	--	0.22	--	1.6	--	0.72	--
07...	2315	117	--	--	--	--	--	--	--	--
07...	2325	126	--	--	0.14	--	1.3	--	0.47	--
08...	0005	90	--	--	0.14	--	1.3	--	0.38	--
08...	0100	66	--	--	--	--	--	--	--	--
08...	0115	54	--	--	0.23	--	1.8	--	0.72	--
08...	0145	38	--	--	--	--	--	--	--	--
08...	0445	14	--	--	0.20	--	1.9	--	0.72	--
08...	0515	13	--	--	--	--	--	--	--	--
08...	0645	11	--	--	--	--	--	--	--	--
08...	0745	12	--	--	0.16	--	1.9	--	0.55	--
08...	0815	12	--	--	--	--	--	--	--	--
08...	1245	7.1	--	--	0.15	--	2.6	--	0.45	--
08...	1345	6.2	--	--	--	--	--	--	--	--
13...	1430	1.0	--	--	--	--	--	--	--	--
14...	0400	1.1	--	--	--	--	--	--	--	--
14...	0430	20	--	--	--	--	--	--	--	--
14...	0500	20	--	--	--	--	--	--	--	--
14...	0530	17	--	--	--	--	--	--	--	--
14...	0600	14	--	--	--	--	--	--	--	--
14...	0630	12	--	--	--	--	--	--	--	--
14...	0700	11	--	--	--	--	--	--	--	--
14...	0800	8.1	--	--	--	--	--	--	--	--
20...	0915	0.95	426	23.5	0.29	0.28	4.6	4.6	0.18	0.18

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
AUG 1985										
01...	--	--	--	--	--	--	--	148	1.4	96
01...	--	--	--	--	--	--	--	122	0.66	--
07...	--	--	--	--	--	--	--	60	0.15	88
07...	1.8	--	1.9	--	4.5	0.45	--	--	--	--
07...	8.0	--	8.9	--	11	2.5	--	--	--	--
07...	--	--	--	--	--	--	--	4150	740	83
07...	10	--	11	--	13	2.1	--	--	--	--
07...	--	--	--	--	--	--	--	3490	1100	--
07...	13	--	13	--	14	1.9	--	--	--	--
08...	1.8	--	2.2	--	3.5	2.5	--	--	--	--
08...	--	--	--	--	--	--	--	498	89	82
08...	1.9	--	2.6	--	4.4	2.9	--	--	--	--
08...	--	--	--	--	--	--	--	1060	109	--
08...	4.8	--	5.5	--	7.4	1.1	--	--	--	--
08...	--	--	--	--	--	--	--	420	15	--
08...	--	--	--	--	--	--	--	298	8.9	--
08...	3.5	--	4.0	--	5.9	1.0	--	--	--	--
08...	--	--	--	--	--	--	--	1460	47	99
08...	3.1	--	3.5	--	6.1	0.92	--	--	--	--
08...	--	--	--	--	--	--	--	167	2.8	--
13...	--	--	--	--	--	--	--	41	0.11	--
14...	--	--	--	--	--	--	--	417	1.2	--
14...	--	--	--	--	--	--	--	213	12	--
14...	--	--	--	--	--	--	--	265	14	--
14...	--	--	--	--	--	--	--	283	13	--
14...	--	--	--	--	--	--	--	422	16	--
14...	--	--	--	--	--	--	--	486	16	--
14...	--	--	--	--	--	--	--	476	14	--
14...	--	--	--	--	--	--	--	359	7.9	--
20...	1.5	1.4	1.7	1.6	6.3	0.42	0.32	33	0.08	--

## CONESTOGA RIVER BASIN

01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
SEP 1985										
16...	1000	0.81	420	16.0	0.07	0.07	3.7	3.7	0.09	0.09
26...	1200	0.76	--	--	0.05	0.05	2.9	2.6	0.13	0.12
27...	0200	53	--	--	0.10	0.09	1.8	1.7	0.20	0.18
27...	0230	82	--	--	--	--	--	--	--	--
27...	0250	87	--	--	0.26	0.19	2.9	2.0	1.3	0.99
27...	0300	87	--	--	--	--	--	--	--	--
27...	0310	87	--	--	--	--	--	--	--	--
27...	0420	89	--	--	0.16	0.11	2.3	1.5	0.72	0.43
27...	0430	94	--	--	--	--	--	--	--	--
27...	0450	104	--	--	0.17	0.10	2.5	1.5	0.60	0.40
27...	0500	106	--	--	--	--	--	--	--	--
27...	0630	63	--	--	--	--	--	--	--	--
27...	0700	58	--	--	0.17	0.13	2.6	1.8	0.66	0.48
27...	0710	87	--	--	--	--	--	--	--	--
27...	0740	60	--	--	0.14	0.10	2.5	1.7	0.50	0.37
27...	0750	65	--	--	--	--	--	--	--	--
27...	0820	87	--	--	0.12	0.09	2.9	2.0	0.48	0.42
27...	0830	97	--	--	--	--	--	--	--	--
27...	1050	725	--	--	--	--	--	--	--	--
27...	1110	762	--	--	--	--	--	--	--	--
27...	1120	779	--	--	0.10	--	1.5	--	0.72	--
27...	1220	725	--	--	--	--	--	--	--	--
27...	1230	714	--	--	0.05	--	2.0	--	0.37	--
27...	1400	282	--	--	--	--	--	--	--	--
27...	1410	264	--	--	0.05	--	3.2	--	0.28	--
27...	1450	159	--	--	0.05	0.04	3.1	2.8	0.30	0.16
27...	1500	145	--	--	--	--	--	--	--	--
27...	1550	89	--	--	--	--	--	--	--	--
27...	1600	82	--	--	0.06	--	4.0	--	0.29	--
27...	1910	26	--	--	--	--	--	--	--	--
27...	1940	24	--	--	0.07	--	6.2	--	0.28	--
28...	0540	9.7	--	--	--	--	--	--	--	--
28...	1110	8.1	--	--	0.09	0.09	10	10	0.30	0.29
28...	1140	7.8	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
SEP 1985										
16...	1.3	1.2	1.4	1.3	5.1	0.35	0.28	28	0.06	--
26...	1.5	0.98	1.6	1.1	4.5	0.38	0.32	20	0.04	--
27...	2.0	2.0	2.2	2.2	4.0	2.6	1.1	--	--	--
27...	--	--	--	--	--	--	--	1510	334	87
27...	7.9	--	9.2	--	12	5.9	1.3	--	--	--
27...	--	--	--	--	--	--	--	2030	477	--
27...	--	--	--	--	--	--	--	--	--	--
27...	6.5	0.57	7.2	1.0	9.5	4.4	1.2	--	--	--
27...	--	--	--	--	--	--	--	1110	282	--
27...	5.6	1.9	6.2	2.3	8.7	3.8	1.2	--	--	--
27...	--	--	--	--	--	--	--	1320	378	85
27...	--	--	--	--	--	--	--	--	--	--
27...	4.8	3.3	5.5	3.8	8.1	3.7	1.4	--	--	--
27...	--	--	--	--	--	--	--	1050	247	--
27...	9.1	5.8	9.6	6.2	12	2.7	1.3	--	--	--
27...	--	--	--	--	--	--	--	513	90	--
27...	4.5	2.7	5.0	3.1	7.9	3.0	1.6	--	--	--
27...	--	--	--	--	--	--	--	701	184	91
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	3030	6230	--
27...	3.5	--	4.2	--	5.7	3.7	--	--	--	--
27...	--	--	--	--	--	--	--	3110	6090	--
27...	2.1	--	2.5	--	4.5	3.1	--	--	--	--
27...	--	--	--	--	--	--	--	1090	830	--
27...	6.9	--	7.2	--	10	1.6	--	--	--	--
27...	3.3	1.1	3.6	1.3	6.7	2.7	1.2	--	--	--
27...	--	--	--	--	--	--	--	997	390	--
27...	--	--	--	--	--	--	--	725	174	--
27...	3.1	--	3.4	--	7.4	1.7	--	--	--	--
27...	--	--	--	--	--	--	--	336	24	--
27...	2.5	--	2.8	--	9.0	0.96	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	1.5	1.4	1.8	1.7	12	0.36	0.27	--	--	--
28...	--	--	--	--	--	--	--	49	1.0	--

CONESTOGA RIVER BASIN

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01576085 LITTLE CONESTOGA CREEK NEAR CHURCHTOWN, PA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984									
16...	1110	1.4	<0.10	0.20	<0.20	0.10	<0.20	<0.20	<1
MAY 1985									
03...	0200	32	0.20	0.90	<0.80	<0.40	<0.80	<0.80	<4
03...	0400	43	1.0	1.7	<0.80	<0.40	<0.80	<0.80	<4
03...	1130	25	0.70	4.1	<0.80	<0.40	<0.80	<0.80	<4
06...	1015	4.5	0.10	0.30	<0.20	<0.10	<0.20	0.20	<1
21...	2000	426	64	<0.80	<0.80	<0.40	<0.80	<0.80	<4
21...	2220	45	53	<1.0	<1.0	<0.50	<1.0	<1.0	<5
22...	0030	20	30	<1.0	<1.0	<0.50	<1.0	<1.0	<5
JUL									
25...	1345	0.90	<0.10	0.50	<0.20	<0.10	<0.20	0.50	<1
AUG									
20...	0915	0.95	<0.10	0.30	<0.20	<0.10	<0.20	0.20	<1
SEP									
27...	0310	87	<0.50	2.5	<2.0	<1.0	<2.0	<2.0	<10
27...	0630	63	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
27...	1050	725	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10
28...	0540	9.7	<0.50	<2.0	<2.0	<1.0	<2.0	<2.0	<10

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
NOV			
29...	31	351	65
FEB			
12...	150	814	1020
MAY			
3...	23	416	37
21...	48	1610	1770
JUL			
25...	4.5	350	16
26...	6.3	348	5.9
27...	9.7	293	9.8
31...	3.2	124	1.8
AUG			
7...	6.1	209	39
8...	13	362	22
SEP			
27...	159	1030	930

## CONESTOGA RIVER BASIN

01576335 AGRICULTURAL FIELD RUNOFF SITE AT SPRINGVILLE, PA

LOCATION.--Lat 40°11'50", long 76°10'53", Lancaster County, Hydrologic Unit 02050306, on right bank of grassy waterway near cornfield, 100 ft north of stone spring house, 200 feet west of Indian Run Creek, 0.5 mile south of Springville, and 1.9 miles north of Ephrata.

DRAINAGE AREA.--0.04 mi<sup>2</sup>.

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

INSTRUMENTATION.--Automatic sediment pumping sampler since October 1984.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
28...	2145	0.03	14	--	4.0	--	18	--	13
28...	2155	0.18	14	--	5.3	--	19	--	16
28...	2205	0.14	13	12	3.7	3.6	17	16	13
28...	2225	0.10	13	--	3.0	--	16	--	11
28...	2255	0.02	13	11	3.1	2.6	16	14	12
NOV									
28...	2310	0.05	17	--	3.1	--	20	--	7.7
28...	2320	0.06	13	--	2.0	--	15	--	6.7
28...	2350	0.04	13	--	2.0	--	15	--	6.7
28...	2400	0.04	13	--	2.0	--	15	--	6.7
29...	0020	0.03	13	--	2.2	1.6	15	--	6.4
29...	0100	0.03	10	9.4	1.7	1.6	12	11	6.3
FEB 1985									
12...	1707	1.3	4.0	--	0.20	--	4.2	--	2.8
12...	1719	1.2	4.2	3.8	0.15	0.13	4.3	3.9	2.8
13...	0958	0.04	4.0	--	0.40	--	4.4	--	12
13...	1143	<0.01	4.0	--	0.37	--	4.4	--	9.3
MAY									
03...	0130	0.02	13	12	0.90	0.88	14	13	2.9
03...	0200	0.03	12	12	0.88	0.88	13	13	2.8
03...	0300	0.01	15	15	0.99	0.99	16	16	2.6
03...	0330	0.01	17	17	1.1	1.0	18	18	2.8
03...	0400	0.01	17	16	1.1	1.0	18	18	2.5
JUN									
03...	2000	0.07	9.3	--	0.62	--	9.9	--	0.88
03...	2030	0.04	12	--	0.44	--	12	--	0.88
03...	2100	0.03	12	--	0.53	--	12	--	0.99
03...	2145	<0.01	10	--	0.88	--	11	--	0.99
15...	2245	0.04	7.8	--	0.57	--	8.4	--	0.77
15...	2330	0.02	7.9	--	0.68	--	8.6	--	0.77
16...	1545	0.03	5.4	--	0.59	--	6.0	--	0.55
16...	1630	0.01	4.7	--	0.70	--	5.4	--	0.66
16...	1700	0.33	6.9	--	0.51	--	7.4	--	0.44
16...	1715	0.36	3.8	--	0.59	--	4.4	--	0.44
16...	1730	0.24	4.6	--	0.44	--	5.0	--	0.44
16...	1745	0.14	3.9	--	0.48	--	4.4	--	0.55
16...	1830	0.05	3.2	--	0.55	--	3.8	--	0.44
16...	1930	0.03	2.9	--	0.66	--	3.6	--	0.44
16...	2015	0.01	2.7	--	1.1	--	3.8	--	0.44

CONESTOGA RIVER BASIN

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01576335 AGRICULTURAL FIELD RUNOFF SITE AT SPRINGVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
28...	--	33	--	46	--	64	17	--
28...	--	20	--	36	--	55	15	--
28...	13	15	8.0	28	21	45	10	8.4
28...	--	13	--	24	--	40	11	--
28...	10	16	8.0	28	18	44	12	8.0
NOV								
28...	--	13	--	21	--	41	15	--
28...	7.2	--	11	--	18	--	--	10
28...	--	22	--	29	--	44	13	--
28...	6.7	--	11	--	18	--	--	10
29...	--	17	--	23	--	38	13	9.4
29...	5.7	13	8.3	19	14	31	12	9.4
FEB 1985								
12...	--	5.2	--	8.0	--	12	4.6	--
12...	2.7	4.6	2.7	7.4	5.4	12	3.4	1.9
13...	--	8.0	--	20	--	24	11	--
13...	--	6.7	--	16	--	20	11	--
MAY								
03...	2.8	6.1	3.6	9.0	6.4	23	5.9	5.8
03...	2.5	<sup>a</sup> 4.2	<sup>a</sup> 4.3	7.0	6.8	20	6.0	5.6
03...	2.6	4.6	3.8	7.2	6.4	23	5.2	4.9
03...	2.5	4.8	4.5	7.6	7.0	26	5.4	5.2
03...	2.3	5.7	4.1	8.2	6.4	26	5.4	5.0
JUN								
03...	--	3.7	--	4.6	--	15	11	--
03...	--	3.3	--	4.2	--	16	10	--
03...	--	4.4	--	5.4	--	17	8.7	--
03...	--	4.4	--	5.4	--	16	10	--
15...	--	6.2	--	7.0	--	15	4.0	--
15...	--	3.3	--	4.1	--	13	4.4	--
16...	--	5.6	--	6.2	--	12	5.1	--
16...	--	4.9	--	5.6	--	11	3.1	--
16...	--	5.9	--	6.3	--	14	4.3	--
16...	--	6.6	--	7.0	--	11	2.9	--
16...	--	8.6	--	9.0	--	14	3.6	--
16...	--	5.1	--	5.7	--	10	2.3	--
16...	--	5.2	--	5.6	--	9.4	5.2	--
16...	--	5.1	--	5.5	--	9.1	5.3	--
16...	--	1.9	--	2.3	--	6.1	6.2	--

(a) Results within limits of analytical precision.



## CONESTOGA RIVER BASIN

01576335 AGRICULTURAL FIELD RUNOFF SITE AT SPRINGVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JUL 1985									
31...	1445	0.82	3.0	3.0	0.03	0.02	3.0	3.0	0.15
31...	1515	0.61	2.9	--	0.04	--	2.9	--	0.19
31...	1545	0.42	2.6	2.6	0.03	0.03	2.6	2.6	0.19
31...	1600	0.40	2.4	--	0.04	--	2.4	--	0.17
31...	1615	0.36	2.4	--	0.04	--	2.4	--	0.11
31...	1700	0.08	2.8	2.8	0.06	0.05	2.9	2.9	0.22
SEP									
27...	0345	0.03	6.5	--	1.2	--	7.7	--	8.7
27...	0415	0.03	6.2	--	1.5	--	7.7	--	10
27...	0430	0.03	--	5.6	--	1.2	--	6.8	--
27...	0530	0.06	5.3	--	0.59	--	5.9	--	5.6
27...	0545	0.04	--	5.2	--	0.55	--	5.7	--
27...	0630	0.01	5.4	--	1.2	--	6.6	--	8.4
27...	0645	0.02	--	6.0	--	0.84	--	6.8	--
27...	0715	0.03	5.1	--	0.64	--	5.7	--	6.5
27...	0730	0.03	--	4.0	--	0.55	--	4.6	--
27...	0815	0.23	--	6.5	--	0.46	--	7.0	--
27...	0830	0.31	4.3	--	0.33	--	4.6	--	3.8
27...	0845	0.30	4.8	--	0.26	--	5.1	--	2.8
27...	0915	0.24	5.4	--	0.26	--	5.7	--	2.6
27...	0930	0.24	--	5.4	--	0.26	--	5.7	--
27...	1015	0.16	6.0	--	0.40	--	6.4	--	3.7
27...	1030	0.16	--	5.4	--	0.33	--	5.7	--
27...	1100	0.22	5.8	--	0.44	--	6.2	--	4.1
27...	1230	0.18	4.8	--	0.33	--	5.1	--	2.4
27...	1245	0.14	--	4.4	--	0.24	--	4.6	--
27...	1315	0.10	4.5	--	0.31	--	4.8	--	6.4
27...	1330	0.09	--	3.9	--	0.26	--	4.2	--
27...	1415	0.05	--	3.9	--	0.33	--	4.2	--
27...	1430	0.04	3.8	--	0.55	--	4.4	--	3.7

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JUL 1985								
31...	0.15	1.3	1.3	1.5	1.5	4.5	2.4	2.2
31...	--	1.7	--	1.9	--	4.8	3.1	--
31...	0.19	0.41	0.31	0.60	0.50	3.2	2.5	2.5
31...	--	3.5	--	3.7	--	6.1	2.8	--
31...	--	2.1	--	2.2	--	4.6	2.8	--
31...	0.21	3.0	1.5	3.2	1.7	6.1	3.0	1.3
SEP								
27...	--	7.3	--	16	--	24	18	--
27...	--	8.0	--	18	--	26	16	--
27...	10	--	8.0	--	18	--	--	14
27...	--	12	--	18	--	24	13	--
27...	6.5	--	5.5	--	12	--	--	13
27...	--	6.6	--	15	--	22	14	--
27...	8.8	--	7.2	--	16	--	--	13
27...	--	8.5	--	15	--	21	14	--
27...	7.4	--	5.6	--	13	--	--	11
27...	5.9	--	6.1	--	12	--	--	13
27...	--	7.2	--	11	--	16	10	--
27...	--	7.2	--	10	--	15	9.3	--
27...	--	11	--	14	--	20	8.8	--
27...	2.7	--	2.9	--	5.6	--	--	8.2
27...	--	9.3	--	13	--	19	11	--
27...	3.4	--	3.8	--	7.2	--	--	11
27...	--	8.9	--	13	--	19	10	--
27...	--	4.4	--	6.8	--	12	8.2	--
27...	2.3	--	3.3	--	5.6	--	--	9.7
27...	--	1.0	--	7.4	--	12	10	--
27...	2.5	--	2.5	--	5.0	--	--	11
27...	3.2	--	4.0	--	7.2	--	--	9.3
27...	--	6.3	--	10	--	14	10	--

## CONESTOGA RIVER BASIN

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01576335 AGRICULTURAL FIELD RUNOFF SITE AT SPRINGVILLE, PA--Continued

INSTANTANEOUS SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984					
28...	2145	0.03	944	0.08	--
28...	2155	0.18	1450	0.71	93
28...	2225	0.10	789	0.21	--
28...	2235	0.06	721	0.12	--
28...	2255	0.02	538	0.03	--
NOV					
28...	2310	0.05	729	0.10	--
28...	2320	0.06	731	0.12	--
28...	2340	0.05	566	0.08	--
29...	0010	0.03	413	0.03	98
29...	0040	0.03	517	0.04	--
29...	0110	0.02	360	0.02	--
FEB 1985					
12...	1707	1.3	350	1.2	--
12...	1719	1.2	327	1.1	97
13...	0958	0.04	106	0.01	--
13...	1030	0.01	94	<0.01	--
13...	1143	<0.01	94	<0.01	--
13...	1400	<0.01	83	<0.01	--
13...	1800	<0.01	84	<0.01	--
MAY					
03...	0145	0.03	98	0.01	--
03...	0215	0.03	84	0.01	75
03...	0230	0.02	55	<0.01	--
03...	0400	0.01	49	<0.01	--
JUN					
16...	1630	0.01	642	0.02	--
16...	1700	0.33	2670	2.4	--
16...	1745	0.14	1480	0.56	--
JUL					
31...	1600	0.40	2170	2.3	--
SEP					
27...	0400	0.03	298	0.02	99
27...	0445	0.03	258	0.02	98
27...	0600	0.03	275	0.02	--
27...	0630	0.01	254	0.01	--
27...	0745	0.03	285	0.02	--
27...	0845	0.30	871	0.71	100
27...	0945	0.18	420	0.20	--
27...	1045	0.16	340	0.15	--
27...	1300	0.13	351	0.12	--
27...	1345	0.08	320	0.07	--

## 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 tributary, 500 ft downstream from diversion dam at city water plant, and 0.7 mi east of Lancaster.

DRAINAGE AREA.--324 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1928 to March 1932; August, September 1932; April 1933 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1973, published as Conestoga Creek at Lancaster.

REVISED RECORDS.--WSP 1202: Drainage area. WSP 1502: 1943(P).

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.--Estimated daily discharges: Jan. 9 to Mar. 5. Records good except those for estimated daily discharges, which are fair. Regulation of low flow by water plant and mill above station. Diversion above station for municipal supply of city of Lancaster. Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--55 years, (1928-31, 1934-85), 400 ft<sup>3</sup>/s, 16.70 in/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,300 ft<sup>3</sup>/s June 23, 1972, gage height 27.80 ft, from flood-mark, from rating curve extended above 11,000 ft<sup>3</sup>/s on basis of slope-area measurement and contracted-opening measurement of peak flow; minimum daily 7.0 ft<sup>3</sup>/s Aug. 11, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,140 ft<sup>3</sup>/s Sept. 28, gage height, 9.69 ft; minimum 16 ft<sup>3</sup>/s Oct. 17, gage height, 2.41 ft, result of shutoff at diversion dam upstream; minimum daily, 53 ft<sup>3</sup>/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	170	328	202	110	349	240	99	179	132	581	94
2	187	155	252	315	140	361	249	207	173	137	193	92
3	193	146	251	451	130	345	206	1580	177	125	144	98
4	148	136	441	290	90	288	208	759	208	130	130	90
5	142	167	270	277	95	280	199	426	172	121	122	82
6	133	223	582	254	110	275	196	349	182	104	115	77
7	123	165	565	244	100	243	193	317	171	227	118	61
8	133	143	338	239	91	235	186	274	154	156	457	76
9	127	133	291	200	90	245	184	258	176	144	240	104
10	119	127	279	140	97	228	176	231	171	140	155	94
11	128	132	274	130	110	223	167	220	148	124	137	105
12	117	137	254	130	550	258	168	213	143	102	129	95
13	114	131	237	130	2500	322	163	254	125	95	118	76
14	117	124	224	140	880	241	159	231	116	99	144	64
15	118	119	226	140	480	220	167	186	125	101	189	63
16	117	113	227	110	380	206	166	187	734	119	120	78
17	117	107	218	110	400	198	183	218	565	99	105	66
18	107	114	215	120	416	200	170	438	266	96	103	64
19	113	129	207	120	426	201	155	292	210	76	105	69
20	133	135	223	98	470	184	145	214	185	68	104	53
21	123	122	216	70	465	181	140	206	178	76	103	57
22	131	119	398	80	371	173	144	556	167	102	95	56
23	268	111	325	100	437	186	133	284	162	75	99	65
24	218	104	255	100	568	243	134	313	166	83	78	63
25	178	108	249	110	521	267	136	242	150	85	168	64
26	144	113	233	100	442	235	130	209	140	164	217	69
27	136	109	218	100	387	197	121	193	132	445	155	2580
28	154	120	218	100	358	185	122	191	137	214	118	2050
29	697	1340	217	100	---	200	127	197	131	136	105	411
30	292	606	216	100	---	212	117	186	139	124	94	258
31	194	---	209	100	---	195	---	172	---	221	86	---
TOTAL	5180	5658	8656	4900	11214	7376	4984	9702	5882	4120	4827	7274
MEAN	167	189	279	158	401	238	166	313	196	133	156	242
MAX	697	1340	582	451	2500	361	249	1580	734	445	581	2580
MIN	107	104	207	70	90	173	117	99	116	68	78	53
(†)	14.1	12.7	13.2	12.9	12.2	13.0	13.6	10.2	10.5	11.8	10.7	12.7
MEAN‡	181	202	292	171	413	251	180	323	206	145	167	255
CFSM‡	.56	.62	.90	.53	1.27	.77	.56	1.00	.64	.45	.52	.79
IN.‡	.64	.69	1.04	.61	1.32	.89	.62	1.15	.71	.51	.59	.88

CAL YR 1984 TOTAL 203937 MEAN 557 MAX 7180 MIN 104 MEAN‡ 571 CFSM‡ 1.76 IN.‡ 23.90  
WTR YR 1985 TOTAL 79773 MEAN 219 MAX 2580 MIN 53 MEAN‡ 232 CFSM‡ 0.72 IN.‡ 9.78

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

‡ Adjusted for diversion.

## CONESTOGA RIVER BASIN

261

01576697 SWARR RUN NEAR LANDISVILLE, PA

LOCATION.--Lat 40°04'19", long 76°21'26", Lancaster County, Hydrologic Unit 02050306, on left bank at Rohrerstown Road, 0.6 mi upstream from Little Conestoga Creek and 3.7 mi east of Landisville.

DRAINAGE AREA.--8.67 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Elevation of gage is 315 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Records of unpublished precipitation data for the same period of record are available from the Harrisburg Subdistrict office. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft<sup>3</sup>/s Sept. 27, 1985, gage height, 7.78 ft; minimum, 1.6 ft<sup>3</sup>/s part of each day Sept. 4-8, 1985, gage height, 2.91 ft; minimum gage height, 2.90 ft Sept. 18, 1985.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 27	1215	*570	*7.78	No other peak greater than base discharge.			

Minimum discharge, 1.6 ft<sup>3</sup>/s part of each day Sept. 4-8; minimum gage height, 2.90 ft Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	4.0	8.3	2.0
2									---	3.9	5.1	2.0
3									---	3.8	4.5	1.9
4									---	3.9	4.2	1.9
5									---	3.7	3.9	1.7
6									---	4.6	3.7	1.7
7									---	4.8	5.3	1.6
8									---	3.7	13	2.3
9									---	3.7	5.2	3.6
10									---	3.6	4.5	20
11									---	3.6	4.0	5.3
12									2.8	3.6	3.8	3.2
13									2.9	3.7	3.4	2.8
14									2.8	3.8	3.3	2.6
15									5.0	3.9	3.2	2.5
16									38	3.8	2.9	2.3
17									13	3.6	2.8	2.2
18									6.9	3.5	2.8	2.1
19									5.8	3.4	2.7	2.1
20									6.7	3.4	2.5	2.1
21									5.6	3.3	2.8	2.0
22									5.0	3.8	2.4	2.0
23									4.7	3.4	2.2	2.0
24									4.5	2.9	2.3	2.2
25									4.3	3.1	5.6	2.0
26									4.2	24	3.3	2.2
27									4.2	19	2.8	192
28									4.3	5.6	2.5	14
29									4.3	4.7	2.3	9.3
30									4.1	4.2	2.3	7.8
31									---	14	2.2	---
TOTAL									---	164.0	119.8	301.4
MEAN									---	5.29	3.86	10.0
MAX									---	24	13	192
MIN									---	2.9	2.2	1.6
CFSM									---	.61	.45	1.15
IN.									---	.70	.52	1.28

## 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 1,500 ft downstream from Little Conestoga Creek, 2.6 mi upstream from mouth, and 1.0 mi west of Conestoga. Water-quality samples collected from bridge on River Road 1.6 miles downstream from gage.

DRAINAGE AREA.--470 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 14, Jan. 21 to 25, and June 11, 12. Records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft<sup>3</sup>/s Feb. 12, 1985, gage height 11.03 ft, from rating curve extended above 7,100 ft<sup>3</sup>/s; minimum, 84 ft<sup>3</sup>/s Sept. 23, 26, 1985, gage height, 1.13 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	2400	*15,500	*11.03	Sept. 28	0400	8,740	8.07

Minimum discharge, 84 ft<sup>3</sup>/s Sept. 23, 26, gage height, 1.13 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	330	560	338	318	470	373	192	287	215	998	145
2	330	300	434	431	398	443	391	288	274	221	395	147
3	370	270	411	663	359	430	347	1930	269	215	265	149
4	290	245	593	475	310	417	329	1320	394	327	227	150
5	270	290	460	439	297	421	318	633	297	213	211	141
6	250	420	707	418	314	427	309	508	283	196	198	132
7	230	330	959	391	354	396	302	460	265	264	205	128
8	245	275	562	387	299	379	293	432	257	293	615	111
9	240	250	474	364	314	384	299	362	271	218	480	178
10	225	230	442	323	365	370	291	351	267	233	286	307
11	235	235	436	344	392	358	279	337	230	202	240	329
12	220	255	420	390	4650	387	275	322	212	192	219	183
13	210	240	395	376	7390	456	269	396	219	166	203	154
14	210	230	384	366	1330	396	264	364	189	156	195	134
15	215	215	378	330	898	351	264	310	205	197	278	110
16	215	204	374	271	728	333	276	288	579	269	227	108
17	210	223	364	338	623	316	285	326	1270	184	183	133
18	195	221	363	330	582	310	287	475	470	158	173	115
19	200	257	357	320	562	317	262	495	343	161	169	116
20	245	253	361	242	581	300	255	336	312	121	173	113
21	220	234	373	220	549	298	244	305	304	116	206	93
22	260	231	498	215	530	284	237	631	281	204	176	98
23	500	215	544	215	622	318	241	454	260	198	160	89
24	420	215	419	270	734	369	229	432	265	130	154	128
25	345	206	398	290	660	404	233	376	251	148	251	113
26	280	208	389	304	594	379	239	321	232	233	332	110
27	245	219	364	325	539	328	215	295	223	786	279	4860
28	280	234	362	337	502	310	208	289	223	443	216	4460
29	1300	1790	362	296	---	332	202	316	234	253	176	812
30	600	1110	356	352	---	342	219	292	222	216	171	519
31	340	---	351	272	---	322	---	286	---	383	159	---
TOTAL	9695	9935	13850	10632	25794	11347	8235	14122	9388	7311	8220	14365
MEAN	313	331	447	343	921	366	275	456	313	236	265	479
MAX	1300	1790	959	663	7390	470	391	1930	1270	786	998	4860
MIN	195	204	351	215	297	284	202	192	189	116	154	89
CFSM	.67	.70	.95	.73	1.96	.78	.59	.97	.67	.50	.56	1.02
IN.	.77	.79	1.10	.84	2.04	.90	.65	1.12	.74	.58	.65	1.14

WTR YR 1985 TOTAL 142894 MEAN 391 MAX 7390 MIN 89 CFSM .83 IN. 11.31

CONESTOGA RIVER BASIN

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01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality samples collected by Susquehanna River Basin Commission.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
22...	1030	260	600	8.20	19.5	7.43	7.24	0.27	0.26	0.85	7.70
NOV											
20...	0930	243	573	8.00	4.0	--	--	--	--	--	8.60
DEC											
13...	1010	376	535	8.40	6.5	--	--	--	--	--	8.00
JAN											
18...	1100	307	555	8.60	1.0	--	--	--	--	--	10.0
FEB											
21...	1030	523	540	8.80	5.5	--	--	--	--	--	8.00
MAR											
21...	1100	288	530	8.70	7.5	--	--	--	--	--	7.40
APR											
18...	1000	278	547	8.50	17.0	--	--	--	--	--	10.0
MAY											
09...	1130	366	500	7.80	18.0	--	--	--	--	--	6.10
JUN											
04...	1024	357	550	7.90	22.5	--	--	--	--	--	5.90
JUL											
01...	1045	191	615	8.10	22.0	--	--	--	--	--	6.70
AUG											
07...	1136	219	595	8.10	27.0	--	--	--	--	--	5.10
SEP											
02...	1115	149	650	8.20	25.0	--	--	--	--	--	5.20
26...	1445	129	720	8.00	20.0	--	--	--	--	--	5.30
27...	0345	416	620	8.30	19.0	--	--	--	--	--	4.70
27...	0815	3880	375	8.30	19.0	--	--	--	--	--	3.00
27...	1245	7360	255	7.70	19.5	--	--	--	--	--	2.50
27...	1638	6720	235	7.70	19.5	--	--	--	--	--	2.20
27...	2105	7360	340	7.50	18.5	--	--	--	--	--	3.20
28...	0130	8220	258	7.40	17.0	--	--	--	--	--	2.40
28...	0515	8660	200	7.40	17.5	--	--	--	--	--	2.10
28...	0810	7120	180	7.50	17.0	--	--	--	--	--	2.00
28...	1540	1910	220	7.50	20.0	--	--	--	--	--	2.50
29...	1150	782	330	7.80	19.0	--	--	--	--	--	3.40
30...	1035	512	435	8.00	16.5	--	--	--	--	--	4.70



## CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT 22...	7.50	0.11	0.12	0.15	0.89	0.78	1.0	--	0.9	8.7
NOV 20...	--	1.00	1.10	1.4	2.6	--	3.6	--	1.0	12
DEC 13...	--	0.66	0.68	0.88	0.54	0.62	1.2	--	1.3	9.2
JAN 18...	--	0.90	0.90	1.2	0.4	0.60	1.3	--	1.5	11
FEB 21...	--	0.65	0.68	0.88	0.65	--	1.3	--	--	9.3
MAR 21...	--	0.36	0.35	0.45	0.64	0.35	1.0	--	0.7	8.4
APR 18...	--	0.34	0.34	0.44	1.5	0.56	1.8	--	0.9	12
MAY 09...	--	0.33	0.30	0.39	0.77	0.70	1.1	--	1.0	7.2
JUN 04...	--	0.12	0.09	0.12	0.38	--	0.5	--	--	6.4
JUL 01...	--	0.06	0.08	0.10	0.94	0.52	1.0	0.4	0.6	7.7
AUG 07...	--	0.04	0.01	0.01	0.76	0.69	0.8	0.1	0.7	5.9
SEP 02...	--	0.03	0.03	0.04	0.57	0.37	0.6	0.2	0.4	5.8
26...	--	0.32	0.36	0.46	1.2	2.0	1.5	0.0	2.4	6.8
27...	--	0.27	0.27	0.35	1.4	0.93	1.7	0.5	1.2	6.4
27...	--	0.44	0.42	0.54	2.6	0.98	3.0	1.6	1.4	6.0
27...	--	0.48	0.34	0.44	24	0.66	24	23	1.0	27
27...	--	0.58	0.41	0.53	6.2	0.59	6.8	5.8	1.0	9.0
27...	--	0.51	0.42	0.54	8.1	0.88	8.6	7.3	1.3	12
28...	--	0.72	0.57	0.73	6.9	0.73	7.6	6.3	1.3	10
28...	--	0.68	0.54	0.70	3.3	0.86	4.0	2.6	1.4	6.1
28...	--	0.50	0.40	0.52	5.4	0.70	5.9	4.8	1.1	7.9
28...	--	0.33	0.28	0.36	2.6	1.0	2.9	1.6	1.3	5.4
29...	--	0.29	0.28	0.36	1.3	0.72	1.6	0.6	1.0	5.0
30...	--	0.33	0.32	0.41	1.5	1.4	1.8	0.1	1.7	6.5

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 22...	39	0.73	--	0.18	0.71	0.66	2.0	2.8	14	9.8
NOV 20...	54	0.55	--	0.52	--	0.50	1.5	--	--	--
DEC 13...	41	0.34	--	0.30	--	0.27	0.83	--	15	15
JAN 18...	50	0.44	--	0.41	--	0.39	1.2	3.2	5	4.1
FEB 21...	41	0.25	--	0.23	--	0.24	0.74	2.9	4	5.6
MAR 21...	37	0.35	--	0.28	--	0.27	0.83	1.1	13	10
APR 18...	52	0.47	--	0.69	--	0.38	1.2	--	22	17
MAY 09...	32	0.41	--	0.33	--	0.33	1.0	3.9	17	17
JUN 04...	28	0.45	1.4	0.37	--	0.40	1.2	3.8	28	27
JUL 01...	34	0.46	1.4	0.44	--	0.42	1.3	4.7	28	14
AUG 07...	26	0.56	1.7	0.52	--	0.52	1.6	10	30	18
SEP 02...	26	0.62	1.9	0.58	--	0.58	1.8	5.5	19	7.6
26...	30	1.00	3.1	0.97	--	0.88	2.7	4.9	6	2.1
27...	28	0.98	3.0	0.84	--	0.74	2.3	6.2	70	79
27...	27	3.10	9.5	0.76	--	0.67	2.1	27	1740	18200
27...	120	2.30	7.1	0.42	--	0.36	1.1	24	1300	25800
27...	40	2.40	7.4	0.25	--	0.20	0.61	26	1140	20700
27...	52	3.80	12	0.29	--	0.24	0.74	44	1550	30800
28...	44	4.40	14	0.27	--	0.21	0.64	37	2220	49300
28...	27	3.20	9.8	0.22	--	0.18	0.55	30	1580	36900
28...	35	2.30	7.1	0.23	--	0.18	0.55	24	940	18100
28...	24	0.82	2.5	0.30	--	0.25	0.77	14	255	1310
29...	22	0.54	1.7	0.32	--	0.27	0.83	10	74	156
30...	29	0.43	1.3	0.29	--	0.24	0.74	7.6	58	80

## PEQUEA CREEK BASIN

265

01576788 PEQUEA CREEK TRIBUTARY NEAR MT. NEBO, PA

LOCATION.--Lat 39°53'28", long 76°18'14", Lancaster County, Hydrologic Unit 02050306, on left bank 75 ft upstream from Steinman Farm Road (T403), 1.3 mi northeast of Mt. Nebo, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--0.20 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1979 to May 1981, October 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 11 and June 12-20. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 0.33 ft<sup>3</sup>/s, 22.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24 ft<sup>3</sup>/s Sept. 27, 1985, gage height, 1.04 ft; maximum gage height, 1.06 ft Feb. 11, 1983, (backwater from heavy snow); minimum discharge 0.003 ft<sup>3</sup>/s Oct. 7, 1981, gage height 0.35 ft, but may have been less during period of ice effect Jan. 21-22, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2.7 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 12	1230	3.6	0.70	Sept. 27	1030	*24	*1.04

Minimum discharge, 0.03 ft<sup>3</sup>/s Sept. 20, 21, gage height, 0.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.09	.15	.16	.10	.41	.28	.28	.15	.09	.09	.06
2	.20	.08	.15	.17	.10	.41	.28	.35	.15	.09	.08	.06
3	.18	.08	.15	.16	.10	.36	.28	.72	.16	.10	.07	.06
4	.18	.08	.15	.16	.10	.36	.28	.49	.15	.09	.07	.05
5	.18	.09	.14	.16	.10	.36	.28	.45	.16	.09	.06	.05
6	.18	.08	.19	.16	.10	.33	.28	.42	.15	.08	.07	.05
7	.18	.08	.17	.16	.10	.32	.28	.41	.14	.08	.09	.05
8	.18	.08	.17	.16	.10	.32	.28	.41	.14	.08	.11	.06
9	.18	.08	.17	.16	.10	.32	.28	.41	.12	.08	.07	.05
10	.18	.08	.17	.16	.10	.32	.28	.37	.12	.08	.07	.07
11	.18	.08	.16	.16	.09	.29	.28	.32	.11	.08	.07	.05
12	.17	.08	.16	.16	.77	.30	.26	.33	.10	.08	.06	.05
13	.17	.08	.17	.16	.47	.28	.25	.35	.10	.08	.06	.05
14	.15	.09	.17	.16	.41	.28	.25	.32	.10	.08	.06	.05
15	.14	.09	.17	.16	.41	.28	.28	.32	.09	.09	.06	.05
16	.12	.09	.17	.16	.41	.28	.28	.28	.09	.08	.06	.05
17	.11	.09	.17	.16	.41	.28	.28	.27	.09	.07	.06	.05
18	.11	.09	.16	.16	.41	.25	.28	.25	.09	.07	.07	.05
19	.11	.09	.17	.16	.41	.25	.28	.25	.10	.07	.06	.05
20	.11	.08	.17	.15	.41	.25	.28	.25	.11	.07	.06	.05
21	.12	.08	.17	.13	.41	.25	.28	.23	.13	.07	.08	.05
22	.13	.08	.17	.12	.41	.25	.28	.20	.12	.08	.06	.05
23	.11	.08	.16	.11	.44	.25	.26	.23	.12	.07	.06	.05
24	.12	.08	.16	.11	.50	.25	.25	.20	.13	.07	.06	.05
25	.11	.08	.16	.11	.50	.25	.25	.17	.12	.08	.09	.05
26	.11	.08	.16	.10	.50	.25	.25	.16	.11	.12	.07	.07
27	.12	.08	.16	.10	.50	.23	.28	.15	.09	.11	.06	2.4
28	.13	.17	.16	.10	.41	.22	.28	.25	.09	.07	.06	.17
29	.11	.21	.16	.11	---	.23	.28	.19	.09	.07	.06	.13
30	.09	.16	.16	.10	---	.24	.28	.17	.09	.07	.06	.13
31	.08	---	.16	.10	---	.24	---	.17	---	.23	.06	---
TOTAL	4.44	2.78	5.06	4.39	8.87	8.91	8.21	9.37	3.51	2.67	2.12	4.21
MEAN	.14	.09	.16	.14	.32	.29	.27	.30	.12	.09	.07	.14
MAX	.20	.21	.19	.17	.77	.41	.28	.72	.16	.23	.11	2.4
MIN	.08	.08	.14	.10	.09	.22	.25	.15	.09	.07	.06	.05
CFSM	.70	.46	.80	.70	1.60	1.45	1.35	1.50	.60	.43	.34	.70
IN.	.83	.52	.94	.82	1.65	1.66	1.53	1.74	.65	.50	.39	.78

CAL YR 1984 TOTAL 174.51 MEAN .48 MAX 3.7 MIN .08 CFSM 2.40 IN. 32.46  
WTR YR 1985 TOTAL 64.54 MEAN .18 MAX 2.4 MIN .05 CFSM .90 IN. 12.00

## 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 Legislative Route 29015, 0.2 mi upstream from Foster Creek, and 3.5 mi north of Needmore.

DRAINAGE AREA.--10.7 mi<sup>2</sup>.

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. 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.--Estimated daily discharges: Jan. 9 to Feb. 10 and Aug. 30 to Sept. 6. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 12.4 ft<sup>3</sup>/s, 15.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft<sup>3</sup>/s June 22, 1972, gage height, 9.17 ft, from rating curve extended above 540 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 28	2200	*261	*4.89	Mar. 31	2200	176	4.41
Feb. 12	1845	232	4.73	May 3	0345	153	4.27

Minimum discharge, no flow Sept. 6 and part of Sept. 7. Periods of no flow may also have occurred during the period of no gage height record Aug. 30 to Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.9	56	7.5	2.7	10	159	1.3	5.6	1.2	.53	.01
2	.78	2.1	33	6.9	2.6	8.6	107	18	4.4	1.1	.37	.01
3	.55	2.1	29	5.8	2.4	6.7	62	125	4.0	1.1	.32	.01
4	.50	2.2	20	5.9	2.2	5.7	35	79	3.7	.94	.30	.01
5	.44	6.5	15	6.2	2.2	5.3	22	49	3.7	2.1	.27	.01
6	.40	3.8	17	5.3	2.3	4.3	17	32	3.3	3.0	.25	.00
7	.42	2.9	13	5.3	2.3	3.8	13	23	2.8	1.7	.26	.05
8	.44	2.7	12	5.0	2.3	3.8	11	16	2.9	1.5	.37	.09
9	.47	2.7	11	4.0	2.4	3.4	9.9	12	2.6	1.4	.28	.05
10	.44	3.6	13	3.9	2.4	2.9	8.0	9.5	2.3	1.9	.23	.05
11	.45	5.5	19	4.0	3.7	3.1	7.0	7.9	2.0	1.2	.22	.05
12	.48	4.4	20	3.8	117	4.8	6.0	6.8	2.1	1.2	.27	.04
13	.51	3.9	20	3.6	129	3.9	5.6	5.9	2.0	1.7	.19	.04
14	.56	3.7	16	3.7	57	3.5	5.7	5.1	1.9	1.2	.18	.04
15	.57	3.6	14	3.5	25	3.1	5.1	4.7	1.9	1.7	.31	.04
16	1.3	3.7	12	3.2	17	2.7	4.8	4.8	2.9	1.1	.25	.04
17	.89	3.3	12	3.3	11	2.7	4.0	13	2.3	.84	.31	.04
18	1.1	3.4	11	3.5	8.9	2.6	3.7	13	1.8	.66	.23	.04
19	1.0	5.1	15	3.0	9.7	2.5	3.5	6.6	1.7	.59	.25	.04
20	1.4	4.0	15	2.5	11	2.4	3.2	5.2	1.6	.56	.20	.04
21	1.3	3.0	30	2.2	13	2.1	2.9	4.6	1.6	.57	.19	.04
22	2.5	2.7	58	2.7	27	2.1	2.6	4.1	1.4	.70	.16	.04
23	2.5	2.8	51	3.0	83	17	2.4	8.7	1.4	.49	.13	.04
24	2.5	2.9	40	3.0	94	27	2.3	6.0	1.2	.40	.13	.05
25	2.3	3.2	31	3.0	55	34	2.5	4.6	1.1	.40	.44	.06
26	2.1	2.9	20	2.9	30	25	2.1	4.1	.97	1.6	.28	.05
27	2.1	2.7	16	2.8	19	19	1.9	3.8	.95	1.0	.18	.21
28	2.0	63	14	2.7	13	16	1.7	8.1	.96	.59	.16	.16
29	2.8	183	12	2.6	---	65	1.5	7.0	1.0	.44	.13	.12
30	2.4	95	11	2.5	---	127	1.4	5.1	.93	.40	.07	.09
31	2.1	---	8.2	2.6	---	145	---	6.0	---	.55	.04	---
TOTAL	38.90	432.3	664.2	119.9	747.1	565.0	513.8	499.9	67.01	33.83	7.50	1.56
MEAN	1.25	14.4	21.4	3.87	26.7	18.2	17.1	16.1	2.23	1.09	.24	.05
MAX	2.8	183	58	7.5	129	145	159	125	5.6	3.0	.53	.21
MIN	.40	1.9	8.2	2.2	2.2	2.1	1.4	1.3	.93	.40	.04	.00
CFSM	.12	1.35	2.00	.36	2.50	1.70	1.60	1.50	.21	.10	.02	.00
IN.	.14	1.50	2.31	.42	2.60	1.96	1.79	1.74	.23	.12	.03	.01

CAL YR 1984 TOTAL 5689.83 MEAN 15.5 MAX 500 MIN .40 CFSM 1.45 IN. 19.78  
WTR YR 1985 TOTAL 3691.00 MEAN 10.1 MAX 183 MIN .00 CFSM .94 IN. 12.83

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

## Annual maximum discharge at crest-stage partial-record stations during water year 1985

Annual maximum discharge at crest-stage partial-record stations during water year 1988							
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN							
CHEMUNG RIVER BASIN							
01518400	Crooked Creek at Middlebury Center, Pa.	Lat 41°50'33", long 77°16'36", Tioga County, at single-span bridge on State Route 287 at Middlebury Center.	49.0	1980-85 <sup>a</sup>	2-23-85	43.51	888
01519200	Cowanesque River at Elkland, Pa.	Lat 41°59'15", long 77°18'09", Tioga County, at single-span steel-truss bridge on State Route 49 at Elkland.	235	1980-85	2-24-85	<sup>b</sup> 22.04	5,000
TOWANDA CREEK BASIN							
S. BR. TOWANDA CR. BASIN							
01532200	South Branch Towanda Creek at New Albany, Pa.	Lat 41°35'23", long 76°25'58", Bradford County, at bridge on gravel road, 0.1 mi below French Creek, 0.7 mi above Beaver Run and 0.8 mi south of New Albany.	13.3	1963-85	7-31-85	4.52	357
TUSCARORA CREEK BASIN							
01533250	Tuscarora Creek near Silvara, Pa.	Lat 41°42'25", long 76°07'10", Bradford County, at culvert on gravel road, 1 mi northeast of Silvara, 1.1 mi above Mill Creek and 4.6 mi upstream from mouth.	11.8	1963-85	3- 5-79 3-21-80 2-11-81 2- 3-82 4-15-83 3-12-85	<sup>c</sup> 5.27 <sup>c</sup> 5.52 <sup>c</sup> 5.53 <sup>c</sup> 4.53 <sup>c</sup> 5.83 <sup>c</sup> 5.84	<sup>d</sup> 409 <sup>d</sup> 370 <sup>d</sup> 532 <sup>d</sup> 147 <sup>d</sup> 670 676
WEST BRANCH SUSQUEHANNA RIVER BASIN							
SINNEMAHOING CREEK BASIN							
BENNETT BRANCH SINNEMAHOING CREEK BASIN							
01542720	Wilson Run at Penfield, Pa.	Lat 41°12'58", long 78°35'00", Clearfield County, at wooden bridge, 200 ft north of State Highway 153, 0.8 mi northwest of Penfield, and 0.7 mi upstream from mouth.	8.3	1962-85	3-12-85	2.92	273

a Station discontinued April 4, 1985.

b Maximum gage height, 23.09 ft, Feb. 23, ice jam.

c Using auxiliary gage.

d Revised.

## Annual maximum discharge at crest-stage partial-record stations--Continued

Annual maximum discharge at cross-stage partial record stations continued							
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft <sup>3</sup> /s)
<u>SUSQUEHANNA RIVER BASIN--Continued</u>							
WEST BRANCH SUSQUEHANNA RIVER BASIN							
01543700	First Fork Sinnemahoning Creek at Wharton, Pa.	Lat 41°31'08", long 78°01'40", Potter County, 50 ft upstream from bridge on State Highway 872 and 0.8 mi southwest of Wharton.	182	1968-80* 1982* 1984-85	2-25-85	7.91	2,790
01545800	West Branch Susquehanna River at Lock Haven, Pa.	Lat 41°08'17", long 77°26'32", Clinton County, on right bank, 50 ft downstream from Jay St. Bridge and 2.3 mi upstream from Bald Eagle Creek.	3,345	1975-85	4- 1-85	13.36	35,300
01553050	White Deer Hole Creek near Elimsport, Pa.	Lat 41°07'08", long 77°04'02", Lycoming County, at bridge on L.R. 41001, 2.5 mi west of Elimsport and 12.5 mi upstream from mouth. Datum of gage is 650.84 ft NGVD of 1929.	18.2	1961-85	6- 1-85	C3.74	676
CONODOGUINET CREEK BASIN							
01569340	Newburg Run at Newburg, Pa.	Lat 40°07'40", long 77°32'50", Cumberland County, at concrete bridge on State Highway 696, 0.4 mi upstream from mouth, and 0.8 mi south of Newburg.	5.29	1964-85	2-12-85	C4.38	362
PAXTON CREEK BASIN							
01571000	Paxton Creek near Penbrook, Pa.	Lat 40°18'30", long 76°51'00", Dauphin County, on right bank, 90 ft upstream from bridge on North Progress Avenue and 2.0 mi north of Penbrook.	11.2	1940-50† 1974-84e	--	--	--
CONESTOGA RIVER BASIN							
COCALICO RIVER BASIN							
01576320	Stony Run at Reamstown, Pa.	Lat 40°12'44", long 76°07'30", Lancaster County, at single-span bridge, 0.1 mi southeast of U.S. Highway 222, 0.1 mi northwest of Reamstown, and 0.7 mi above mouth.	3.55	1964-85	9-27-85	5.11	573
CONOWINGO CREEK BASIN							
01578200	Conowingo Creek near Buck, Pa.	Lat 39°50'35", long 76°11'45", Lancaster County, at concrete bridge on L.R. 36135, 2 mi above Jackson Run, and 2.5 mi southeast of Buck.	8.71	1963-85	9-27-85	6.97	788
<u>POTOMAC RIVER BASIN</u>							
NORTH BR. POTOMAC RIVER BASIN							
WILLS CREEK BASIN							
01601000*	Wills Creek below Hyndman, Pa.	Lat 39°48'43", long 78°43'00", Bedford County, 150 ft above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mi downstream from Little Wills Creek, and 0.5 mi south of Hyndman.	146	1951-67‡ 1968-85	3-31-85	4.95	1,850

\* Also a low-flow partial-record station.

‡ Operated as a continuous-record station.

c Using auxiliary gage.

e Discontinued as a crest-stage partial-record station; established as a continuous-record station 10-1-84.



## Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1985						
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN						
STARRUCCA RIVER BASIN						
01502750	Starrucca Creek near Melrose, Pa.	Lat 41°55'50", long 75°30'15", Susquehanna County, at bridge at Melrose Church, and 0.2 mi upstream from mouth.	47.0	1946-57, 1983-84	9-17-85	22.9
SNAKE CREEK BASIN						
01502780	Snake Creek near Montrose, Pa.	Lat 41°55'00", long 75°50'45", Susquehanna County, at bridge at Franklin Forks, and 6 mi northeast of Montrose.	18.5	1959-69, 1983-84	9-17-85	2.2
CHEMUNG RIVER BASIN						
01516300	Tioga River at Covington, Pa.	Lat 41°44'42", long 77°04'49", Tioga County, at bridge on L.R. 58060, 0.1 mi west of Covington.	105	1970-79, 1982	9-26-85	15
01519500	Cowanesque River at Nelson, Pa.	Lat 41°58'25", long 77°14'35", Tioga County, on bridge on State Highway 49, 7 mi west of Lawrenceville.	266	1938-41, 1982	9-26-85	6.9
01530850	Bentley Creek at Ridgebury, Pa.	Lat 41°58'25", long 76°43'12", Bradford County, at bridge on L.R. 08068 at Ridgebury, and 300 ft downstream from Three Falls Glen.	47.2	1970-80, 1982	9-26-85	1.7
SUGAR CREEK BASIN						
01531300	Sugar Creek near West Burlington, Pa.	Lat 41°45'45", long 76°41'55", Bradford County, at bridge on dirt road, 1.3 mi west of West Burlington.	88.3	1944-57, 1982	9-26-85	1.4
TOWANDA CREEK BASIN						
01531900	Towanda Creek at Canton, Pa.	Lat 41°39'20", long 76°49'50", Bradford County, above mouth of Mill Creek, 1 mi east of Canton on State Highway 414.	22.6	1982	9-26-85	1.7
WYSOX CREEK BASIN						
01532600	Wysox Creek near Wysox, Pa.	Lat 41°47'10", long 76°23'00", Bradford County, at bridge on L.R. 08027 near Wysox, and 0.8 mi upstream from mouth.	98.8	1982	9-26-85	3.3
WYALUSING CREEK BASIN						
01532800	East Branch Wyalusing Creek at Lawton, Pa.	Lat 41°47'15", long 76°04'15", Susquehanna County, at bridge on U.S. Highway 706 at Lawton.	68.9	1958-66, 1983-84	9-17-85	6.3
01532850	Middle Branch Wyalusing Creek tributary near Birchardville, Pa.	Lat 41°51'45", long 76°00'26", Susquehanna County, on left bank 60 ft upstream from bridge on State Highway 267, 1,000 ft upstream from mouth, and 1.2 mi north of Birchardville.	5.67	1965-79†, 1983-84	9-17-85	.09
SUGAR RUN CREEK BASIN						
01533100	Sugar Run Creek at Sugar Run, Pa.	Lat 41°38'31", long 76°13'55", Bradford County, at bridge on rural road, 0.3 mi east of Sugar Run, and 0.4 mi upstream from mouth.	56.6	1970-79, 1982	9-26-85	0.66
MESHOPPEN CREEK BASIN						
01533300	Meshoppen Creek near Springville, Pa.	Lat 41°41'50", long 75°53'10", Susquehanna County, at bridge over Meshoppen Creek, on State Highway 29, 1.8 mi east of Springville.	26.7	1946-69, 1983-84	9-17-85	2.6

† Operated as a continuous-record gaging station.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1985						
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN--Continued						
MEHOOPANY CREEK BASIN						
01533500	North Branch Mehoopany Creek near Lovelton, Pa.	Lat 41°31'50", long 76°09'20", Wyoming County, 0.5 mi upstream from bridge on State Highway 87, 1.7 mi downstream from Lovelton, and 2.1 mi upstream from mouth.	35.2	1940-58, 1982	9-26-85	1.7
TUNKHANNOCK CREEK BASIN						
01533800	Butler Creek at Gibson, Pa.	Lat 41°48'10", long 75°38'40", Susquehanna County, at bridge on State Highway 547, at Gibson.	7.38	1973-79†, 1983-84	9-18-85	1.0
01533840	Tunkhannock Creek at Glenwood, Pa.	Lat 41°39'03", long 75°43'15", Susquehanna County, at bridge on State Highway 374 at Glenwood, and 0.4 mi upstream from East Branch Tunkhannock Creek.	107	1970-79, 1983-84	9-18-85	20
01533950	South Branch Tunkhannock Creek near Montdale, Pa.	Lat 41°34'29", long 75°38'32", Lackawanna County, on right bank 70 ft upstream from highway bridge, 16 mi upstream from mouth, and 3.5 mi northwest of Montdale.	12.6	1960-78†, 1983-84	9-17-85	1.6
BOWMAN CREEK BASIN						
01534050	Bowman Creek near Noxen, Pa.	Lat 41°24'55", long 76°05'30", Wyoming County, at highway bridge at Stull, and 2.1 mi west of railroad station at Noxen.	35.9	1946-57, 1983-84	9-18-85	20
LACKAWANNA RIVER BASIN						
01534170	East Branch Lackawanna River at Uniondale, Pa.	Lat 41°43'08", long 75°28'49", Susquehanna County, at bridge on L.R. 57041, 0.3 mi east of intersection of State Highway 171 and L.R. 57041, and 0.7 mi east of Union Dale.	17.3	1951, 1970-79, 1983-84	9-17-85	4.9
01535540	Spring Brook near Spring Brook, Pa.	Lat 41°17'07", long 75°35'33", Lackawanna County, at bridge on private road, 1.5 mi south of Spring Brook, and 1.8 mi upstream from Watres Reservoir dam.	8.98	1970-79, 1983-84	9-19-85	3.0
WAPWALLOPEN CREEK BASIN						
01537900	Little Wapwallopen Creek near Wapwallopen, Pa.	Lat 41°05'43", long 76°07'18", Luzerne County, at bridge on State Highway 239, 1 mi downstream from Pond Creek, and 2 mi north of Wapwallopen.	39.4	1970-74, 1976-79, 1982-84	9-20-85	2.7
NESCOPECK CREEK BASIN						
01538500	Nescopeck Creek near St. Johns, Pa.	Lat 41°01'15", long 76°00'40", Luzerne County, at highway bridge, 0.5 mi southwest of St. Johns	49.0	1920-26†, 1983-84	9-20-85	8.7
01538600	Nescopeck Creek at Nescopeck, Pa.	Lat 41°02'16", long 76°13'28", Luzerne County, at railroad bridge in Nescopeck.	171	1949-50, 1983-84	9-20-85	56
FISHING CREEK BASIN						
01538900	Huntington Creek near Harveyville, Pa.	Lat 41°14'25", long 76°14'10", Luzerne County, at bridge on L.R. 40067, and 2 mi north of Harveyville.	29.9	1946-47, 1982-84	9-19-85	26.7
01538970	Fishing Creek at Forks, Pa.	Lat 41°06'27", long 76°21'44", Columbia County, at bridge on L.R. 19068, at Forks, 0.2 mi upstream from Huntingdon Creek.	114	1970-79, 1982-84	9-19-85	81
01539500	Little Fishing Creek at Evers Grove, Pa.	Lat 41°04'50", long 76°30'40", Columbia County at bridge on State Highway 42, 0.2 mi southeast of Evers Grove, 3 mi southeast of Millville, and 5.1 mi upstream from mouth.	56.5	1942-58†, 1983-84	9-19-85	25
01540000	Fishing Creek at Bloomsburg, Pa.	Lat 41°00'10", long 76°27'50", Columbia County, at Red Rock Bridge, Railroad Street, Bloomsburg, and 2 mi upstream from mouth.	355	1915-28†, 1983, 1984	10-12-84, 9-20-85	48, 151

† Operated as a continuous-record gaging station.

## Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued					Measurements	
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN--Continued						
CATAWISSA CREEK BASIN						
01540200	Trexler Run near Ringtown, Pa.	Lat 40°51'10", long 76°16'48", Schuylkill County, at bridge on L.R. 53064, and 2.5 mi west of Ringtown.	1.77	1958-81†, 1982-84	9-25-85	.25
01540300	Tomhicken Creek near Zion Grove, Pa.	Lat 40°54'45", long 76°11'47", Schuylkill County, at bridge, 1 mi northeast of Zion Grove, and 1.4 mi upstream from mouth.	20.4	1959-69, 1982-83	9-26-85	5.2
01540350	Catawissa Creek at Catawissa, Pa.	Lat 40°57'00", long 76°27'56", Columbia County, at bridge on Second Street in Catawissa, and 0.2 mi upstream from mouth.	149	1949-50, 1970-79, 1982-84	9-25-85	46
ROARING CREEK BASIN						
01540410	Roaring Creek near Catawissa, Pa.	Lat 40°54'15", long 76°28'02", Columbia County, at bridge on county road at Parrs Mill, and 3.5 mi south of Catawissa.	--	1982-84	9-25-85	8.0
WEST BRANCH SUSQUEHANNA RIVER BASIN						
01540820	Chest Creek near Mahaffey, Pa.	Lat 40°52'06", long 78°43'15", Clearfield County, 0.25 mi southeast of Mahaffey.	130	1945, 1982	9-26-85	16
01541250	Anderson Creek at Curwensville, Pa.	Lat 45°58'20", long 78°31'20", Clearfield County, at bridge on State Highway 453, at Curwensville, 800 ft upstream from mouth.	77.8	1945-74, 1982	9-26-85	11
01541325	Clearfield Creek at Flinton, Pa.	Lat 40°43'05", long 78°31'38", Cambria County, at bridge on L.R. 11063, 0.2 mi upstream from Beaverdam Run, and 0.5 mi northwest of Flinton.	98.1	1970-79, 1983-84	9-21-85	13
01542310	Moshannon Creek near Moshannon, Pa.	Lat 41°02'12", long 78°03'28", Center County, at bridge on State Highway 53, 3.0 mi west of Moshannon, and 5 mi upstream from mouth.	263	1945, 1949, 1975-82	9-26-85	76
01542330	Black Moshannon Creek near Philipsburg, Pa.	Lat 40°52'43", long 78°04'36", Centre County, at bridge on Shirk Road, 0.5 mi southeast of Black Moshannon State Airport, and 6 mi east of Philipsburg.	2.33	1970-82	9-26-85	0.06
01542760	Trout Run at Benezette, Pa.	Lat 41°18'50", long 78°23'05", Elk County at bridge on State Highway 555, at Benezette.	55.2	1944-57, 1982	9-26-85	5.1
01542880	Driftwood Branch Sinnemahoning Creek at Emporium, Pa.	Lat 41°30'29", long 78°14'15", Cameron County, at Emporium.	86.3	1945, 1982	9-26-85	31
01542950	Sinnemahoning Portage Creek near Emporium, Pa.	Lat 41°32'36", long 78°12'43", Cameron County, at bridge on State Highway 155, 2.6 mi north of intersection with State Highway 120, and 2.8 mi upstream from mouth.	59.8	1945, 1976-80, 1982	9-26-85	11
01545610	Left Branch Young Womans Creek near Renovo, Pa.	Lat 41°22'19", long 77°42'01", Clinton County, at bridge on L.R. 18022, 400 ft upstream from mouth, and 4 mi north-east of Renovo.	35.9	1970-79, 1982	9-26-85	4.5
01545680	Tangascotack Creek near Lock Haven, Pa.	Lat 41°10'32", long 77°32'53", Clinton County, at bridge on State Highway 120, 600 ft upstream from mouth, and 7 mi northwest of Lock Haven.	36.5	1970-82	9-26-85	4.0
01547800	South Fork Beech Creek near Snow Shoe, Pa.	Lat 41°01'30", long 77°54'15", Center County, at bridge on State Highway 144, 2.5 mi east of Snow Shoe, and 4.2 mi upstream from mouth.	12.2	1959-69, 1970-81†, 1982	9-26-85	1.6
01548080	Fishing Creek at Mill Hall, Pa.	Lat 41°06'35", long 77°29'10", Clinton County, on Peale Street bridge at Mill Hall, and 0.9 mi upstream from mouth.	179	1962-69, 1982	9-26-85	63

† Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued					Measurements	
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN--Continued						
WEST BRANCH SUSQUEHANNA RIVER BASIN						
01548300	Marsh Creek near Marsh Creek, Pa.	Lat 41°46'25", long 77°21'15", Tioga County, at mouth of Heise Run, and 2 mi east of Marsh Creek.	39.7	1944-57, 1982	9-26-85	4.4
01548400	Babb Creek at Morris, Pa.	Lat 41°35'50", long 77°17'23", Tioga County, just upstream from Long Run at Morris, and 1,000 ft upstream from bridge on State Highway 287.	42.0	1958-69, 1982	9-26-85	4.3
01549550	Little Pine Creek near English Center, Pa.	Lat 41°24'46", long 77°19'19", Lycoming County, at bridge on L.R. 41021, and 2.4 mi southwest of English Center.	135	1970-79, 1982	9-26-85	28
01549790	Larrys Creek at Larrys Creek, Pa.	Lat 41°13'10", long 77°13'12", Lycoming County, at bridge on U.S. Highway 220, at Larrys Creek, and 0.2 mi upstream from mouth.	89.0	1970-79, 1982	9-26-85	6.5
01550500	Lycoming Creek near Williamsport, Pa.	Lat 41°16'10", long 77°03'05", Lycoming County, at bridge on U.S. Highway 15, 1 mi downstream from Beautys Run, 3 mi northwest of Williamsport, and 3.5 mi upstream from mouth.	268	1908-13†, 1982	9-26-85	48
01551830	Loyalsock Creek near Forksville, Pa.	Lat 41°28'10", long 76°35'05", Sullivan County, at bridge on State Highway 154, at Worlds End, and 1.8 mi southeast of Forksville.	131	1970-80, 1982	9-26-85	47
01553010	Muncy Creek near Muncy, Pa.	Lat 41°13'15", long 76°47'10", Lycoming County, near Muncy, at mouth.	216	1945, 1955, 1982	9-26-85	54
01553110	White Deer Hole Creek at Allenwood, Pa.	Lat 41°06'14", long 76°53'54", Union County, at bridge on county road, 0.4 mi south of Allenwood, and 0.9 mi upstream from mouth.	66.4	1970-79, 1982	9-26-85	12
01553130	Sand Spring Run near White Deer, Pa.	Lat 41°03'31", long 77°04'37", Union County, at bridge on White Deer Creek Road, 500 ft upstream from mouth, and 11.3 mi west of White Deer.	4.93	1968-81†, 1982	9-26-85	.94
01553480	Buffalo Creek at Lewisburg, Pa.	Lat 40°58'19", long 76°53'30", Union County, at bridge on U.S. Highway 15, at Lewisburg, and 0.6 mi upstream from mouth.	134	1970-79, 1982	9-26-85	41
SUSQUEHANNA RIVER BASIN						
01554800	Pine Creek at Woodward, Pa.	Lat 40°54'00", long 77°21'25", Center County, at bridge on State Highway 45, at Woodward.	19.8	1945-57, 1982-84	9-19-85	3.5
01555200	Middle Creek near Beavertown, Pa.	Lat 40°46'40", long 77°07'55", Snyder County, at bridge on U.S. Highway 522, and 3.4 mi east of Beavertown.	110	1958-69, 1982-84	9-19-85	13
MAHANoy CREEK BASIN						
01555250	Mahanoy Creek at Dornsife, Pa.	Lat 40°44'40", long 76°47'28", Northumberland County, at bridge on State Highway 225 at Dornsife.	117	1949-50, 1970-74, 1983	10-18-84, 9-25-85	77, 63
WICONISCO CREEK BASIN						
01555570	Wiconisco Creek near Elizabethville, Pa.	Lat 40°33'40", long 76°48'30", Dauphin County, at bridge on State Highway 225, and 1 mi north of Elizabethville.	79.2	1949-50, 1970-79, 1982-83	10-05-84, 9-17-85	28, 17
JUNIATA RIVER BASIN						
01555780	Frankstown Branch Juniata River at East Freedom, Pa.	Lat 40°21'23", long 78°25'41", Blair County, at bridge on State Highway 164, 400 ft upstream from South Dry Run, and 0.2 mi east of East Freedom.	47.4	1970-80, 1983-84	9-21-85	3.1
01558100	Spruce Creek at Spruce Creek, Pa.	Lat 40°36'55", long 78°07'55", Huntingdon County, at bridge on private road, and 0.5 mi north of Spruce Creek.	108	1947-54, 1983-84	9-21-85	36

† Operated as a continuous-record gaging station.

## Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Discharge measurements made at low-flow partial-record stations during water year 1983--Continued					Measurements	
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN--Continued						
JUNIATA RIVER BASIN						
01558500	Shaver Creek near Petersburg, Pa.	Lat 40°36'40", long 78°00'25", Huntingdon County, at highway bridge, 3.5 mi northeast of Petersburg, and 4.5 mi upstream from mouth.	46.4	1930-37†, 1982-84	9-21-85	2.8
01559500	Standing Stone Creek near Huntingdon, Pa.	Lat 40°31'25", long 77°58'15", Huntingdon County, 3.2 mi northeast of Huntingdon, and 3.5 mi upstream from mouth.	128	1929-58†, 1983-84	9-21-85	16
01559700	Buffalo Run tributary near Manns Choice, Pa.	Lat 39°58'40", long 78°37'05", Bedford County, at bridge on State Highway 96, 2,000 ft upstream from mouth, and 2.3 mi south of Manns Choice.	5.28	1962-78†, 1983	9-18-85	.12
01559750	Raystown Branch Juniata River near Manns Choice, Pa.	Lat 40°01'02", long 78°37'07", Bedford County, at bridge on State Highway 31, 0.3 mi upstream from Shawnee Branch, and 2 mi northwest of Manns Choice.	50.8	1952-53, 1970-79, 1983	9-18-85	.77
01559756	Shawnee Branch at Schellsburg, Pa.	Lat 40°02'17", long 78°39'16", Bedford County, at bridge on rural road, 0.3 mi upstream from mouth, and 0.9 mi southwest of Schellsburg.	18.6	1968-79, 1983	9-19-85	2.2
01561000	Brush Creek at Gapsville, Pa.	Lat 39°57'20", long 78°15'15", Bedford County, at covered bridge 0.8 mi northwest of Gapsville, 1.5 mi downstream from Little Brush Creek, and 5.5 mi upstream from Shaffer Creek.	36.8	1928-58†, 1983	9-18-85	1.3
01564550	Blacklog Creek near Orbisonia, Pa.	Lat 40°13'55", long 77°52'25", Huntingdon County, at bridge on State Highway 522, 0.5 mi downstream from Shade Creek, and 1.4 mi southeast of Orbisonia.	65.0	1970-79, 1983	9-19-85	2.8
01565700	Little Lost Creek near Oakland Mills, Pa.	Lat 40°36'19", long 77°18'42", Juniata County, on right bank at bridge on L.R. 34007, 1.0 mi upstream from mouth, and 0.8 mi south of Oakland Mills.	6.52	1964-81†, 1983-84	9-18-85	.85
01566000	Tuscarora Creek near Port Royal, Pa.	Lat 40°30'55", long 77°25'10", Juniata County, 100 ft upstream from highway bridge, 2 mi southwest of Port Royal, and 3.5 mi upstream from mouth.	214	1911-58†, 1982-84	9-18-85	13
01566900	Buffalo Creek near Newport, Pa.	Lat 40°29'37", long 77°08'20", Perry County, at bridge on L.R. 50013, 0.4 mi upstream from mouth, and 1.2 mi north of Newport.	69.5	1948, 1970-79, 1983-84	9-17-85	3.8
STONY CREEK BASIN						
01568700	Stony Creek above pump-storage reservoir site, near Dauphin, Pa.	Lat 40°27'30", long 76°39'53", Lebanon County, at State Game Land Feed Lot No. 4, 3.1 mi upstream from Rattling Run, and 16 mi upstream from State Highway 225 at Dauphin.	11.5	1974-80†, 1983	10-19-84 9-23-85	5.6 3.9
CONODOGUINET CREEK BASIN						
01569300	Conodoguinet Creek at Orrstown, Pa.	Lat 40°03'40", long 77°37'00", Franklin County, at bridge on State Highway 433, and 0.3 mi northwest of Orrstown.	53.4	1943-57, 1983-84	9-18-85	3.1
YELLOW BREECHES CREEK BASIN						
01571110	Yellow Breeches Creek near Walnut Bottom, Pa.	Lat 40°05'47", long 77°23'34", Cumberland County, at bridge on State Highway 174, and 0.7 mi northeast of Walnut Bottom.	16.4	1970-80, 1983-84	9-17-85	no flow
01571185	Mountain Creek at Pine Grove Furnace, Pa.	Lat 40°01'51", long 77°18'18", Cumberland County, at bridge on county road, 0.2 mi south of Pine Grove Furnace, and 0.5 mi upstream from Toms Run.	13.9	1970-80, 1983-84	9-17-85	2.9
01571190	Mountain Creek near Mount Holly Springs, Pa.	Lat 40°05'36", long 77°11'14", Cumberland County, 0.6 mi upstream from reservoir dam, and 2 mi south of Mount Holly Springs.	37.4	1970-79, 1982-84	9-17-85	3.8

† Operated as a continuous-record gaging station.



## Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued						Measurements
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN--Continued						
YELLOW BREECHES CREEK BASIN						
01571200	Yellow Breeches Creek at Craighead, Pa.	Lat 40°08'45", long 77°10'15", Cumberland County, at railroad bridge, at Craighead.	110	1959-62, 1982-84	9-20-85	51
01571300	Dogwood Run near Dillsburg, Pa.	Lat 40°08'50", long 77°01'50", York County, at Williams Grove, just upstream from mouth, and 2.5 mi north of Dillsburg.	8.78	1958-69, 1983-84	9-17-85	3.4
SWATARA CREEK BASIN						
01571824*	Swatara Creek at Ravine, Pa.	Lat 40°34'30", long 76°24'10", Schuylkill County, at bridge on Spittler Road, and 0.1 mi east of Ravine.	44.6	1975-80, 1982-84	9-17-85	16
01572000	Lower Little Swatara Creek at Pine Grove, Pa.	Lat 40°32'15", long 76°22'40", Schuylkill County, at bridge on State Highway 501, 0.5 mi upstream from mouth, and 0.75 mi southeast of Pine Grove.	34.3	1919-32†, 1981-84†	9-17-85	3.0
01573086	Beck Creek near Cleona, Pa.	Lat 40°19'24", long 76°29'00", Lebanon County, on right bank at bridge on Township Road T421, 0.4 mi upstream from mouth, and 1.0 mi south of Cleona.	7.87	1963-81†, 1983-84	9-20-85	2.2
CODORUS CREEK BASIN						
01574800	East Branch Codorus Creek tributary near Winterstown, Pa.	Lat 39°48'57", long 76°37'59", York County, on right bank 20 ft downstream from highway bridge, 1.5 mi upstream from mouth, and 1.7 mi southwest of Winterstown.	5.17	1960-68, 1969-74†, 1983-84	9-19-85	1.3
CONESTOGA RIVER BASIN						
01576200	Little Muddy Creek near Reamstown, Pa.	Lat 40°11'05", long 76°04'40", Lancaster County, at bridge on light-duty road, 0.2 mi east of Red Run, 0.8 mi upstream from mouth, and 3 mi southeast of Reamstown.	15.7	1959-69, 1983	10-10-84, 9-18-85	4.7, 2.2
01576340	Cocalico Creek near Akron, Pa.	Lat 40°09'53", long 76°13'56", Lancaster County, 200 ft above junction with Middle Creek.	---	1964, 1983	10-04-84, 9-18-85	22, 18
01576750	Little Conestoga Creek near Rockhill, Pa.	Lat 39°57'20", long 76°22'16", Lancaster County, 3.0 mi south of Millersville, 0.2 mi downstream from bridge on Rockhill Road, and 0.5 mi southwest of Rockhill.	65.5	1948, 1983-84	9-19-85	16
PEQUEA CREEK BASIN						
01576766	Pequea Creek at Paradise, Pa.	Lat 40°00'39", long 76°08'07", Lancaster County, at concrete bridge on U.S. Route 30, at west end of Paradise.	---	1964, 65, 1983	10-04-84, 9-18-85	52, 29
MUDDY CREEK BASIN						
01577500	Muddy Creek at Castle Fin, Pa.	Lat 39°46'21", long 76°18'58", York County, on right bank 200 ft upstream from highway bridge on L.R. 66062, 0.8 mi northeast of Castle Fin, and 3.4 mi upstream from mouth.	133	1928-39†, 1969-71†, 1983-84	9-19-85	39
OCTORARO CREEK BASIN						
01578360	East Branch Octoraro Creek near Mt. Vernon, Pa.	Lat 39°49'50", long 76°01'05", Lancaster County, at county bridge, 0.2 mi downstream from Muddy Run, 1 mi upstream from Octoraro Lake, and 1.5 mi north of Mt. Vernon.	76.6	1970-78, 1983-84	9-19-85	22
01578400	Bowery Run near Quarryville, Pa.	Lat 39°53'41", long 76°06'50", Lancaster County, on left bank at single-span bridge, 1.1 mi upstream from mouth, and 2.5 mi east of Quarryville.	5.98	1962-81†, 1983-84	9-19-85	2.1
01578440	West Branch Octoraro Creek at White Rock, Pa.	Lat 39°49'29", long 76°05'25", Lancaster County, at county bridge at White Rock, 1 mi upstream from Octoraro Lake, and 1.2 mi downstream from Kings Run.	39.6	1970-78, 1983-84	9-19-85	8.4

† Operated as a continuous-record gaging station.

\* Also a crest-stage partial-record station.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Discharge measurements made at low-flow partial-record stations during water year 1983--Continued					Measurements	
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Discharge (ft <sup>3</sup> /s)
<u>POTOMAC RIVER BASIN</u>						
WILLS CREEK BASIN						
01600700	Little Wills Creek at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96, at Bard.	10.2	1961-81, 1983	9-18-85	no flow
01601000*	Wills Creek below Hyndman, Pa.	Lat 39°48'43", long 78°43'00", Bedford County, 150 ft above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mi downstream from Little Wills Creek, and 0.5 mi south of Hyndman.	146	1952-67†, 1983	9-18-85	3.4
SIDELING HILL CREEK BASIN						
01610130	West Branch Side-ling Hill Creek at Purcell, Pa.	Lat 39°47'11", long 78°21'53", Bedford County, at bridge on L.R. 05009, 0.2 mi south of Purcell, and 0.4 mi upstream from mouth.	21.3	1970-79, 1983	9-18-85	no flow
TONOLOWAY CREEK BASIN						
01613080	Little Tonoloway Creek at Warfordsburg, Pa.	Lat 39°45'30", long 78°11'19", Fulton County, at bridge on U.S. Highway 522, 0.2 mi upstream from Cove Run, and 0.5 mi north of Warfordsburg.	44.8	1970-79, 1983	9-17-85	.08
LICKING CREEK BASIN						
01613500	Licking Creek near Sylvan, Pa.	Lat 39°43'20", long 78°03'35", Franklin County, 200 ft upstream from Pennsylvania-Maryland state line, 10 mi upstream from mouth, and 3 mi southwest of Sylvan.	158	1930-42, 1983	10-10-84 9-17-85	18.1 8.2
CONOCOCHEAQUE CREEK BASIN						
01614090	Conococheaque Creek near Fayetteville, Pa.	Lat 39°55'48", long 77°26'23", Adams County on right bank 20 ft downstream from bridge on State Highway 233, 1.3 mi upstream from Chambersburg Reservoir Dam, 12 mi east of Chambersburg, and 4 mi northeast of Fayetteville.	5.05	1960-81†, 1983-84	9-18-85	.81
01614100	Birch Run near Fayetteville, Pa.	Lat 39°55'46", long 77°26'28", Adams County, at bridge on State Highway 233, 0.3 mi upstream from mouth, 2.7 mi northeast of intersection with U.S. Highway 30, and 6 mi east of Fayetteville.	8.13	1959-62, 1983-84	9-18-85	2.6
01614140	Back Creek near Chambersburg, Pa.	Lat 39°53'36", long 77°44'30", Franklin County, at bridge on L.R. 28052, 1.2 mi west of Turkey Foot, and 5 mi southwest of Chambersburg.	63.0	1968-75, 1976-78†, 1983	10-10-84 9-17-85	7.0 3.3
MONOCACY RIVER BASIN						
01638800	Marsh Creek near Gettysburg, Pa.	Lat 39°49'05", long 77°17'05", Adams County, at bridge on State Highway 116, and 2.2 mi west of Gettysburg.	49.6	1943-57, 1983-84	9-18-85	4.4

† Operated as a continuous-record gaging station.

\* Also a crest-stage partial-record station.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Special study and miscellaneous sites

Discharge measurements made at special study and miscellaneous sites during water year 1985

Discharge measurements made at special study and miscellaneous sites during water year 1985					Measurements	
Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Date	Discharge (ft <sup>3</sup> /s)
SUSQUEHANNA RIVER BASIN						
WEST BRANCH SUSQUEHANNA RIVER BASIN						
01542790 <sup>a</sup> Bennett Branch	Sinnemahoning Creek	Lat 41°20'02", long 78°08'10", Cameron County, at county bridge at Driftwood, 1,000 ft upstream from mouth.	367	1975-84	3-27-85 8-19-85	1410 52
PINE CREEK BASIN						
01548304 Straight Run	Marsh Creek	Lat 41°46'58", long 77°24'04", Tioga County, at Marsh Creek, 0.65 mi upstream from mouth.	6.86	1984	10- 5-84 12-18-84 2-27-85 4-24-85 7-23-85 9- 4-85 9-11-85 9-12-85 9-16-85	1.1 23 32 5.0 1.2 1.2 1.8 1.2 .90
01548306 Straight Run	Marsh Creek	Lat 41°46'48", long 77°23'58", Tioga County, at Marsh Creek, 0.5 mi upstream from mouth.	7.09	1984	10- 5-84 12-18-84 2-27-85 3-27-85 4-24-85 7-23-85 9- 4-85 9-11-85 9-12-85 9-16-85 9-16-85	.52 21 34 18 4.6 .79 .76 1.4 .84 .63 2.2
01543064 Straight Run	Marsh Creek	Lat 41°46'41", long 77°23'49", Tioga County, at Marsh Creek, 1800 ft upstream from mouth.	7.19	1984	10- 5-84 12-18-84 2-27-85 3-27-85 4-24-85 5-30-85 7-23-85 8-19-85 9- 4-85 9-11-85 9-12-85	0 18 31 15 3.3 0 0 0 0 0 .86
015483067 Straight Run	Marsh Creek	Lat 41°46'34", long 77°23'44", Tioga County, at railroad bridge at Marsh Creek, 670 ft upstream from mouth.	7.54	1984	10- 5-84 12-18-84 2-27-85 3-27-85 4-24-85 5-30-85 6-13-85 7-23-85 8-19-85 9- 4-85 9-16-85	0 16 25 13 1.0 0 .07 0 0 0 0
01548312 Asaph Run	Marsh Creek	Lat 41°46'31", long 77°24'29", Tioga County, at Asaph, 0.5 mi upstream from mouth.	16.4	1984	10- 5-84 12-18-84 2-27-85 3-27-85 4-24-85 5-30-85 7-23-85 9-11-85 9-12-85	1.7 44 79 42 11 4.6 1.5 5.3 3.2
01548314 Asaph Run	Marsh Creek	Lat 41°46'26", long 77°24'24", Tioga County, at Asaph, 1700 ft upstream from mouth.	16.6	1984	10- 5-84 12-18-84 2-27-85 3-27-85 4-24-85 5-30-85 7-23-85 8-19-85 9- 5-85 9-11-85 9-12-85	.44 39 75 36 9.4 4.2 .57 0 .73 4.0 1.9

<sup>a</sup> Reported since 1979 as Driftwood Branch, tributary to Bennett Branch Sinnemahoning Creek.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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## Special study and miscellaneous sites

## Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued						
Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
<u>SUSQUEHANNA RIVER BASIN--Continued</u>						
WEST BRANCH SUSQUEHANNA RIVER BASIN						
PINE CREEK BASIN						
01548416 Asaph Run	Marsh Creek	Lat 41°46'18", long 77°24'16", Tioga County, at railroad bridge at Asaph, 600 ft upstream from mouth.	16.7	1984	10- 5-84	0
					12-18-84	38
					2-27-85	68
					3-27-85	37
					4-24-85	8.7
					5-30-85	2.1
					7-23-85	0
					8-19-85	0
					9- 5-85	0
					9-11-85	1.8
SUSQUEHANNA RIVER BASIN					9-12-85	.59
SWATARA CREEK BASIN						
01571824*	Susquehanna River	Lat 40°34'30", long 76°24'10", Schuyl- kill County, at bridge on Spittler Road, and 0.1 mi east of Ravine.	44.6	1974-84	10- 5-84	24
					10-16-84	15
01572200 <sup>b</sup>	Susquehanna River	Lat 40°28'38", long 76°31'26", Lebanon County, at bridge on county road, at Inwood (formerly published as at Swatara Gap), and 2 mi north of Lickdale.	169	1962-63	10-19-84	38
				1966-71	2-20-85	238
				1983-84	6- 5-85	138

\* Also low-flow partial-record station.

<sup>b</sup> Water-quality data included in this report.

## ANALYSES OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	
OCTORARO CREEK BASIN											
01578340 EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)											
OCT 1984 26...	1100	7.5	275	7.90	14.0	3.4	8.8	100	49	24	
01578343 VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)											
OCT 1984 26...	1400	6.9	275	7.70	15.5	1.3	10.0	110	43	28	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)
01578340 EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)											
OCT 1984 26...	10	9.5	16	0.4	4.7	52	1.3	30	16	14	
01578343 VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)											
OCT 1984 26...	9.0	8.1	14	0.4	3.6	64	2.5	24	15	11	
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
01578340 EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)											
26...	172	140	0.23	3.5	6.03	0.07	0.23	6.10	0.25	0.32	
01578343 VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)											
OCT 1984 26...	167	140	0.23	3.1	5.36	0.04	0.13	5.40	0.12	0.15	

## ANALYSIS OF SURFACE-WATER SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCTORARO CREEK BASIN--Continued									
01578340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)								
OCT 1984 26...	0.15	0.4	0.18	0.14	0.16	0.49	10	<1	<1
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)								
OCT 1984 26...	0.28	0.4	0.09	0.11	0.09	0.28	10	<1	1
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
78340	EAST BRANCH OCTORARO CREEK AT CHRISTIANA, PA. (LAT 39 56 57N LONG 075 59 38W)								
OCT 1984 26...	3	58	1	<4	66	<0.1	1	<1	7
01578343	VALLEY CREEK NEAR ATGLEN, PA. (LAT 39 56 23N LONG 075 59 06W)								
OCT 1984 26...	1	37	1	--	25	<0.1	<1	<1	6

## CONTINUOUS GROUND-WATER STATION RECORDS

## ADAMS COUNTY

395846077040601. Local number, AD 146.

LOCATION.--Lat 39°58'46", long 77°04'06", Hydrologic Unit 02050306, at State Game Land Number 249.

Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of Gettysburg shale of Late Triassic age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 100 ft, cased to 17 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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 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 13.77 ft below land-surface datum, Sept. 11, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.87	12.48	11.62	11.78	12.42	11.62	11.18	12.49	12.01	12.71	11.95	12.83
2	12.69	12.52	11.68	11.77	12.32	11.75	11.37	12.38	12.12	12.66	12.08	12.84
3	12.73	12.53	11.62	11.57	12.39	11.80	11.41	11.30	12.22	12.63	12.19	12.88
4	12.81	12.49	11.69	11.58	12.37	11.77	11.54	11.41	12.34	12.69	12.25	12.89
5	12.83	12.15	11.69	11.73	12.31	11.91	11.48	11.59	12.27	12.76	12.30	13.00
6	12.87	12.18	11.36	11.74	12.32	11.94	11.61	11.68	12.34	12.79	12.29	13.04
7	12.85	12.25	11.55	11.76	12.35	11.92	11.75	11.81	12.39	12.64	12.31	13.06
8	12.79	12.30	11.68	11.92	12.35	11.83	11.80	11.93	12.36	12.66	12.11	13.06
9	12.79	12.29	11.69	12.01	12.36	11.89	11.82	11.99	12.10	12.74	12.22	13.06
10	12.81	12.27	11.64	12.00	12.40	11.95	11.82	12.05	12.29	12.79	12.28	12.98
11	12.79	12.21	11.69	12.00	12.36	11.93	11.72	12.15	12.33	12.88	12.35	13.02
12	12.79	12.24	11.76	12.02	12.22	11.73	11.80	12.22	12.44	12.88	12.43	13.10
13	12.77	12.31	11.83	12.03	11.15	11.84	11.82	12.28	12.54	12.75	12.45	13.14
14	12.80	12.34	11.82	12.02	11.34	11.88	11.87	12.38	12.59	12.77	12.47	13.17
15	12.83	12.33	11.76	12.17	11.46	11.99	11.87	12.39	12.61	12.77	12.54	13.19
16	12.80	12.34	11.76	12.24	11.56	11.98	11.87	12.30	12.50	12.49	12.56	13.23
17	12.74	12.40	11.76	12.18	11.59	12.04	12.00	12.01	12.45	12.61	12.59	13.28
18	12.74	12.39	11.85	12.16	11.58	12.15	12.02	11.39	12.53	12.68	12.58	13.30
19	12.73	12.29	11.76	12.20	11.50	12.13	12.02	11.62	12.62	12.75	12.60	13.28
20	12.71	12.34	11.74	---	11.52	12.14	12.10	11.77	12.72	12.79	12.64	13.29
21	12.73	12.37	11.68	---	11.54	12.20	12.16	11.88	12.72	12.84	12.69	13.32
22	12.73	12.36	11.46	---	11.49	12.18	12.20	11.60	12.74	12.88	12.74	13.32
23	12.70	12.38	11.58	---	11.30	12.02	12.23	11.62	12.76	12.95	12.74	13.32
24	12.63	12.41	11.57	---	11.29	11.33	12.28	11.50	12.74	12.92	12.74	13.31
25	12.63	12.43	11.74	12.31	11.39	11.41	12.29	11.69	12.41	12.78	12.53	13.31
26	12.64	12.45	11.74	12.41	11.38	11.52	12.26	11.88	12.51	12.41	12.54	13.24
27	12.65	12.45	11.71	12.41	11.36	11.50	12.34	12.02	12.60	11.14	---	13.03
28	12.59	12.39	11.67	12.42	11.58	11.57	12.37	12.05	12.60	11.45	12.64	12.25
29	12.39	11.21	11.74	12.48	---	11.56	12.43	12.07	12.64	11.63	12.69	12.30
30	12.40	11.43	11.84	12.51	---	11.26	12.44	12.13	12.71	11.80	12.72	12.34
31	12.45	---	11.81	12.47	---	11.22	---	11.97	---	11.86	12.82	---
MEAN	12.72	12.28	11.69	12.07	11.83	11.81	11.93	11.92	12.47	12.55	12.47	13.05
MAX	12.87	12.53	11.85	12.51	12.42	12.20	12.44	12.49	12.76	12.95	12.82	13.32
MIN	12.39	11.21	11.36	11.57	11.15	11.22	11.18	11.30	12.01	11.14	11.95	12.25

WTR YR 1985 HIGHEST 11.14 JULY 27, LOWEST 13.32 SEPTEMBER 21-23.

## BEDFORD COUNTY

281

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.--Shaley limestone of Onondaga limestone of 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, 3.0 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.71 ft above land-surface datum, Apr. 7, 1984; lowest, 41.42 ft below land-surface datum, Feb. 12, 13, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.16	24.51	24.32	15.86	20.32	9.24	2.14	7.78	7.02	---	19.70	23.81
2	21.29	24.68	23.64	16.16	20.53	9.39	1.49	7.93	7.22	---	19.91	23.92
3	21.39	24.73	23.10	16.22	20.83	9.60	1.22	7.81	7.52	---	20.04	24.00
4	21.58	24.74	22.87	16.11	20.93	9.64	1.25	5.80	7.87	---	20.18	24.11
5	21.78	24.77	22.62	16.42	20.92	9.94	1.06	4.76	8.11	---	20.32	24.20
6	21.94	24.93	22.23	16.48	20.97	10.41	1.07	4.55	8.50	---	20.44	24.36
7	22.04	25.03	22.31	16.39	21.20	10.52	1.18	4.73	8.73	---	20.52	24.46
8	22.11	25.10	22.44	16.89	21.38	10.60	1.29	5.01	8.98	---	20.66	24.54
9	22.27	25.10	22.48	17.15	21.52	10.85	1.67	5.25	9.29	---	20.80	24.63
10	22.41	25.12	22.42	17.16	21.63	11.09	1.77	5.52	9.68	---	20.94	24.75
11	22.51	25.21	22.30	17.26	21.64	11.14	1.99	5.80	9.80	---	21.11	24.91
12	22.60	25.29	21.97	17.36	21.56	11.09	2.21	6.05	10.10	---	21.24	25.07
13	22.68	25.36	21.33	17.39	21.04	11.10	2.41	6.35	10.52	---	21.39	25.21
14	22.77	25.43	21.13	17.49	19.50	10.88	2.59	6.70	10.84	---	21.53	25.30
15	22.91	25.43	20.82	18.00	17.56	10.61	2.70	6.93	11.05	---	21.65	25.39
16	23.07	25.53	20.57	18.10	16.32	10.62	3.15	7.00	11.15	---	21.82	25.47
17	23.16	25.62	20.26	17.97	15.61	10.39	3.61	7.09	11.36	---	21.95	25.57
18	23.24	25.64	20.31	18.06	15.45	10.63	3.83	7.26	11.60	---	22.08	25.69
19	23.35	25.72	20.28	18.37	15.05	10.71	4.20	7.47	11.91	---	22.21	25.78
20	23.47	25.85	20.20	18.67	14.93	10.90	4.60	7.61	12.25	---	22.33	25.85
21	23.60	25.93	19.62	18.72	14.49	11.14	4.93	7.82	12.55	---	22.47	25.95
22	23.69	25.96	18.37	---	13.74	11.20	5.23	7.95	12.75	---	22.60	26.07
23	23.78	26.01	17.44	18.82	12.80	11.20	5.51	8.11	12.98	18.28	22.70	26.14
24	23.87	26.08	16.66	18.86	11.38	10.53	5.73	8.31	13.16	18.57	22.78	26.20
25	23.95	26.16	16.37	19.07	10.36	7.90	6.04	8.53	13.38	18.67	---	26.27
26	24.04	26.24	16.21	19.50	10.04	7.45	6.32	8.78	13.62	18.75	23.10	26.30
27	24.14	26.27	15.88	19.54	9.50	6.74	6.65	8.99	13.82	18.94	23.25	26.45
28	24.19	26.25	15.68	19.73	9.39	6.27	7.01	9.11	13.98	19.11	23.36	26.60
29	24.25	26.01	15.64	19.97	---	6.09	7.34	9.07	---	19.25	23.46	26.66
30	24.35	25.55	15.89	20.09	---	5.22	7.54	7.62	---	19.40	23.50	26.71
31	24.47	---	15.90	20.16	---	3.77	---	7.15	---	19.50	23.67	---
MEAN	22.97	25.48	20.04	17.93	17.16	9.58	3.59	7.06	10.71	18.94	21.72	25.35
MAX	24.47	26.27	24.32	20.16	21.64	11.20	7.54	9.11	13.98	19.50	23.67	26.71
MIN	21.16	24.51	15.64	15.86	9.39	3.77	1.06	4.55	7.02	18.28	19.70	23.81

WTR YR 1985 HIGHEST 1.06 APRIL 6, LOWEST 26.71 SEPTEMBER 30.



## BLAIR COUNTY

402452078271301. Local number, BA 74.

LOCATION.--Lat 40°24'52", long 78°27'13", Hydrologic Unit 02050302, at National Park Land.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Brallier Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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, 9.76 ft below land-surface datum, Apr. 10, 1983; lowest, 18.65 ft below land-surface datum, Oct. 29, 30, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.42	13.30	12.10	10.94	12.33	10.91	10.12	12.06	11.57	13.15	13.87	14.88
2	13.33	13.23	12.13	11.05	12.42	11.09	10.27	12.09	11.54	13.08	14.01	14.91
3	13.20	13.28	12.02	11.05	12.57	11.19	10.30	11.70	11.57	13.05	14.07	14.91
4	13.26	13.20	11.92	10.84	12.57	11.16	10.41	11.18	11.65	13.11	14.09	14.92
5	13.35	12.95	11.92	11.09	12.49	11.25	10.35	10.90	11.63	13.14	14.11	14.90
6	13.47	12.84	11.69	11.10	12.23	11.43	10.50	10.80	11.70	13.18	14.11	14.96
7	13.49	12.91	11.81	11.07	12.35	11.49	10.63	10.96	11.77	13.22	14.13	15.02
8	13.55	12.92	11.88	11.40	12.36	11.27	10.58	11.12	11.69	13.22	14.18	15.07
9	13.59	12.82	11.93	11.53	12.38	11.27	10.50	11.24	11.75	13.02	14.23	15.02
10	13.66	12.70	11.93	11.50	12.39	11.30	10.50	11.26	11.97	12.87	14.28	15.05
11	13.68	12.54	11.84	11.42	12.32	11.29	10.37	11.34	12.00	12.94	14.32	15.17
12	13.70	12.47	11.71	11.43	12.13	11.04	10.40	11.38	12.03	12.92	14.40	15.24
13	13.66	12.54	11.57	11.43	11.49	10.83	10.41	11.28	12.22	12.98	14.42	15.33
14	13.62	12.57	11.61	11.43	11.34	10.71	10.42	11.34	12.33	12.98	14.44	15.35
15	13.69	12.57	11.53	11.73	11.24	10.80	10.40	11.43	12.44	12.92	14.44	15.32
16	13.82	12.46	11.43	11.84	11.16	10.75	10.50	11.37	12.38	13.02	14.53	15.29
17	14.04	12.57	11.26	11.56	11.23	10.97	10.75	11.22	12.24	13.12	14.59	15.33
18	---	12.58	11.29	11.56	11.28	10.98	10.79	11.04	12.14	13.17	14.60	15.38
19	14.11	12.61	11.14	11.73	11.19	10.97	10.84	11.08	12.20	13.20	14.60	15.40
20	14.12	12.87	11.10	12.14	11.21	11.25	11.01	11.17	12.33	13.22	14.61	15.36
21	14.09	12.97	11.08	12.14	11.22	11.36	11.12	11.27	12.40	13.23	14.65	15.40
22	14.08	12.97	10.93	12.27	11.12	11.34	11.20	11.38	---	13.31	14.69	15.47
23	14.00	12.88	10.94	12.31	10.92	11.29	11.29	11.38	---	13.45	14.73	15.51
24	13.97	12.81	10.90	12.28	10.61	10.80	11.37	11.36	12.57	13.52	14.72	15.53
25	13.87	12.88	11.13	12.14	10.84	10.63	11.40	11.41	12.62	13.56	14.68	15.60
26	13.73	12.97	11.14	12.42	10.80	10.68	11.54	11.46	12.70	13.50	14.73	15.56
27	13.52	12.97	11.11	12.42	10.92	10.60	11.66	11.55	12.77	13.64	14.79	15.60
28	13.38	12.90	10.94	12.34	10.95	10.55	11.80	11.61	12.82	13.73	14.79	15.76
29	13.29	12.60	10.91	12.43	---	10.54	11.95	11.72	12.92	13.77	14.76	15.78
30	13.32	12.32	11.03	12.43	---	10.43	11.96	11.75	13.06	13.83	14.69	15.73
31	13.30	---	11.00	12.41	---	10.43	---	11.72	---	13.80	14.83	---
MEAN	13.64	12.81	11.45	11.72	11.65	10.99	10.84	11.37	12.18	13.25	14.45	15.29
MAX	14.12	13.30	12.13	12.43	12.57	11.49	11.96	12.09	13.06	13.83	14.83	15.78
MIN	13.20	12.32	10.90	10.84	10.61	10.43	10.12	10.80	11.54	12.87	13.87	14.88

WTR YR 1985 HIGHEST 10.12 APRIL 1, LOWEST 15.78 SEPTEMBER 29.

## BRADFORD COUNTY

283

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.--Shale of Gardeau Formation of Late Devonian age.

WELL CHARACTERISTICS--Drilled observation artesian 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, 11.86 ft below land-surface datum, Oct. 23, 24, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.92	10.93	9.49	7.04	10.03	7.83	8.12	9.34	9.40	---	10.72	11.18
2	10.92	10.92	9.37	6.87	10.11	8.00	7.26	9.38	9.23	---	10.62	11.18
3	10.92	10.92	9.28	6.91	10.14	8.13	6.95	9.43	9.28	---	10.60	11.18
4	10.95	10.90	9.13	6.94	10.17	8.16	6.82	9.46	9.32	---	10.63	11.18
5	10.98	10.92	9.03	7.11	10.17	8.26	6.74	9.50	9.43	---	10.66	11.22
6	11.00	10.91	8.98	7.25	10.19	8.24	6.89	9.54	9.49	---	10.71	11.24
7	11.00	10.90	9.01	7.33	10.27	8.17	6.99	9.58	9.55	---	10.72	11.27
8	11.02	10.91	9.08	7.54	10.29	8.24	7.08	9.62	9.63	---	10.72	11.28
9	11.05	10.86	9.13	7.74	10.32	8.30	7.25	9.65	9.73	---	10.68	11.29
10	11.05	10.87	9.13	7.87	10.33	8.37	7.32	9.71	9.82	---	10.69	11.28
11	11.06	10.85	9.06	8.05	10.34	8.42	7.48	9.75	9.88	---	10.73	11.20
12	11.06	10.83	8.56	8.20	10.34	8.42	7.61	9.80	9.95	---	10.76	11.14
13	11.07	10.82	8.34	8.34	10.17	8.38	7.70	9.85	10.03	---	10.80	11.15
14	11.10	10.80	8.23	8.45	9.87	8.22	7.81	9.92	10.09	---	10.84	11.14
15	11.11	10.77	8.16	8.62	9.56	8.25	7.95	9.93	10.12	---	10.89	11.15
16	11.12	10.77	8.17	8.76	9.49	8.27	8.10	9.93	10.18	---	10.93	11.16
17	11.12	10.80	8.22	8.80	---	8.34	8.20	9.91	10.23	---	10.95	11.18
18	11.14	10.80	8.30	8.94	---	8.41	8.30	9.94	10.28	---	10.99	11.23
19	11.17	10.78	8.27	9.08	9.55	8.41	8.42	9.96	10.35	---	11.03	11.24
20	11.19	10.82	8.36	9.23	9.54	8.55	8.48	10.00	10.41	---	11.06	11.22
21	11.19	10.84	8.45	9.32	9.48	8.63	8.57	10.07	---	11.00	11.08	11.25
22	11.18	10.85	8.45	9.38	9.48	8.68	8.63	10.09	---	11.00	11.10	11.27
23	11.13	10.85	8.35	9.49	9.44	8.71	8.74	10.12	---	10.88	11.12	11.29
24	11.09	10.89	8.11	9.55	8.82	8.72	8.79	10.15	---	10.86	11.14	11.32
25	11.08	10.89	8.09	9.64	8.34	8.59	8.90	10.20	---	10.90	11.18	11.33
26	11.06	10.91	8.16	9.70	7.89	8.35	8.94	10.23	---	10.91	11.19	11.33
27	11.03	10.91	8.23	9.74	7.70	8.31	9.04	10.21	---	10.91	11.15	11.24
28	11.02	10.89	8.27	9.84	7.72	8.30	9.12	10.20	---	10.90	11.15	10.79
29	11.02	10.73	8.27	9.89	---	8.32	9.20	9.62	---	10.92	11.18	10.65
30	10.98	9.78	7.79	9.94	---	8.36	9.24	9.42	---	10.94	11.16	10.59
31	10.96	---	7.32	9.97	---	8.36	---	9.40	---	10.94	11.18	---
MEAN	11.05	10.82	8.54	8.57	9.61	8.35	8.02	9.80	9.82	10.92	10.91	11.17
MAX	11.19	10.93	9.49	9.97	10.34	8.72	9.24	10.23	10.41	11.00	11.19	11.33
MIN	10.92	9.78	7.32	6.87	7.70	7.83	6.74	9.34	9.23	10.86	10.60	10.59

WTR YR 1985 HIGHEST 6.74 APRIL 5, LOWEST 11.33 SEPTEMBER 25, 26.

## CAMERON COUNTY

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.--Sandstone of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 102 ft, cased to 57 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.99	23.92	23.26	22.67	23.40	22.91	22.44	23.23	23.42	23.72	23.66	23.79
2	23.94	23.83	23.27	22.83	23.45	22.96	22.41	23.23	23.45	23.65	23.81	23.75
3	23.88	23.88	23.18	22.84	23.61	23.06	22.39	23.23	23.38	23.56	23.86	23.73
4	24.00	23.75	23.19	22.69	23.63	23.06	22.53	23.31	23.44	23.64	23.87	23.63
5	24.11	23.44	23.21	22.71	23.56	22.97	22.48	23.27	23.38	23.66	23.87	23.62
6	24.25	23.54	22.97	22.75	23.38	23.20	22.53	23.19	23.43	23.68	23.87	23.69
7	24.22	23.68	23.05	22.67	23.48	23.21	22.64	23.28	23.44	23.64	23.83	23.78
8	24.09	23.69	23.12	22.91	23.48	22.99	22.66	23.41	23.44	23.62	23.63	23.78
9	24.09	23.58	23.18	23.07	23.58	22.93	22.79	---	23.42	23.41	23.69	23.64
10	24.13	23.37	23.13	23.07	23.59	22.94	22.85	---	23.44	23.34	23.77	23.48
11	24.16	23.22	23.05	22.93	23.55	22.92	22.90	---	23.47	23.42	23.80	23.57
12	24.13	23.28	23.03	22.89	23.31	22.65	23.09	---	23.29	23.44	23.72	23.64
13	24.08	23.38	23.13	22.84	23.11	22.68	23.06	---	23.38	23.63	23.71	23.75
14	24.03	23.43	23.16	22.74	23.19	22.63	23.04	---	23.50	23.55	23.70	23.78
15	24.06	23.41	23.23	23.07	23.23	22.79	22.91	---	23.59	23.37	23.66	23.74
16	24.15	23.29	23.20	23.15	23.23	22.80	22.79	---	23.47	23.39	23.68	23.67
17	24.16	23.43	22.93	22.91	23.36	22.65	22.94	---	23.41	23.45	23.76	23.65
18	24.17	23.45	23.03	22.83	23.44	22.84	22.93	---	23.37	23.45	23.73	23.66
19	24.14	23.46	22.98	22.90	23.39	22.86	22.95	---	23.43	23.42	23.70	23.65
20	24.18	23.55	22.98	23.05	23.43	22.87	23.06	---	23.51	23.41	23.70	23.60
21	24.13	23.68	22.94	23.04	23.44	22.97	23.06	23.47	23.58	23.40	23.72	23.65
22	24.06	23.67	22.85	23.13	23.34	22.96	23.07	23.51	23.59	23.42	23.81	23.68
23	24.07	23.59	22.89	23.13	23.26	22.82	23.06	23.50	23.55	23.53	23.84	23.68
24	24.00	23.80	22.86	23.10	23.08	22.71	23.09	23.57	23.62	23.58	23.82	23.69
25	24.05	23.86	23.04	23.14	23.03	22.83	22.96	23.64	23.68	23.58	23.70	23.88
26	23.90	23.84	23.10	23.36	23.00	22.86	23.05	23.68	23.80	23.50	23.71	23.82
27	23.90	23.83	23.08	23.34	22.97	22.77	23.23	23.63	23.78	23.64	23.75	23.68
28	23.81	23.71	22.90	23.33	23.01	22.54	23.18	23.49	23.77	23.69	23.78	23.94
29	23.80	23.28	22.72	23.42	---	22.59	23.24	23.50	23.67	23.66	23.75	23.97
30	23.85	23.17	22.84	23.45	---	22.77	23.23	23.47	23.71	23.70	23.67	23.85
31	23.97	---	22.85	23.38	---	22.75	---	23.35	---	23.69	23.68	---
MEAN	24.05	23.57	23.04	23.01	23.34	22.85	22.89	23.42	23.51	23.54	23.75	23.71
MAX	24.25	23.92	23.27	23.45	23.63	23.21	23.24	23.68	23.80	23.72	23.87	23.97
MIN	23.80	23.17	22.72	22.67	22.97	22.54	22.39	23.19	23.29	23.34	23.63	23.48

WTR YR 1985 HIGHEST 22.39 April 3, LOWEST 24.25 OCTOBER 6.

## CENTRE COUNTY

285

404518077575501. Local number, CE 118.

LOCATION.--Lat 40°45'18", long 77°57'55", Hydrologic Unit 02050302, at State Game Land Number 176.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and dolomite of Gatesburg Formation of Upper Cambrian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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, 2.5 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.37	64.46	64.65	65.00	65.32	65.78	65.95	65.67	65.33	64.77	64.66	64.82
2	64.37	64.46	64.65	65.02	65.32	65.78	65.89	65.67	65.33	64.77	64.66	64.83
3	64.37	64.46	64.66	65.03	65.39	65.78	65.89	65.67	65.33	64.77	64.67	64.83
4	64.34	64.46	64.71	65.03	65.42	65.78	65.89	65.67	65.32	64.77	64.67	64.84
5	64.40	64.46	64.72	65.03	65.42	65.78	65.89	65.67	---	64.76	64.67	64.84
6	64.41	64.46	64.72	65.03	65.42	65.81	65.89	65.67	---	64.76	64.67	64.85
7	64.41	64.46	64.72	65.03	65.42	65.82	65.89	65.66	---	64.75	64.67	64.86
8	64.41	64.47	64.73	65.06	65.42	65.82	65.89	65.66	---	64.74	64.67	64.87
9	64.41	64.47	64.74	65.11	65.45	65.83	65.89	65.66	---	64.74	64.67	64.87
10	64.40	64.47	64.75	65.11	65.46	65.84	65.89	65.65	---	64.73	64.67	64.87
11	64.40	64.47	64.75	65.11	65.47	65.84	65.89	65.64	---	64.72	64.67	64.93
12	64.40	64.47	64.75	65.12	65.47	65.84	65.89	65.63	---	64.72	64.67	64.94
13	64.39	64.48	64.80	65.12	65.47	65.85	65.89	65.62	---	64.72	64.68	64.97
14	64.38	64.49	64.80	65.12	65.47	65.86	65.88	65.60	---	64.72	64.68	64.98
15	64.36	64.50	64.82	65.14	65.48	65.88	65.88	65.60	---	64.72	64.68	64.99
16	64.36	64.50	64.82	65.16	65.49	65.89	65.88	65.59	---	64.71	64.68	65.00
17	64.37	64.51	64.83	65.16	65.51	65.89	65.87	65.57	---	64.71	64.69	65.01
18	64.37	64.52	64.84	65.16	65.52	65.90	65.87	65.54	---	64.71	64.69	65.02
19	64.37	64.52	64.85	65.16	65.53	65.91	65.87	65.53	---	64.71	64.69	65.09
20	64.37	64.59	64.86	65.20	65.53	65.92	65.87	65.53	---	64.70	64.81	65.09
21	64.37	64.60	64.88	65.21	65.54	65.94	65.87	65.52	---	64.71	64.80	---
22	64.37	64.61	64.89	65.22	65.54	65.95	65.87	65.52	---	64.70	64.80	---
23	64.37	64.61	64.90	65.22	65.55	65.95	65.87	65.51	---	64.70	64.80	---
24	64.38	64.62	64.90	65.23	65.55	65.95	65.86	65.51	64.81	64.69	64.80	65.10
25	64.40	64.62	64.93	65.26	65.56	65.97	65.87	65.50	64.81	64.68	64.80	65.10
26	64.40	64.64	64.96	65.29	65.56	65.98	65.86	65.49	64.81	64.68	64.80	65.10
27	64.40	64.65	64.96	65.29	65.56	65.98	65.86	65.48	64.81	64.67	64.81	65.10
28	64.40	64.65	64.97	65.31	65.78	65.98	65.86	65.48	64.81	64.67	64.81	65.11
29	64.40	64.65	64.97	65.31	---	65.99	65.86	65.47	64.80	64.67	64.82	65.12
30	64.40	64.65	64.99	65.32	---	65.98	65.86	65.34	64.77	64.66	64.82	65.13
31	64.41	---	65.00	65.32	---	65.98	---	65.34	---	64.66	64.82	---
MEAN	64.39	64.53	64.82	65.16	65.49	65.89	65.88	65.57	64.99	64.72	64.73	64.97
MAX	64.41	64.65	65.00	65.32	65.78	65.99	65.95	65.67	65.33	64.77	64.82	65.13
MIN	64.34	64.46	64.65	65.00	65.32	65.78	65.86	65.34	64.77	64.66	64.66	64.82

WTR YR 1985 HIGHEST 64.34 OCTOBER 4, LOWEST 65.99 MARCH 29.

## CLINTON COUNTY

411424077462201. Local number, CN 1.

LOCATION.--Lat 41°14'24", long 77°46'22", Hydrologic Unit 02050203, at Sproul State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Pocono Formation of Late Mississippian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 78 ft, cased to 38 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 2,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of platform, 0.2 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.90	52.05	51.07	48.81	---	49.74	48.37	48.62		---	50.23	50.30
2	50.93	52.09	51.04	48.75	---	49.71	48.28	48.72		---	50.26	50.21
3	51.00	52.09	50.88	48.73	---	49.72	48.17	48.75		---	50.26	50.16
4	51.07	52.05	50.82	48.54	---	49.65	48.11	48.79		---	50.29	50.09
5	51.15	52.01	50.78	48.49	---	49.60	47.97	48.80		---	50.31	50.06
6	51.18	52.01	50.54	48.52	---	49.67	47.93	48.79		---	50.31	50.04
7	51.20	52.04	50.50	48.43	---	49.64	47.92	48.79		---	50.33	50.06
8	51.24	52.02	50.43	48.52	---	49.51	47.85	48.87		---	50.32	50.11
9	51.31	51.99	50.43	48.58	---	49.52	47.87	48.96		---	50.31	50.05
10	51.36	51.94	50.34	48.58	---	49.50	47.88	48.96		---	50.30	50.01
11	51.39	51.84	50.29	48.57	---	49.49	47.87	48.97		---	50.28	50.00
12	51.41	51.82	50.19	48.57	---	49.35	47.89	49.01		---	50.31	49.97
13	51.44	51.80	50.15	48.55	---	49.34	47.88	49.02		---	50.29	49.96
14	51.49	51.80	50.13	48.55	---	49.25	47.84	49.08		---	50.31	49.95
15	51.56	51.75	50.03	48.58	---	49.28	47.79	49.16		---	50.31	49.93
16	51.62	51.67	49.98	---	---	49.26	47.89	49.18		---	50.34	49.88
17	51.68	51.67	49.83	---	---	49.14	47.92	49.14		---	50.35	49.86
18	51.69	51.64	49.76	---	---	49.20	47.92	49.13		---	50.35	49.87
19	51.77	51.60	49.67	48.73	---	49.20	47.98	49.23		---	50.34	49.92
20	51.79	---	49.60	48.73	---	49.24	48.04	49.31		---	50.36	49.92
21	51.79	---	49.55	---	---	49.24	48.00	49.36		---	50.37	49.93
22	51.84	---	49.44	---	50.23	49.21	48.04	49.42		---	50.39	49.97
23	51.89	---	49.43	---	50.23	49.12	48.13	49.45		---	50.41	49.99
24	51.93	51.45	49.35	---	50.03	49.03	48.19	49.51		---	50.42	50.04
25	51.95	51.45	49.34	---	50.04	49.04	48.21	49.56		---	50.46	50.08
26	51.95	51.43	49.34	---	49.96	48.94	48.27	---		---	50.47	50.07
27	51.96	51.43	49.28	---	49.85	48.92	48.31	---		---	50.48	50.13
28	51.96	51.38	49.19	---	49.84	48.80	48.40	---		---	50.48	50.20
29	52.02	51.28	49.06	---	---	48.74	48.51	---		---	50.45	50.17
30	52.03	51.17	49.01	---	---	48.73	48.58	---		---	50.40	50.12
31	52.08	---	48.97	---	---	48.68	---	---		50.17	50.34	---
MEAN	51.57	51.75	49.95	48.60	50.03	49.27	48.07	49.06		50.17	50.35	50.04
MAX	52.08	52.09	51.07	48.81	50.23	49.74	48.58	49.56		50.17	50.48	50.30
MIN	50.90	51.17	48.97	48.43	49.84	48.68	47.79	48.62		50.17	50.23	49.86

WTR YR 1985 HIGHEST 47.79 APRIL 15, LOWEST 52.09 NOVEMBER 2, 3.

## CUMBERLAND COUNTY

287

400209077183301. Local number, CU 2.

LOCATION.--Lat 40°02'09", long 77°18'33", Hydrologic Unit 02050305, at Michaux State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Metarhyolite of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 37 ft, casing information not available.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.33	28.02	27.54	25.18	25.33	22.90	20.27	18.91	16.21	20.16	23.69	26.56
2	26.39	28.06	27.40	25.16	25.42	22.71	19.82	18.96	16.30	20.25	23.79	26.64
3	26.46	28.10	27.25	25.14	25.48	22.67	19.55	18.85	16.48	20.38	23.85	26.71
4	26.54	28.12	27.17	25.06	25.50	22.59	19.34	18.63	16.61	20.52	23.95	26.80
5	26.62	28.14	27.10	25.02	25.50	22.38	19.13	18.53	16.74	20.64	24.04	26.89
6	26.68	28.17	26.95	25.01	25.53	22.41	18.95	18.45	16.95	20.76	24.11	26.97
7	26.73	28.18	26.89	24.95	25.58	22.39	18.93	18.46	16.99	20.91	24.20	27.07
8	26.78	28.19	26.79	24.96	25.64	22.19	18.85	18.50	17.13	21.03	24.31	27.14
9	26.84	28.21	26.74	24.99	25.68	22.11	18.78	18.51	17.29	21.16	24.41	27.23
10	26.92	28.22	26.65	24.99	25.72	22.08	18.78	18.43	17.46	21.28	24.51	27.30
11	26.97	28.24	26.57	24.91	25.74	22.03	18.64	18.40	17.50	21.45	24.61	27.39
12	27.02	28.26	26.49	24.89	25.70	21.85	18.66	18.37	17.65	21.57	24.71	27.48
13	27.08	28.28	26.41	24.87	25.11	21.88	18.60	18.33	17.86	21.69	24.81	27.58
14	27.13	28.28	26.36	24.84	24.78	21.81	18.52	18.41	18.04	21.79	---	27.64
15	27.19	28.29	26.31	24.92	24.68	21.83	18.41	18.42	18.13	21.92	25.00	27.71
16	27.26	28.31	26.23	24.96	24.64	21.83	18.38	18.33	18.23	22.08	25.10	27.78
17	27.31	28.34	26.17	24.90	24.59	21.72	18.44	18.21	18.33	22.22	25.19	27.86
18	27.38	28.36	26.11	24.86	24.58	21.76	18.40	17.84	18.47	22.34	25.29	27.94
19	27.42	28.37	26.06	24.91	24.48	21.76	18.34	17.59	18.62	22.44	25.40	28.01
20	27.48	28.41	25.99	24.93	24.44	21.73	18.38	17.45	18.80	22.53	25.49	28.09
21	27.53	28.41	25.97	24.93	24.41	21.78	18.38	17.24	18.93	22.65	25.60	28.16
22	27.60	28.42	25.89	---	24.29	21.76	18.40	17.08	19.05	22.80	25.69	28.23
23	27.65	28.43	25.85	---	24.17	21.69	18.46	16.87	19.18	22.94	25.78	28.28
24	27.68	28.47	25.75	---	23.86	21.60	18.45	16.70	19.30	23.07	25.85	28.39
25	27.73	28.49	25.67	25.07	23.58	21.55	18.48	16.57	19.41	23.10	---	28.42
26	27.77	28.52	25.63	25.16	23.38	21.50	18.50	16.43	19.52	23.20	---	28.52
27	27.80	28.54	25.55	25.15	23.11	21.36	18.59	16.33	19.66	23.30	---	28.59
28	27.83	28.54	25.44	25.19	23.09	21.26	18.70	16.23	19.76	23.38	26.20	28.64
29	27.86	28.34	25.35	25.24	---	21.18	18.78	16.27	19.91	23.46	26.29	28.70
30	---	27.79	25.30	25.29	---	21.03	18.81	16.24	20.06	23.52	26.36	28.75
31	27.99	---	25.29	25.31	---	20.79	---	16.15	---	23.59	26.47	---
MEAN	27.20	28.28	26.29	25.03	24.79	21.88	18.76	17.73	18.15	22.00	24.99	27.72
MAX	27.99	28.54	27.54	25.31	25.74	22.90	20.27	18.96	20.06	23.59	26.47	28.75
MIN	26.33	27.79	25.29	24.84	23.09	20.79	18.34	16.15	16.21	20.16	23.69	26.56

WTR YR 1985 HIGHEST 16.15 MAY 31, LOWEST 28.75 SEPTEMBER 30.



## 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: Robert E. Shannon, M.D.

AQUIFER.--Shale of Hamburg Sequence of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 225 ft, cased to 19 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.80	5.80	5.01	4.83	5.33	4.50	4.06	5.19	5.23	5.52	5.90	6.09
2	5.80	5.82	5.03	4.85	5.35	4.65	4.15	5.11	5.27	5.50	5.94	6.10
3	5.79	5.82	4.95	4.75	5.38	4.69	4.14	4.50	5.32	5.53	5.96	6.12
4	5.83	5.80	4.95	4.68	5.42	4.65	4.21	4.46	5.32	5.56	6.00	6.15
5	5.86	5.64	4.96	4.83	5.39	4.75	4.21	4.51	5.28	5.59	6.00	6.20
6	5.88	5.67	4.83	4.80	5.31	4.79	4.28	4.60	5.36	5.59	5.99	6.21
7	5.86	5.70	4.88	4.80	5.38	4.74	4.32	4.70	5.38	5.58	5.99	6.21
8	5.83	5.73	4.95	4.95	5.40	4.73	4.24	4.80	5.35	5.57	5.97	6.19
9	5.82	5.72	4.92	4.97	5.38	4.79	4.27	4.85	5.32	5.62	6.01	6.12
10	5.83	5.70	4.88	4.97	5.40	4.80	4.31	4.91	5.44	5.60	6.02	6.13
11	5.82	5.68	4.88	4.94	5.43	4.80	4.37	4.97	5.43	5.67	6.04	6.19
12	5.82	5.62	4.90	4.97	5.41	4.56	4.45	5.03	5.46	5.67	6.07	6.22
13	5.82	5.65	5.00	5.00	5.33	4.57	4.49	5.08	5.50	5.72	6.08	6.25
14	5.82	5.66	4.99	5.02	4.42	4.60	4.55	5.16	5.54	5.72	6.01	6.25
15	5.83	5.67	4.95	5.18	4.49	4.67	4.58	5.19	5.54	5.69	6.00	6.25
16	5.82	5.69	4.94	5.18	4.55	4.66	4.68	5.13	5.01	5.76	6.01	6.21
17	5.81	5.72	4.94	5.15	4.60	4.71	4.76	5.02	4.88	5.82	6.04	6.25
18	5.81	5.72	5.01	5.17	4.66	4.81	4.75	4.52	4.88	5.85	6.03	6.25
19	5.81	5.71	4.94	5.29	4.69	4.79	4.82	4.63	4.99	5.85	6.03	6.26
20	5.81	5.72	4.97	5.23	4.60	4.87	4.89	4.72	5.11	5.88	6.10	6.29
21	5.83	5.72	4.92	5.22	4.54	4.90	4.95	4.81	5.17	5.90	6.12	6.30
22	5.81	5.70	4.60	5.22	4.52	4.88	4.92	4.90	5.24	5.86	6.13	6.29
23	5.83	5.72	4.64	---	4.46	4.85	4.97	4.82	5.30	5.90	6.17	6.26
24	5.82	5.77	4.64	---	4.30	4.58	5.00	4.90	5.35	5.94	6.14	6.22
25	5.82	5.77	4.76	---	4.31	4.47	4.96	4.98	5.38	5.91	6.01	6.28
26	5.81	5.79	4.76	---	4.44	4.46	5.00	5.08	5.44	5.82	---	6.24
27	5.79	5.76	4.74	---	4.44	4.47	5.10	5.14	5.46	5.84	6.05	6.10
28	5.78	5.72	4.72	---	4.50	4.53	5.10	5.13	5.45	5.87	6.07	6.03
29	5.75	4.91	4.79	---	---	4.48	5.15	5.16	5.49	5.90	6.09	6.03
30	5.77	4.93	4.88	---	---	4.34	5.16	5.19	5.51	5.91	6.07	6.02
31	5.82	---	4.85	---	---	4.25	---	5.17	---	5.92	6.11	---
MEAN	5.82	5.67	4.88	5.00	4.91	4.66	4.63	4.91	5.31	5.74	6.04	6.19
MAX	5.88	5.82	5.03	5.29	5.43	4.90	5.16	5.19	5.54	5.94	6.17	6.30
MIN	5.75	4.91	4.60	4.68	4.30	4.25	4.06	4.46	4.88	5.50	5.90	6.02

WTR YR 1985 HIGHEST 4.06 APRIL 1, LOWEST 6.30 SEPTEMBER 21.

## FRANKLIN COUNTY

289

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 of Early Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 296 ft, cased to 92 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 730 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.--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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.24	28.94	27.41	27.80	29.16	26.31	26.70	28.34	28.07	29.53	30.61	30.96
2	28.05	29.05	27.51	27.85	29.11	26.41	25.81	28.33	28.27	29.63	30.62	31.08
3	28.08	29.11	27.55	28.12	29.16	26.39	25.37	27.10	28.38	29.64	30.61	31.11
4	28.11	29.15	27.62	28.09	29.32	26.33	25.30	26.15	28.24	29.77	30.73	31.38
5	28.17	29.05	27.62	28.24	29.37	26.37	25.17	26.22	28.22	29.90	30.75	31.50
6	28.24	28.96	27.59	28.24	29.50	26.37	25.08	26.22	28.21	29.91	30.75	31.50
7	28.31	29.01	27.52	28.32	29.60	26.32	25.04	26.40	28.28	29.77	30.72	31.34
8	28.40	29.14	27.46	28.36	29.60	26.68	25.04	26.63	28.30	29.87	30.61	30.91
9	28.51	29.29	27.44	28.32	29.53	26.91	24.91	26.74	28.43	30.02	30.29	30.81
10	28.65	29.32	27.43	28.30	29.52	27.24	24.93	26.85	28.48	30.08	30.32	30.93
11	28.74	29.32	27.42	28.21	29.48	27.45	25.29	27.08	28.46	30.05	30.29	31.29
12	28.78	29.23	27.48	28.32	29.40	27.62	25.71	27.24	28.57	30.20	30.30	31.61
13	28.80	29.31	27.52	28.26	23.50	27.82	25.99	27.36	28.65	30.41	30.40	31.69
14	28.77	29.37	27.57	28.30	23.80	27.93	26.13	27.37	28.65	30.60	30.44	31.47
15	28.77	29.42	27.63	28.52	23.66	28.15	26.23	27.44	28.72	30.69	29.80	31.39
16	28.84	29.47	27.70	28.44	23.65	28.21	26.47	27.45	28.74	30.68	28.96	31.42
17	28.84	29.58	27.76	27.49	23.53	28.32	26.83	27.40	28.86	30.94	29.28	31.53
18	28.91	29.55	27.87	27.56	23.41	28.42	26.91	26.99	28.84	30.83	29.74	31.65
19	28.96	29.29	27.88	28.08	23.54	28.43	27.06	27.53	28.94	30.76	30.39	31.79
20	29.02	29.05	27.93	28.20	23.55	28.45	27.15	27.78	28.99	30.78	30.66	32.21
21	28.96	29.10	27.94	28.16	23.74	28.57	27.29	27.89	29.12	30.73	30.66	32.43
22	28.89	29.23	27.63	26.48	24.39	28.63	27.42	27.34	29.12	30.69	30.65	32.48
23	28.99	29.31	27.49	25.03	24.86	28.70	27.52	27.41	29.15	30.70	30.66	32.43
24	28.86	29.33	27.51	---	25.33	28.22	27.65	27.21	29.19	30.91	30.70	32.29
25	28.92	29.43	27.51	28.73	25.78	28.10	27.79	27.57	29.12	30.88	30.39	32.58
26	28.93	29.53	27.54	29.03	26.02	28.35	27.84	27.86	29.10	30.85	30.38	32.58
27	28.90	29.57	27.53	29.08	26.07	28.57	27.99	28.03	29.18	30.00	---	32.60
28	28.80	29.60	27.56	29.06	26.24	28.75	28.10	28.08	29.29	30.40	30.48	31.18
29	28.83	28.22	27.62	29.19	---	28.77	28.21	27.91	29.30	30.61	30.65	31.30
30	28.83	27.33	27.70	29.24	---	28.22	28.26	28.10	29.39	30.68	30.78	31.40
31	28.87	---	27.72	28.88	---	27.46	---	28.20	---	30.57	30.90	---
MEAN	28.68	29.18	27.60	28.20	26.57	27.69	26.51	27.36	28.74	30.36	30.42	31.63
MAX	29.02	29.60	27.94	29.24	29.60	28.77	28.26	28.34	29.39	30.94	30.90	32.60
MIN	28.05	27.33	27.41	25.03	23.41	26.31	24.91	26.15	28.07	29.53	28.96	30.81

WTR YR 1985 HIGHEST 23.41 FEBRUARY 18, LOWEST 32.60 SEPTEMBER 27.

## FULTON COUNTY

400302078090401. Local number, FU 93.

LOCATION.--Lat 40°03'02", long 78°09'04", Hydrologic Unit 02050304, at Buchanan State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Pocono Formation of Early Mississippian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 191 ft, cased to 45 ft, open hole.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-2.01	-2.03	-0.08	-0.16	---	1.01	1.41	.56	-0.40	-1.81	-2.06	-2.83
2	-1.91	-2.02	-0.08	-0.14	---	.74	---	.47	-0.54	-1.79	-2.12	-2.84
3	-1.87	-2.04	-0.11	.01	---	.61	---	1.24	-0.64	-1.79	-2.14	-2.85
4	-1.96	-2.01	-0.17	-0.27	---	.67	---	1.44	-0.76	-1.81	-2.16	-2.89
5	-2.04	-1.90	-0.16	-0.26	---	.40	1.41	1.44	-0.75	-1.82	-2.17	-2.91
6	-2.09	-1.97	-0.16	-0.26	---	.20	1.33	1.38	-0.86	-1.82	-2.19	-2.95
7	-2.09	-1.99	-0.29	-0.51	---	.25	1.21	1.22	-0.91	-1.84	-2.20	-2.96
8	-2.05	-1.99	-0.44	-0.56	---	.25	1.21	1.03	-0.87	-1.84	-2.23	-2.96
9	-2.09	-1.98	-0.49	-0.53	---	.15	1.10	.93	-1.00	-1.83	-2.27	-2.97
10	-2.12	-1.93	-0.47	-0.50	---	.08	1.03	.77	-1.08	-1.73	-2.32	-2.98
11	-2.12	-1.88	-0.40	-0.50	---	.08	.93	.66	-1.11	-1.67	-2.37	-3.05
12	-2.09	-1.85	-0.12	-0.50	---	.23	.80	.51	-1.14	-1.71	-2.42	-3.08
13	-2.11	-1.87	-0.02	-0.52	---	.18	.77	.34	-1.22	-1.75	-2.44	-3.13
14	-2.13	-1.90	.01	-0.77	---	.15	.77	.15	-1.32	-1.77	-2.49	-3.13
15	-2.15	-1.88	.05	-0.79	---	.02	.77	.12	-1.38	-1.75	-2.49	-3.12
16	-2.17	-1.85	.08	-0.65	---	.05	.63	.17	-1.24	-1.73	-2.52	-3.14
17	-2.17	-1.91	.03	-0.69	---	.03	.49	.26	-1.28	-1.82	-2.55	-3.18
18	-2.16	-1.91	-0.11	-0.81	---	-0.13	.47	.19	-1.19	-1.84	-2.56	-3.20
19	-2.17	-1.93	.03	---	---	-0.13	.39	.07	-1.29	-1.87	-2.57	-3.19
20	-2.16	-2.01	.03	---	---	-0.24	.28	-0.07	-1.40	-1.89	-2.59	-3.22
21	-2.17	-2.04	.14	---	---	-0.30	.19	---	-1.46	-1.89	-2.62	-3.28
22	-2.18	-1.98	.46	---	---	-0.30	.14	-0.08	-1.48	-1.89	-2.64	-3.30
23	-2.15	-1.95	.49	-0.96	---	-0.22	.08	-0.06	---	-1.97	-2.67	-3.33
24	-2.11	-1.96	.50	-1.00	---	.59	.99	.04	-1.50	-1.97	---	-3.30
25	-2.07	-1.98	.28	-0.96	1.30	.97	1.22	.02	-1.52	-2.01	---	-3.37
26	-2.06	-2.00	.26	-1.18	1.30	1.00	1.20	-0.09	-1.55	-1.91	-2.66	-3.35
27	-2.05	-2.00	.29	-1.16	1.13	1.08	1.07	-0.20	-1.61	-1.87	-2.74	-3.28
28	---	-1.94	.18	-1.28	1.04	1.04	.91	-0.25	-1.65	-1.94	-2.75	-3.32
29	-1.99	-1.00	.04	---	---	1.05	.74	-0.27	-1.67	-1.97	-2.75	-3.30
30	-2.03	-0.31	.04	---	---	1.38	.69	-0.31	-1.75	-2.01	-2.72	-3.28
31	-2.03	---	.01	---	---	1.40	---	-0.28	---	-2.01	-2.80	---
MEAN	-2.08	-1.87	-0.01	-0.62	1.19	.40	.82	.38	-1.19	-1.85	-2.46	-3.12
MAX	-1.87	-0.31	.50	.01	1.30	1.40	1.41	1.44	-0.40	-1.67	-2.06	-2.83
MIN	-2.18	-2.04	-0.49	-1.28	1.04	-0.30	.08	-0.31	-1.75	-2.01	-2.80	-3.37

WTR YR 1985 HIGHEST 1.44 MAY 4, 5, LOWEST -3.37 SEPTEMBER 25.

## HUNTINGDON COUNTY

291

401843078075401. Local number, HU 301.

LOCATION.--Lat 40°18'43", long 78°07'54", Hydrologic Unit 02050303, at Trough Creek State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pocono Formation of Early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 105 ft, cased to 18 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 970 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.3 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.40	54.90	53.96	53.81	54.94	53.52	52.57	54.56	54.36	55.01	55.20	55.53
2	55.40	54.89	53.98	54.02	54.98	53.75	52.56	54.59	54.40	54.95	55.27	55.52
3	55.31	54.95	53.89	53.95	55.11	53.89	52.66	54.30	54.48	54.95	55.29	55.51
4	55.41	54.85	53.95	53.88	55.08	53.80	52.76	54.09	54.58	54.99	55.29	55.50
5	55.47	54.73	53.91	54.08	54.84	54.04	52.82	53.91	54.52	54.99	55.30	55.52
6	55.54	54.82	53.85	54.08	54.94	54.23	53.07	53.87	54.61	55.01	55.30	55.56
7	55.49	54.89	53.96	54.07	55.02	54.09	53.22	53.93	54.61	55.06	55.29	55.62
8	55.41	55.00	54.06	54.32	55.01	54.18	53.31	53.95	54.57	55.06	55.21	55.61
9	55.44	54.99	54.10	54.43	55.05	54.26	53.44	53.98	54.59	54.99	55.19	55.54
10	55.44	54.87	54.04	54.21	55.06	54.23	53.51	53.96	54.70	54.98	55.20	55.53
11	55.45	54.83	54.05	54.18	54.98	54.18	53.56	54.01	54.71	55.01	55.22	55.66
12	55.45	54.87	53.95	54.11	54.44	54.31	53.65	54.02	54.70	55.04	55.30	55.70
13	55.38	54.88	54.00	54.05	54.01	54.33	53.66	54.03	54.79	55.11	55.31	55.79
14	55.35	54.93	54.00	54.39	53.86	54.37	53.66	54.11	54.90	55.10	55.35	55.78
15	55.42	54.92	53.97	54.39	53.84	54.51	53.64	54.19	54.97	55.08	55.33	55.71
16	55.45	54.86	53.96	54.26	53.83	54.46	53.77	54.14	54.76	55.18	55.40	55.66
17	55.45	54.94	53.91	54.29	53.99	54.47	53.89	54.02	54.54	55.24	55.43	55.68
18	55.29	54.94	54.03	54.43	53.99	54.62	53.92	53.97	54.39	55.26	55.43	55.74
19	55.14	54.98	53.87	54.48	54.04	54.63	53.96	54.01	54.42	55.27	55.39	55.79
20	55.16	55.11	53.96	54.46	54.09	54.67	54.07	54.02	54.48	55.26	55.42	55.82
21	55.12	55.16	53.96	---	54.04	54.73	54.13	54.04	54.55	55.23	55.45	55.82
22	55.12	55.12	53.66	---	53.98	54.72	54.17	54.10	54.54	55.19	55.49	55.88
23	55.04	55.03	53.65	54.50	53.74	54.59	54.21	54.10	54.57	55.20	55.52	55.89
24	55.03	55.04	53.53	54.55	53.42	54.27	54.23	54.08	54.60	55.25	55.51	55.83
25	54.94	55.07	53.67	54.60	53.41	53.97	54.22	54.09	54.63	55.28	---	55.93
26	54.89	55.10	53.71	54.79	53.35	53.87	54.27	54.15	54.67	55.19	55.51	55.88
27	54.83	55.11	53.69	54.79	53.47	53.71	54.33	54.19	54.75	55.16	55.54	55.80
28	54.80	55.02	53.61	54.77	53.52	53.56	54.42	54.28	54.79	55.20	55.54	55.85
29	54.85	54.55	53.61	54.90	---	53.48	54.50	54.34	54.83	55.18	55.49	55.84
30	54.89	54.16	53.83	54.95	---	53.21	54.48	54.39	54.93	55.20	55.38	55.76
31	54.91	---	53.83	54.91	---	53.08	---	54.32	---	55.15	55.50	---
MEAN	55.23	54.92	53.88	54.37	54.29	54.12	53.69	54.12	54.63	55.12	55.37	55.71
MAX	55.54	55.16	54.10	54.95	55.11	54.73	54.50	54.59	54.97	55.28	55.54	55.93
MIN	54.80	54.16	53.53	53.81	53.35	53.08	52.56	53.87	54.36	54.95	55.19	55.50

WTR YR 1985 HIGHEST 52.56 APRIL 2, LOWEST 55.93 SEPTEMBER 25.

## JUNIATA COUNTY

402411077374801. Local number, JU 351.

LOCATION.--Lat 40°24'11", long 77°37'48", Hydrologic Unit 02050304, at State Game Land Number 215.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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.

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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.82	14.31	12.74	13.20	13.65	12.98	11.84	13.29	13.22	13.65	14.10	15.10
2	14.77	14.30	12.94	13.32	13.68	13.13	12.12	13.28	13.24	13.66	14.17	15.09
3	14.75	14.35	12.95	13.31	13.76	13.23	12.30	12.70	13.29	13.68	14.21	15.09
4	14.81	14.32	12.99	13.23	13.75	13.17	12.44	12.34	13.26	13.71	14.27	15.08
5	14.84	14.25	13.07	13.39	13.74	13.31	12.53	12.50	13.22	13.77	14.35	15.11
6	14.88	14.30	13.17	13.38	13.69	13.39	12.67	12.66	13.24	13.85	14.42	15.11
7	14.85	14.32	13.32	13.35	13.70	13.34	12.80	12.80	13.28	13.95	14.45	15.14
8	14.81	14.29	13.41	13.48	13.70	13.29	12.86	12.90	13.29	14.00	14.50	15.16
9	14.80	14.23	13.45	13.50	13.67	13.34	12.90	12.95	13.27	14.07	14.58	15.13
10	14.82	14.19	13.35	13.42	13.69	13.36	12.87	12.98	13.35	14.12	14.65	15.11
11	14.81	14.16	13.20	13.39	13.66	13.31	12.79	13.02	13.41	14.06	14.70	15.19
12	14.80	14.13	13.04	13.36	13.52	13.12	12.85	13.07	13.51	14.07	14.78	15.22
13	14.78	14.14	13.13	13.37	11.93	13.11	12.88	13.13	13.64	14.00	14.83	15.26
14	14.77	14.12	13.13	13.36	12.29	13.16	12.87	13.22	13.77	13.94	14.88	15.25
15	14.77	14.10	13.13	13.52	12.57	13.25	12.87	13.30	13.87	13.93	14.90	15.22
16	14.78	14.09	13.16	13.55	12.77	13.22	12.92	13.25	13.71	14.02	14.95	15.22
17	14.79	14.14	13.21	13.47	12.97	13.25	13.00	13.18	12.88	14.14	14.96	15.24
18	14.77	14.16	13.32	13.49	13.06	13.32	13.00	12.62	12.81	14.26	14.96	15.27
19	14.75	14.22	13.15	13.54	13.06	13.29	13.03	12.71	12.94	14.35	14.95	15.30
20	14.76	14.30	13.09	13.43	13.07	13.34	13.09	12.84	13.05	14.43	14.96	15.35
21	14.74	14.35	12.97	13.39	13.04	13.35	13.12	12.94	12.98	14.49	14.98	15.35
22	14.71	14.32	12.56	---	12.98	13.34	13.13	13.02	13.03	14.54	14.99	15.37
23	14.64	14.32	12.58	13.52	12.84	13.25	13.14	13.02	13.08	14.57	15.01	15.39
24	14.59	14.30	12.71	13.53	12.55	12.82	13.12	13.01	13.12	14.62	15.03	15.36
25	14.50	14.33	12.93	13.48	12.61	12.49	13.09	13.06	13.15	14.68	---	15.42
26	14.43	14.34	13.03	13.57	12.68	12.53	13.10	13.15	13.21	14.65	15.03	15.40
27	14.36	14.35	13.04	13.57	12.83	12.55	13.14	13.22	13.31	14.34	15.07	15.26
28	14.31	14.30	13.04	13.56	12.93	12.64	13.19	13.26	13.39	14.12	15.09	15.30
29	14.31	13.20	13.09	13.62	---	12.58	13.24	13.20	13.46	14.04	15.10	15.28
30	14.31	12.53	13.19	13.66	---	12.09	13.25	13.24	13.58	14.07	15.04	15.27
31	14.30	---	13.21	13.64	---	12.00	---	13.28	---	14.07	15.09	---
MEAN	14.68	14.16	13.07	13.45	13.16	13.05	12.87	13.00	13.29	14.12	14.77	15.23
MAX	14.88	14.35	13.45	13.66	13.76	13.39	13.25	13.30	13.87	14.68	15.10	15.42
MIN	14.30	12.53	12.56	13.20	11.93	12.00	11.84	12.34	12.81	13.65	14.10	15.08

WTR YR 1985 HIGHEST 11.84 APRIL 1, LOWEST 15.42 SEPTEMBER 25.

## LANCASTER COUNTY

293

400506076235201. Local number, LN 514.

LOCATION.--Lat 40°05'06", long 76°23'52", Hydrologic Unit 02050306, near Landisville.

Owner: Benjamin Landis.

AQUIFER.--Shale and limestone of Kinzers Formation of Early Cambrian age.

WELL CHARACTERISTICS.--Drilled unused artesian 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.13	33.15	33.02	33.16	33.19	32.86	33.08	33.22	33.23	33.20	33.12	33.26
2	33.10	33.17	33.11	33.16	33.21	32.90	33.13	33.17	33.27	33.21	33.18	33.26
3	33.11	33.17	33.12	33.04	33.21	32.92	33.15	32.57	33.28	33.20	33.21	33.28
4	33.15	33.18	33.04	33.02	33.20	32.93	33.16	32.56	33.22	33.20	33.22	33.27
5	33.16	33.15	33.08	33.10	33.19	32.97	33.17	32.75	33.20	33.20	33.22	33.28
6	33.16	33.19	32.94	33.07	33.22	32.98	33.18	32.92	33.25	33.22	33.24	33.31
7	33.16	33.19	32.73	33.12	33.20	33.00	33.18	33.03	33.26	33.17	33.25	33.28
8	33.17	33.20	32.91	33.10	33.21	32.99	33.18	33.06	33.25	33.19	33.09	33.28
9	33.17	33.20	32.98	33.10	33.21	33.01	33.18	33.10	33.24	33.20	33.17	33.24
10	33.17	33.21	33.03	33.11	33.22	33.03	33.18	33.12	33.25	33.19	33.20	33.24
11	33.16	33.21	33.06	33.14	33.22	33.04	33.18	33.15	33.27	33.21	33.23	33.22
12	33.18	33.21	33.10	33.12	33.16	33.01	33.19	33.13	33.26	33.21	33.26	33.24
13	33.18	33.21	33.12	33.12	31.15	33.04	33.19	33.12	33.29	33.21	33.21	33.25
14	33.19	33.22	33.11	33.14	31.42	33.05	33.19	33.14	33.29	33.23	33.24	33.27
15	33.19	33.23	33.16	33.18	31.83	33.08	33.20	33.15	33.31	33.22	33.24	33.26
16	33.19	33.26	33.16	33.15	32.15	33.08	33.21	33.17	33.09	33.23	33.25	33.28
17	33.19	33.21	33.16	33.17	32.42	33.09	33.22	33.17	32.97	33.22	33.27	33.29
18	33.20	33.22	33.20	33.18	32.53	33.10	33.22	33.13	33.06	33.22	33.26	33.29
19	33.25	33.24	33.20	33.18	32.62	33.10	33.22	33.18	33.12	33.23	33.26	33.29
20	33.19	33.24	33.22	33.18	32.70	33.11	33.22	33.18	33.16	33.26	33.26	33.28
21	33.21	33.27	33.16	33.18	32.76	33.12	33.23	33.21	33.14	33.26	33.26	33.29
22	33.21	33.26	33.06	33.17	32.79	33.12	33.23	33.17	33.18	33.25	33.27	33.28
23	33.19	33.31	33.12	---	32.67	33.11	33.23	33.14	33.20	33.23	33.27	33.29
24	33.19	33.26	33.12	---	32.64	33.06	33.23	33.16	33.20	33.25	33.27	33.29
25	33.20	33.26	33.11	33.25	32.66	33.08	33.22	33.20	33.21	33.25	33.14	33.30
26	33.22	33.27	33.12	33.25	32.73	33.12	33.22	33.22	33.14	33.25	33.21	33.29
27	33.20	33.26	33.13	33.19	32.79	33.16	33.23	33.22	33.13	32.92	---	33.14
28	33.20	33.25	33.12	33.21	32.82	33.14	33.22	33.24	33.16	33.05	33.22	31.12
29	33.06	32.92	33.16	33.21	---	33.14	33.23	33.21	33.17	33.12	33.24	31.60
30	33.08	32.93	33.16	33.21	---	33.14	33.22	33.24	33.20	33.17	33.25	32.02
31	33.14	---	33.13	33.21	---	33.13	---	33.24	---	33.20	33.28	---
MEAN	33.17	33.20	33.09	33.15	32.75	33.05	33.20	33.11	33.20	33.20	33.23	33.10
MAX	33.25	33.31	33.22	33.25	33.22	33.16	33.23	33.24	33.31	33.26	33.28	33.31
MIN	33.06	32.92	32.73	33.02	31.15	32.86	33.08	32.56	32.97	32.92	33.09	31.12

WTR YR 1985 HIGHEST 31.12 SEPTEMBER 28, LOWEST 33.31 NOVEMBER 23, JUNE 15, SEPTEMBER 6.



## LANCASTER COUNTY

400853075552101. Local number, LN 1586.

LOCATION.--Lat 40°08'53", long 75°55'21", Hydrologic Unit 02050306, 1.8 mi southwest of Morgantown, Pa.

AQUIFER.--Limestone of the Buffalo-Springs formation of Cambrian age.

WELL CHARACTERISTICS.--Domestic well.

DATUM.--Elevation of land surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Samples were collected from spigot prior to entry into storage tank.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JAN 1985								
10...	1440	605	<0.01	0.02	7.2	7.2	0.02	0.02
JUN								
03...	1253	775	--	0.02	--	6.7	--	0.03
SEP								
03...	1325	628	--	<0.01	--	5.7	--	0.02

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JAN 1985							
10...	0.34	0.34	0.36	0.36	7.6	0.03	0.03
JUN							
03...	--	0.37	--	0.40	--	--	0.05
SEP							
03...	--	--	--	<0.20	--	--	0.02

## LANCASTER COUNTY

295

400741075584301. Local number, LN 1643.

LOCATION.--Lat 40°07'41", long 75°58'43", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 100 ft, cased to 69 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 465 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of plywood cover, 3.1 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.66 ft below land-surface datum, Dec. 14, 1983; lowest, 38.75 ft below land-surface datum, Nov. 17, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.37	37.29	37.28	37.43	37.49	37.24	37.33	37.64	37.35	37.52	37.44	37.53
2	37.32	37.32	37.31	37.45	37.44	37.26	37.36	37.64	37.36	37.53	37.41	37.54
3	37.35	37.34	37.31	37.32	37.45	37.27	37.39	37.56	37.37	37.54	37.44	---
4	37.36	37.35	37.32	37.33	37.47	37.29	37.41	37.33	37.38	37.56	37.47	---
5	37.38	37.34	37.33	37.33	37.48	37.29	37.43	37.41	37.38	37.58	37.49	37.56
6	37.39	37.34	37.29	37.33	37.49	37.30	37.45	37.47	37.38	37.59	37.51	37.60
7	37.40	37.36	37.26	37.34	37.50	37.31	37.47	37.50	37.41	37.54	---	37.67
8	37.41	37.38	37.21	37.36	37.51	37.31	37.49	37.51	37.42	37.55	---	37.69
9	37.42	37.39	37.30	37.37	37.51	37.31	37.51	37.52	37.43	37.52	---	37.66
10	37.43	37.40	37.32	37.37	37.51	37.31	37.51	37.53	37.45	37.53	---	37.66
11	37.44	37.41	37.34	37.38	37.51	37.31	37.52	37.53	37.45	37.55	---	37.65
12	37.44	37.42	37.34	37.38	37.50	37.31	37.53	37.54	37.47	37.57	---	37.67
13	37.45	37.43	37.48	37.38	36.30	37.31	37.54	37.51	37.48	37.58	---	37.68
14	37.45	37.44	37.39	37.38	36.70	37.33	37.54	37.53	37.49	37.59	---	37.69
15	37.46	37.45	37.40	37.42	36.89	37.35	37.54	37.53	37.49	37.59	---	37.71
16	37.47	37.45	37.40	37.44	37.01	37.35	37.55	37.53	37.46	37.59	37.49	---
17	37.47	37.46	37.41	37.44	37.07	37.37	37.55	37.53	37.37	37.60	37.49	37.68
18	37.47	37.47	37.42	37.44	37.10	37.39	37.55	37.45	37.39	37.61	37.49	37.68
19	37.47	37.48	37.42	37.45	37.11	37.41	37.56	37.49	37.42	37.62	37.49	37.69
20	37.47	37.49	37.42	37.46	37.15	37.42	37.57	37.51	37.45	37.63	37.50	37.71
21	37.48	37.50	37.42	37.46	37.19	37.43	37.57	37.52	37.45	37.64	37.50	37.71
22	37.48	37.51	37.35	37.47	37.19	37.42	37.58	37.02	37.47	37.64	37.50	37.71
23	37.35	37.52	37.37	37.47	37.18	37.40	37.58	37.06	37.48	37.63	37.51	37.71
24	37.39	37.53	37.38	37.47	37.14	37.39	37.58	37.13	37.49	37.65	37.53	37.72
25	37.39	37.53	37.40	37.47	37.16	37.40	37.58	37.19	37.50	37.64	37.53	37.73
26	37.42	37.54	37.41	37.48	37.17	37.42	37.59	37.24	37.51	37.50	37.47	37.73
27	37.38	37.54	37.41	37.48	37.20	37.43	37.60	37.28	37.52	37.38	37.48	37.10
28	37.38	37.55	37.42	37.48	37.22	37.44	37.61	37.29	37.52	37.44	37.50	37.09
29	37.13	37.20	37.43	37.49	---	37.45	37.62	37.30	37.51	37.46	37.51	37.20
30	37.22	37.22	37.44	37.49	---	37.46	37.63	37.32	37.51	37.48	37.52	37.28
31	37.27	---	37.44	37.49	---	37.46	---	37.32	---	37.49	37.52	---
MEAN	37.40	37.42	37.37	37.42	37.24	37.36	37.52	37.42	37.45	37.56	37.49	37.59
MAX	37.48	37.55	37.48	37.49	37.51	37.46	37.63	37.64	37.52	37.65	37.53	37.73
MIN	37.13	37.20	37.21	37.32	36.30	37.24	37.33	37.02	37.35	37.38	37.41	37.09

WTR YR 1985 HIGHEST 36.30 FEBRUARY 13, LOWEST 37.73 SEPTEMBER 25, 26.

## LANCASTER COUNTY

400741075584301. Local number, LN 1643--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 1984										
01...	1145	37.36	100	705	15	--	0.02	<0.01	15	15
27...	1215	37.41	100	668	--	--	<0.01	<0.01	14	14
DEC 05...	1212	37.36	100	630	--	--	<0.01	<0.01	14	14
JAN 1985										
16...	1115	37.45	100	670	--	--	<0.01	<0.01	14	14
FEB 22...	1035	37.19	100	692	--	--	--	<0.01	--	15
MAR 31...	1217	37.46	100	695	--	--	--	<0.01	--	14
MAY 11...	0800	37.53	100	740	--	--	--	--	--	13
29...	0955	37.29	100	725	--	12	--	0.01	--	12
JUN 16...	1430	37.45	100	696	--	--	--	--	--	12
17...	1102	37.36	100	667	--	--	--	--	--	14
JUL 05...	0905	37.57	100	650	--	--	--	--	--	13
25...	1115	37.64	100	724	--	--	--	--	--	14
29...	1230	37.46	100	592	--	--	--	--	--	14
AUG 05...	1135	37.47	100	708	--	--	--	--	--	13
16...	0915	37.49	100	593	--	--	--	--	--	13
SEP 17...	1305	37.67	100	660	--	--	--	<0.01	--	13
28...	0940	37.29	100	649	--	--	--	<0.01	--	13

## LANCASTER COUNTY

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400741075584301. Local number, LN 1643--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984									
01...	0.11	0.05	0.99	0.59	1.1	0.64	16	0.39	0.05
27...	0.08	0.08	0.46	0.42	0.54	0.50	15	0.09	0.05
DEC									
05...	0.05	0.05	0.59	0.57	0.64	0.62	15	0.06	0.04
JAN 1985									
16...	0.07	0.07	0.43	0.43	0.50	0.50	15	0.07	0.07
FEB									
22...	--	0.06	--	0.30	--	0.36	--	--	0.04
MAR									
31...	--	--	--	--	--	0.74	--	--	--
MAY									
11...	--	--	--	--	--	0.72	--	--	--
29...	--	0.06	--	0.32	--	0.38	--	--	0.07
JUN									
16...	--	--	--	--	--	0.40	--	--	--
17...	--	--	--	--	--	0.30	--	--	--
JUL									
05...	--	--	--	--	--	0.62	--	--	--
25...	--	--	--	--	--	0.56	--	--	--
29...	--	--	--	--	--	0.46	--	--	--
AUG									
05...	--	--	--	--	--	0.54	--	--	--
16...	--	--	--	--	--	0.46	--	--	--
SEP									
17...	--	0.05	--	0.53	--	0.58	--	--	<0.01
28...	--	0.07	--	0.51	--	0.58	--	--	0.01

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1215	37.41	100	<0.10	<0.10	<0.20	<0.10	<0.20	0.40	<1

## LANCASTER COUNTY

400746075584301. Local number, LN 1645.

LOCATION.--Lat 40°07'46", long 75°58'43", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 80 ft, cased to 24 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 483 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of plywood cover, 2.8 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.00 ft below land-surface datum, Dec. 15, 1983; lowest, 52.53 ft below land-surface datum, Nov. 27, 28, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.15	52.25	52.17	52.25	52.15	52.15	52.23	---	52.24	---	52.32	52.33
2	52.13	52.27	52.18	52.25	52.14	52.16	52.25	---	52.25	---	52.27	52.34
3	52.13	52.27	52.18	52.19	52.15	52.17	52.25	---	52.25	---	52.30	---
4	52.15	52.27	52.19	52.19	52.18	52.17	52.26	---	52.26	---	52.31	---
5	52.15	52.26	52.19	52.17	52.21	52.17	52.26	---	52.26	52.38	52.33	52.35
6	52.16	52.27	52.10	52.18	52.23	52.17	52.27	---	52.27	52.40	52.34	52.36
7	52.17	52.28	52.11	52.17	52.26	52.18	52.28	---	52.28	52.37	52.34	52.37
8	52.17	52.29	52.13	52.18	52.28	52.18	52.28	---	52.28	52.37	52.29	52.36
9	52.17	52.31	52.15	52.19	52.28	52.18	52.29	---	52.29	52.36	52.25	52.36
10	52.17	52.31	52.15	52.19	52.29	52.19	52.31	---	52.29	52.37	52.26	52.36
11	52.18	52.30	52.15	52.19	52.29	52.19	52.33	---	52.30	52.38	52.27	52.36
12	52.18	52.31	52.16	52.19	52.28	52.19	52.35	52.36	52.30	52.39	52.28	52.37
13	52.18	52.30	52.18	52.19	51.38	52.20	---	52.36	52.32	52.40	52.30	52.38
14	52.19	52.30	52.18	52.18	51.75	52.21	---	52.35	52.33	---	---	52.40
15	52.20	52.30	52.20	52.17	51.90	52.22	---	52.35	52.34	---	---	52.40
16	52.20	52.30	52.20	52.14	51.97	52.23	---	52.35	52.31	---	52.29	52.40
17	52.20	52.30	52.20	52.11	52.02	52.23	---	52.35	52.25	---	52.30	52.43
18	52.21	52.29	52.20	52.12	52.03	52.24	---	52.33	---	---	52.30	52.44
19	52.21	52.19	52.20	52.13	52.05	52.25	---	52.34	---	---	52.31	52.45
20	52.21	52.28	52.21	52.12	52.07	52.24	---	52.35	---	---	52.31	52.45
21	52.21	52.27	52.20	52.13	52.07	52.25	---	52.35	---	---	52.31	52.45
22	52.22	52.27	52.20	52.13	52.08	52.25	---	52.05	---	---	52.31	52.45
23	52.17	52.27	52.20	52.13	52.10	52.24	---	52.10	---	---	52.31	---
24	52.18	52.27	52.20	52.13	52.11	52.23	---	52.13	---	---	52.32	---
25	52.20	52.28	52.22	52.13	52.13	52.24	---	52.15	---	52.44	52.32	---
26	52.21	52.30	52.23	52.14	52.14	52.25	---	52.18	---	52.49	52.30	---
27	52.31	52.30	52.23	52.14	52.14	52.25	---	52.20	---	52.35	52.31	---
28	52.30	52.30	52.23	52.14	52.14	52.26	---	52.20	---	52.33	52.31	52.10
29	52.17	52.25	52.24	52.15	---	52.27	---	52.20	---	52.33	52.32	52.16
30	52.23	52.15	52.25	52.15	---	52.28	---	52.22	---	52.36	52.33	52.18
31	52.25	---	52.25	52.15	---	52.28	---	52.22	---	52.32	52.33	---
MEAN	52.19	52.28	52.19	52.16	52.10	52.22	52.28	52.26	52.28	52.38	52.30	52.36
MAX	52.31	52.31	52.25	52.25	52.29	52.28	52.35	52.36	52.34	52.49	52.34	52.45
MIN	52.13	52.15	52.10	52.11	51.38	52.15	52.23	52.05	52.24	52.32	52.25	52.10

WTR YR 1985 HIGHEST 51.38 FEBRUARY 13, LOWEST 52.49 JULY 26.

## LANCASTER COUNTY

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400746075584301. Local number, LN 1645--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
01...	1200	52.13	80	655	<0.01	<0.01	12	12	0.01
27...	1300	52.19	80	515	<0.01	<0.01	12	12	0.03
DEC									
05...	1308	52.17	80	501	<0.01	<0.01	12	12	0.03
JAN 1985									
16...	1150	52.12	80	510	<0.01	<0.01	12	12	0.04
FEB									
22...	1130	52.06	80	553	--	<0.01	--	13	--
MAR									
31...	1220	52.28	80	545	--	<0.01	--	13	--
APR									
27...	0925	52.38	80	600	--	--	--	12	--
MAY									
11...	0840	52.36	80	570	--	--	--	12	--
29...	1016	52.20	80	569	--	--	--	12	--
JUN									
16...	1411	52.29	80	557	--	--	--	11	--
17...	1120	52.25	80	558	--	--	--	12	--
JUL									
05...	1000	52.38	80	530	--	--	--	12	--
25...	1145	52.43	80	573	--	--	--	12	--
26...	1100	52.36	80	550	--	--	--	12	--
29...	1330	52.33	80	511	--	--	--	11	--
31...	1245	52.32	80	563	--	--	--	12	--
AUG									
02...	0855	52.25	80	550	--	--	--	11	--
05...	1210	52.25	80	551	--	--	--	12	--
16...	0940	52.29	80	540	--	--	--	12	--
SEP									
17...	1330	52.43	80	550	--	--	--	10	--
28...	1005	51.99	80	534	--	--	--	12	--



## LANCASTER COUNTY

400746075584301. Local number, LN 1645--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
01...	0.01	0.45	0.27	0.46	0.28	12	0.06	0.05
27...	0.03	0.43	0.23	0.46	0.26	12	0.05	0.05
DEC								
05...	0.03	0.43	0.41	0.46	0.44	12	0.08	0.05
JAN 1985								
16...	0.04	0.46	0.46	0.50	0.50	12	0.05	0.05
FEB								
22...	0.02	--	0.34	--	0.36	--	--	0.04
MAR								
31...	--	--	--	--	0.76	--	--	--
APR								
27...	--	--	--	--	0.76	--	--	0.09
MAY								
11...	--	--	--	--	0.50	--	--	--
29...	--	--	--	--	0.36	--	--	--
JUN								
16...	--	--	--	--	0.50	--	--	--
17...	--	--	--	--	0.30	--	--	--
JUL								
05...	--	--	--	--	0.40	--	--	--
25...	--	--	--	--	0.40	--	--	--
26...	--	--	--	--	0.24	--	--	--
29...	--	--	--	--	0.26	--	--	--
31...	--	--	--	--	0.24	--	--	--
AUG								
02...	--	--	--	--	0.54	--	--	--
05...	--	--	--	--	0.14	--	--	--
16...	--	--	--	--	0.54	--	--	--
SEP								
17...	--	--	--	--	0.30	--	--	--
28...	--	--	--	--	0.38	--	--	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1300	52.19	80	<0.10	0.20	<0.20	0.20	<0.20	0.20	<1
JUN 1985										
16...	1411	52.29	80	<0.10	0.60	<0.20	0.40	<0.20	1.3	<1
JUL										
05...	1000	52.38	80	<0.10	0.60	<0.20	<0.60	<0.20	3.3	<1
25...	1145	52.43	80	<0.10	0.40	<0.20	0.10	<0.20	1.8	<1
26...	1100	52.36	80	<0.10	0.20	<0.20	0.10	<0.20	1.6	<1
29...	1330	52.33	80	<0.10	0.30	<0.20	0.10	<0.20	3.4	<1
31...	1245	52.32	80	<0.10	0.20	0.20	0.10	<0.20	1.7	<1
AUG										
02...	0855	52.25	80	<0.10	0.30	<0.20	0.10	<0.20	0.40	<1
05...	1210	52.25	80	<0.10	0.40	<0.20	0.20	<0.20	1.0	<1
16...	0940	52.29	80	<0.10	0.40	<0.20	0.20	<0.20	1.4	<1
20...	0900	52.30	80	<0.10	0.44	<0.20	<0.18	<0.20	<0.20	<1
SEP										
17...	1330	52.43	80	<0.10	0.40	<0.20	<0.10	<0.20	<0.20	<1
28...	1005	51.99	80	<0.10	<1.2	<0.20	<0.10	<0.20	<0.20	<1

## LANCASTER COUNTY

301

400744075584701. Local number, LN 1646.

LOCATION.--Lat 40°07'44", long 75°58'47", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 125 ft, cased to 99 ft, open hole

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 503 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of plywood cover, 2.6 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.47 ft below land-surface datum, Dec. 15, 1983; lowest, 73.21 ft below land-surface datum, Nov. 27, 28, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.80	72.88	72.83	---	72.95	72.77	72.93	73.07	---	---	72.91	72.95
2	72.79	72.89	72.84	---	72.94	72.78	72.93	73.06	---	---	72.91	72.95
3	72.79	72.89	72.84	72.86	72.95	72.80	72.94	73.00	---	---	72.93	---
4	72.80	72.90	72.85	72.86	72.95	72.81	72.95	72.99	---	---	72.94	---
5	72.81	72.90	72.85	72.85	72.95	72.81	72.96	73.01	---	73.05	72.93	72.97
6	72.81	72.90	---	72.85	72.95	72.83	72.96	73.01	---	73.05	72.93	72.98
7	72.82	72.90	---	72.86	72.95	72.84	72.97	73.02	---	73.02	72.93	73.04
8	72.83	72.91	---	72.87	72.95	72.84	72.98	73.03	---	---	72.90	73.05
9	72.83	72.89	---	72.87	72.95	72.85	72.99	73.03	---	---	72.84	---
10	72.83	72.89	---	72.87	72.96	72.85	73.00	73.03	72.97	---	72.85	---
11	72.84	72.89	---	72.87	72.96	72.86	73.01	73.04	72.97	---	72.85	---
12	72.84	72.90	---	72.87	72.95	72.86	73.02	73.04	72.97	---	72.87	---
13	72.84	72.90	---	72.87	72.26	72.88	73.03	73.03	72.97	---	72.89	---
14	72.84	72.90	---	72.87	72.47	72.88	73.03	73.04	72.97	---	72.89	---
15	72.85	72.91	---	72.90	72.59	72.89	73.03	73.04	72.97	---	72.90	---
16	72.85	72.92	---	72.91	72.66	72.90	73.03	73.04	72.97	---	72.90	---
17	72.85	72.92	---	72.91	72.71	72.91	73.03	73.04	---	---	72.91	73.11
18	72.85	72.92	---	72.92	72.73	72.91	73.03	73.01	---	---	72.91	---
19	72.86	72.92	---	72.92	72.74	72.92	73.03	73.02	---	---	72.92	---
20	72.86	72.93	---	72.92	72.75	72.92	73.04	73.04	---	---	72.93	73.12
21	72.86	72.94	---	72.92	72.77	72.93	73.05	73.05	---	---	72.92	73.12
22	72.86	72.94	---	72.93	72.77	72.93	73.05	72.73	---	---	72.92	73.12
23	72.83	72.94	---	72.93	72.73	72.92	73.05	72.77	---	---	72.92	---
24	72.83	72.94	---	72.93	72.68	72.92	73.05	72.79	---	---	72.93	73.12
25	72.85	72.95	---	72.93	72.66	72.93	73.05	72.82	---	73.04	72.92	73.13
26	72.86	72.95	---	72.94	72.69	72.94	73.06	72.84	---	72.08	72.90	73.14
27	72.93	72.96	---	72.94	72.73	72.94	73.06	72.86	---	72.93	72.92	73.05
28	72.93	72.96	---	72.95	72.74	72.95	73.06	72.87	---	72.91	72.93	72.55
29	72.80	72.88	---	72.95	---	72.95	73.06	72.87	---	72.91	72.94	72.83
30	72.85	72.82	---	72.95	---	72.95	73.07	72.88	---	72.91	72.94	72.86
31	72.87	---	---	72.95	---	72.95	---	---	---	72.91	72.94	---
MEAN	72.84	72.91	72.84	72.90	72.79	72.88	73.02	72.97	72.97	72.88	72.91	73.01
MAX	72.93	72.96	72.85	72.95	72.96	72.95	73.07	72.97	72.97	73.05	72.94	73.14
MIN	72.79	72.82	72.83	72.85	72.26	72.77	72.93	72.73	72.97	72.08	72.84	72.55

WTR YR 1985 HIGHEST 72.08 JULY 26, LOWEST 73.14 SEPTEMBER 26.

## LANCASTER COUNTY

400744075584701. Local number, LN 1646--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.  
 COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin  
 Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources,  
 Bureau of Laboratories.  
 PERIOD OF RECORD.--February 1983 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 1984									
01...	1215	72.79	125	490	--	<0.01	<0.01	9.9	9.2
27...	1320	72.86	125	510	--	<0.01	<0.01	10	10
JAN 1985									
16...	1230	72.91	125	520	--	<0.01	<0.01	11	11
FEB									
22...	1220	72.95	125	540	--	--	<0.01	--	10
MAR									
20...	1300	72.92	125	430	9.2	--	0.01	--	9.2
31...	1241	72.95	125	545	--	--	<0.01	--	11
APR									
27...	0940	73.00	125	580	--	--	--	--	11
MAY									
11...	0900	73.04	125	559	--	--	--	--	8.6
29...	1030	72.87	125	552	--	--	--	--	12
JUN									
16...	1359	72.98	125	574	--	--	--	--	8.4
17...	1140	72.94	125	560	--	--	--	--	10
JUL									
26...	1110	72.98	125	560	--	--	--	--	9.7
29...	1405	72.91	125	570	--	--	--	--	9.5
31...	1330	73.01	125	531	--	--	--	--	9.7
AUG									
02...	0920	72.90	125	456	--	--	--	--	9.2
16...	1020	72.90	125	405	--	--	--	--	6.4
SEP									
17...	1040	73.11	125	550	--	--	--	--	9.4
28...	1035	72.65	125	477	--	--	--	--	6.4

## LANCASTER COUNTY

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400744075584701. Local number, LN 1646--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984									
01...	0.20	0.20	0.70	0.48	0.90	0.68	11	0.08	0.03
27...	0.13	0.13	0.55	0.55	0.68	0.68	11	0.06	0.04
JAN 1985									
16...	0.10	0.10	0.36	0.36	0.46	0.46	11	0.10	0.06
FEB									
22...	--	0.33	--	0.45	--	0.78	--	--	0.03
MAR									
20...	--	--	--	--	--	0.46	--	--	--
31...	--	--	--	--	--	0.66	--	--	--
APR									
27...	--	--	--	--	--	0.24	--	--	0.08
MAY									
11...	--	--	--	--	--	1.2	--	--	--
29...	--	--	--	--	--	0.20	--	--	--
JUN									
16...	--	--	--	--	--	0.50	--	--	--
17...	--	--	--	--	--	0.70	--	--	--
JUL									
26...	--	--	--	--	--	0.50	--	--	--
29...	--	--	--	--	--	0.50	--	--	--
31...	--	--	--	--	--	0.38	--	--	--
AUG									
02...	--	--	--	--	--	1.1	--	--	--
16...	--	--	--	--	--	1.6	--	--	--
SEP									
17...	--	--	--	--	--	0.54	--	--	--
28...	--	--	--	--	--	0.62	--	--	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1320	72.86	125	<0.10	0.20	<0.20	0.10	<0.20	<0.20	<1
JUN 1985										
16...	1359	72.98	125	<0.10	0.30	<0.20	0.40	<0.20	0.70	<1
JUL										
26...	1110	72.98	125	<0.10	0.10	<0.20	0.10	<0.20	1.9	<1
29...	1405	72.91	125	<0.10	0.10	<0.20	0.20	<0.20	2.9	<1
31...	1330	73.01	125	<0.10	0.10	<0.20	0.10	<0.20	1.4	<1
AUG										
02...	0920	72.90	125	<0.10	0.30	<0.20	0.10	<0.20	0.50	<1
16...	1020	72.90	125	<0.10	0.40	<0.20	0.30	<0.20	1.3	<1
SEP										
17...	1040	73.11	125	<0.10	0.50	<0.20	<0.10	<0.20	<0.20	<1
28...	1035	72.65	125	<0.10	1.7	<0.20	<0.10	<0.20	<0.20	<1

## LANCASTER COUNTY

400744075585401. Local number, LN 1649.

LOCATION.--Lat 40°07'44", long 75°58'54", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 85 ft, cased to 39 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 534 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood cover, 3.3 ft above land-surface datum.

PERIOD OF RECORD.--November 1982 to March 1985 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.35 ft below land-surface datum, May 3, 1983; lowest, 37.94 ft below land-surface datum, Jan. 1-10, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.74	35.77	36.42	---	36.51	36.03						
2	34.78	35.80	36.45	---	36.52	36.02						
3	34.82	35.83	36.47	36.51	36.53	36.03						
4	34.86	35.85	36.49	36.50	36.53	36.04						
5	34.90	35.88	36.50	36.49	36.53	36.04						
6	34.94	35.91	---	36.50	36.53	36.05						
7	34.98	35.94	---	36.49	36.53	36.06						
8	35.02	35.97	---	36.49	36.53	36.06						
9	35.06	35.98	---	36.49	36.53	36.07						
10	35.10	36.02	---	36.49	36.53	36.08						
11	35.13	36.04	---	36.49	36.54	36.09						
12	35.15	36.07	---	36.48	36.54	36.09						
13	35.18	36.09	---	36.47	36.29	---						
14	35.22	36.12	---	36.48	36.21	---						
15	35.25	36.14	---	36.49	36.19	---						
16	35.29	36.16	---	36.50	36.18	---						
17	35.32	36.19	---	36.49	36.07	---						
18	35.35	36.20	---	36.49	36.05	---						
19	35.39	36.23	---	36.49	36.04	---						
20	35.43	36.25	---	36.48	36.03	---						
21	35.45	36.28	---	36.48	---	---						
22	35.49	36.28	---	36.48	---	---						
23	35.50	36.29	---	36.48	---	---						
24	35.53	36.31	---	36.48	---	---						
25	35.56	36.33	---	36.48	---	---						
26	35.59	36.35	---	36.49	---	---						
27	35.61	36.36	---	36.49	---	---						
28	35.65	36.38	---	36.49	---	---						
29	35.68	36.40	---	36.50	---	---						
30	35.71	36.42	---	36.51	---	---						
31	35.71	---	---	36.51	---	---						
MEAN	35.27	36.13	36.47	36.49	36.37	36.06						
MAX	35.71	36.42	36.50	36.51	36.54	36.09						
MIN	34.74	35.77	36.42	36.47	36.03	36.02						

OCTOBER-MARCH HIGHEST 35.71 OCTOBER 30, 31, LOWEST 36.47 JANUARY 13.

## LANCASTER COUNTY

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400744075585401. Local number, LN 1649--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

PERIOD OF RECORD.--February 1983 to January 1985 (discontinued).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO JANUARY 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 1984										
01...	1230	34.75	85	693	33	31	0.06	0.03	33	31
27...	1425	40.13	85	702	30	30	0.02	0.02	30	30
DEC										
05...	1345	36.50	85	645	28	28	0.02	0.02	28	28
JAN 1985										
16...	1210	36.50	85	700	--	--	<0.01	<0.01	25	25

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984									
01...	0.08	0.06	0.44	0.44	0.52	0.50	34	0.05	0.04
27...	0.06	0.06	0.64	0.54	0.70	0.60	31	0.06	0.04
DEC									
05...	0.06	0.06	0.90	0.72	0.96	0.78	29	0.05	0.04
JAN 1985									
16...	0.05	0.05	0.55	0.55	0.60	0.60	26	0.05	0.05

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1425	40.13	85	<0.10	<0.10	<0.20	<0.10	<0.20	<0.20	<1



## LANCASTER COUNTY

400741075585101. Local number, LN 1650.

LOCATION.--Lat 40°07'41", long 75°58'51", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 125 ft, cased to 90 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 505 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of plywood cover, 3.3 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.14 ft below land-surface datum, Apr. 19, 1983; lowest, 74.52 ft below land-surface datum, Nov. 16, 27, 28, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73.96	73.97	74.02	---	74.18	73.97	74.10	74.33	74.14	74.26	---	74.27
2	73.95	73.99	74.03	---	74.17	73.99	74.11	74.33	74.15	74.27	74.20	74.28
3	73.95	74.01	74.03	74.07	74.17	74.01	74.12	74.30	74.16	74.28	74.21	---
4	73.96	74.02	74.04	74.06	74.19	74.01	74.13	74.24	74.18	74.29	74.23	---
5	73.97	74.02	74.04	74.06	74.20	74.03	74.14	74.27	74.18	74.31	74.25	74.29
6	73.98	74.03	---	74.06	74.21	74.04	74.16	74.29	74.19	74.32	---	74.30
7	73.99	74.04	---	74.06	74.23	74.05	74.17	74.30	74.20	74.29	---	74.31
8	74.00	74.05	---	74.07	74.24	74.05	74.19	74.30	74.20	74.30	---	74.32
9	74.01	74.06	---	74.07	74.24	74.07	74.21	74.31	74.21	74.28	---	74.31
10	74.02	74.07	---	74.07	74.25	74.08	74.22	74.31	74.22	74.29	---	---
11	74.01	74.08	---	74.07	74.25	74.09	74.24	74.31	74.22	74.30	---	---
12	74.01	74.08	---	74.08	74.24	74.08	74.26	74.32	74.23	74.32	---	---
13	74.01	74.09	---	74.09	73.25	74.08	74.27	74.31	74.23	74.32	---	---
14	74.02	74.10	---	74.11	73.58	74.08	74.27	74.32	74.24	74.32	---	---
15	74.02	74.10	---	74.13	73.75	74.09	74.27	74.32	74.26	74.32	---	---
16	74.02	74.11	---	74.14	73.84	74.10	74.27	74.32	74.25	74.33	74.20	---
17	74.02	74.12	---	74.14	73.89	74.10	74.27	74.31	74.18	74.33	74.21	74.38
18	74.02	74.12	---	74.14	73.92	74.12	74.28	74.28	74.18	74.33	74.21	74.38
19	74.02	74.13	---	74.14	73.93	74.14	74.29	74.30	74.18	74.34	74.22	74.39
20	74.02	74.14	---	74.14	73.94	74.15	74.29	74.31	74.20	74.35	74.23	74.39
21	74.03	74.14	---	74.14	73.94	74.16	74.29	74.32	74.20	74.35	74.23	74.40
22	74.03	74.15	---	74.15	73.93	74.16	74.30	74.00	74.22	74.36	74.24	74.40
23	74.01	74.15	---	74.15	73.92	74.16	74.30	74.02	74.22	74.35	74.25	74.41
24	74.02	74.16	---	74.15	73.89	74.15	74.30	74.04	74.22	74.36	74.25	74.41
25	74.04	74.16	---	74.15	73.86	74.16	74.30	74.06	74.23	74.36	74.25	74.41
26	74.05	74.17	---	74.16	73.89	74.17	74.31	74.08	74.24	74.32	74.23	74.42
27	74.04	74.18	---	74.16	73.93	74.18	74.31	74.10	74.24	74.30	74.24	74.42
28	74.05	74.18	---	74.17	73.94	74.19	74.32	74.11	74.24	74.26	74.25	74.00
29	73.98	74.18	---	74.17	---	74.19	74.32	74.11	74.25	74.27	74.25	74.08
30	73.93	74.03	---	74.18	---	74.20	74.32	74.12	74.25	74.28	74.26	74.09
31	73.96	---	---	74.18	---	74.20	---	74.13	---	74.29	74.27	---
MEAN	74.00	74.09	74.03	74.12	74.00	74.10	74.24	74.23	74.21	74.31	74.23	74.32
MAX	74.05	74.18	74.04	74.18	74.25	74.20	74.32	74.33	74.26	74.36	74.27	74.42
MIN	73.93	73.97	74.02	74.06	73.25	73.97	74.10	74.00	74.14	74.26	74.20	74.00

WTR YR 1985 HIGHEST 73.25 FEBRUARY 13, LOWEST 74.42 SEPTEMBER 26, 27.

## LANCASTER COUNTY

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400741075585101. Local number, LN 1650--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
01...	1245	73.95	125	479	<0.01	<0.01	11	11	0.07
27...	1445	74.04	125	482	<0.01	<0.01	12	12	0.07
DEC									
05...	1450	74.04	125	478	<0.01	<0.01	11	11	0.05
JAN 1985									
16...	1250	74.14	125	478	<0.01	<0.01	12	11	0.06
FEB									
22...	1245	73.92	125	521	--	<0.01	--	12	--
MAR									
31...	1252	74.19	125	515	--	<0.01	--	12	--
APR									
27...	1000	74.32	125	550	--	--	--	11	--
MAY									
11...	0920	74.31	125	530	--	--	--	11	--
29...	1055	74.11	125	500	--	--	--	11	--
JUN									
16...	1330	74.22	125	535	--	--	--	10	--
JUL									
05...	1045	74.31	125	490	--	--	--	11	--
25...	1230	74.86	125	537	--	--	--	12	--
26...	1140	74.32	125	480	--	--	--	11	--
29...	1450	74.27	125	621	--	--	--	12	--
AUG									
02...	0945	74.18	125	485	--	--	--	11	--
05...	1345	74.25	125	491	--	--	--	12	--
16...	1030	74.20	125	446	--	--	--	11	--
SEP									
17...	1035	74.38	125	480	--	--	--	8.5	--
28...	1100	73.94	125	484	--	--	--	11	--

## LANCASTER COUNTY

400741075585101. Local number, LN 1650--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
01...	0.03	0.29	0.29	0.36	0.32	11	0.11	0.04
27...	0.07	1.3	0.67	1.4	0.74	13	0.09	0.04
DEC								
05...	0.05	0.53	0.53	0.58	0.58	12	0.07	0.04
JAN 1985								
16...	0.06	0.44	0.44	0.50	0.50	12	0.08	0.06
FEB								
22...	0.03	--	0.49	--	0.52	--	--	0.04
MAR								
31...	--	--	--	--	0.35	--	--	--
APR								
27...	--	--	--	--	0.68	--	--	0.08
MAY								
11...	--	--	--	--	0.50	--	--	--
29...	--	--	--	--	<0.20	--	--	--
JUN								
16...	--	--	--	--	0.50	--	--	--
JUL								
05...	--	--	--	--	0.40	--	--	--
25...	--	--	--	--	0.60	--	--	--
26...	--	--	--	--	0.40	--	--	--
29...	--	--	--	--	0.24	--	--	--
AUG								
02...	--	--	--	--	0.56	--	--	--
05...	--	--	--	--	0.36	--	--	--
16...	--	--	--	--	0.40	--	--	--
SEP								
17...	--	--	--	--	0.62	--	--	--
28...	--	--	--	--	0.38	--	--	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1445	74.04	125	<0.10	0.20	<0.20	0.10	<0.20	0.20	<1
MAR 1985										
31...	1252	74.19	125	<0.10	<0.20	<0.20	0.20	<0.20	<0.20	<1
MAY										
29...	1055	74.11	125	<0.10	<0.20	0.10	<0.10	<0.20	<0.20	1

## LANCASTER COUNTY

309

400739075585101. Local number, LN 1651.

LOCATION.--Lat 40°07'39", long 75°58'51", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

## WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 105 ft, cased to 72 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 505 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of plywood cover, 3.3 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.65 ft below land-surface datum, Apr. 19, 1983; lowest, 72.28 ft below land-surface datum, Mar. 24, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.96	70.08	70.35	---	70.47	70.01	---	70.59	70.28	70.43	70.49	---
2	69.97	70.10	70.33	---	70.47	70.03	---	70.60	70.29	70.44	70.43	---
3	69.99	70.12	70.33	70.36	70.47	70.05	---	70.60	70.30	70.45	70.42	---
4	70.00	70.14	70.34	70.35	70.47	70.06	---	70.54	70.31	70.46	70.41	---
5	70.01	70.15	70.35	70.35	70.47	70.08	---	70.51	70.31	70.51	70.39	---
6	70.03	70.16	---	70.35	70.47	70.10	---	70.51	70.32	70.52	70.38	---
7	70.04	70.18	---	70.35	70.47	70.11	---	70.53	70.33	70.52	70.40	70.58
8	70.05	70.19	---	70.35	70.47	70.11	---	70.55	70.33	70.52	70.40	70.59
9	70.06	70.25	---	70.35	70.47	70.13	---	70.56	70.33	70.52	70.36	70.59
10	70.07	70.28	---	70.35	70.48	70.15	---	70.57	70.34	70.52	70.34	70.60
11	70.09	70.29	---	70.35	70.48	70.16	---	70.57	70.35	70.53	70.34	70.60
12	70.09	70.30	---	70.35	70.48	70.16	---	70.57	70.35	70.54	70.34	70.62
13	70.10	70.32	---	70.36	69.95	70.16	70.47	70.57	70.36	70.55	70.34	70.63
14	70.11	70.34	---	70.36	69.58	70.18	70.47	70.57	70.37	70.56	70.34	70.64
15	70.15	70.35	---	70.38	69.65	70.19	70.47	70.58	70.37	70.57	70.34	70.65
16	70.13	70.36	---	70.40	69.73	70.20	70.47	70.58	70.37	70.57	70.33	70.67
17	70.12	70.38	---	70.41	69.79	70.22	70.48	70.58	70.36	70.58	---	70.67
18	70.15	70.40	---	70.41	69.84	70.23	70.49	70.57	70.34	70.59	---	70.67
19	70.16	70.41	---	70.42	69.87	70.24	70.51	70.57	70.33	70.59	---	70.67
20	70.17	70.43	---	70.42	69.89	70.25	70.51	70.58	70.33	70.60	---	70.67
21	70.18	70.44	---	70.43	69.92	72.26	70.52	70.59	70.33	70.61	---	70.67
22	70.18	70.46	---	70.43	69.93	72.27	70.53	70.56	70.34	70.62	---	70.68
23	70.18	70.47	---	70.44	69.93	72.27	70.54	70.56	70.35	70.62	---	70.68
24	70.18	70.49	---	70.44	69.93	72.28	70.54	70.57	70.36	70.63	---	70.68
25	70.20	70.50	---	70.45	69.93	70.29	70.55	70.27	70.37	70.64	---	70.68
26	70.20	70.51	---	70.45	69.94	70.30	70.55	70.26	70.38	70.63	---	70.69
27	70.20	70.52	---	70.45	69.97	70.31	70.56	70.26	70.38	70.60	---	70.69
28	70.18	70.53	---	70.46	69.99	70.32	70.57	70.27	70.39	70.53	---	70.63
29	70.11	70.51	---	70.46	---	70.33	70.58	70.27	70.40	70.50	---	70.52
30	70.05	70.42	---	70.46	---	70.33	70.58	70.27	70.41	70.49	---	70.45
31	70.08	---	---	70.46	---	70.34	---	70.27	---	70.49	---	---
MEAN	70.10	70.34	70.34	70.40	70.13	70.46	70.52	70.48	70.35	70.55	70.38	70.63
MAX	70.20	70.53	70.35	70.46	70.48	72.28	70.58	70.60	70.41	70.64	70.49	70.69
MIN	69.96	70.08	70.33	70.35	69.58	70.01	70.47	70.26	70.28	70.43	70.33	70.45

WTR YR 1985 HIGHEST 69.58 FEBRUARY 14, LOWEST 72.28 MARCH 24.

## LANCASTER COUNTY

400739075585101. Local number, LN 1651--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed adjacent to major water-bearing zone.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
01...	1300	69.99	105	543	<0.01	<0.01	11	11	0.04
27...	1505	70.20	105	605	<0.01	<0.01	11	11	0.03
DEC									
05...	1510	70.35	105	597	<0.01	<0.01	11	11	0.02
JAN 1985									
16...	1305	70.40	105	590	<0.01	<0.01	11	11	0.04
FEB									
22...	1320	69.93	105	633	--	<0.01	--	12	--
MAR									
31...	1330	70.34	105	615	--	<0.01	--	12	--
APR									
27...	1005	70.57	105	725	--	--	--	11	--
MAY									
11...	0940	70.57	105	690	--	--	--	11	--
29...	1105	70.34	105	670	--	--	--	11	--
JUN									
16...	1312	70.27	105	675	--	--	--	9.9	--
17...	1208	70.39	105	683	--	--	--	11	--
JUL									
05...	1100	70.51	105	651	--	--	--	11	--
25...	1245	70.64	105	685	--	--	--	15	--
26...	1155	70.62	105	660	--	--	--	11	--
29...	1510	70.49	105	644	--	--	--	11	--
31...	1415	70.49	105	671	--	--	--	11	--
AUG									
02...	1000	70.43	105	618	--	--	--	10	--
05...	1400	70.39	105	695	--	--	--	11	--
16...	1045	70.33	105	650	--	--	--	11	--
SEP									
17...	1110	70.54	105	650	--	--	--	10	--
28...	1050	70.67	105	624	--	--	--	11	--

## LANCASTER COUNTY

311

400739075585101. Local number, LN 1651--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
01...	0.04	0.36	0.36	0.40	0.40	11	0.24	0.07
27...	0.03	0.80	0.74	0.83	0.77	12	0.17	0.08
DEC								
05...	0.02	0.56	0.56	0.58	0.58	12	0.10	0.07
JAN 1985								
16...	0.04	0.56	0.56	0.60	0.60	12	0.12	0.10
FEB								
22...	0.02	--	0.48	--	0.50	--	--	0.06
MAR								
31...	--	--	--	--	0.52	--	--	--
APR								
27...	--	--	--	--	0.62	--	--	0.11
MAY								
11...	--	--	--	--	0.40	--	--	--
29...	--	--	--	--	<0.20	--	--	--
JUN								
16...	--	--	--	--	0.40	--	--	--
17...	--	--	--	--	0.40	--	--	--
JUL								
05...	--	--	--	--	0.60	--	--	--
25...	--	--	--	--	0.44	--	--	--
26...	--	--	--	--	0.54	--	--	--
29...	--	--	--	--	0.26	--	--	--
31...	--	--	--	--	0.30	--	--	--
AUG								
02...	--	--	--	--	0.52	--	--	--
05...	--	--	--	--	0.76	--	--	--
16...	--	--	--	--	0.48	--	--	--
SEP								
17...	--	--	--	--	0.46	--	--	--
28...	--	--	--	--	0.42	--	--	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984										
27...	1505	70.20	105	<0.10	<0.10	<0.20	<0.10	<0.20	<0.20	<1



## LANCASTER COUNTY

400910075554401. Local number, LN 1662.

LOCATION.--Lat 40°09'10", long 75°55'44", Hydrologic Unit 02050306, 2.0 mi west of Morgantown.

AQUIFER.--Sandstone of the Stockton formation of Triassic age.

WELL CHARACTERISTICS.--Domestic well.

DATUM.--Elevation of land surface is 635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Samples collected prior to entry into storage tank.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JAN 1985								
10...	1240	417	<0.01	<0.01	0.39	0.39	0.02	0.02
JUN								
03...	1234	505	--	<0.01	--	0.29	--	0.02
SEP								
03...	1240	532	--	<0.01	--	1.0	--	0.02

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JAN 1985							
10...	0.50	0.50	0.52	0.52	0.91	0.03	0.03
JUN							
03...	--	0.02	--	0.04	--	--	0.05
SEP							
03...	--	0.32	--	0.34	--	--	0.02

## LANCASTER COUNTY

313

400843075552701. Local number, LN 1663.

LOCATION.--Lat 40°08'43", long 75°55'27", Hydrologic Unit 02050306, 1.9 mi southwest of Morgantown.  
 AQUIFER.--Limestone of the Buffalo-Springs formation of Cambrian age.  
 WELL CHARACTERISTICS.--Domestic well.  
 DATUM.--Elevation of land surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.  
 REMARKS.--Samples collected from spigot prior to entry into storage tank.  
 COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--March 1984 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA SOLVED (MG/L AS N)
JAN 1985								
10...	1425	595	<0.01	<0.01	18	18	0.02	0.02
JUN								
03...	1245	710	--	<0.01	--	17	--	0.02
SEP								
02...	1300	651	--	<0.01	--	15	--	0.01

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)
JAN 1985							
10...	0.46	0.46	0.48	0.48	18	0.05	0.05
JUN							
03...	--	0.12	--	0.14	--	--	0.07
SEP							
02...	--	--	--	<0.20	--	--	0.03

## LANCASTER COUNTY

400922075551101. Local number, LN 1665.

LOCATION.--Lat 40°09'22", long 75°55'11", Hydrologic Unit 02050306, 1.6 mi west of Morgantown.

AQUIFER.--Sandstone of the Stockton formation of Triassic age.

WELL CHARACTERISTICS.--Drilled domestic well, depth 311 ft, cased to 160 ft, open hole, pump set at 300 ft.

DATUM.--Elevation of land surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Samples collected prior to entry into storage tank.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JAN 1985								
10...	1212	382	0.01	0.01	1.8	1.8	0.04	0.04
JUN								
03...	1401	490	--	0.06	--	1.2	--	0.02
SEP								
03...	1210	497	--	<0.01	--	1.8	--	0.01

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JAN 1985							
10...	0.48	0.48	0.52	0.52	2.3	0.03	0.03
JUN							
03...	--	0.12	--	0.14	--	--	0.06
SEP							
03...	--	0.29	--	0.30	--	--	0.03

## LANCASTER COUNTY

400926075543601. Local number, LN 1666.

LOCATION.--Lat 40°09'26", long 75°54'36", Hydrologic Unit 02050306, 1.1 mi northwest of Morgantown.

AQUIFER.--Sandstone of the Stockton formation of Triassic age.

WELL CHARACTERISTICS.--Domestic well.

DATUM.--Elevation of land-surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Samples collected from spigot prior to entry into storage tank.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)
JAN 1985								
10...	1050	580	<0.01	<0.01	0.08	0.08	0.03	0.03
JUN 03...	1339	785	--	<0.01	--	0.10	--	0.02
SEP 03...	1105	500	--	<0.01	--	0.50	--	<0.01

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)
JAN 1985							
10...	0.39	0.39	0.42	0.42	0.50	0.04	0.03
JUN 03...	--	0.16	--	0.18	--	--	0.05
SEP 03...	--	--	--	<0.20	--	--	0.02

## LANCASTER COUNTY

401152076105501. Local number, LN 1667.

LOCATION.--Lat 40°11'52", long 76°10'55", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: Aaron Stauffer.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WELL CHARACTERISTICS.--Hand-dug stone-lined domestic well 15 ft deep.

DATUM.--Elevation of land surface is 352 ft above National Geodetic Vertical Datum of 1929.

COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984								
15...	1045	670	--	<0.01	<0.01	22	20	0.02
29...	1220	--	--	<0.01	<0.01	20	18	0.02
NOV								
01...	1520	700	--	<0.01	<0.01	20	20	0.02
15...	1200	--	--	<0.01	<0.01	20	20	0.02
DEC								
10...	1715	604	--	<0.01	<0.01	22	21	<0.01
JAN 1985								
08...	0915	618	--	<0.01	<0.01	21	21	0.02
29...	1445	670	--	<0.01	<0.01	21	21	0.02
FEB								
28...	1248	724	--	--	<0.01	--	22	--
MAR								
27...	1334	680	--	--	<0.01	--	21	--
APR								
23...	1400	683	--	--	<0.01	--	19	--
MAY								
03...	1750	658	--	--	<0.01	--	18	--
04...	1220	710	19	--	0.01	--	19	--
06...	1200	710	--	--	<0.01	--	21	--
08...	1319	735	--	--	<0.01	--	21	--
10...	1300	750	--	--	<0.01	--	21	--
13...	1410	596	--	--	<0.01	--	21	--
JUN								
19...	1132	698	--	--	--	--	20	--
JUL								
08...	1317	598	--	--	--	--	18	--
AUG								
05...	1452	758	--	--	--	--	20	--
29...	1105	638	--	--	--	--	18	--
SEP								
26...	1430	627	--	--	<0.01	--	18	--
27...	1410	673	--	--	--	--	17	--
28...	0923	691	--	--	--	--	18	--

## LANCASTER COUNTY

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401152076105501. Local Number, LN 1667--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
15...	0.02	0.34	0.34	0.36	0.36	22	0.04	0.04
29...	0.02	0.54	0.54	0.56	0.56	21	0.04	0.04
NOV								
01...	0.02	0.62	0.62	0.64	0.64	21	0.04	0.04
15...	0.02	0.52	0.52	0.54	0.54	21	0.02	0.02
DEC								
10...	<0.01	--	--	0.40	0.40	22	0.04	0.04
JAN 1985								
08...	0.02	0.48	0.48	0.50	0.50	22	0.04	0.04
29...	0.02	0.52	0.44	0.54	0.46	22	0.06	0.05
FEB								
28...	0.04	--	0.52	--	0.56	--	--	--
MAR								
27...	0.02	--	0.34	--	0.36	--	--	--
APR								
23...	0.02	--	0.40	--	0.42	--	--	0.09
MAY								
03...	0.02	--	0.18	--	0.2	--	--	0.08
04...	0.02	--	0.98	--	1.0	--	--	0.27
06...	0.02	--	0.40	--	0.42	--	--	0.07
08...	0.01	--	0.31	--	0.32	--	--	0.07
10...	0.02	--	0.40	--	0.42	--	--	0.05
13...	0.02	--	0.56	--	0.58	--	--	0.06
JUN								
19...	--	--	--	--	<0.20	--	--	--
JUL								
08...	--	--	--	--	0.20	--	--	--
AUG								
05...	--	--	--	--	0.62	--	--	--
29...	--	--	--	--	0.34	--	--	--
SEP								
26...	<0.02	--	--	--	0.10	--	--	0.07
27...	--	--	--	--	0.54	--	--	--
28...	--	--	--	--	0.42	--	--	--



## 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, 15.02 ft below land-surface datum, Feb. 14, 1985; lowest, 19.20 ft below land-surface datum, Sept. 24, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR JANUARY 1985 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	---	---	17.99	18.77	17.75	18.00	17.94	18.86
2				---	---	---	---	18.75	17.81	18.04	17.59	18.89
3				---	---	---	18.07	18.23	17.75	18.10	17.74	18.91
4				---	---	---	18.12	---	17.76	18.16	17.90	18.93
5				---	18.19	17.55	18.14	---	17.70	18.20	---	18.96
6				---	18.23	---	18.19	16.50	17.71	18.26	---	18.99
7				---	18.28	---	18.23	---	17.75	18.21	18.12	19.01
8				---	18.30	---	18.25	16.85	17.74	---	18.12	19.02
9				---	18.33	---	18.28	---	17.74	---	18.06	19.02
10				---	18.35	---	18.32	17.19	17.83	---	18.14	19.03
11				---	18.38	---	18.33	---	17.85	18.31	18.23	19.04
12				---	18.36	---	18.36	---	17.90	18.37	18.32	19.05
13				---	15.25	---	18.38	17.45	17.96	18.42	18.38	19.07
14				---	15.02	---	18.39	---	18.02	18.45	18.40	19.08
15				17.79	15.71	---	18.42	17.62	18.05	18.48	18.45	19.09
16				---	16.20	---	18.43	17.64	17.91	18.54	18.52	19.10
17				---	16.56	---	18.43	17.64	17.10	18.59	18.56	19.12
18				---	16.70	---	18.38	17.59	16.87	18.63	18.60	19.12
19				---	16.74	---	18.41	17.56	---	18.66	18.64	19.13
20				---	16.80	---	---	17.62	---	18.70	18.68	19.14
21				---	16.86	18.08	---	17.66	---	18.73	18.71	19.17
22				---	16.89	18.08	---	17.64	17.46	18.78	18.75	19.18
23				---	16.81	18.08	---	17.62	17.53	18.83	18.78	19.19
24				---	16.59	18.07	---	17.49	17.61	18.86	18.91	19.20
25				---	16.64	17.96	---	17.47	17.69	18.88	18.90	19.19
26				---	---	17.94	---	17.53	17.77	18.87	18.59	19.19
27				---	17.10	18.62	18.68	17.55	17.74	18.66	18.56	19.14
28				---	17.24	18.20	18.71	17.61	17.86	18.44	18.64	17.46
29				---	---	18.05	18.74	17.65	17.91	18.52	---	16.94
30				---	---	18.06	18.76	17.69	17.96	18.61	---	17.24
31				---	---	18.05	---	17.72	---	18.65	18.82	---
MEAN				17.79	17.11	18.06	18.36	17.63	17.73	18.50	18.41	18.88
MAX				17.79	18.38	18.62	18.76	18.77	18.05	18.88	18.91	19.20
MIN				17.79	15.02	17.55	17.99	16.50	16.87	18.00	17.59	16.94

JANUARY-SEPTEMBER HIGHEST 15.02 FEBRUARY 14, LOWEST 19.20 SEPTEMBER 24.

## LANCASTER COUNTY

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401149076105501. Local number, LN 1669--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.  
 COOPERATION.--Water-quality samples collected by the Pa. Department of Environmental Resources and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--November 1984 to current year.

## WATER-QUALITY DATA, NOVEMBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 1984										
01...	1610	--	100	580	7.4	7.4	0.02	0.02	7.4	7.4
DEC										
10...	1408	--	100	505	8.3	7.8	0.03	0.03	8.4	7.8
JAN 1985										
08...	1055	17.31	100	560	8.9	8.7	0.07	0.07	9.0	8.8
29...	1420	18.25	100	543	8.8	8.4	0.03	0.03	8.8	8.4
FEB										
28...	1235	17.24	100	612	--	11	--	0.04	--	11
MAR										
27...	1432	17.96	100	585	--	9.4	--	0.04	--	9.4
APR										
23...	1500	18.60	100	450	--	9.2	--	0.04	--	9.2
MAY										
03...	1705	18.61	100	590	--	9.1	--	0.06	--	9.2
04...	0950	--	100	645	--	9.1	--	0.06	--	9.2
06...	1000	16.50	100	586	--	11	--	0.04	--	11
08...	1350	16.85	100	649	--	11	--	0.05	--	11
10...	1410	17.19	100	650	--	11	--	0.06	--	11
13...	1445	17.45	100	567	--	10	--	0.07	--	11
JUN										
19...	1147	16.99	100	828	--	--	--	--	--	11
JUL										
08...	1147	18.20	100	527	--	--	--	--	--	11
AUG										
05...	1255	17.95	100	638	--	--	--	--	--	8.8
29...	1110	18.68	100	590	--	--	--	--	--	11

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 1984									
01...	0.01	0.01	0.67	0.52	0.68	0.53	8.0	0.04	0.03
DEC									
10...	0.01	0.01	0.53	0.43	0.54	0.44	8.9	0.06	0.05
JAN 1985									
08...	0.04	0.04	0.50	0.50	0.54	0.54	9.5	0.03	0.03
29...	0.03	0.03	0.57	0.57	0.60	0.60	9.4	0.01	0.04
FEB									
28...	--	0.04	--	0.48	--	0.52	--	--	--
MAR									
27...	--	0.02	--	0.28	--	0.30	--	--	--
APR									
23...	--	0.03	--	0.23	--	0.26	--	--	0.11
MAY									
03...	--	0.02	--	0.18	--	0.20	--	--	0.10
04...	--	0.03	--	0.37	--	0.40	--	--	0.09
06...	--	0.02	--	0.52	--	0.54	--	--	0.15
08...	--	0.04	--	0.32	--	0.36	--	--	0.08
10...	--	0.02	--	0.30	--	0.32	--	--	0.06
13...	--	0.04	--	0.52	--	0.56	--	--	0.06
JUN									
19...	--	--	--	--	--	0.20	--	--	--
JUL									
08...	--	--	--	--	--	0.26	--	--	--
AUG									
05...	--	--	--	--	--	0.32	--	--	--
29...	--	--	--	--	--	<0.20	--	--	--

## 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 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, 3.5 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.33 ft below land-surface datum, Feb. 24, 1985; lowest, 19.70 ft below land-surface datum, December 12, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR NOVEMBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	19.19	16.94	---	10.54	15.20	15.87	12.33	12.25	14.95	16.74
2		---	19.24	16.74	---	10.72	15.29	15.87	12.47	12.31	15.03	16.74
3		---	19.24	16.25	---	10.84	15.36	15.53	12.49	12.45	15.16	16.76
4		---	19.20	15.68	---	10.96	15.40	12.65	12.52	12.53	15.20	16.82
5		---	19.29	15.62	---	11.14	15.40	11.90	12.52	12.63	---	16.86
6		---	19.10	14.62	---	11.24	15.57	11.22	12.59	12.71	---	16.95
7		---	18.89	14.33	16.15	11.26	15.59	10.85	12.59	12.81	---	16.97
8		---	19.03	---	16.16	11.32	15.65	10.83	12.53	12.86	---	17.00
9	18.93	19.06	---	---	16.25	11.42	15.76	10.83	12.52	13.00	---	17.03
10	18.92	19.03	---	---	16.30	11.54	15.78	10.83	12.56	13.04	---	17.10
11	19.04	---	---	---	16.12	11.62	15.82	10.84	12.57	13.23	---	17.16
12	19.12	19.70	---	---	16.24	11.70	15.85	10.88	12.65	13.36	---	17.20
13	19.19	19.11	---	---	10.67	11.78	15.87	10.89	12.74	13.48	---	17.24
14	19.23	---	---	---	10.90	12.04	15.87	10.91	12.81	13.54	---	17.25
15	19.23	---	---	---	11.02	12.23	15.87	10.93	12.86	13.64	---	17.25
16	19.28	---	---	14.17	11.06	12.26	16.00	10.94	12.86	13.79	---	17.26
17	19.32	---	---	13.97	11.16	12.42	16.06	10.96	12.78	13.95	16.42	17.34
18	19.32	---	---	14.03	11.21	12.57	15.95	11.10	12.62	14.10	16.37	17.36
19	19.34	---	---	14.03	11.11	12.63	15.96	11.23	12.36	14.19	16.43	17.37
20	19.40	18.98	14.18	10.90	12.83	15.99	11.29	12.15	14.32	16.51	17.39	
21	19.43	18.94	---	---	11.16	12.94	16.05	11.33	11.90	14.39	16.55	17.43
22	19.45	18.40	---	---	11.05	12.98	16.11	11.41	11.75	14.53	16.59	17.45
23	19.45	18.42	---	---	10.65	13.05	16.12	11.46	11.63	14.67	16.60	17.47
24	19.50	18.36	---	---	10.33	13.13	---	11.58	11.60	14.73	16.62	17.53
25	19.53	18.04	14.62	---	---	13.28	---	11.72	11.60	14.77	16.55	17.57
26	19.57	17.98	14.77	---	---	13.33	---	11.84	11.64	14.77	16.36	17.56
27	19.59	17.80	14.81	---	---	13.32	16.02	11.93	11.71	14.76	16.40	17.50
28	19.00	17.56	14.95	10.52	---	14.90	15.96	12.01	11.85	14.81	16.43	15.40
29	18.82	17.34	---	---	---	15.02	15.97	12.06	11.95	14.88	16.46	15.00
30	19.00	17.26	---	---	---	15.19	15.94	12.17	12.07	14.97	16.54	15.34
31	---	17.20	---	---	---	15.21	---	12.20	---	14.98	16.70	---
MEAN	19.26	18.60	14.98	12.58	12.43	15.79	11.81	12.31	13.76	16.20	17.00	
MAX	19.59	19.70	16.94	16.30	15.21	16.12	15.87	12.86	14.98	16.70	17.57	
MIN	18.82	17.20	13.97	10.33	10.54	15.20	10.83	11.60	12.25	14.95	15.00	

WTR YR 1985 HIGHEST 10.33 FEBRUARY 24, LOWEST 19.70 DECEMBER 12.

## LANCASTER COUNTY

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401156076105701. Local number, LN 1670--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.  
 COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--November 1984 to current year.

## WATER-QUALITY DATA, NOVEMBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM
NOV 1984									
01...	1538	--	75	1370	--	--	--	--	--
DEC									
10...	1055	19.07	75	1270	530	120	54	12	5
JAN 1985									
08...	1230	16.75	75	1270	--	--	--	--	--
15...	1400	13.15	75	1150	--	--	--	--	--
29...	1200	15.14	75	1280	--	--	--	--	--
MAR									
27...	1150	13.32	75	1250	--	--	--	--	--
APR									
23...	1315	16.14	75	1250	--	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 1984									
01...	--	--	--	120	120	0.11	0.10	120	120
DEC									
10...	0.20	6.9	36	140	130	0.04	0.04	140	130
JAN 1985									
08...	--	--	--	120	110	0.04	0.03	120	110
15...	--	--	--	110	110	0.03	0.03	110	110
29...	--	--	--	120	110	0.02	0.02	120	110
MAR									
27...	--	--	--	--	100	--	0.04	--	100
APR									
23...	--	--	--	--	100	--	0.02	--	100

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 1984									
01...	0.08	0.04	0.86	0.86	0.94	0.90	120	0.05	0.03
DEC									
10...	0.06	0.05	0.60	0.53	0.66	0.58	140	0.05	0.05
JAN 1985									
08...	0.04	0.04	0.76	0.76	0.80	0.80	120	0.05	0.05
15...	0.04	0.04	0.46	0.46	0.50	0.50	110	0.04	0.04
29...	0.02	0.02	0.48	0.48	0.50	0.50	120	0.07	0.05
MAR									
27...	--	0.05	--	0.25	--	0.30	--	--	--
APR									
23...	--	0.03	--	0.25	--	0.28	--	--	0.46

## 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, 8.41 ft below land-surface datum, Feb. 13, 1985; lowest, 10.67 ft below land-surface datum, Apr. 28 to May 2, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR NOVEMBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	10.35	10.04	---	10.04	10.45	10.67	9.98	10.16	9.70	10.63
2		---	10.39	10.05	---	10.09	10.45	10.67	9.99	10.18	10.02	10.63
3		---	10.39	9.86	---	10.11	10.50	10.20	10.01	10.20	10.16	10.63
4		---	10.17	---	---	10.13	10.51	8.93	10.00	10.23	10.27	10.64
5		---	10.19	---	---	10.15	10.52	9.31	9.98	10.25	10.46	10.64
6		---	10.19	---	---	10.18	10.54	9.60	10.00	10.24	10.51	10.64
7		---	9.79	---	10.49	10.19	10.54	9.71	10.00	10.24	10.54	10.65
8		---	9.84	9.79	10.50	10.20	10.55	9.77	10.01	10.30	10.54	10.65
9		10.59	9.88	---	10.52	10.22	10.55	9.81	10.01	10.35	10.53	10.65
10		10.58	9.90	---	10.54	10.26	10.55	9.84	10.04	10.37	10.56	10.65
11		10.58	9.97	---	10.54	10.27	10.55	9.86	10.05	---	10.57	10.65
12		10.58	10.00	---	10.53	10.26	10.56	9.87	10.07	---	10.57	10.65
13		10.59	10.05	---	8.41	10.26	10.56	9.87	10.09	---	10.58	10.65
14		10.59	10.08	---	9.90	10.32	10.56	9.91	10.11	---	10.58	10.65
15		10.59	10.10	---	9.58	10.35	10.56	9.93	10.12	---	10.59	10.65
16		10.58	10.11	---	9.78	10.35	10.56	9.95	10.10	---	10.59	10.66
17		10.58	10.13	---	9.85	10.37	10.55	9.95	9.54	---	10.59	10.66
18		10.58	10.16	---	9.87	10.40	10.55	9.93	9.72	---	10.59	10.66
19		10.58	10.16	---	9.88	10.41	10.55	9.94	9.79	---	10.60	10.66
20		10.58	10.18	---	9.87	10.42	10.55	9.95	9.85	---	10.60	10.66
21		10.58	10.19	---	9.89	10.46	10.56	9.96	9.88	---	10.60	10.66
22		10.58	10.10	---	9.89	10.46	10.57	9.95	9.92	---	10.60	---
23		10.59	9.99	---	9.81	10.46	10.63	9.95	9.96	---	10.61	---
24		10.59	9.98	---	9.79	10.38	10.65	9.85	9.99	---	10.61	---
25		10.59	9.94	---	9.83	10.40	10.66	9.84	10.01	---	10.61	---
26		10.59	9.94	---	9.93	10.45	10.66	9.85	10.04	---	10.59	---
27		10.59	9.95	---	10.01	10.45	10.66	9.87	10.07	---	10.60	10.66
28		10.63	9.96	---	10.02	10.44	10.67	9.89	10.09	---	10.61	9.76
29		10.58	9.97	10.38	---	10.45	10.67	9.92	10.11	---	10.62	9.95
30		10.23	10.02	---	---	10.47	10.67	9.94	10.14	---	10.62	10.12
31		---	10.02	---	---	10.47	---	9.95	---	---	10.62	---
MEAN		10.57	10.07	10.02	9.97	10.32	10.57	9.89	9.99	10.25	10.51	10.56
MAX		10.63	10.39	10.38	10.54	10.47	10.67	10.67	10.14	10.37	10.62	10.66
MIN		10.23	9.79	9.79	8.41	10.04	10.45	8.93	9.54	10.16	9.70	9.76

WTR YR 1985 HIGHEST 8.41 FEBRUARY 13, LOWEST 10.67 APRIL 28 - MAY 2.

## LANCASTER COUNTY

323

401148076110301. Local number, LN 1673--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.  
 COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--November 1984 to current year.

## WATER-QUALITY DATA, NOVEMBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 1984										
01...	1357	--	46	905	52	51	0.05	0.05	52	51
DEC										
10...	1152	9.90	46	840	50	50	0.06	0.05	50	50
JAN 1985										
08...	1307	8.79	46	880	56	53	0.11	0.11	56	54
29...	1015	10.38	46	920	57	56	0.02	0.01	57	56
FEB										
28...	1133	10.00	46	950	--	55	--	0.03	--	55
MAR										
27...	1003	10.44	46	991	--	52	--	0.02	--	52
APR										
23...	0920	10.58	46	964	--	51	--	0.03	--	51
MAY										
03...	1654	9.09	46	950	--	52	--	0.02	--	52
04...	1043	8.81	46	909	--	52	--	0.01	--	52
06...	1100	9.43	46	946	--	49	--	0.01	--	49
08...	1205	9.74	46	--	--	50	--	0.01	--	50
10...	1145	9.84	46	950	--	50	--	0.03	--	50
13...	1205	9.87	46	640	--	52	--	0.01	--	52
JUN										
19...	1043	9.79	46	893	--	--	--	--	--	53
JUL										
08...	1025	10.33	46	1000	--	--	--	--	--	51
AUG										
05...	1110	10.41	46	1050	--	--	--	--	--	55
29...	1011	10.67	46	1240	--	--	--	--	--	56

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 1984									
01...	0.06	0.06	0.96	0.74	1.0	0.80	53	0.05	0.03
DEC									
10...	0.04	0.04	0.78	0.78	0.82	0.82	51	0.04	0.03
JAN 1985									
08...	0.04	0.04	0.60	0.60	0.64	0.64	57	0.03	0.03
29...	0.03	0.03	0.47	0.47	0.50	0.50	58	0.06	0.04
FEB									
28...	--	0.03	--	0.59	--	0.62	--	--	--
MAR									
27...	--	0.04	--	--	--	<0.20	--	--	--
APR									
23...	--	0.03	--	0.37	--	0.40	--	--	0.08
MAY									
03...	--	0.02	--	0.50	--	0.52	--	--	0.32
04...	--	0.02	--	0.38	--	0.40	--	--	0.06
06...	--	0.02	--	0.50	--	0.52	--	--	0.07
08...	--	0.02	--	0.46	--	0.48	--	--	0.51
10...	--	0.03	--	0.61	--	0.64	--	--	0.06
13...	--	0.03	--	0.49	--	0.52	--	--	0.05
JUN									
19...	--	--	--	--	--	<0.20	--	--	--
JUL									
08...	--	--	--	--	--	0.28	--	--	--
AUG									
05...	--	--	--	--	--	0.56	--	--	--
29...	--	--	--	--	--	0.38	--	--	--



## LANCASTER COUNTY

401145076111501. Local number, LN 1674.

LOCATION.--Lat 40°11'45", long 76°11'15", Hydrologic Unit 02050306, 1.5 mi north of Ephrata.

Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Snitz Creek Formation of Cambrian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 125 ft, cased to 25 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 415 ft above National Geodetic Vertical Datum of 1929. Measuring point:

Top of shelter platform, 1.5 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.73 ft below land-surface datum, June 18, 19, 1985; lowest, 21.60 ft below land-surface datum, May 18, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR APRIL 1985 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	20.68	20.34	20.01	---	20.26
2							---	20.68	20.33	20.02	---	20.26
3							---	20.67	20.30	20.03	19.95	20.26
4							---	20.48	20.29	20.03	20.00	20.26
5							---	20.34	20.23	20.04	20.03	20.26
6							---	20.31	20.21	20.06	20.06	20.26
7							---	20.37	20.09	20.06	20.08	20.26
8							---	20.41	20.09	20.06	20.10	20.27
9							---	20.44	20.08	20.06	20.12	20.28
10							---	20.44	20.08	20.06	20.14	20.28
11							---	20.44	20.08	20.07	20.15	20.29
12							---	20.44	20.08	20.07	20.17	20.29
13							---	20.44	20.08	20.07	20.19	20.28
14							---	20.44	20.09	20.08	20.20	20.27
15							---	20.44	20.09	20.08	20.21	20.25
16							---	---	20.09	20.08	20.21	20.24
17							21.14	---	19.92	20.08	20.22	20.23
18							21.02	21.60	19.73	20.09	20.23	20.23
19							20.83	21.47	19.73	20.09	20.24	20.22
20							20.74	21.28	19.77	20.09	20.24	20.22
21							20.69	21.13	19.81	20.09	20.24	20.22
22							20.67	21.01	19.84	20.09	20.24	20.22
23							20.66	20.89	19.86	20.10	20.25	20.22
24							20.64	20.78	19.89	20.10	20.25	20.21
25							20.64	20.69	19.91	20.11	20.25	20.21
26							20.64	20.61	19.93	20.11	20.25	20.21
27							20.65	20.54	19.96	20.11	20.25	20.20
28							20.66	20.48	19.98	20.10	20.26	20.11
29							20.66	20.43	19.99	20.10	20.26	20.00
30							20.67	20.39	20.00	20.11	20.26	19.96
31							---	20.37	---	20.11	20.26	---
MEAN							20.74	20.64	20.03	20.08	20.18	20.22
MAX							21.14	21.60	20.34	20.11	20.26	20.29
MIN							20.64	20.31	19.73	20.01	19.95	19.96

APRIL-SEPTEMBER HIGHEST 19.73 JUNE 18, 19, LOWEST 21.60 MAY 18.

## LANCASTER COUNTY

325

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, 23.57 ft below land-surface datum, May 4, 1985; lowest, 24.82 ft below land-surface datum, Sept. 29, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR APRIL 1985 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	24.67	24.15	24.21	24.03	24.72
2							---	24.67	24.16	24.23	24.04	24.73
3							---	24.28	24.19	24.26	24.14	24.73
4							---	23.57	24.18	24.28	24.22	24.73
5							---	23.70	24.13	24.29	---	24.73
6							24.35	23.82	24.11	24.33	---	24.73
7							24.36	23.94	24.13	24.33	---	24.74
8							24.37	24.02	24.13	24.32	---	24.74
9							24.38	24.06	24.14	24.33	---	24.74
10							24.39	24.12	24.16	24.35	---	24.74
11							24.40	24.14	24.17	24.37	---	24.74
12							24.41	24.17	24.19	24.38	---	24.74
13							24.41	24.17	24.21	24.39	---	24.74
14							24.42	24.21	24.23	24.39	---	24.74
15							24.43	24.23	24.24	24.42	---	24.74
16							24.44	24.25	24.18	24.43	24.49	24.74
17							24.54	24.25	23.76	24.45	24.51	24.75
18							24.55	24.23	23.72	24.46	24.51	24.75
19							24.55	24.17	23.78	24.47	24.53	24.75
20							24.56	24.20	23.83	24.49	24.54	24.76
21							24.56	24.21	23.88	24.49	24.55	24.69
22							24.57	24.18	23.93	24.50	24.56	---
23							24.60	24.18	23.97	24.51	24.57	---
24							24.60	24.16	24.00	24.52	24.60	---
25							24.61	24.12	24.04	24.52	24.60	---
26							24.62	24.10	24.08	24.52	24.58	---
27							24.64	24.10	24.11	24.49	24.59	---
28							24.65	24.10	24.13	24.49	24.59	---
29							24.66	24.11	24.16	24.50	24.72	24.82
30							24.66	24.13	24.18	24.51	24.72	24.04
31							---	24.13	---	24.51	24.72	---
MEAN							24.51	24.14	24.08	24.41	24.49	24.71
MAX							24.66	24.67	24.24	24.52	24.72	24.82
MIN							24.35	23.57	23.72	24.21	24.03	24.04

APRIL-SEPTEMBER HIGHEST 23.57 MAY 4, LOWEST 24.82 SEPTEMBER 29.

## LANCASTER COUNTY

401152076110101. Local number, LN 1676--Continued

## WATER-QUALITY RECORDS.

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.  
 COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--March 1985 to current year.

## WATER-QUALITY DATA, MARCH 1985 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
MAR 1985							
21...	1128	--	40	748	--	<0.01	--
APR							
03...	0947	24.26	40	1250	88	--	0.07
23...	1000	24.57	40	1560	--	--	<0.01
MAY							
03...	1329	23.64	40	--	100	--	0.14
04...	1145	23.53	40	1260	91	--	0.01
06...	1115	23.73	40	1380	84	--	0.03
08...	1115	23.96	40	1320	88	--	0.02
10...	1220	24.09	40	1290	89	--	0.02
13...	1250	24.17	40	1210	83	--	0.01
JUN							
19...	1226	23.78	40	1070	--	--	--
JUL							
08...	1155	24.33	40	1170	--	--	--
AUG							
05...	1330	24.28	40	1480	--	--	--
29...	1138	24.61	40	1560	--	--	--

## LANCASTER COUNTY

327

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, 31.03 ft below land-surface datum, June 18, 1985; lowest, 32.37 ft below land-surface datum, Sept. 26, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR APRIL 1985 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	32.17	31.47	31.60	31.46	32.18
2							---	32.17	31.49	31.63	31.39	32.19
3							---	31.95	31.51	31.66	31.52	32.21
4							---	31.18	31.47	31.68	31.61	32.22
5							---	31.08	31.43	31.71	31.72	32.23
6							---	31.15	31.45	31.75	31.78	32.24
7							---	31.23	31.47	31.75	31.83	32.25
8							---	31.31	31.48	31.75	31.83	32.25
9							---	31.38	31.50	31.77	31.85	32.25
10							---	31.43	31.52	31.79	31.88	32.25
11							---	31.43	31.54	31.82	31.90	32.26
12							---	31.52	31.57	31.84	31.93	32.27
13							---	31.66	31.59	31.85	31.94	32.28
14							---	---	31.62	31.87	31.94	32.28
15							---	31.55	31.64	31.89	31.97	32.29
16							---	31.57	31.59	31.91	31.98	32.29
17							31.97	31.57	31.21	31.93	32.00	32.30
18							31.95	31.57	31.03	31.95	32.02	32.31
19							31.97	31.57	31.09	31.96	32.02	32.32
20							31.98	31.59	31.14	31.98	32.04	32.32
21							31.99	31.59	31.20	31.99	32.06	32.33
22							32.01	31.58	31.24	32.01	32.07	32.34
23							32.03	31.53	31.29	32.03	32.09	32.35
24							32.06	31.47	31.34	32.04	32.10	32.36
25							32.08	31.42	31.38	32.05	32.03	32.36
26							32.11	31.40	31.43	32.05	32.05	32.37
27							32.13	31.39	31.47	32.01	32.08	32.26
28							32.14	31.40	31.51	31.99	32.11	31.32
29							32.15	31.42	31.54	32.01	32.14	31.48
30							32.16	31.43	31.57	32.03	32.15	31.62
31							---	31.44	---	32.04	32.17	---
MEAN							32.05	31.51	31.43	31.88	31.92	32.20
MAX							32.16	32.17	31.64	32.05	32.17	32.37
MIN							31.95	31.08	31.03	31.60	31.39	31.32

APRIL-SEPTEMBER HIGHEST 31.03 JUNE 18, LOWEST 32.37 SEPTEMBER 26.

## LANCASTER COUNTY

401156076110501. Local number, LN 1677--Continued

## WATER-QUALITY RECORDS

REMARKS.--Water-quality samples bailed from recovering water after well pumped dry.  
 COOPERATION.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.  
 PERIOD OF RECORD.--March 1985 to current year.

## WATER-QUALITY DATA, MARCH 1985 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)
MAR 1985							
21...	1146	--	50	1300	24	--	0.02
APR							
03...	1038	31.87	50	783	--	30	--
MAY							
06...	1230	32.50	50	672	--	25	--
08...	0931	32.64	50	775	--	26	--
10...	1035	33.09	50	810	--	27	--
13...	1430	33.06	50	567	--	24	--
JUN							
19...	1322	31.09	50	567	--	--	--
JUL							
08...	1214	31.75	50	771	--	--	--
AUG							
05...	1345	31.65	50	716	--	--	--
29...	1230	32.13	50	761	--	--	--
SEP							
26...	1412	32.37	50	709	--	--	--
27...	1425	31.54	50	702	--	--	--
28...	0855	31.18	50	694	--	--	--

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
MAR 1985							
21...	--	24	--	--	--	--	--
APR							
03...	0.19	--	30	--	--	1.0	--
MAY							
06...	0.06	--	25	0.04	0.20	0.24	11
08...	0.03	--	26	0.01	0.49	0.50	1.3
10...	0.08	--	27	0.07	0.89	0.96	2.7
13...	0.03	--	24	0.03	0.47	0.50	0.19
JUN							
19...	--	--	24	--	--	0.30	--
JUL							
08...	--	--	25	--	--	0.14	--
AUG							
05...	--	--	24	--	--	0.44	--
29...	--	--	29	--	--	0.50	--
SEP							
26...	<0.01	--	22	0.02	0.40	0.42	0.18
27...	--	--	22	--	--	0.42	--
28...	--	--	21	--	--	0.42	--

## LANCASTER COUNTY

329

40090307551502. Local number, LN 1678

LOCATION.--Lat 40°09'03", long 75°55'15", Hydrologic unit 02050306, 1.6 mi west of Morgantown.

AQUIFER.--Limestone of the Buffalo-Springs Formation of Cambrian age.

DATUM.--Elevation of land-surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water used for domestic supply. Samples collected prior to entry into storage tank. This water supply changes from a well to a spring depending on the level of the water table. When sampled as a spring, data will be listed under Local Number LN SP 60. No data collected for LN SP 60 during 1985 water year.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JAN 1985								
10...	1110	680	17.5	<0.01	<0.01	15	15	0.02
JUN								
03...	1329	795	19.0	--	<0.01	--	15	--
SEP								
03...	1125	672	22.5	--	<0.01	--	14	--

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JAN 1985								
10...	0.02	0.62	0.62	0.64	0.64	16	0.04	0.03
JUN								
03...	0.02	--	0.28	--	0.30	--	--	0.06
SEP								
03...	<0.01	--	--	--	0.20	--	--	0.03



## LANCASTER COUNTY

400744075583901. Local number, LN SP 58.

LOCATION.--Lat 40°07'44", long 75°58'39", Hydrologic Unit 02050306, 1.1 mi southeast of Churchtown, Pa.

Owner: Harry Krappenbach

AQUIFER.--Dolomite of Zooks Corner Formation of Cambrian age.

DATUM.--Elevation of land-surface is 427 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Hillside spring used for domestic purposes.

COOPERATION.--Water-quality samples collected by the Pa. Department of Environmental Resources, Susquehanna River Basin Commission, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984								
01...	1115	510	11.0	<0.01	<0.01	12	12	0.01
27...	1145	502	--	<0.01	<0.01	12	12	0.02
DEC								
05...	1530	505	10.0	<0.01	<0.01	12	12	0.02
JAN 1985								
16...	1320	525	--	<0.01	<0.01	12	12	0.03
FEB								
22...	1400	585	--	--	<0.01	--	12	--
MAR								
31...	1349	580	--	--	<0.01	--	13	--
APR								
27...	0845	600	12.0	--	--	--	12	--
MAY								
11...	0730	620	13.5	--	--	--	12	--
29...	0800	600	11.0	--	--	--	13	--
JUN								
17...	1315	591	--	--	--	--	13	--
JUL								
05...	0830	525	--	--	--	--	13	--
25...	1310	592	--	--	--	--	15	--
26...	1024	563	--	--	--	--	12	--
31...	1150	540	--	--	--	--	12	--
AUG								
02...	0745	540	13.5	--	--	--	12	--
05...	1040	568	12.0	--	--	--	12	--
16...	1110	520	--	--	--	--	13	--
SEP								
17...	0940	572	--	--	--	--	12	--
28...	0920	562	--	--	--	--	12	--

## LANCASTER COUNTY

331

400744075583901. Local number LN SP 58--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
01...	0.01	0.55	0.55	0.56	0.56	13	0.10	0.07
27...	0.02	0.62	0.62	0.64	0.64	13	0.05	0.05
DEC								
05...	0.02	--	0.52	--	0.54	--	0.05	0.05
JAN 1985								
16...	0.03	0.27	0.27	0.30	0.30	13	0.06	0.06
FEB								
22...	0.04	--	0.54	--	0.58	--	--	0.05
MAR								
31...	--	--	--	--	0.34	--	--	--
APR								
27...	--	--	--	--	0.60	--	--	0.09
MAY								
11...	--	--	--	--	0.50	--	--	--
29...	--	--	--	--	0.46	--	--	--
JUN								
17...	--	--	--	--	0.30	--	--	--
JUL								
05...	--	--	--	--	0.30	--	--	--
25...	--	--	--	--	0.42	--	--	--
26...	--	--	--	--	0.36	--	--	--
31...	--	--	--	--	0.74	--	--	--
AUG								
02...	--	--	--	--	0.52	--	--	--
05...	--	--	--	--	0.86	--	--	--
16...	--	--	--	--	0.32	--	--	--
SEP								
17...	--	--	--	--	0.36	--	--	--
28...	--	--	--	--	0.22	--	--	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 1984								
27...	1145	<0.10	0.20	0.20	0.10	<0.20	0.30	<1

## LANCASTER COUNTY

40090307551501. Local number, LN SP 59.

LOCATION.--Lat 40°09'03", long 75°55'15", Hydrologic Unit 02050306, 1.6 mi west of Morgantown.

AQUIFER.--Limestone of the Buffalo-Springs formation of Cambrian age.

DATUM.--Elevation of land-surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water used for domestic supply. Samples collected prior to entry into storage tank.

COOPERATION.--Water-quality samples collected by U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE SOLVED (MG/L AS N)	NITRO- GEN, DIS- NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 SOLVED (MG/L AS N)	NITRO- GEN, DIS- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JAN 1985								
10...	1141	570	<0.01	<0.01	14	14	0.03	0.03
JUN								
03...	1315	730	--	<0.01	--	14	--	0.11
SEP								
03...	1150	603	--	<0.01	--	13	--	0.01

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
JAN 1985							
10...	0.63	0.63	0.66	0.66	15	0.05	0.04
JUN							
03...	--	1.2	--	1.3	--	--	0.06
SEP							
03...	--	0.19	--	0.20	--	--	0.04

## LANCASTER COUNTY

333

401153076105201. Local number, LN SP 61.

LOCATION.--Lat 40°11'53", long 76°10'52", 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.--Water-quality samples collected by Pa. Department of Environmental Resources, and U.S. Geological Survey. Chemical samples analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 1984									
15...	1030	680	13.0	--	<0.01	<0.01	18	18	0.02
29...	1225	--	--	--	<0.01	<0.01	17	17	0.03
NOV									
01...	1510	675	12.0	--	<0.01	<0.01	17	17	0.01
15...	1200	--	--	--	<0.01	<0.01	18	18	0.03
DEC									
10...	1705	596	--	--	<0.01	<0.01	22	20	<0.01
JAN 1985									
08...	0909	650	10.0	--	<0.01	<0.01	20	19	0.02
29...	1456	610	11.0	--	<0.01	--	18	--	0.02
FEB									
28...	1249	710	11.0	--	--	<0.01	--	22	--
MAR									
27...	1335	680	--	--	--	<0.01	--	18	--
APR									
23...	1405	665	11.0	--	--	<0.01	--	17	--
MAY									
04...	1216	690	11.0	20	--	0.01	--	20	--
06...	1205	686	11.5	--	--	<0.01	--	20	--
08...	1315	725	11.0	20	--	0.01	--	20	--
10...	1335	695	11.5	--	--	<0.01	--	18	--
13...	1415	552	11.5	--	--	<0.01	--	18	--
JUN									
19...	1137	705	--	--	--	--	--	19	--
JUL									
08...	1322	599	11.5	--	--	--	--	17	--
AUG									
05...	1445	742	11.5	--	--	--	--	18	--
29...	1103	714	--	--	--	--	--	16	--
SEP									
26...	1440	694	--	--	--	<0.01	--	16	--
28...	0919	692	--	--	--	--	--	18	--

## LANCASTER COUNTY

401153076105201. Local number, LN SP 61--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 1984								
15...	0.02	0.42	0.26	0.44	0.28	18	0.04	0.04
29...	0.03	0.83	0.83	0.86	0.86	18	0.04	0.04
NOV								
01...	0.01	0.67	0.51	0.68	0.52	18	0.04	0.03
15...	0.03	0.49	0.49	0.52	0.52	19	0.03	0.02
DEC								
10...	<0.01	--	--	0.48	0.48	22	0.04	0.04
JAN 1985								
08...	0.02	0.48	0.48	0.50	0.50	21	0.04	0.04
08...	--	--	--	--	--	--	--	--
29...	--	0.36	--	0.38	--	18	0.07	--
FEB								
28...	0.04	--	0.60	--	0.64	--	--	--
MAR								
27...	0.02	--	0.32	--	0.34	--	--	--
APR								
23...	0.02	--	0.34	--	0.36	--	--	0.07
MAY								
04...	0.02	--	0.44	--	0.46	--	--	0.09
06...	0.02	--	0.46	--	0.48	--	--	0.08
08...	0.01	--	0.35	--	0.36	--	--	0.07
10...	0.02	--	0.20	--	0.22	--	--	0.05
13...	0.02	--	0.62	--	0.64	--	--	0.04
JUN								
19...	--	--	--	--	<0.20	--	--	--
JUL								
08...	--	--	--	--	0.16	--	--	--
AUG								
05...	--	--	--	--	0.38	--	--	--
29...	--	--	--	--	0.50	--	--	--
SEP								
26...	0.02	--	0.14	--	0.16	--	--	0.06
28...	--	--	--	--	0.52	--	--	--

LUZERNE COUNTY

335

411800076162501. Local number, LU 243.

LOCATION.--Lat 41°18'00", long 76°16'25", Hydrologic Unit 02050107, at Ricketts Glen Park, Fairmount Township.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled unused water-table 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, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.

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, 58.70 ft below land-surface datum, Oct. 5, 1957.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.49	55.78	54.10	---	54.18	53.30	52.92	53.85	52.86	54.38	53.86	51.10
2	55.54	55.85	53.79	---	54.26	52.54	52.76	53.91	52.53	54.37	53.57	51.16
3	55.47	55.79	54.57	---	54.35	52.60	52.56	53.65	52.47	54.49	53.46	51.04
4	55.59	55.78	53.45	---	54.39	52.62	53.23	53.57	52.36	54.60	53.48	51.10
5	55.64	55.73	53.43	---	54.38	52.66	52.49	53.42	52.37	54.96	53.35	51.26
6	55.74	55.64	52.97	---	54.42	53.58	52.31	53.28	52.46	54.70	53.34	51.53
7	55.85	55.74	52.98	---	54.47	52.88	53.06	53.21	52.54	54.69	53.36	51.71
8	55.69	55.65	53.02	---	54.50	52.76	52.37	53.63	52.71	54.64	53.33	51.90
9	55.69	55.62	53.08	---	54.57	52.86	53.21	53.22	52.78	54.81	53.38	52.01
10	55.70	55.58	53.01	---	54.61	52.99	53.57	53.32	52.85	54.65	53.82	52.07
11	55.74	55.55	53.14	---	54.63	52.96	52.45	53.39	52.94	54.90	53.53	52.26
12	55.83	55.49	53.09	---	54.57	52.80	52.49	53.48	53.08	54.83	53.61	52.38
13	55.97	55.58	53.10	---	54.46	53.03	52.58	53.35	53.23	54.66	53.74	52.52
14	56.18	55.52	53.69	---	54.39	52.29	52.54	53.47	53.48	54.48	53.79	52.71
15	55.90	55.46	53.07	---	54.31	51.99	52.49	53.78	53.41	54.26	53.80	52.93
16	55.88	55.48	52.92	---	54.25	52.89	52.94	53.56	53.50	54.13	53.77	52.97
17	56.20	55.56	52.93	---	54.25	52.76	53.17	53.56	53.46	54.68	53.92	53.06
18	55.92	55.45	52.81	---	54.22	52.02	53.17	53.66	53.56	54.00	54.00	53.16
19	55.94	55.49	53.68	---	54.25	52.11	53.57	53.71	53.67	53.98	53.99	53.29
20	56.06	55.57	52.81	---	54.25	52.97	53.02	53.77	53.81	54.12	54.14	53.90
21	56.08	55.70	52.83	---	54.25	52.32	53.15	53.81	53.86	54.06	54.14	53.71
22	55.86	55.62	52.66	---	54.17	52.55	53.51	53.95	54.11	53.97	54.26	53.69
23	55.65	55.60	52.53	---	54.15	52.41	53.46	53.98	53.94	54.07	54.34	53.74
24	55.64	55.61	52.23	53.59	54.00	52.49	53.21	53.99	---	54.13	54.43	53.72
25	55.65	55.65	52.00	53.67	53.76	53.57	53.45	54.13	53.96	54.14	54.37	53.76
26	55.63	55.67	52.09	53.81	53.29	53.23	53.30	54.33	54.01	54.14	---	53.79
27	55.66	55.69	52.05	53.82	52.91	54.20	53.44	54.48	54.02	54.12	53.72	53.71
28	55.86	55.70	52.39	53.93	53.16	54.62	53.50	53.93	54.09	54.23	53.10	53.48
29	55.75	55.48	---	54.03	---	53.30	53.60	54.10	54.09	54.42	52.52	53.32
30	55.71	54.74	---	54.09	---	53.08	53.64	53.39	54.51	54.28	52.21	53.29
31	55.77	---	---	54.13	---	53.09	---	53.10	---	54.25	51.74	---
MEAN	55.78	55.59	53.02	53.88	54.19	52.89	53.04	53.68	53.33	54.39	53.60	52.68
MAX	56.20	55.85	54.57	54.13	54.63	54.62	53.64	54.48	54.51	54.96	54.43	53.90
MIN	55.47	54.74	52.00	53.59	52.91	51.99	52.31	53.10	52.36	53.97	51.74	51.04

WTR YR 1985 HIGHEST 51.04 SEPTEMBER 3, LOWEST 56.20 OCTOBER 17.



## LYCOMING COUNTY

412427076594401. Local number, LY 112.

LOCATION.--Lat 41°24'27", long 76°59'44", Hydrologic Unit 02050206, at State Game Land Number 133, near Trout Run.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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, 95.32 ft below land-surface datum, Oct. 23, 24, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91.20	93.22	86.21	84.87	90.27	87.73	87.30	89.48	89.72	91.01	89.11	87.42
2	91.28	93.21	86.11	85.29	90.36	88.04	86.25	89.53	88.21	91.02	88.92	87.03
3	91.30	93.24	86.11	85.57	90.56	88.36	85.59	89.54	87.68	91.04	88.98	87.03
4	91.47	93.26	86.06	85.57	90.67	88.38	85.65	89.47	87.94	91.12	89.10	87.17
5	91.64	93.20	85.89	86.04	90.69	88.60	85.77	89.33	88.06	91.17	89.21	87.34
6	91.70	93.06	85.66	86.37	90.61	88.85	86.10	89.32	88.11	91.16	89.30	87.54
7	91.77	92.77	86.09	86.51	90.71	88.85	86.41	89.44	88.15	91.13	89.34	87.76
8	91.80	92.58	86.47	86.98	90.81	88.80	86.63	89.66	88.16	90.97	89.34	87.88
9	91.90	92.40	86.83	87.38	90.99	88.79	86.92	89.78	88.29	90.71	88.87	87.80
10	92.00	92.32	86.99	87.48	91.10	88.88	87.13	89.81	88.57	90.25	88.56	87.41
11	92.08	92.19	86.99	87.55	91.15	88.92	87.34	89.89	88.70	89.75	88.58	87.10
12	92.11	91.73	86.86	87.67	91.15	88.83	87.59	89.96	88.77	88.95	88.76	86.63
13	92.15	91.09	86.22	87.77	90.83	87.91	87.72	89.97	88.98	88.51	88.89	86.60
14	92.21	90.83	85.98	87.90	89.90	86.47	87.79	89.96	89.20	88.00	89.04	86.78
15	92.28	90.69	85.99	88.23	89.50	86.13	87.82	90.01	89.35	87.63	89.15	86.98
16	92.40	90.48	86.04	88.50	89.47	86.28	87.91	89.99	89.41	87.79	89.32	87.14
17	92.46	90.55	86.17	88.49	89.61	86.45	88.18	89.93	89.58	87.96	89.40	87.37
18	92.54	90.59	86.44	88.50	89.69	86.85	88.24	89.97	89.64	88.10	89.48	87.58
19	92.56	90.73	86.53	88.66	89.71	87.09	88.38	90.16	89.77	88.21	89.55	87.76
20	92.71	90.93	86.65	88.89	89.52	87.33	88.54	90.30	89.92	88.30	89.68	87.90
21	92.76	91.11	86.65	89.01	89.24	87.63	88.68	90.46	90.16	88.43	89.81	88.05
22	92.85	91.15	86.56	89.03	88.93	87.75	88.74	90.57	90.27	88.50	89.93	88.22
23	92.95	91.18	86.29	---	88.68	87.78	88.84	90.61	90.34	88.69	90.06	88.37
24	93.00	91.25	85.52	89.31	88.13	87.85	88.93	90.67	90.39	88.87	90.16	88.49
25	93.00	91.34	85.66	89.36	87.54	87.85	88.90	90.72	90.44	88.95	90.10	88.68
26	93.05	91.46	85.99	89.66	87.40	87.63	88.98	90.79	90.49	88.95	---	88.75
27	93.08	91.51	86.17	89.74	87.39	87.48	89.11	90.86	90.58	88.98	88.81	88.79
28	93.11	91.52	86.34	89.86	87.59	87.21	89.21	90.87	90.64	88.97	88.63	89.06
29	93.15	91.34	86.39	90.05	---	87.20	89.36	90.78	90.76	88.99	88.40	89.15
30	93.20	87.81	85.84	90.16	---	87.41	89.38	90.28	90.88	89.10	88.32	89.20
31	93.21	---	85.11	90.19	---	87.42	---	89.98	---	89.13	88.22	---
MEAN	92.35	91.62	86.22	88.02	89.72	87.77	87.78	90.07	89.37	89.37	89.17	87.77
MAX	93.21	93.26	86.99	90.19	91.15	88.92	89.38	90.87	90.88	91.17	90.16	89.20
MIN	91.20	87.81	85.11	84.87	87.39	86.13	85.59	89.32	87.68	87.63	88.22	86.60

WTR YR 1985 HIGHEST 84.87 JANUARY 1, LOWEST 93.26 NOVEMBER 4.

MIFFLIN COUNTY

337

404140077354001. Local number, MF 344.

LOCATION.--Lat 40°41'40", long 77°35'40", Hydrologic Unit 02050304, at Roseann.

Owner: Ira Huron

AQUIFER.--Dolomite of Bellefonte Formation of Lower 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67.57	72.36	61.00	52.63	---	56.10	39.61	55.18	54.72	58.68	66.09	71.03
2	67.72	72.33	61.10	53.35	---	56.44	35.91	55.01	54.41	58.90	66.23	71.13
3	67.96	72.39	61.05	53.60	---	56.74	36.53	50.42	54.35	59.14	66.75	71.25
4	68.05	72.41	57.54	53.73	---	56.79	37.27	48.91	54.73	59.44	67.03	71.39
5	68.06	72.48	55.99	54.46	---	57.14	38.17	47.65	54.75	---	67.12	71.49
6	68.18	72.54	55.45	54.74	---	57.76	39.47	48.04	55.09	59.29	67.16	71.66
7	68.32	72.49	55.90	55.21	---	57.86	40.25	49.04	55.19	59.45	67.50	71.84
8	68.42	72.42	56.50	56.22	---	57.71	41.53	50.04	55.37	---	67.53	71.94
9	68.65	72.30	56.78	56.68	---	58.05	42.88	50.54	55.50	59.40	67.69	72.03
10	68.81	72.50	56.79	56.78	---	58.38	43.86	51.09	55.96	59.46	67.91	71.80
11	68.88	72.43	56.46	57.17	---	58.44	45.14	51.65	56.12	---	68.22	71.71
12	68.92	72.44	56.24	57.55	---	57.01	46.01	52.16	55.50	---	68.48	71.83
13	68.99	72.31	55.28	57.78	---	56.66	46.30	52.62	55.44	---	68.65	71.96
14	69.15	72.30	54.87	58.15	49.38	56.95	46.54	53.21	55.92	---	68.90	72.07
15	69.67	72.17	54.60	58.87	50.54	57.23	46.89	53.49	56.18	---	69.17	72.20
16	69.87	72.34	54.54	59.03	51.93	57.23	47.48	53.63	55.30	---	69.34	72.32
17	69.95	72.45	54.20	59.07	53.24	56.90	48.25	53.91	54.22	---	---	72.54
18	69.99	72.51	54.40	59.30	53.76	57.22	48.68	53.53	54.02	---	---	72.65
19	70.65	72.67	54.89	59.71	54.41	57.30	49.39	54.12	54.50	---	---	72.87
20	71.87	72.86	54.89	60.10	54.80	57.34	50.09	54.63	55.21	---	---	72.98
21	71.94	73.03	54.85	60.36	54.87	57.55	50.47	55.13	55.51	---	---	73.14
22	71.88	73.08	53.29	---	55.05	57.57	50.84	55.44	55.60	---	69.83	73.30
23	71.59	73.22	47.98	59.43	55.06	57.46	51.41	55.74	55.89	---	69.91	73.24
24	71.78	73.34	47.91	---	55.12	53.10	51.67	56.02	56.21	64.32	69.99	73.45
25	71.89	73.42	48.61	---	55.29	48.97	52.19	56.29	56.49	64.52	70.27	73.61
26	72.01	73.53	48.88	---	55.71	46.80	52.73	56.52	56.83	64.63	70.31	73.70
27	72.13	73.59	49.43	---	56.03	46.56	53.40	56.75	57.10	64.18	70.55	74.60
28	72.28	73.60	49.89	---	56.13	46.72	53.84	56.76	57.41	64.55	70.58	75.22
29	72.32	58.29	50.50	---	---	46.48	54.25	56.08	57.87	64.91	70.49	75.22
30	72.50	59.17	51.49	---	---	43.69	54.64	56.38	58.30	65.29	70.63	75.00
31	72.41	---	52.02	---	---	42.29	---	56.07	---	65.60	70.88	---
MEAN	70.08	71.77	54.30	57.00	54.09	54.59	46.52	53.42	55.66	61.99	68.74	72.64
MAX	72.50	73.60	61.10	60.36	56.13	58.44	54.64	56.76	58.30	65.60	70.88	75.22
MIN	67.57	58.29	47.91	52.63	49.38	42.29	35.91	47.65	54.02	58.68	66.09	71.03

WTR YR 1985 HIGHEST 35.91 APRIL 2, LOWEST 75.22 SEPTEMBER 28, 29.

## PERRY COUNTY

402339077074502. Local number, PE 518.

LOCATION.--Lat 40°23'39", long 77°07'45", Hydrologic Unit 02050305, at State Game Land Number 256.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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, 7.75 ft below land-surface datum, Apr. 5, 1984; lowest, 19.51 ft below land-surface datum, Aug. 19, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.56	10.67	9.92	9.74	10.32	9.25	8.08	10.13	10.48	10.62	10.38	11.52
2	10.82	10.62	9.97	9.92	10.69	9.51	8.07	10.13	10.38	10.16	10.51	11.13
3	10.88	10.72	9.89	9.76	10.69	9.50	8.19	9.72	9.98	10.33	11.05	11.20
4	10.59	10.72	9.89	10.24	10.68	9.49	8.51	9.34	10.02	10.21	10.94	11.36
5	10.51	11.03	9.90	10.23	10.55	9.66	8.43	9.22	9.98	9.98	11.28	11.30
6	10.39	11.35	9.67	9.92	10.38	9.72	8.83	9.23	10.04	10.15	11.10	11.20
7	10.78	11.26	9.46	13.56	10.51	9.71	9.12	9.47	10.06	10.16	10.82	11.96
8	10.75	11.26	10.00	12.41	10.51	9.27	8.92	9.71	9.84	10.11	10.67	12.09
9	10.68	11.07	10.00	11.01	10.78	9.48	9.34	9.67	10.42	10.21	10.65	11.71
10	10.65	10.86	9.90	10.55	10.77	9.47	9.34	9.86	10.94	10.21	10.79	11.55
11	10.58	10.86	9.67	10.55	10.50	9.47	9.26	9.86	11.18	10.02	10.80	11.29
12	10.52	11.34	9.63	10.31	10.20	9.29	9.33	9.77	10.84	10.08	11.10	11.31
13	10.61	11.32	9.78	10.10	9.38	9.44	9.60	9.70	11.07	10.77	11.10	11.51
14	10.58	10.98	9.97	10.44	9.01	9.80	9.60	10.01	11.24	10.77	11.04	11.42
15	10.59	10.98	9.94	10.60	9.10	9.87	9.19	10.14	10.92	10.32	11.01	11.72
16	10.49	10.89	9.95	10.49	9.23	9.86	9.38	9.57	10.75	10.67	10.81	11.71
17	10.48	11.23	9.81	10.36	9.23	9.88	9.91	9.35	10.05	10.71	11.11	11.54
18	10.56	11.22	9.89	10.73	9.44	9.89	9.81	9.47	9.90	10.70	11.12	11.54
19	10.64	10.82	9.71	10.68	9.35	9.96	9.50	9.69	10.12	10.91	11.00	11.44
20	10.64	10.96	9.79	10.52	9.29	9.83	9.84	9.97	10.22	11.05	11.00	11.62
21	10.69	11.01	9.79	10.36	9.38	10.04	9.87	9.82	10.14	11.05	10.93	11.79
22	10.69	11.02	10.00	---	9.34	10.03	9.81	9.64	10.45	10.76	10.98	11.81
23	10.75	10.80	9.93	10.30	9.29	9.62	10.18	9.62	10.21	10.58	11.00	11.81
24	10.71	10.98	9.37	10.44	9.30	9.60	10.10	9.79	9.79	10.59	11.02	11.54
25	10.59	10.98	9.56	10.45	9.05	9.22	9.93	9.65	9.90	10.59	---	11.71
26	10.52	10.86	9.54	11.04	9.25	9.31	9.94	9.69	9.85	10.38	10.80	11.55
27	10.47	10.86	9.54	10.99	9.10	9.17	10.13	9.76	9.89	10.39	11.03	11.33
28	10.43	10.70	9.43	10.57	9.31	9.00	10.03	9.75	9.89	10.35	11.18	11.38
29	10.63	10.25	9.67	10.57	---	8.99	9.97	9.68	10.29	10.22	11.21	11.36
30	10.73	9.78	10.19	10.58	---	8.81	9.96	9.88	10.76	10.40	11.19	11.30
31	10.73	---	10.13	10.45	---	8.74	---	9.78	---	10.40	11.53	---
MEAN	10.62	10.91	9.80	10.60	9.81	9.51	9.41	9.71	10.32	10.45	10.97	11.52
MAX	10.88	11.35	10.19	13.56	10.78	10.04	10.18	10.14	11.24	11.05	11.53	12.09
MIN	10.39	9.78	9.37	9.74	9.01	8.74	8.07	9.22	9.79	9.98	10.38	11.13

WTR YR 1985 HIGHEST 8.07 APRIL 2, LOWEST 13.56 JANUARY 7.

## POTTER COUNTY

339

414640077493801. Local number, PO 72.

LOCATION.--Lat 41°46'40", long 77°49'38", Hydrologic Unit 02050205, at Denton Hill State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 110 ft, cased to 21 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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, 1.1 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, 32.18 ft below land-surface datum, Oct. 31, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.06	28.65	19.57	15.26	25.41	17.34	15.79	23.29	24.00	26.75	27.00	27.25
2	28.78	28.74	19.73	15.73	25.57	18.13	14.93	23.42	23.48	26.92	27.39	27.48
3	28.85	28.94	19.73	16.38	25.86	18.83	15.31	23.53	23.87	27.12	27.63	27.67
4	29.00	28.95	18.83	17.06	25.99	19.09	16.28	23.69	---	27.37	27.82	27.83
5	29.09	26.26	19.03	18.00	25.99	19.13	16.55	23.78	---	27.54	27.99	27.98
6	29.15	24.62	19.51	18.65	25.92	18.57	16.78	23.83	---	27.72	28.15	28.18
7	29.19	25.47	20.30	19.14	26.07	18.82	17.13	23.83	---	27.84	28.20	28.41
8	29.21	26.08	20.80	19.99	26.30	18.86	17.61	24.06	---	27.90	21.90	28.45
9	29.30	26.44	21.14	20.66	26.51	18.47	18.21	24.20	---	24.00	21.82	28.40
10	29.38	26.44	21.24	20.93	26.66	18.27	18.61	24.31	---	23.27	22.51	28.04
11	29.46	23.12	21.04	21.09	26.67	18.08	19.04	24.42	---	23.56	23.06	28.12
12	29.51	22.41	20.31	21.35	26.63	17.94	19.49	24.57	---	23.88	23.56	28.42
13	29.57	22.75	19.92	21.58	24.71	14.57	19.77	24.73	---	24.20	23.93	28.63
14	29.64	23.19	16.05	21.76	24.91	14.43	20.02	25.01	---	24.32	24.26	28.83
15	29.69	23.36	15.66	22.26	25.33	15.49	20.25	25.20	---	24.40	24.64	29.00
16	29.83	23.58	16.16	22.58	25.56	16.48	20.58	25.29	---	24.06	24.77	29.09
17	29.91	23.89	16.82	22.61	25.88	17.48	20.92	25.37	---	24.39	25.16	29.19
18	29.95	24.04	17.70	22.74	26.12	18.33	21.03	25.56	23.91	24.69	25.75	29.26
19	30.00	24.30	18.05	22.99	26.17	18.86	21.26	25.89	24.06	25.00	26.11	29.31
20	30.00	24.68	18.36	23.27	26.30	19.42	21.52	26.25	24.15	25.40	26.54	29.41
21	30.01	25.02	18.54	23.44	26.38	19.98	21.67	26.52	---	25.66	26.97	29.53
22	30.02	25.28	18.21	23.72	26.37	20.34	21.78	26.83	24.54	23.00	27.30	29.67
23	28.93	25.29	17.35	23.88	24.71	20.40	21.93	26.98	24.33	23.70	27.53	29.76
24	29.04	25.41	17.15	23.96	18.18	19.87	22.05	27.14	24.50	24.08	27.67	29.79
25	29.18	25.64	17.96	24.09	13.40	18.34	22.22	27.26	24.84	24.45	27.61	29.90
26	29.19	25.94	18.67	24.43	13.89	17.64	22.40	27.36	25.22	24.70	27.50	30.02
27	29.09	26.09	19.16	24.59	15.09	17.47	22.62	27.49	25.62	25.12	27.72	30.02
28	29.12	26.10	19.32	24.74	16.43	17.35	22.79	27.49	25.90	25.72	27.92	26.31
29	29.04	23.01	17.40	24.97	---	16.99	22.98	26.97	26.03	26.18	28.06	27.18
30	28.02	19.52	15.01	25.20	---	16.27	23.15	27.26	26.29	26.70	28.11	27.57
31	28.43	---	14.95	25.28	---	16.35	---	27.33	---	26.86	26.95	---
MEAN	29.31	25.11	18.51	21.69	24.04	17.99	19.82	25.45	24.72	25.37	26.18	28.62
MAX	30.02	28.95	21.24	25.28	26.67	20.40	23.15	27.49	26.29	27.90	28.20	30.02
MIN	28.02	19.52	14.95	15.26	13.40	14.43	14.93	23.29	23.48	23.00	21.82	26.31

WTR YR 1985 HIGHEST 13.40 FEBRUARY 25, LOWEST 30.02 OCTOBER 22, SEPTEMBER 26, 27.

## SNYDER COUNTY

403939076591001. Local number, SN 130.

LOCATION.--Lat 40°39'39", long 76°59'10", Hydrologic Unit 02050301, at State Game Land Number 194.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Marine Beds of Chemung Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian 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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.34	19.39	18.46	18.87	19.27	18.77	18.01	19.22	19.11	19.26	19.30	19.43
2	19.34	19.40	18.63	18.93	19.28	18.86	17.96	19.21	19.15	19.26	19.33	19.41
3	19.34	19.41	18.72	18.95	19.30	18.93	18.20	18.99	19.18	19.25	19.33	19.42
4	19.35	19.39	18.69	18.93	19.30	18.93	18.34	18.34	19.20	19.26	19.32	19.41
5	19.37	19.38	18.68	18.98	19.28	19.01	18.43	18.50	19.15	19.27	19.33	19.41
6	19.38	19.41	18.71	19.01	19.26	19.07	18.56	18.62	19.19	19.26	19.33	19.41
7	19.38	19.42	18.69	19.01	19.28	19.07	18.66	18.73	19.18	19.25	19.33	19.41
8	19.38	19.42	18.74	19.09	19.28	19.05	18.73	18.83	19.17	19.27	19.29	19.42
9	19.37	19.39	18.83	19.12	19.29	19.08	18.81	18.89	19.18	19.29	19.32	19.39
10	19.38	19.39	18.83	19.10	19.31	19.11	18.85	18.95	19.21	19.29	19.34	19.40
11	19.39	19.38	18.79	19.10	19.30	19.11	18.89	19.00	19.20	19.29	19.33	19.42
12	19.39	19.39	18.59	19.10	19.26	19.07	18.95	19.01	19.19	19.31	19.38	19.44
13	19.38	19.41	18.74	19.11	18.16	19.04	18.98	19.06	19.23	19.31	19.39	19.46
14	19.37	19.41	18.84	19.17	18.40	19.00	18.98	19.10	19.24	19.31	19.37	19.46
15	19.38	19.42	18.90	19.20	18.57	19.03	18.98	19.12	19.27	19.32	19.38	19.45
16	19.39	19.40	18.93	19.17	18.67	19.02	19.01	19.10	18.95	19.34	19.38	19.44
17	19.39	19.40	18.94	---	18.76	19.03	19.05	19.09	19.00	19.34	19.39	19.44
18	19.39	19.41	19.00	---	18.83	19.08	19.05	19.13	19.04	19.34	19.40	19.44
19	19.40	19.44	18.98	---	18.85	19.09	19.06	19.17	19.09	19.33	19.39	19.44
20	19.40	---	18.88	---	18.81	19.11	19.10	19.20	19.14	19.33	19.39	19.40
21	19.42	---	18.86	---	18.73	19.14	19.11	19.21	19.17	19.32	19.39	19.41
22	19.42	---	18.55	---	18.65	19.13	19.11	19.22	19.20	19.30	19.40	19.40
23	19.43	---	18.24	---	18.38	19.12	19.12	19.17	19.20	---	19.41	19.42
24	19.43	---	18.33	19.23	18.18	19.08	19.14	19.16	19.21	19.32	19.43	19.42
25	19.43	19.49	18.59	19.21	18.39	18.88	19.14	19.16	19.18	19.34	19.41	19.44
26	19.43	19.50	18.72	19.24	18.49	18.65	19.16	19.18	19.20	19.25	---	19.43
27	19.42	19.50	18.77	19.24	18.62	18.60	19.18	19.17	19.22	19.26	19.40	19.40
28	19.42	19.46	18.81	19.25	18.71	18.64	19.20	19.19	19.22	19.32	19.42	19.41
29	19.43	18.00	18.82	19.27	---	18.64	19.22	19.21	19.22	19.33	19.42	19.42
30	19.46	18.14	18.88	19.27	---	18.53	19.20	19.22	19.24	19.34	19.39	19.42
31	19.39	---	18.90	19.27	---	18.46	---	19.20	---	19.33	19.41	---
MEAN	19.39	19.31	18.74	19.12	18.88	18.95	18.87	19.04	19.17	19.30	19.37	19.42
MAX	19.46	19.50	19.00	19.27	19.31	19.14	19.22	19.22	19.27	19.34	19.43	19.46
MIN	19.34	18.00	18.24	18.87	18.16	18.46	17.96	18.34	18.95	19.25	19.29	19.39

WTR YR 1985 HIGHEST 17.96 APRIL 2, LOWEST 19.50 NOVEMBER 26, 27.

## SULLIVAN COUNTY

341

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.--Shale of Catskill Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in., depth 50 ft, cased to 34 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 1,060 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.--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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.48	28.69	22.98	23.35	28.35	---	24.70	27.69	25.99	28.03	26.92	28.51
2	29.29	28.76	23.64	23.90	28.39	---	23.94	27.75	22.25	28.02	26.84	28.63
3	29.26	28.82	23.87	24.31	28.46	---	23.28	27.71	23.14	28.09	27.08	28.76
4	29.33	28.86	23.95	24.70	28.51	---	23.51	27.37	24.03	28.09	27.40	28.87
5	29.40	28.92	24.17	25.12	28.56	---	23.83	27.27	24.54	28.01	27.83	29.01
6	29.45	28.93	24.57	25.40	28.58	---	24.19	27.37	24.94	28.13	28.13	29.11
7	29.48	28.54	24.84	25.65	28.58	---	24.51	27.37	25.42	28.08	28.20	29.21
8	29.50	28.31	25.13	25.95	28.60	---	24.68	27.35	25.81	26.18	28.19	29.24
9	29.50	28.35	25.30	26.11	28.65	---	26.51	27.47	26.14	25.68	28.18	29.20
10	29.50	28.41	25.37	26.25	28.69	---	24.99	27.58	26.40	25.70	28.38	28.98
11	29.49	28.45	25.31	26.42	28.73	---	25.26	27.71	26.64	25.12	28.53	28.66
12	29.52	28.24	24.64	26.57	28.74	---	25.51	27.84	26.82	25.31	28.63	28.71
13	29.53	27.93	24.26	26.71	28.70	---	25.71	27.86	26.98	25.81	28.76	28.86
14	29.55	27.40	24.16	26.81	28.00	---	25.84	27.54	27.14	26.19	28.83	29.04
15	29.57	27.09	24.37	26.97	27.37	---	25.91	27.45	27.33	26.43	28.92	29.14
16	29.60	27.06	24.60	27.07	27.13	---	25.94	27.48	27.46	26.44	28.93	29.22
17	29.60	27.20	24.92	27.15	27.16	---	26.01	27.48	27.52	26.32	28.81	29.29
18	29.62	27.47	25.32	27.22	27.21	---	26.03	27.48	27.72	26.50	28.95	29.35
19	29.62	27.72	25.34	27.34	27.21	---	26.11	27.37	27.65	26.79	29.05	29.41
20	29.54	28.11	25.46	27.39	26.69	---	26.21	27.41	---	27.04	29.11	29.41
21	---	28.28	25.53	27.47	26.33	25.83	26.27	27.65	27.94	27.50	29.07	29.44
22	29.34	28.41	25.48	27.71	26.30	26.03	26.86	27.80	28.10	26.82	29.14	29.48
23	29.13	28.47	24.55	27.59	26.15	26.09	26.98	28.02	28.24	24.12	29.22	29.48
24	28.70	28.52	24.27	27.82	25.79	---	27.07	28.17	28.31	24.94	29.27	29.50
25	28.82	28.58	24.65	27.77	25.27	---	27.11	28.32	28.30	25.51	29.28	29.50
26	28.93	28.66	24.95	27.92	24.90	---	27.18	28.42	28.30	25.80	29.08	29.51
27	28.97	28.69	25.15	28.02	24.84	---	27.30	28.46	28.44	26.01	28.73	29.51
28	29.01	28.70	25.23	28.14	25.05	---	27.36	28.48	28.50	26.22	28.62	28.42
29	29.03	28.51	25.07	28.20	---	---	27.49	27.61	28.50	26.53	28.81	27.08
30	28.87	22.33	23.76	28.29	---	---	27.63	26.95	28.35	26.90	28.90	26.94
31	---	---	22.95	28.34	---	---	---	26.60	---	27.02	28.79	---
MEAN	29.33	28.08	24.64	26.70	27.39	25.98	25.80	27.65	26.79	26.56	28.53	28.98
MAX	29.62	28.93	25.53	28.34	28.74	26.09	27.63	28.48	28.50	28.13	29.28	29.51
MIN	28.70	22.33	22.95	23.35	24.84	25.83	23.28	26.60	22.25	24.12	26.84	26.94

WTR YR 1985 HIGHEST 22.25 JUNE 2, LOWEST 29.62 OCTOBER 18, 19.



## SUSQUEHANNA COUNTY

415323077451301. Local number, SQ 61.

LOCATION.--Lat 41°53'23", long 77°45'13", Hydrologic Unit 02050101, at State Game Land Number 175.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and shale of Susquehanna Group of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 175 ft, cased to 80 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.98	34.48	32.12	25.84	31.47	27.30	28.32	27.76	27.31	32.19	29.63	32.81
2	33.96	34.38	31.70	25.69	31.63	27.35	28.33	27.83	27.59	32.15	29.35	32.91
3	33.91	34.41	31.17	25.73	31.84	27.65	28.21	27.92	27.86	32.21	29.27	32.97
4	33.99	34.38	30.50	25.74	31.97	27.70	27.96	28.05	28.01	32.20	29.15	32.97
5	34.05	34.37	29.75	25.95	31.91	27.92	27.42	28.25	28.13	32.21	29.08	33.02
6	34.16	34.27	29.02	26.17	31.89	28.11	27.06	28.50	28.30	32.30	29.04	33.05
7	34.24	34.02	28.46	26.34	31.92	28.09	26.74	28.60	28.46	32.42	29.00	33.08
8	34.28	34.02	28.28	26.59	31.99	28.08	26.79	28.75	28.58	32.50	29.03	33.21
9	34.28	33.97	28.28	26.86	32.06	28.09	26.79	28.90	28.87	32.50	29.20	33.30
10	34.31	33.91	28.30	27.13	32.24	28.09	26.85	28.95	29.14	32.39	29.50	33.27
11	34.35	33.84	28.35	27.37	32.39	28.13	26.90	29.11	29.29	31.88	29.80	33.30
12	34.33	33.82	28.36	27.64	32.39	27.95	26.95	29.26	29.41	31.73	30.03	33.31
13	34.34	33.72	28.29	28.02	32.24	27.64	27.09	29.33	29.54	31.54	30.24	33.33
14	34.36	33.56	28.18	28.24	32.22	27.20	27.24	29.40	29.86	31.20	30.41	33.37
15	34.47	33.48	27.90	28.55	32.13	26.80	27.37	29.46	30.15	31.03	30.50	33.52
16	34.51	33.33	27.60	28.79	32.08	26.56	27.44	29.53	30.28	30.79	30.69	33.59
17	34.53	33.31	27.42	28.83	31.99	26.37	27.53	29.54	30.53	30.31	30.88	33.60
18	34.53	33.23	27.39	28.91	32.04	26.54	27.69	29.29	30.56	29.94	31.09	33.63
19	34.51	33.29	27.40	29.07	31.97	26.64	27.78	28.02	30.71	29.68	31.26	34.15
20	34.43	33.55	27.29	29.45	31.79	25.81	27.99	26.78	30.90	29.41	31.34	34.02
21	34.48	33.67	27.29	29.60	32.73	26.06	28.13	26.36	31.00	29.33	31.49	33.90
22	34.62	33.73	27.19	29.74	32.60	26.26	28.23	26.13	31.18	29.26	31.68	34.00
23	34.61	33.73	27.03	29.94	32.45	26.47	28.10	26.02	31.42	29.03	31.87	34.09
24	34.61	33.73	26.50	30.10	32.14	26.80	28.00	26.05	31.51	29.03	32.00	34.02
25	34.58	33.86	25.98	30.23	30.84	27.13	27.82	26.19	31.50	29.08	32.19	34.04
26	34.54	33.94	25.89	30.49	29.11	27.34	27.70	26.48	31.60	29.09	32.36	34.03
27	34.50	34.01	25.88	30.73	28.15	27.34	27.65	26.71	31.72	29.18	32.44	33.97
28	34.53	33.97	25.91	30.96	27.64	27.51	27.68	26.87	31.83	29.38	32.50	32.50
29	34.60	33.86	25.98	31.09	---	27.69	27.75	26.94	31.90	29.53	32.53	30.93
30	34.60	33.06	26.00	31.25	---	27.92	27.73	27.08	32.08	29.75	32.52	30.41
31	34.52	---	26.03	31.35	---	28.16	---	27.21	---	29.86	32.58	---
MEAN	34.38	33.83	27.92	28.46	31.64	27.31	27.57	27.91	29.97	30.75	30.73	33.28
MAX	34.62	34.48	32.12	31.35	32.73	28.16	28.33	29.54	32.08	32.50	32.58	34.15
MIN	33.91	33.06	25.88	25.69	27.64	25.81	26.74	26.02	27.31	29.03	29.00	30.41

WTR YR 1985 HIGHEST 25.69 JANUARY 2, LOWEST 34.62 OCTOBER 22.

## TIOGA COUNTY

343

414513077333701. Local number, TI 100.

LOCATION.--Lat 41°45'13", long 77°33'37", Hydrologic Unit 02050205, at State Game Land Number 208.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Lockhaven Formation of Late Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 77 ft, cased to 67 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface is 1,130 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, 34.93 ft below land-surface datum, Feb. 12, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.06	33.43	33.22	32.21	33.01	32.09	31.69	32.60	32.84	33.17	33.20	33.28
2	33.15	33.44	33.39	32.42	33.01	32.50	31.70	32.50	32.82	33.16	33.23	33.26
3	32.92	33.50	33.09	32.30	33.37	32.43	31.80	32.44	32.88	33.10	33.24	33.20
4	33.28	33.33	33.16	31.93	33.24	32.28	31.79	32.42	32.95	33.03	33.26	33.19
5	33.40	33.26	33.06	32.30	33.08	32.26	31.49	32.41	32.92	33.08	33.26	33.18
6	33.52	33.34	32.80	32.26	33.18	32.47	31.71	32.46	32.96	33.05	33.25	33.30
7	33.26	33.50	33.03	32.10	33.11	32.38	31.91	32.59	32.95	33.28	33.33	33.25
8	33.21	33.36	32.94	32.44	33.09	32.04	31.81	32.62	32.75	33.13	33.25	33.16
9	33.32	33.15	33.04	32.68	33.22	32.35	32.03	32.64	32.77	32.91	33.28	33.07
10	33.43	33.12	32.87	32.61	33.24	32.36	31.98	32.72	33.27	32.97	33.22	33.10
11	33.36	33.27	33.08	32.45	33.08	32.31	31.92	32.61	32.99	33.21	33.42	33.25
12	33.24	33.30	32.88	32.38	32.88	31.90	32.10	32.65	32.99	33.10	33.32	33.31
13	33.29	33.25	32.97	32.42	32.95	32.07	32.10	32.64	32.81	33.22	33.27	33.32
14	33.26	33.32	32.91	32.26	33.02	31.96	32.02	32.62	32.89	33.04	33.27	33.21
15	33.23	33.22	32.91	32.70	32.97	31.98	31.84	32.92	32.99	33.10	33.27	33.30
16	33.38	33.27	32.73	32.78	33.08	31.99	31.87	32.66	32.93	33.21	33.24	33.20
17	33.38	33.31	32.57	32.72	32.96	31.98	32.07	32.45	33.00	33.22	33.42	33.23
18	33.40	33.28	32.62	32.38	33.13	32.08	32.02	32.68	32.91	33.14	33.23	33.33
19	33.30	33.30	32.59	32.48	32.98	32.12	32.02	32.93	32.97	33.18	33.14	33.31
20	33.46	33.43	32.66	32.80	32.96	32.18	32.15	32.83	32.86	33.32	33.30	33.37
21	33.33	33.48	32.84	32.74	33.02	32.09	32.21	32.89	32.99	33.23	33.38	33.31
22	33.31	33.48	32.61	32.79	32.85	32.07	32.20	33.05	32.83	33.17	33.39	33.47
23	33.45	33.42	32.65	32.79	32.68	31.99	32.19	32.89	32.79	33.20	33.33	33.55
24	---	33.45	32.39	32.91	32.47	32.15	32.40	33.11	32.93	33.35	33.25	33.35
25	33.49	33.31	32.59	32.75	32.53	---	32.03	32.96	32.99	33.35	33.48	33.46
26	33.25	33.46	32.76	32.94	32.33	32.07	32.17	32.92	32.92	33.18	33.60	33.63
27	33.38	33.45	32.61	32.95	32.45	31.86	32.39	32.90	32.98	33.33	33.31	33.84
28	33.42	33.48	32.32	32.99	32.46	31.62	32.47	32.90	32.92	33.26	33.37	33.73
29	33.38	33.30	32.19	33.24	---	31.71	32.48	32.99	33.21	33.22	33.40	33.56
30	33.41	33.18	32.35	33.28	---	32.13	32.41	32.93	33.40	33.21	33.48	33.73
31	33.65	---	32.31	33.09	---	32.04	---	32.84	---	33.21	33.30	---
MEAN	33.33	33.35	32.78	32.62	32.94	32.12	32.03	32.73	32.95	33.17	33.31	33.35
MAX	33.65	33.50	33.39	33.28	33.37	32.50	32.48	33.11	33.40	33.35	33.60	33.84
MIN	32.92	33.12	32.19	31.93	32.33	31.62	31.49	32.41	32.75	32.91	33.14	33.07

WTR YR 1985 HIGHEST 31.49 APRIL 5, LOWEST 33.84 SEPTEMBER 27.

## UNION COUNTY

405928077115501. Local number UN 51.

LOCATION.--Lat 40°59'28", long 77°11'55", Hydrologic Unit 02050206, at Raymond B. Winter Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Reedsville Formation of Late Ordovician age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 115 ft, cased to 91 ft, open hole.

INSTRUMENTATION.--Continuous strip-chart recorder.

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 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.57	40.60	40.89	37.19	38.44	39.35	---	37.61	38.17	39.55	---	40.93
2	39.60	40.64	40.85	37.00	38.53	39.24	---	37.65	38.24	39.57	---	40.94
3	39.66	40.64	40.81	36.86	38.63	39.18	---	37.70	38.29	39.62	---	40.96
4	39.70	40.65	40.78	36.61	38.70	39.02	---	37.75	38.34	39.64	---	40.97
5	39.75	40.67	40.73	36.38	38.72	38.79	---	37.79	38.39	39.68	---	40.98
6	39.79	40.71	40.65	36.30	38.82	38.68	---	37.84	38.44	39.71	---	41.02
7	39.82	40.73	40.62	36.13	38.92	38.48	---	37.90	38.46	39.75	---	41.02
8	39.87	40.74	40.56	36.03	38.96	38.23	---	37.91	38.53	39.76	---	41.03
9	39.91	40.74	40.53	36.06	39.04	38.07	---	37.92	38.59	39.79	---	41.05
10	39.94	40.76	40.45	36.05	39.09	37.92	---	37.86	38.65	39.82	---	41.07
11	39.99	40.80	40.38	36.05	39.12	37.80	---	37.82	38.67	---	---	41.08
12	40.00	40.80	40.27	36.10	39.12	37.61	---	37.74	38.71	---	---	41.10
13	40.07	40.83	40.18	36.17	39.18	37.61	---	37.69	38.79	---	---	41.12
14	40.10	40.84	40.10	36.23	39.24	37.54	---	37.64	38.85	---	---	41.12
15	40.12	40.84	39.97	36.49	39.26	37.59	---	37.62	38.88	---	---	41.12
16	40.17	40.88	39.88	36.58	39.30	37.60	---	37.54	38.93	---	---	41.14
17	40.19	40.90	39.76	36.65	39.37	37.59	---	37.48	38.94	---	---	41.16
18	40.23	40.91	39.65	36.76	39.39	37.67	---	37.53	38.97	---	---	41.17
19	40.25	40.95	39.53	36.95	39.42	37.69	---	37.56	39.02	---	---	41.19
20	40.29	40.97	39.37	37.08	39.49	37.75	---	37.60	39.06	---	---	41.20
21	40.32	41.00	39.30	37.19	39.50	37.77	---	37.66	39.09	---	---	41.22
22	40.35	41.01	39.10	37.26	39.55	37.77	---	37.70	39.11	---	---	41.24
23	40.38	41.02	39.00	---	39.56	37.77	---	37.76	39.14	---	---	41.25
24	40.40	41.04	38.83	37.60	39.53	37.75	---	37.79	39.18	40.21	---	41.26
25	40.43	41.06	38.66	37.75	39.52	37.78	36.75	37.83	39.32	---	---	41.29
26	40.46	41.08	38.53	37.83	39.45	---	36.89	37.87	39.39	---	---	41.30
27	40.46	41.08	38.34	37.93	39.45	---	37.05	37.94	39.40	---	40.85	41.31
28	40.48	41.10	38.13	38.05	39.44	---	37.22	38.00	39.43	---	40.87	41.33
29	40.52	41.00	37.89	38.17	---	---	37.37	38.04	39.48	---	40.88	41.34
30	40.53	40.96	37.63	38.25	---	---	37.48	38.06	39.53	---	40.90	41.34
31	40.59	---	37.45	38.34	---	---	---	38.07	---	---	40.91	---
MEAN	40.13	40.87	39.64	36.93	39.17	38.09	37.13	37.77	38.87	39.74	40.88	41.14
MAX	40.59	41.10	40.89	38.34	39.56	39.35	37.48	38.07	39.53	40.21	40.91	41.34
MIN	39.57	40.60	37.45	36.03	38.44	37.54	36.75	37.48	38.17	39.55	40.85	40.93

WTR YR 1985 HIGHEST 36.03 JANUARY 8, LOWEST 41.34 SEPTEMBER 29, 30.

## YORK COUNTY

345

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.--Shale of New Oxford Formation of Late Triassic age.

WELL CHARACTERISTICS.--Drilled unused artesian 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.

PERIOD OF RECORD.--March 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.15 ft below land-surface datum, Apr. 6, 1984; lowest, 37.55 ft below land-surface datum, Nov. 3, 4, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.11	25.01	---	20.30	22.21	21.28	21.40	22.05	19.62	20.84	22.37	23.96
2	24.11	24.91	---	20.42	22.35	21.32	21.25	22.16	19.83	20.90	22.50	23.95
3	24.05	24.99	---	20.35	22.61	21.47	21.13	21.88	19.94	21.00	22.56	23.97
4	24.11	24.90	---	20.10	22.51	21.45	21.06	21.60	19.80	21.11	22.61	24.05
5	24.18	24.76	---	20.11	---	21.43	20.89	21.29	19.45	21.19	22.69	24.13
6	24.31	24.86	---	20.05	---	21.65	20.85	20.97	19.28	21.27	22.74	24.26
7	24.29	24.88	---	19.95	---	21.66	20.94	20.81	19.14	21.40	22.77	24.36
8	24.22	24.75	---	20.10	---	21.46	20.89	20.77	18.85	21.45	22.78	24.42
9	24.29	24.62	---	20.21	---	21.46	20.86	20.69	18.71	21.57	22.79	24.39
10	24.41	24.49	---	20.15	---	21.55	20.89	20.51	18.78	21.75	22.75	24.37
11	24.45	24.49	---	20.00	---	21.55	20.77	20.45	18.79	21.92	22.76	24.47
12	24.44	24.51	---	19.95	---	21.37	20.83	20.43	18.67	22.08	22.85	24.50
13	24.46	24.52	---	19.93	---	21.58	20.84	20.39	18.88	22.16	22.90	24.55
14	24.54	24.55	---	19.95	---	21.64	20.73	20.50	19.04	22.21	22.93	24.54
15	24.65	24.54	---	20.30	---	21.83	20.61	20.60	19.23	22.28	22.98	24.52
16	24.78	24.43	---	20.44	---	21.82	20.63	20.49	19.15	22.37	23.10	24.52
17	24.81	24.52	---	20.23	---	21.76	20.85	20.28	19.16	22.40	23.22	24.64
18	24.86	24.54	---	20.50	---	22.00	20.84	20.06	19.03	22.41	23.32	24.70
19	24.92	24.63	---	20.80	---	22.02	20.78	20.03	19.09	22.41	23.41	24.75
20	25.10	24.75	---	20.95	---	22.07	20.93	19.93	19.22	22.41	23.54	24.78
21	25.11	24.79	21.24	20.95	---	22.22	21.06	19.77	19.36	22.46	23.67	24.82
22	25.19	24.72	21.17	21.00	---	22.26	21.10	19.69	19.43	22.58	23.80	24.89
23	25.33	24.66	21.15	21.00	---	22.17	21.20	19.52	19.49	22.73	23.82	24.99
24	25.35	24.72	20.93	---	---	22.16	21.31	19.41	19.59	22.82	23.92	24.98
25	25.25	24.80	20.89	21.10	---	22.24	21.24	19.29	19.64	22.70	23.94	25.15
26	25.18	24.89	20.75	21.55	---	22.22	21.35	19.27	20.00	22.70	23.97	25.23
27	25.13	24.90	20.51	21.59	21.33	21.91	21.56	19.29	20.18	22.61	---	25.02
28	25.10	24.85	20.28	21.70	21.35	21.76	21.64	19.35	20.34	22.59	23.90	25.09
29	25.08	24.54	20.45	21.92	---	21.75	21.90	19.53	20.59	22.50	23.85	24.90
30	25.09	24.35	20.43	22.08	---	21.84	21.95	19.65	20.79	22.43	23.70	24.60
31	25.04	---	20.29	22.12	---	21.76	---	19.59	---	22.35	23.88	---
MEAN	24.71	24.70	20.74	20.66	22.06	21.76	21.08	20.33	19.44	22.05	23.20	24.58
MAX	25.35	25.01	21.24	22.12	22.61	22.26	21.95	22.16	20.79	22.82	23.97	25.23
MIN	24.05	24.35	20.28	19.93	21.33	21.28	20.61	19.27	18.67	20.84	22.37	23.95

WTR YR 1985 HIGHEST 18.67 JUNE 12, LOWEST 25.35 OCTOBER 24.

## QUALITY OF GROUND WATER

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

Ground-water miscellaneous sites are well or spring sites where limited water-quality data are collected on a random basis for use in hydrologic studies.

REMARKS.--All samples were collected at the well head or residential spigot prior to any treatment in a user distribution system. Wells were pumped to waste until constant temperature and specific conductance were attained before sample collection. The samples were collected by the U.S. Geological Survey or Pa. Department of Environmental Resources, Bureau of Topographic and Geologic Survey. The samples were analyzed by the Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
POTTER COUNTY									
176	415635077394701	341LKHV	07-24-85	1115	140.00	48	29	19	
177	415620077384101	341LKHV	07-24-85	0200	90.00	38	21	17	
180	415454077363801	341LKHV	07-24-85	1000	95.00	9.7	4.5	110	
182	415511077372601	341LKHV	07-24-85	1025	103.00	15	5.3	100	
183	415626077384901	341LKHV	07-24-85	0340	135.00	41	21	26	
184	415634077385801	341LKHV	07-24-85	0105	87.00	43	25	23	
227	414623077422001	341CSKL	07-18-85	1015	87.00	31	10	26	
230	414321077405001	341CSKL	07-17-85	1000	80.00	3.4	1.3	0.5	
232	415924078075801	1120TSH	08-07-85	0945	--	17	3.8	12	
233	415927078080001	1120TSH	08-07-85	1000	38.00	19	3.7	13	
234	415505078011401	1120TSH	08-07-85	1210	59.00	12	4.3	4.9	
235	415741078012401	341CDKN	08-07-85	0100	--	7.7	3.2	1.9	
236	415624078084501	112SFDF	08-07-85	0230	60.00	6.6	3.4	8.9	
237	415525078071201	341CDKN	08-07-85	0250	--	3.3	0.98	99	
238	415527078070501	341CDKN	08-07-85	0330	28.00	7.5	3.1	2.8	
239	415622078084501	1120TSH	08-08-85	1000	33.00	10	5.2	6.3	
240	415812078121901	1120TSH	08-08-85	1030	--	16	5.0	9.1	
247	415817077530101	341CSKL	08-21-85	1000	117.00	17	0.68	8.8	
248	415812077510401	341CSKL	08-21-85	1045	--	22	8.8	8.4	
249	415643077485701	1120TSH	08-22-85	0945	101.00	15	5.8	40	
250	415745077503901	341CSKL	08-22-85	1040	160.00	22	8.4	7.8	
251	415624077484701	341LKHV	08-22-85	1110	122.00	14	5.5	41	
259	414153077443501	341CSKLU	07-17-85	1045	62.00	16	4.3	11	
260	413318077421401	341CSKL	07-17-85	0001	--	21	3.5	48	
261	413322077421001	341CSKL	07-17-85	0002	--	18	3.6	15	
262	414635077431501	341CSKL	07-18-85	1100	50.00	16	6.8	4.4	
263	414720077425201	341CSKL	07-18-85	1145	125.00	51	14	320	
264	414459077402901	337HNLM	07-18-85	0200	135.00	10	2.9	2.4	
265	414627077423301		07-17-85	0003	--	15	4.6	5.1	
266	415633077393601	341LKHV	07-24-85	1130	--	48	28	18	
267	415630077385801	341LKHV	07-24-85	0100	--	46	26	23	
268	415042077421001	341CSKL	07-25-85	1000	--	12	2.9	2.5	
269	414901077423101	1120TSH	07-25-85	1020	--	21	5.2	4.6	
272	414612077415901	341CSKL	07-25-85	1100	--	15	4.7	3.9	
274	414615077415701	341CSKLU	07-18-85	0945	--	15	5.2	7.6	
TIOGA COUNTY									
56	414722077181001	112SFDF	07-09-85	1310	--	57	6.2	5.9	
216	414814077173501	112SFDF	07-09-85	1700	106.00	15	3.4	2.4	
272	414637077234901	1120TSH	08-28-85	0800	88.00	7.4	1.5	0.9	
399	414733077180801	1120TSH	07-10-85	1000	37.00	26	6.4	5.7	
485	414623077241101	1120TSH	09-12-85	0906	17.00	6.2	1.5	<0.2	
511	414709077180901	112SFDF	07-24-85	1825	--	48	6.7	6.1	
512	414733077180301	1120TSH	07-31-85	1145	--	28	6.6	4.0	
515	415447077361701	341LKHV	07-10-85	0200	--	34	12	27	
516	414944077171101	1120TSH	07-10-85	1200	--	32	3.5	3.1	
517	415727077250101		07-10-85	0100	--	45	5.9	9.6	
518	414850077115201	1120TSH	07-10-85	1100	--	34	7.7	5.5	
519	414439077043901	341LKHV	07-11-85	0001	--	27	5.9	54	

## GEOLOGIC UNIT (AQUIFER).

1120TSH - Outwash  
 112 SFDF - Stratified Drift  
 337 HNLM - Huntley Mountain Formation  
 341 CDKN - Chadakoin Formation

341 CSKL - Catskill Formation  
 341 CSKLU - Catskill Formation, Upper Redbeds Member  
 341 LKHY - Lock Haven Formation

## ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

347

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
POTTER COUNTY									
176	1.9	40	6.0	0.1	286	0.14	60	<10	<10
177	2.1	24	4.0	0.1	244	<0.04	100	360	44
180	1.5	<10	100	0.2	356	<0.04	600	170	<10
182	1.8	<10	110	0.3	324	<0.04	500	190	<10
183	2.3	27	6.0	0.2	264	<0.04	80	3800	<10
184	1.9	41	6.0	0.2	302	<0.04	70	1500	<10
227	1.4	<10	87	0.1	246	<0.04	400	30	170
230	0.7	<10	2.0	<0.1	80	0.20	20	<10	<10
232	0.6	<10	25	<0.1	162	1.82	50	60	14
233	0.7	<10	27	<0.1	164	1.20	80	70	<10
234	0.5	<10	15	<0.1	114	0.46	40	190	<10
235	0.5	<10	4.0	<0.1	148	0.70	30	<10	<10
236	0.6	<10	8.0	<0.1	112	3.74	30	<10	<10
237	0.3	<10	46	0.5	362	<0.04	200	140	<10
238	0.4	<10	9.0	<0.1	102	0.82	30	250	<10
239	1.4	<10	21	<0.1	160	5.50	50	<10	<10
240	0.6	<10	37	<0.1	182	1.60	70	<10	13
247	0.7	<10	3.0	0.1	128	0.38	60	130	<10
248	1.0	<10	4.0	0.1	204	0.08	100	<10	<10
249	0.8	<10	18	0.2	204	<0.04	50	990	140
250	0.8	<10	2.0	0.2	142	0.08	80	70	87
251	0.8	<10	11	0.2	194	<0.04	200	810	65
259	0.9	<10	17	<0.1	120	0.92	40	<10	<10
260	1.3	<10	68	0.1	224	<0.04	800	<10	51
261	1.1	12	35	<0.1	146	0.98	70	20	<10
262	0.7	<10	10	<0.1	116	0.38	20	<10	<10
263	4.1	<10	610	0.1	1220	<0.04	21000	<10	<10
264	0.8	<10	6.0	<0.1	66	0.08	30	<10	<10
265	0.8	<10	8.0	<0.1	100	0.26	30	<10	<10
266	1.9	39	4.0	0.2	298	0.10	60	80	<10
267	2.0	41	6.0	0.2	300	0.04	70	350	<10
268	0.7	<10	2.0	<0.1	84	0.58	70	100	<10
269	0.8	<10	10	<0.1	128	1.06	50	340	<10
272	0.7	<10	2.0	<0.1	106	0.18	90	90	<10
274	1.1	10	3.0	<0.1	130	<0.04	100	<10	59
TIOGA COUNTY									
56	0.7	32	32	0.2	226	0.08	200	170	<10
216	0.6	33	35	0.1	170	0.18	100	30	<10
272	0.5	<10	1.0	<0.1	76	0.18	10	160	<10
399	0.9	47	23	<0.1	238	7.26	30	30	<10
485	0.3	<10	3.0	0.1	62	0.34	<10	170	<10
511	0.9	39	10	0.1	234	0.16	100	2900	6100
512	0.6	42	17	<0.1	234	3.08	50	6600	370
515	0.9	37	9.0	0.2	244	<0.04	200	550	1000
516	0.5	41	5.0	0.1	148	2.86	30	330	<10
517	0.8	42	12	0.2	222	<0.04	700	350	140
518	0.7	42	3.0	0.1	160	0.56	200	100	<10
519	3.2	41	17	0.1	302	<0.04	400	340	48



## ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

REMARKS.--All samples were collected at the well head, a residential spigot, or spring discharge prior to any treatment in a user distribution system. Wells were pumped to waste until constant temperature, conductance, and pH were attained before sample collection. Samples were collected by U.S. Geological Survey personnel and analyzed by Pa. Department of Environmental Resources, Bureau of Laboratories.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	ALKA- LITY LAB (MG/L AS CACO3)
BEDFORD COUNTY										
BD-SP26	401010078250901		367NNLK	07-31-85	1630	--	360	7.80	11.0	164
BD-SP27	401307078242801		371GBRG	08-01-85	1045	--	315	7.80	11.0	152
BLAIR COUNTY										
BA-SP17	401959078240401		367NTTN	08-01-85	1200	--	350	7.60	11.0	152
BA-SP20	402511078161801		367BLFN	08-06-85	1045	--	435	7.60	11.0	194
BA-SP12	402730078121001		371GBRG	08-01-85	1430	--	265	8.10	11.5	122
619	403030078131201		367NNLK	06-11-85	1500	--	790	7.40	11.5	248
610	403549078135801		364CBSN	06-11-85	1415	85.00	760	--	11.5	306
615	403615078142601		367NNLK	06-13-85	1140	125.00	625	7.40	11.0	238
608	403659078155701		364CSNL	06-13-85	1030	150.00	>1000	7.30	12.5	376
CENTRE COUNTY										
CE-SP14	404221077580501		371GBRG	08-07-85	1300	--	290	7.40	12.0	110
536	404310077553701		367BLFN	06-17-85	1200	112.00	665	7.40	11.0	290
544	404408077583901		367NTTN	06-17-85	1200	65.00	750	7.20	11.0	314
546	404446078045101		367BFAX	07-11-85	1630	100.00	540	7.20	11.0	292
404	404504078025601		371ORHL	06-12-85	1000	297.00	250	8.20	10.5	106
402	404540077543401		371MINS	06-10-85	0900	210.00	640	7.40	10.5	194
447	404549077484001		367BLFN	06-20-85	1400	150.00	285	7.70	11.0	132
403	404614077540101		367NNLK	06-10-85	1250	223.00	320	8.50	10.0	126
494	404726077421601		367BLFN	06-27-85	0830	201.00	690	7.30	10.5	288
CE-SP32	404730077445101		364CBSN	08-07-85	1445	--	475	7.60	12.0	198
438	404730077523901		367NTTN	06-12-85	1200	150.00	670	7.50	11.0	246
414	404751077473001		367AXMN	06-20-85	1030	125.00	575	7.50	11.0	240
411	404853077573801		371WRRR	06-12-85	1600	145.00	565	7.50	10.0	226
487	404900077390201		364BSHL	06-25-85	1130	150.00	725	7.10	10.5	308
399	404950077400501		364CBSN	06-27-85	1300	175.00	780	7.10	11.0	328
410	404957077551001		371ORHL	06-12-85	1400	218.00	308	7.90	10.0	146
485	405017077365701		364BSHL	06-27-85	1430	150.00	560	7.40	11.0	232
418	405021077474201		367BLFN	06-20-85	0900	300.00	515	7.40	11.0	260
CE-SP18	405105077492101		371MINS	08-15-85	1200	--	395	7.50	12.0	156
CE-SP4	405121077343101		364BSHL	08-08-85	1400	--	305	7.60	17.0	118
426	405126077454501		367BLFN	06-19-85	1600	166.00	620	7.70	11.0	160
CE-SP11	405145077452601		367LBRG	08-13-85	1820	--	450	7.50	11.0	172
421	405157077512201		367NNLK	06-19-85	1500	173.00	455	7.50	11.0	202
CE-SP24	405213077271601		364BSHL	08-15-85	1400	--	525	7.40	11.5	192
498	405222077335901		364CBSN	06-27-85	1600	101.00	625	7.10	12.0	282
CE-SP23	405241077280201		364BNNR	08-14-85	1600	--	525	7.10	10.5	232
640	405248077450401		367BLFN	06-18-85	1700	206.00	660	7.50	11.0	288
623	405303077372701		364CBSN	06-26-85	1700	200.00	123	8.00	10.0	58
603	405314077270401		364BSHL	06-26-85	1330	--	750	6.80	10.5	342
509	405319077291901		364BSHL	06-25-85	1030	165.00	515	7.50	10.5	242
CE-SP17	405324077453701		367NTTN	08-08-85	1200	--	600	7.40	12.0	242

## GEOLOGIC UNIT (AQUIFER).

364BNNR - Benner Formation  
 364BSHL - Benner, Snyder, Hatter, Loysburg Formations, Undifferentiated  
 364CBSN - Coburn, Salona, Nealmont Formations, Undifferentiated  
 364CSNL - Coburn, Salona, Nealmont, Benner, Linden Hall, Snyder  
           Hatter, Loysburg Formations, Undifferentiated  
 364AXMN - Axemann Formation  
 367BFAX - Axemann, Bellefonte Formations  
 367BLFN - Bellefonte Formation  
 367LBRG - Loysburg Formation  
 367NNLK - Nittany, Larke Formations  
 367NTTN - Nittany Formation  
 371GBRG - Gatesburg Formation  
 371MINS - Mines Formation or Member of Gatesburg Formation  
 371ORHL - Ore Hill Member of Gatesburg Formation  
 371WRRR - Warrior Formation

## ANALYSIS OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

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## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- IFIER	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
BEDFORD COUNTY										
BD-SP26	190	41	21	1.6	0.59	5.0	30	7.0	5.06	<0.002
BD-SP27	160	37	18	1.0	0.64	4.7	28	5.0	3.30	<0.002
BLAIR COUNTY										
BA-SP17	160	34	17	1.3	0.26	7.4	28	5.0	3.08	<0.002
BA-SP20	220	45	25	1.4	0.55	9.4	<10	8.0	7.70	0.002
BA-SP12	110	23	13	0.34	<0.13	1.9	28	2.0	0.82	<0.002
619	--	--	--	--	--	19	24	66	17.6	0.004
610	370	140	6.8	3.4	2.2	--	26	19	12.3	0.003
615	290	60	34	1.0	1.0	18	25	14	14.3	0.003
608	370	120	16	42	24	36	60	170	3.74	0.006
CENTRE COUNTY										
CE-SP14	130	41	6.3	2.0	0.53	8.5	<10	6.0	3.74	0.003
536	290	67	29	0.8	0.8	22	98	14	0.70	0.003
544	290	67	29	2.6	8.7	38	26	18	12.7	0.003
546	290	67	29	2.0	0.3	36	30	8.0	7.50	0.007
404	110	25	11	0.5	0.4	1.3	<10	2.0	2.90	0.002
402	230	61	19	15	0.9	15	<10	66	10.3	0.003
447	140	46	5.3	1.6	<0.1	5.1	22	2.0	1.10	0.002
403	140	39	9.1	0.3	0.7	0.8	<10	5.0	8.40	0.003
494	330	70	36	12	0.6	28	38	30	3.70	0.005
CE-SP32	220	57	19	1.5	0.33	9.6	<10	8.0	5.06	0.002
438	300	65	35	13	1.2	15	37	42	5.06	0.003
414	260	67	23	5.9	0.3	15	31	17	3.50	0.002
411	130	32	12	7.4	0.9	14	17	27	5.50	0.002
487	400	120	25	7.8	1.1	47	31	23	5.70	0.006
399	400	140	14	3.4	0.4	50	68	12	6.80	0.007
410	270	69	24	13	0.9	3.5	<10	4.0	1.40	0.002
485	250	64	21	5.1	0.6	18	35	18	5.50	0.006
418	270	60	29	1.7	<0.1	20	27	5.0	1.30	0.002
CE-SP18	170	40	17	3.8	0.63	9.5	<10	14	4.20	0.004
CE-SP4	130	40	7.9	3.6	1.9	5.7	<10	10	1.76	0.019
426	280	65	29	7.0	0.2	6.2	59	66	1.50	<0.002
CE-SP11	210	65	12	4.4	0.72	11	26	13	5.46	0.002
421	220	67	13	1.5	0.3	12	28	6.0	3.50	<0.002
CE-SP24	260	74	18	2.1	0.43	15	57	7.0	2.86	0.004
498	300	110	7.3	3.0	0.5	43	58	9.0	2.30	0.007
CE-SP23	260	88	9.8	3.0	0.78	36	11	11	5.72	0.002
640	290	67	29	1.4	0.7	18	50	10	7.90	<0.002
623	57	20	1.9	0.7	0.5	1.1	18	2.0	0.40	0.007
603	380	140	5.2	6.2	0.8	105	32	14	9.90	0.036
509	260	62	25	1.0	0.4	15	35	7.0	4.80	0.006
CE-SP17	290	67	31	4.3	0.63	19	28	16	7.92	0.002

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)
BEDFORD COUNTY									
BD-SP26	<40	<1000	39	<10	<50	<10	<45	<10	<25
BD-SP27	<40	<1000	41	<10	<50	<10	<45	<10	<25
BLAIR COUNTY									
BA-SP17	<40	<1000	22	<10	<50	<10	<45	<10	<25
BA-SP20	<40	<1000	26	<10	<50	<10	<45	<10	<25
BA-SP12	<40	<1000	14	<10	<50	<10	<45	<10	<25
619	<40	<500	<10	<10	<50	<10	<45	<10	<25
610	<40	<500	45	<10	<50	<10	<45	<10	<25
615	<40	<500	28	<10	<4	<10	<45	<10	<25
608	<40	<500	150	<10	<50	350	<45	660	<25
CENTRE COUNTY									
CE-SP14	<40	<1000	42	<10	<50	<10	<45	<10	<25
536	<40	<500	45	<10	<50	<10	<45	<10	<25
544	<40	<500	49	<10	<50	<10	<45	<10	<25
546	<40	<500	32	<10	<50	<10	<45	<10	<25
404	<40	<500	23	<10	<50	<10	<45	<10	<25
402	<40	<500	22	<10	<50	93	<45	<10	<25
447	<40	<500	26	<10	<50	1100	<45	<10	<25
403	<40	<500	16	<10	<50	240	<45	<10	<25
494	<40	<500	83	<10	<50	<10	<45	<10	<25
CE-SP32	<40	<1000	39	<10	<50	<10	<45	<10	<25
438	<40	<500	30	<10	<50	<10	<45	<10	<25
414	<40	<500	47	<10	<50	<10	<45	<10	<25
411	<40	9	63	3	<50	26	17	<10	43
487	<40	<500	90	<10	<50	<10	<45	<10	<25
399	<40	<500	81	<10	<50	<10	<45	<10	<25
410	<40	<500	65	<10	<50	30	<45	<10	<25
485	<40	<500	51	<10	<50	<10	<45	<10	<25
418	<40	<500	53	<10	<50	51	<45	<10	<25
CE-SP18	<40	<1000	22	<10	<50	<10	<45	<10	<25
CE-SP4	650	<1000	38	<10	<50	190	<45	15	<25
426	<40	<500	67	<10	<50	140	<45	<10	<25
CE-SP11	<40	<1000	48	<10	<50	27	<45	<10	<25
421	<40	<500	12	<10	<50	150	<45	<10	<25
CE-SP24	<40	<1000	36	<10	<50	<10	<45	<10	<25
498	<40	<500	89	10	<50	43	<45	<10	<25
CE-SP23	<40	<1000	37	<10	<50	<10	<45	<10	<25
640	<40	<500	33	<10	<50	370	<45	<10	<25
623	<40	<500	16	<10	<50	<10	<45	<10	<25
603	210	<500	54	<10	<50	<10	<45	<10	<25
509	<40	<500	45	<10	<50	<10	<45	<10	<25
CE-SP17	<40	<1000	32	<10	<50	<10	<45	<10	<25

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	ZINC, DIS- SOLVED (UG/L AS ZN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
BEDFORD COUNTY									
BD-SP26	<10	<10	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1
BD-SP27	<10	<10	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1
BLAIR COUNTY									
BA-SP17	<10	<10	--	--	--	--	--	--	--
BA-SP20	<10	<10	--	--	--	--	--	--	--
BA-SP12	<10	<10	--	--	--	--	--	--	--
619	<10	<10	--	--	--	--	--	--	--
610	<10	<10	--	--	--	--	--	--	--
615	<10	<10	--	--	--	--	--	--	--
608	68	<10	--	--	--	--	--	--	--
CENTRE COUNTY									
CE-SP14	<10	38	--	--	--	--	--	--	--
536	28	<10	--	--	--	--	--	--	--
544	<10	<10	--	--	--	--	--	--	--
546	<10	<10	--	--	--	--	--	--	--
404	<10	<10	--	--	--	--	--	--	--
402	<10	<10	--	--	--	--	--	--	--
447	<10	<10	--	--	--	--	--	--	--
403	<10	<10	--	--	--	--	--	--	--
494	<10	440	--	--	--	--	--	--	--
CE-SP32	<10	87	<0.05	0.11	<0.2	<0.1	<0.2	<0.2	<1
438	<10	<10	--	--	--	--	--	--	--
414	<10	<10	--	--	--	--	--	--	--
411	24	<10	--	--	--	--	--	--	--
487	<10	320	--	--	--	--	--	--	--
399	<10	480	--	--	--	--	--	--	--
410	<10	<10	--	--	--	--	--	--	--
485	<10	220	--	--	--	--	--	--	--
418	<10	<10	--	--	--	--	--	--	--
CE-SP18	<10	<10	--	--	--	--	--	--	--
CE-SP4	<10	41	--	--	--	--	--	--	--
426	<10	<10	--	--	--	--	--	--	--
CE-SP11	<10	210	--	--	--	--	--	--	--
421	<10	<10	--	--	--	--	--	--	--
CE-SP24	<10	860	<0.05	0.11	<0.2	<0.1	<0.2	<0.2	<1
498	17	490	--	--	--	--	--	--	--
CE-SP23	<10	230	--	--	--	--	--	--	--
640	29	<10	--	--	--	--	--	--	--
623	<10	140	--	--	--	--	--	--	--
603	<10	120	--	--	--	--	--	--	--
509	<10	290	--	--	--	--	--	--	--
CE-SP17	<10	31	0.05	0.3	<0.2	<0.1	<0.2	<0.2	<1

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	ALKA- LITY LAB (MG/L AS CACO3)
CENTRE COUNTY										
512	405404077350001	364BSHL	06-26-85	1600	167.00	480	7.30	10.5	196	
299	405413077434201	367AXMN	06-18-85	0900	180.00	610	7.50	11.0	250	
518	405414077221401	364CBSN	06-26-85	0900	494.00	660	7.30	11.0	320	
CE-SP19	405420077464201	367NTTN	08-08-85	1015	--	310	8.00	12.0	132	
CE-SP25	405525077290401	364CBSN	08-14-85	1500	--	345	7.50	11.0	150	
372	405534077282101	364CBSN	06-26-85	1200	101.00	580	7.10	11.0	236	
589	405652077424801	367BLFN	06-18-85	1500	100.00	540	7.70	11.5	228	
609	405807077385101	371GBRG	06-18-85	1200	--	670	7.40	11.5	250	
555	405905077345801	367NTTN	06-24-85	1400	52.00	515	7.50	12.0	192	
632	405928077363801	371GBRG	06-25-85	1700	290.00	360	7.50	10.5	172	
CLINTON COUNTY										
CN-SP17	405857077280001	374PLHL	08-14-85	1240	--	315	7.80	14.0	118	
CN-SP21	405938077250301	364BSHL	08-14-85	1130	--	350	7.70	14.0	126	
376	410208077324701	367AXMN	06-25-85	1430	400.00	320	7.90	13.0	154	
CN-SP12	410258077313201	374PLHL	08-12-85	1620	--	275	8.00	13.0	124	
353	410315077262401	364BSHL	06-25-85	1200	223.00	295	7.50	10.5	100	
375	410319077312901	367BLFN	06-24-85	1700	90.00	>1000	7.00	12.0	418	
CN-SP2	410324077281101	367BLFN	08-13-85	0830	--	290	7.70	15.0	114	
354	410403077262701	367BLFN	06-25-85	0930	400.00	705	7.20	11.5	274	
359	410545077241101	367BLFN	06-25-85	1300	--	725	7.00	12.5	314	
HUNTINGDON COUNTY										
394	403358078083801	367BFAX	06-11-85	1730	190.00	480	7.50	13.5	206	
HU-SP13	403408078092401	364BNNR	08-09-85	1520	--	360	7.40	12.0	146	
HU-SP1	403919078121001	367BLFN	08-06-85	1900	--	280	7.90	12.0	124	
357	404020078034601	367NTTN	06-19-85	1030	175.00	450	7.60	10.0	198	
HU-SP2	404132078014301	367NTTN	08-09-85	1040	--	157	7.80	11.0	142	
350	404223078000201	371ORHL	06-19-85	0900	195.00	400	7.70	10.5	186	
275	404227078004001	367SNNG	06-17-85	1400	125.00	415	7.60	10.0	192	
MIFFLIN COUNTY										
MF-SP2	403933077385101	367AXMN	08-22-85	1200	--	460	7.70	11.0	194	
MF-SP3	404147077333601	364CBSN	08-22-85	1330	--	215	7.80	16.5	86	

## GEOLOGIC UNIT (AQUIFER).

364BNNR - Benner Formation  
 364BSHL - Benner, Snyder, Hatter, Loysburg Formations, Undifferentiated  
 364CBSN - Coburn, Salona, Nealmont Formation, Undifferentiated  
 367AXMN - Axemann Formation  
 367BFAX - Axemann, Bellefonte Formations  
 367BLFN - Bellefonte Formation  
 367NTTN - Nittany Formation  
 367SNNG - Stonehenge Formation  
 371GBRG - Gatesburg Formation  
 371ORHL - Ore Hill Member of Gatesburg Formation  
 374PLHL - Pleasant Hill Formation

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

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## WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- IFIER	HARD- NESS (MG/L AS CaCO <sub>3</sub> )	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO <sub>2</sub> )	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
CENTRE COUNTY										
512	210	79	4.3	9.2	0.5	19	28	43	1.40	0.007
299	290	67	29	4.5	1.5	15	32	21	6.60	0.003
518	290	66	30	23	2.0	31	37	19	<0.04	0.01
CE-SP19	130	29	14	3.3	0.4	2.5	<10	10	1.88	0.002
CE-SP25	150	50	6.2	1.5	0.7	9.2	<10	5.0	3.74	0.003
372	300	110	3.9	3.0	1.7	36	36	10	7.30	0.025
589	280	65	28	4.7	2.5	8.8	33	17	4.40	<0.002
609	290	67	29	12	1.3	19	38	34	7.00	0.002
555	200	49	20	10	1.3	12	35	23	5.70	0.008
632	180	37	22	1.2	0.7	11	16	4.0	1.90	0.005
CLINTON COUNTY										
CN-SP17	130	36	10	3.2	0.5	3.6	14	10	2.64	0.002
CN-SP21	150	40	12	3.5	0.54	4.9	14	11	3.30	0.002
376	150	29	17	0.5	0.7	3.7	13	4.0	2.50	0.007
CN-SP12	130	30	14	0.99	0.54	2.4	<10	4.0	1.76	0.003
353	99	35	2.7	4.9	1.0	6.1	13	21	3.50	0.006
375	250	54	28	8.9	49	81	77	68	18.3	0.015
CN-SP2	130	35	11	2.9	0.66	4.4	11	9.0	1.88	0.002
354	320	66	37	7.0	2.2	33	41	19	14.3	0.006
359	340	130	6.7	6.8	0.7	61	33	22	8.10	0.008
HUNTINGDON COUNTY										
394	230	46	28	1.2	1.0	13	17	6.0	9.00	0.003
HU-SP13	170	60	4.3	1.5	0.68	11	14	5.0	4.40	0.02
HU-SP1	130	28	16	1.0	0.48	3.0	<10	4.0	2.86	0.003
357	230	49	27	1.0	1.4	9.6	22	10	6.80	0.002
HU-SP2	150	33	17	0.59	0.43	4.3	<10	3.0	3.74	0.002
350	200	42	23	1.6	0.2	7.2	23	6.0	5.30	<0.002
275	220	56	20	1.1	0.8	9.3	20	6.0	5.50	0.002
MIFFLIN COUNTY										
MF-SP2	180	71	0.82	2.0	0.82	7.5	20	9.0	7.55	0.01
MF-SP3	89	34	0.76	1.5	0.76	2.6	12	8.0	0.95	0.006



## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- I- FIER	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)
CENTRE COUNTY									
512	<40	<500	30	<10	<50	450	<45	<10	<25
299	<40	<500	53	<10	<50	48	<45	<10	<25
518	<40	<500	310	<10	<50	23	<45	<10	<25
CE-SP19	<40	<1000	23	<10	<50	<10	<45	<10	<25
CE-SP25	<40	<1000	32	<10	<50	<10	<45	<10	<25
372	<40	<500	33	<10	<50	<10	<45	<10	<25
589	<40	<500	66	<10	<50	<10	<45	<10	<25
609	<40	<500	20	<10	<50	<10	<45	<10	<25
555	<40	<500	41	<10	<50	22	<45	<10	<25
632	<40	<500	14	<10	<50	170	<45	<10	<25
CLINTON COUNTY									
CN-SP17	<40	<1000	31	<10	<50	<10	<45	<10	<25
CN-SP21	<40	<1000	35	<10	<50	<10	<45	<10	<25
376	<40	<500	26	<10	<50	25	<45	<10	<25
CN-SP12	<40	<1000	27	<10	<50	<10	<45	<10	<25
353	<40	<500	27	<10	<50	31	<45	<10	<25
375	<40	<500	60	<10	<50	<10	59	14	<25
CN-SP2	<40	<1000	38	<10	<50	34	<45	<10	<25
354	<40	<500	78	<10	<50	<10	<45	<10	<25
359	<40	<500	49	<10	<50	<10	<45	<10	<25
HUNTINGDON COUNTY									
394	<40	<500	19	<10	<50	<10	<45	<10	<25
HU-SP13	40	<1000	39	<10	<50	<10	<45	10	<25
HU-SP1	<40	<1000	57	<10	<50	82	<45	28	<25
357	<40	<500	15	<10	<50	86	<45	<10	<25
HU-SP2	<40	<1000	19	<10	<50	<10	<45	<10	<25
350	<40	<500	16	<10	<50	1300	<45	<10	<25
275	<40	<500	21	<10	<50	<10	<45	<10	<25
MIFFLIN COUNTY									
MF-SP2	<40	<1000	45	<10	<50	120	<45	<10	<25
MF-SP3	180	<1000	33	<10	<50	210	<45	19	<25

## ANALYSES OF GROUND-WATER SAMPLES COLLECTED AT MISCELLANEOUS SITES

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

LOCAL IDENT- IFIER	ZINC, DIS- SOLVED (UG/L AS ZN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ALA- CHLOR TOTAL RECOVER (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR IN WHOLE WATER (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
CENTRE COUNTY									
512	<10	150	--	--	--	--	--	--	--
299	<10	<10	--	--	--	--	--	--	--
518	43	2500	--	--	--	--	--	--	--
CE-SP19	<10	<10	--	--	--	--	--	--	--
CE-SP25	<10	110	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1
372	40	170	--	--	--	--	--	--	--
589	<10	<10	--	--	--	--	--	--	--
609	15	<10	--	--	--	--	--	--	--
555	12	25	--	--	--	--	--	--	--
632	<10	<10	--	--	--	--	--	--	--
CLINTON COUNTY									
CN-SP17	<10	140	--	--	--	--	--	--	--
CN-SP21	<10	170	--	--	--	--	--	--	--
376	340	<10	--	--	--	--	--	--	--
CN-SP12	<10	<10	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1
353	<10	<10	--	--	--	--	--	--	--
375	24	12	--	--	--	--	--	--	--
CN-SP2	<10	110	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1
354	<10	110	--	--	--	--	--	--	--
359	<10	100	--	--	--	--	--	--	--
HUNTINGDON COUNTY									
394	240	<10	--	--	--	--	--	--	--
HU-SP13	<10	48	--	--	--	--	--	--	--
HU-SP1	<10	11	--	--	--	--	--	--	--
357	<10	<10	--	--	--	--	--	--	--
HU-SP2	<10	<10	--	--	--	--	--	--	--
350	390	<10	--	--	--	--	--	--	--
275	<10	<10	--	--	--	--	--	--	--
MIFFLIN COUNTY									
MF-SP2	<10	<10	<0.05	0.1	<0.2	<0.1	<0.2	<0.2	<1
MF-SP3	<10	<10	<0.05	<0.2	<0.2	<0.1	<0.2	<0.2	<1



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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). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	$2.54 \times 10^1$	millimeters (mm)
	$2.54 \times 10^{-2}$	meters (m)
feet (ft)	$3.048 \times 10^{-1}$	meters (m)
miles (mi)	$1.609 \times 10^0$	kilometers (km)
<i>Area</i>		
acres	$4.047 \times 10^3$	square meters (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometers (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometers (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometers (km <sup>2</sup> )
<i>Volume</i>		
gallons (gal)	$3.785 \times 10^0$	liters (L)
	$3.785 \times 10^0$	cubic decimeters (dm <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic meters (m <sup>3</sup> )
million gallons	$3.785 \times 10^3$	cubic meters (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeters (dm <sup>3</sup> )
	$2.832 \times 10^{-2}$	cubic meters (m <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$	cubic meters (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometers (km <sup>3</sup> )
<i>Flow</i>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liters per second (L/s)
	$2.832 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$2.832 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
gallons per minute (gal/min)	$6.309 \times 10^{-2}$	liters per second (L/s)
	$6.309 \times 10^{-2}$	cubic decimeters per second (dm <sup>3</sup> /s)
	$6.309 \times 10^{-5}$	cubic meters per second (m <sup>3</sup> /s)
million gallons per day	$4.381 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$4.381 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
<i>Mass</i>		
tons (short)	$9.072 \times 10^{-1}$	megagrams (Mg) or metric tons



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