

O. B. Lloyd, Jr.  
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

# FLOODS IN PENNSYLVANIA FREQUENCY AND MAGNITUDE

By  
W. F. Busch and L. C. Shaw

Prepared in cooperation with  
Commonwealth of Pennsylvania, Department of  
Forests and Waters

Open-file report

Harrisburg, Pennsylvania  
1960



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

WYOMING  
COUNTY  
LAND OFFICE

WYOMING

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

FLOODS IN PENNSYLVANIA  
FREQUENCY AND MAGNITUDE  
1960  
ERRATA SHEET

1. Page 111, bottom line in left column.- Change "at Langhorne" to "near Langhorne."
2. Page 111, lines 34, 35, 36 in right column.- Change "Lackawaxen" to "Lackawanna."
3. Page V, line 7 in right column.- Change "Carnegia" to "Carnegie."
4. Page 4, figure 2.- Insert numeral "5" in Ohio River basin portion of map.
5. Page 6, Sta. No. 4655.- Change "at Langhorne" to "near Langhorne."
6. Page 7, Sta. Nos. 5345, 5355, 5360.- Change "Lackawaxen" to "Lackawanna."
7. Page 8, Sta. No. 5630.- Change "Huntington" to "Huntingdon."
8. Page 9, Sta. No. 5705.- Add small letter "e" at extreme right of column 5.
9. Page 9, line 14.- Change No. "5735" to "5755."
10. Page 11, Sta. Nos. 1025-1080.- Move all bars upward one line in "Annual peak records, water year" column. For Raccoon Creek at Moffatts Mill, Pa., insert bar for 1916-32, 1942-58.
11. Page 12, footnotes.- After "e," change "1786" to "1787."
12. Page 17, figure 8.- Change "150,000" on ordinate scale to "200,000."
13. Page 20, figure 11.- Insert numeral "14" on curve of graph.
14. Page 22, Sta. No. 150.- Change "Conewago" to "Conewango."
15. Page 22, last line in right column.- Change "Ellwood Creek" to "Ellwood City."
16. Page 66, first table, third line in right column.- Change "11.12" to "10.12" under "Gage height."
17. Page 125, Dunning Creek at Yount, Pa.- Change station description to read as follows:  
Drainage area.- 191 sq mi.  
Gage.- Nonrecording gage. Datum of gage is 1,046.43 ft above mean sea level (preliminary levels of 1935).  
Stage-discharge relation.- Defined by current-meter measurements below 1,650 cfs and extended above.  
Remarks.- Base for partial-duration series, 2,300 cfs.
13. Page 141, first line in table, left column.- Change "1786" to "1787" under "Water year;" change "Oct. 5, 1785" to "Oct. 5, 1786" under "Date."
19. Page 141, line 7 in table, left column.- Change "620,000" to "654,000" under "Discharge."
20. Page 143, Sta. No. 5715.- Change datum of gage from "301.19" to "301.49."
21. Plate 1.- Interchange numbers for Sta. Nos. 1060 and 1065; move symbol for Sta. No. 1085 downstream from Raccoon Creek (Sta. No. 1080).

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
FLOODS IN PENNSYLVANIA  
FREQUENCY AND MAGNITUDE  
1966  
ERRATA SHEET

1. Page 111, bottom line in left column - Change "at Langhorne" to "near Langhorne."
2. Page 111, lines 34, 35, 36 in right column - Change "Blackwaxen" to "Blackwanna."
3. Page 111, line 7 in right column - Change "Crimmle" to "Carnegie."
4. Page 111, line 5 - Insert numeral "5" in Ohio River basin portion of map.
5. Page 6, line 10, 11 - Change "at Langhorne" to "near Langhorne."
6. Page 1, line 10, 11 - Change "Blackwaxen" to "Blackwanna."
7. Page 3, line 10, 11 - Change "Huntington" to "Huntington."
8. Page 2, line 10, 11 - Add small letter "a" at extreme right of column 2.
9. Page 2, line 11 - Change "1000" to "1000."
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# FLOODS IN PENNSYLVANIA FREQUENCY AND MAGNITUDE

By

W. F. Busch and L. C. Shaw

## ABSTRACT

This report outlines a method of determining the magnitude of floods having frequencies up to 50 years for any stream in Pennsylvania except regulated streams and streams whose drainage basins are smaller than 10 square miles. On the main stems of the Schuylkill, Delaware, Susquehanna, and Chemung Rivers the magnitude of floods can be determined for frequencies up to 100 years.

Six composite frequency curves show the relation of the mean annual flood to floods having recurrence interval up to 50 to 100 years. Curves for fourteen hydrologic areas show the variation of mean annual flood with drainage area. This report explains how to select the proper curves for any chosen point in the State and how to compute a flood-frequency curve for that point.

A tabulation of peak gage heights and discharges for most gaging stations in the State is included. In general, the tabulations contain all peaks above a specific base discharge, although for some stations only annual peaks are shown.

## INTRODUCTION

Knowledge of the frequency and magnitude of floods is an important requirement for the design of all works of man bordering on streams or encroaching on flood plains. The proper design of bridges, culverts, dams, highways, levees, reservoirs, sewage disposal systems, waterworks, and all structures located on the flood plains of streams requires careful consideration of the flood hazard. When the loss of life is not a factor, it is generally not economically sound to design all structures for the maximum flood that may occur. Economics will dictate the choice of a design frequency. The magnitude of floods for selected frequencies can be determined for any site on most streams in Pennsylvania by use of procedures and curves presented in this report. The procedures and curves are not applicable to regulated streams or streams having small (generally less than 10 square miles) drainage areas.

## Acknowledgements

The data in this report were compiled in accordance with the terms of a co-operative agreement for water resources investigations between the U. S. Geological Survey and the Pennsylvania Department of Forests and Waters. It was prepared by W. F. Busch and L. C. Shaw in the district office of the U. S. Geological Survey, Harrisburg, Pa., under the direction of John J. Molloy, district engineer. Tate Dalrymple, A. R. Green, and others of the staff of the Washington office of the U. S. Geological Survey rendered valuable technical assistance in reviewing the report.

Most of the flood data used in this report for years prior to 1931 were collected by the Pennsylvania Department of Forests and Waters. Data for subsequent years were collected by the U. S. Geological Survey in cooperation with the Pennsylvania Department of Forests and Waters; Corps of Engineers, Department of the Army; and other municipal, State, and Federal agencies. Data for gaging stations operated by district offices of the U. S. Geological Survey in States adjacent to Pennsylvania were furnished by the district engineers in those States. Curves relating to the Delaware River basin in Pennsylvania were taken from the open-file report, "Delaware River Basin Flood Frequency," which was prepared in April 1958 by Richard H. Tice, hydraulic engineer, U. S. Geological Survey, Trenton, New Jersey.

## Description of the State

The Commonwealth of Pennsylvania can be described as a rectangular area set arbitrarily across the Appalachian Highlands in the eastern part of the United States. Land-surface elevations vary from 3,213 feet above mean sea level on Mount Davis in the Allegheny Mountains to about sea level along the Delaware River. Large areas of the State are covered with forests, pasture, or cultivated lands.

## Topography

The State is divided into roughly parallel belts, with a northeast-southwest trend, that form parts of six physiographic provinces. These provinces, named from southeast to northwest, are: Atlantic Coastal Plain; Piedmont; Blue Ridge and Jersey Highlands; Valley and Ridge; Appalachian Plateau; and Lake Erie Plain. The general outlines of the provinces are shown in figure 1. A brief description of the provinces follows:

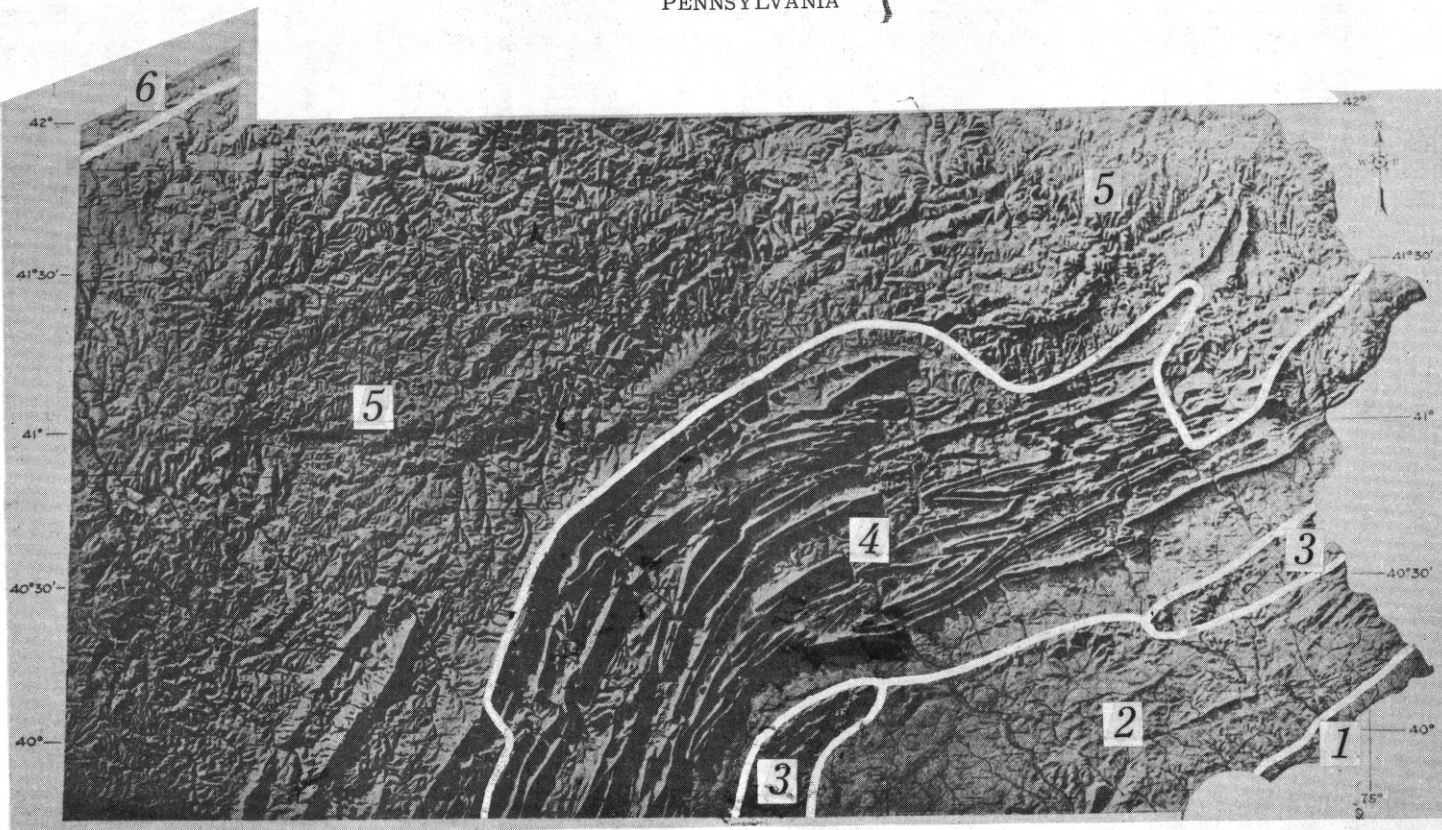
Atlantic Coastal Plain. --A narrow belt of sand and silt, belonging to the Atlantic Coastal Plain, lies in the southeastern corner of the State along the Delaware River. This belt is about 45 miles long and averages about 10 miles wide. The Schuylkill River and many smaller streams cross the Coastal Plain.

Piedmont. --The Piedmont is a gently rolling area which in general slopes southeastward. As a result of prolonged erosion, much of its former plateau-like appearance has been modified to slopes and gently rounded hills. The province is in the southeastern portion of the State, adjacent to the Coastal Plain.

Blue Ridge and Jersey Highlands. --Two divisions of the Appalachian Mountains, the Blue Ridge and the Jersey Highlands, are present in Pennsylvania. The Appalachian Mountains extend from western



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Figure 1. --Outline of physiographic provinces.

- |                                   |                                |
|-----------------------------------|--------------------------------|
| 1 Atlantic Coastal Plain          | 4 Appalachian Valley and Ridge |
| 2 Piedmont                        | 5 Appalachian Plateau          |
| 3 Blue Ridge and Jersey Highlands | 6 Lake Erie Plain              |

Massachusetts to Georgia with a topographic break in Pennsylvania of approximately 50 miles which separates them into a northern and a southern division. The northern division, known as the Jersey Highlands, enters Pennsylvania from New Jersey in the vicinity of Easton and extends to the Schuylkill River. The Blue Ridge, which is the southern division, enters Pennsylvania from Maryland and terminates at South Mountain, west of the Susquehanna River.

Appalachian Valley and Ridge. --The Appalachian Valley and Ridge is northwest of the Piedmont and is in part separated from it by the Blue Ridge and the Jersey Highlands. This province is divided into two distinct parts. The Great Valley is southeast of and parallel to Blue Mountain and extends from the Delaware River to the Pennsylvania-Maryland line. It is a fairly flat lowland, averaging about 15 miles in width and 150 miles in length. The rest of the province is made up of a series of parallel ridges and valleys. The ridges have long uniform crest lines and have been cut through in numerous places by streams

Appalachian Plateau. --The Appalachian Plateau covers nearly two-thirds of the State. It extends from the eastern to the western boundaries in the northern third of the State, and from the northern to the southern boundaries in the western third of the State. The northeast to southwest trend visible in the topography of the other provinces is missing completely in this area. The province has winding divides without definite pattern or consistency.

Lake Erie Plain. --The Lake Erie Plain, which is a part of the Central Lowlands, is a belt of land about 10 miles wide and 45 miles long, bordering on Lake Erie in the northwestern part of the State. Streams which drain the Plain are tributary to Lake Erie.

#### Drainage Basins

The streams in Pennsylvania contribute to five major drainage basins. In addition, a small area drains directly into Chesapeake Bay. These basins and their approximate drainage areas in the State are as follows:

Basin	Drainage area in Pennsylvania (square miles)
Delaware River	6,422
Susquehanna River	20,965
Chesapeake Bay	85
Potomac River	1,570
Ohio River	15,571
St. Lawrence River	608

The Delaware, Susquehanna and Potomac Rivers flow directly to the Atlantic Ocean. The Ohio River flows in a southwesterly direction to the Mississippi River and then to the Gulf of Mexico. The St. Lawrence River basin in Pennsylvania consists of an area which drains directly into Lake Erie in northwestern Pennsylvania, and the headwaters of the Genesee River in the northcentral section of the State. The river basins in Pennsylvania are shown in figure 2.

#### Climate

Pennsylvania, which is a short distance south of the center of the temperate zone, enjoys a moderate climate. The average annual temperature is about 50°F., varying from an average of about 29°F. in

January and February to an average of about 72°F. in July. Long periods of extreme cold or heat are relatively rare.

The State is crossed by a large number of the nation's major storm tracks and is supplied with plentiful precipitation. The average annual precipitation of about 42 inches is distributed fairly evenly in regard to both time and location. The whole State is subject to precipitation in the form of snow during the winter months. Heaviest snowfalls usually occur in the northern half of the State and in the mountains. The eastern third of the State occasionally receives heavy rainfall as the result of hurricane storms that pass either through the area or slightly off the Atlantic coast.

Because of the nature of the climate in the State, major floods may occur in any season of the year. Although the snowpack generally does not accumulate to excessive depths, major floods have occurred as a result of heavy rainfall on top of a dense snowpack. Winter floods also have occurred as the result of heavy rain falling on frozen ground. Local flooding is caused occasionally by ice jams. Summer floods may be caused by one storm following closely after another storm and releasing heavy rainfall of high intensity on the previously saturated ground. Thunderstorm activity during the summer months may produce excessive flooding, especially over small drainage areas.

The distribution of the average annual precipitation over the State is shown in figure 3.

#### Flood Records

The base data for this report were obtained from records of gage height and discharge collected by the U. S. Geological Survey and other agencies. In addition to data collected within Pennsylvania, records for some streams in adjoining States have been used in the analyses.

Systematic collection of streamflow records in Pennsylvania began at a few mainstem locations during the period 1890-1900. However, it was not until about 1914 that a fairly representative network of gaging stations was operated throughout the State. Since 1914 the number of gaging stations has been increased gradually, a relatively large number being established during the decade 1930-40. Historical flood data have been used in the analyses when reliable information was available. In general, flood records for stations operated less than 5 years were not used.

Gaging stations providing the base data are listed in downstream order in table 1, which shows by bar graph the years for which annual peak discharges are available. The location of each station is indicated by index number on the map of plate 1.

#### METHOD OF FLOOD-FREQUENCY ANALYSIS

The methods of analyzing flood frequency used in this report, which have been developed in previous studies by engineers of the Geological Survey, have been described in detail in many reports. The methods involve, first, relating peak discharge, expressed as a ratio to the mean annual flood to recurrence interval in years; and, second, relating the mean annual flood to size of drainage basin. By use of the results of these analyses, flood-frequency relations can be estimated for any point on any stream within a broad area, with the following exceptions:

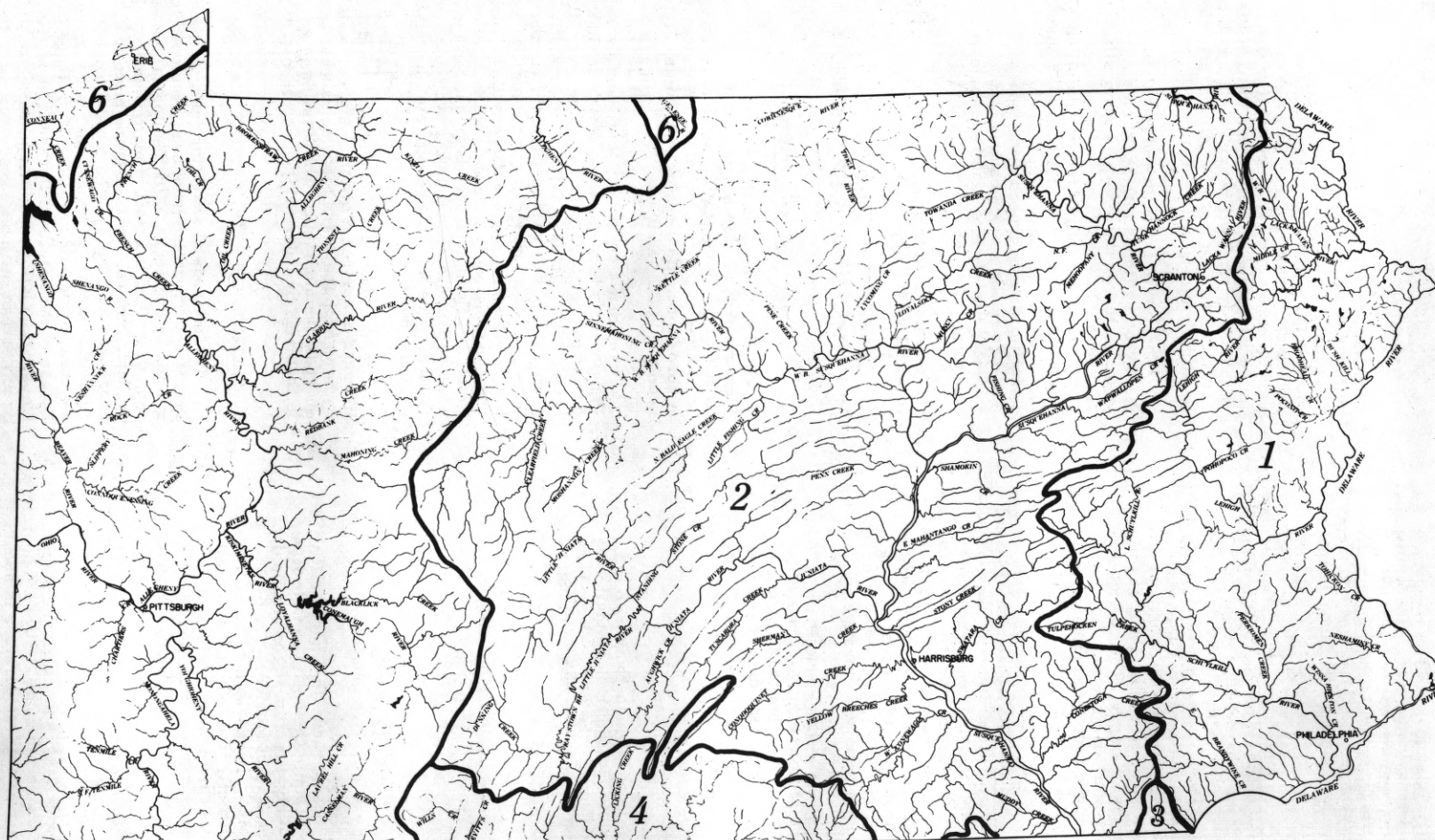
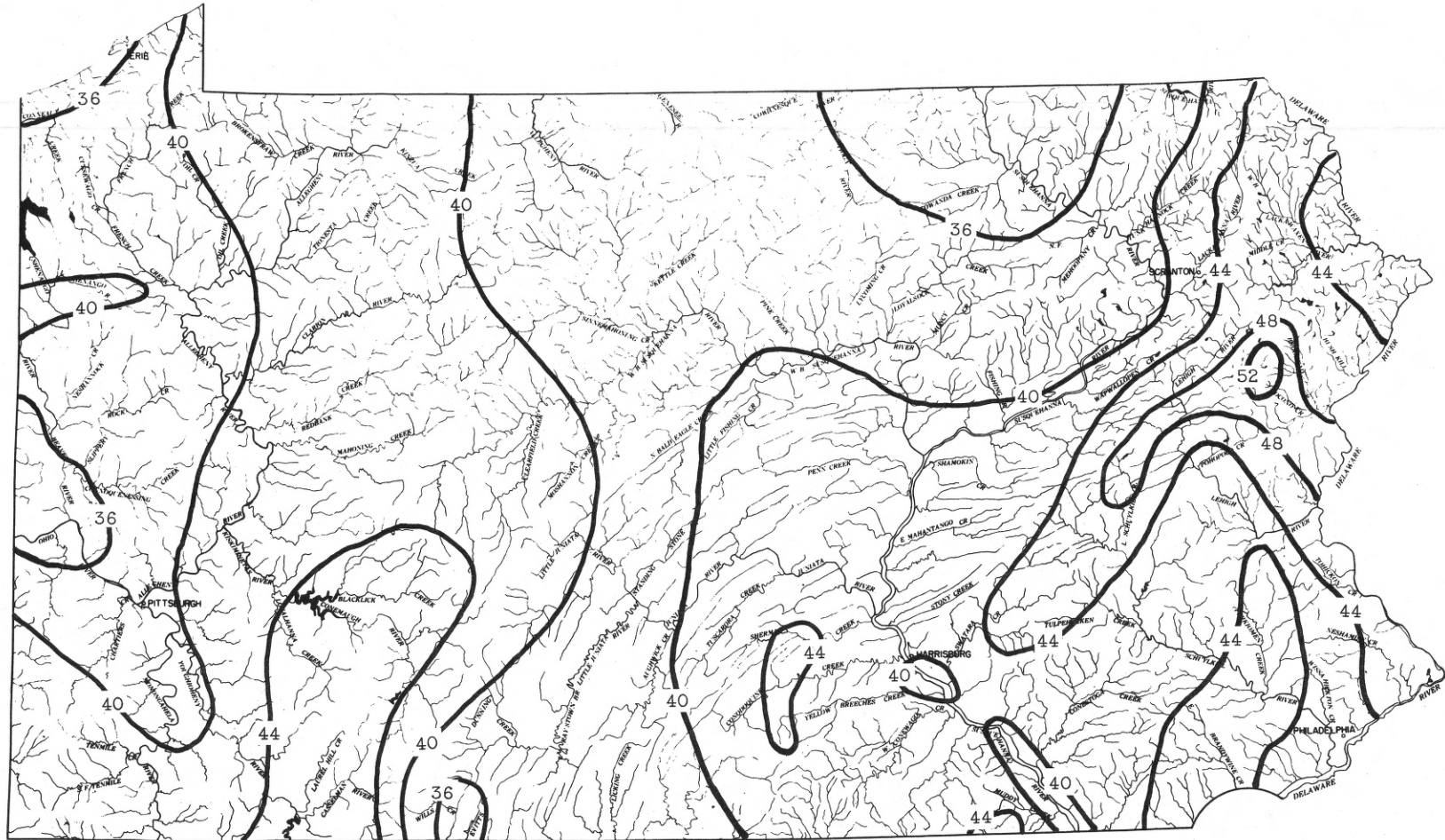


Figure 2.--River basins of Pennsylvania.

- |                     |                      |
|---------------------|----------------------|
| 1 Delaware River    | 4 Potomac River      |
| 2 Susquehanna River | 5 Ohio River         |
| 3 Chesapeake Bay    | 6 St. Lawrence River |



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Figure 3. --Average annual precipitation, in inches, period 1931-55.

Table 1. --Gaging station data with bar graph

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water years										
					1880	1900	1910	1920	1930	1940	1950	1960			
4285	Delaware River near Barryville, N. Y.	2,023		C - 7											
4290	West Branch Lackawaxen River at Prompton	59.7	3,400	B - 2											
4295	Dyberry Creek at Dyberry	64.6	4,600	B - 2											
4300	Lackawaxen River near Honesdale	164	6,600	B - 2											
4305	Lackawaxen River at West Hawley	206		B - 2											
4310	Middle Creek near Hawley	78.4	3,200	B - 2											
4315	Lackawaxen River at Hawley	290	10,500	B - 2											
4320	Wallenpaupack Creek at Wilsonville	228		B - 3											
4325	Shohola Creek near Shohola	83.2		B - 3											
4340	Delaware River at Port Jervis, N. Y.	3,076		C - 7											
4385	Delaware River at Montague, N. J.	3,480		C - 7											
4395	Bush Kill at Shoemakers	117	2,400	B - 3											
4410	McMichaels Creek at Stroudsburg	65.3	1,950	B - 3											
4415	Pocono Creek near Stroudsburg	41.0		B - 3											
4425	Brodhead Creek at Minisink Hills	259		B - 3											
4465	Delaware River at Belvidere, N. J.	4,535		C - 7											
4475	Lehigh River at Stoddartsville	91.7	3,000	A - 8											
4480	Lehigh River at Tannery	322	8,500	A - 8											
4485	Dilldown Creek near Long Pond	2.39	190	B - 2											
4495	Wild Creek at Hatchery	16.8	860	B - 3											
4500	Pohopoco Creek near Parryville	109	2,300	B - 3											
4505	Aquashicola Creek at Palmerton	76.7	2,700	B - 3											
4510	Lehigh River at Walnutport	889	25,000	A - 8											
4515	Little Lehigh Creek near Allentown	80.8	900	B - 5											
4520	Jordan Creek at Allentown	75.8	2,600	B - 3											
4525	Monocacy Creek at Bethlehem	44.5	370	B - 5											
4530	Lehigh River at Bethlehem	1,279	28,000	A - 8											
4535	Saucon Creek at Lanark	12.0		B - 5											
4540	South Branch Saucon Creek at Friedensville	10.6		B - 5											
4545	Saucon Creek at Friedensville	26.6		B - 5											
4575	Delaware River at Riegelsville, N. J.	6,328		C - 7											
4595	Tohickon Creek near Pipersville	97.4	7,000	B - 1											
4600	Tohickon Creek at Point Pleasant	107		B - 1											
4635	Delaware River at Trenton, N. J.	6,780		C - 7											
4650	Neshaminy Creek at Rushland	134		B - 1											
4655	Neshaminy Creek at Langhorne	210	10,500	B - 1											
4675	Schuylkill River at Pottsville	53.4	2,480	C - 8											
4685	Schuylkill River at Landingville	133	4,500	C - 8											
4695	Little Schuylkill River at Tamaqua	42.9	2,000	B - 2											
4705	Schuylkill River at Berne	355	13,500	C - 8											

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No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water years							
					1880	1900	1910	1920	1930	1940	1950	1960
4710	Tulpehocken Creek near Reading	211	5,000	B - 3								
4715	Schuylkill River at Reading	880		C - 8	a							
4720	Schuylkill River at Pottstown	1,147	23,600	C - 8								
4725	Perkiomen Creek near Frederick	152		B - 1								
4730	Perkiomen Creek at Graterford	279	17,800	B - 1								
4735	Schuylkill River at Norristown	1,760		C - 8								
4740	Wissahickon Creek near Philadelphia	64.6		B - 1								
4745	Schuylkill River at Philadelphia	1,893	49,300	C - 8	b							
4760	Crum Creek at Woodlyn	33.3		B - 3								
4765	Ridley Creek at Moylan	31.9	1,200	B - 3								
4770	Chester Creek near Chester	61.1	3,400	C - 4								
4805	West Branch Brandywine Creek at Coatesville	45.8	1,400	B - 3								
4810	Brandywine Creek at Chadds Ford	287	7,200	C - 4								
4815	Brandywine Creek at Wilmington, Del.	314										
5030	Susquehanna River at Conklin, N. Y.	2,240										
5180	Tioga River at Tioga	282		D - 9								
5200	Cowanesque River near Lawrenceville	295		D - 9								
5310	Chemung River at Chemung, N. Y.	2,530										
5315	Susquehanna River at Towanda	7,797	113,000	F - 10	c							
5320	Towanda Creek near Monroeton	215	10,400	D - 9								
5335	North Fork Mehoopany Creek near Lovelton	35.2	1,770	D - 9								
5340	Tunkhannock Creek at Dixon	383	16,100	D - 9								
5345	Lackawaxen River at Archbald	108	3,080	D - 3								
5355	Lackawaxen River at Moosic	264		D - 3								
5360	Lackawaxen River at Old Forge	332	7,990	D - 3								
5365	Susquehanna River at Wilkes-Barre	9,960	125,000	F	d							
5370	Towamoc Creek at Luzerne	32.4	1,250	D - 3								
5375	Solomon Creek at Wilkes-Barre	15.7	1,020	D - 2								
5380	Wapwallopen Creek near Wapwallopen	43.8	1,400	D - 3								
5385	Lescopec Creek near St. Johns	49		E - 3								
5390	Fishing Creek near Bloomsburg	274	10,200	D - 9								
5395	Little Fishing Creek at Eysers Grove	56.5	2,070	D - 3								
5400	Fishing Creek at Bloomsburg	355		D - 3								
5405	Susquehanna River at Danville	11,220	136,000	F								
5410	West Branch Susquehanna River at Bower	315	8,300	D - 3								
5415	Clearfield Creek at Dimeling	371	8,600	D - 3								
5420	Moshannon Creek at Osceola Mills	68.8	1,790	D - 3								
5425	West Branch Susquehanna River at Karthaus	1,462	26,800	F								
5430	Driftwood Br. Sinnemahoning Cr. at Sterling Run	272	8,800	D - 2								
5435	Sinnemahoning Creek at Sinnemahoning	685	16,500	D - 2								

FLOOD-FREQUENCY ANALYSIS



Table 1. --Gaging station data with bar graph. --Continued

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water year							
					1880	1900	1910	1920	1930	1940	1950	1960
5445	Kettle Creek at Cross Fork	136	3,150	D - 3								
5455	West Branch Susquehanna River at Renovo	2,975	65,000	F								
5460	North Bald Eagle Creek at Milesburg	119		E - 3								
5465	Spring Creek near Axemann	87.2	753	E - 5								
5470	Spring Creek near Bellefonte	145		E - 5								
5480	North Bald Eagle Creek at Beech Creek Station	559	10,900	E - 3								
5485	Pine Creek at Cedar Run	604	12,400	D - 3								
5490	Pine Creek near Waterville	750		D - 3								
5495	Blockhouse Creek near English Center	37.7	2,300	D - 9								
5500	Lycoming Creek near Trout Run	173	6,900	D - 9								
5510	Grafius Run at Williamsport	3.14	329	D - 9								
5515	West Branch Susquehanna River at Williamsport	5,682	110,000	F								
5520	Loyalsock Creek at Loyalsock	443	18,300	D - 9								
5525	Muncy Creek near Sonestown	23.8	1,360	D - 9								
5535	West Branch Susquehanna River at Lewisburg	6,847		F								
5540	Susquehanna River at Sunbury	18,300	223,000	F								
5545	Shamokin Creek at Weigh Scale	54.2	1,440	E - 3								
5550	Penn Creek at Penns Creek	301	7,630	E - 3								
5555	East Mahantango Creek near Dalmatia	162	5,300	E - 3								
5560	Frankstown Branch Juniata River at Williamsburg	291	7,800	E - 3								
5565	Little Juniata River at Tipton	93.7	3,070	E - 3								
5570	Little Juniata River near Tyrone	101		E - 3								
5575	South Bald Eagle Creek at Tyrone	44.1	1,790	E - 3								
5580	Little Juniata River at Spruce Creek	220	6,040	E - 3								
5585	Shaver Creek near Petersburg	46.4	2,080	E - 3								
5590	Juniata River at Huntingdon	816	16,300	E - 3								
5595	Standing Stone Creek near Huntingdon	128	2,910	E - 3								
5600	Dunning Creek at Belden	172	4,770	E - 3								
5605	Dunning Creek at Yount	191		E - 3								
5610	Brush Creek at Gapsville	36.8	1,040	E - 3								
5620	Raystown Branch Juniata River at Saxton	756	15,100	E - 3								
5625	Great Trough Creek near Marklesburg	84.6	2,120	E - 3								
5630	Raystown Branch Juniata River near Huntingdon	957	16,200	E - 3								
5635	Juniata River at Mapleton Depot	2,030	31,300	F								
5640	Aughwick Creek near Orbisonia	174		E - 2								
5645	Aughwick Creek near Three Springs	205	8,060	E - 2								
5650	Kishacoquillas Creek at Reedsville	164	3,020	E - 3								
5660	Tuscarora Creek near Port Royal	214	6,850	E - 2								
5665	Cocolamus Creek near Millerstown	57.2	3,550	E - 9								
5670	Juniata River at Newport	3,354	51,000	F								

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Table 1. --Gaging station data with bar graph. --Continued

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water year							
					1880	1900	1910	1920	1930	1940	1950	1960
5680	Sherman Creek at Shermandale	200	9,330	E - 9								
5685	Clark Creek near Carsonville	22.5		E - 3								
5690	Stony Creek near Dauphin	35	869	E - 3								
5700	Conodoguinet Creek near Hogestown	470	9,120	E - 3								
5705	Susquehanna River at Harrisburg	24,100	287,000	F								
5710	Paxton Creek near Penbrook	11.2	1,590	E - 3								
5715	Yellow Breeches Creek near Camp Hill	216	2,490	E - 5								
5720	Lower Little Swatara Creek at Pine Grove	34.4		E - 3								
5730	Swatara Creek at Harper Tavern	333	9,800	E - 3								
5735	Manada Creek at Manada Gap	14.1	678	E - 3								
5740	West Conewago Creek near Manchester	510	17,200	E - 2								
5745	Codorus Creek at Spring Grove	74.3	2,680	E - 3								
5750	South Branch Codorus Creek near York	117	2,630	E - 3								
5735	Codorus Creek near York	222	4,660	E - 3								
5760	Susquehanna River at Marietta	25,990	296,000	F								
5765	Conestoga Creek at Lancaster	324	7,580	E - 3								
5770	Susquehanna River near McCall Ferry	26,800		F								
5775	Muddy Creek at Castle Fin	133	4,660	C - 4								
6010	Wills Creek below Hyndman	146	5,090	D - 2								
6035	Evitts Creek below Centerville	30.2	1,190	D - 3								
6135	Licking Creek near Sylvan	158	5,670	D - 2								
105	Allegheny River at Eldred	550	7,300	D - 14								
115	Allegheny River at Red House, N. Y.	1,690	25,100									
120	Kinzua Creek at Dewdrop	171		D - 3								
125	Allegheny River near Kinzua	2,179	32,000	D - 14								
130	Conewago Creek at Waterboro, N. Y.	290	3,670									
150	Conewago Creek at Russell	816		D - 3								
155	Brokenstraw Creek at Youngsville	321	7,500	D - 3								
160	Allegheny River at West Hickory	3,660	48,900	D - 14								
165	Tionesta Creek at Sheffield	128	3,200	D - 3								
170	South Branch Tionesta Creek at Barnes	85.3	2,250	D - 3								
175	Tionesta Creek at Lynch	233	5,450	D - 3								
180	Tionesta Creek at Mayburg	307		D - 3								
190	Tionesta Creek at Nebraska	469	10,700	D - 3								
200	Tionesta Creek at Tionesta Creek Dam	479		D - 3								
205	Oil Creek at Rouseville	300	8,000	D - 3								
215	French Creek at Carters Corners	208	7,200	D - 2								
220	French Creek at Venango	597		D - 3								
225	French Creek at Saegerstown	629	12,100	D - 3								
230	Cussewago Creek near Meadville	90.2	1,790	D - 3								

FLOOD-FREQUENCY ANALYSIS



Table 1. --Gaging station data with bar graph. --Continued

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water year								
					1880	1900	1910	1920	1930	1940	1950	1960	
235	French Creek at Carlton	998		D - 3									
240	French Creek at Utica	1,028	13,500	D - 3									
245	Sugar Creek at Wyattville	153		D - 3									
250	Sugar Creek at Sugarcreek	166	5,260	D - 3									
255	Allegheny River at Franklin	5,982											
265	Sevenmile Run near Rasselas	7.84	287	D - 3									
275	East Br. Clarion R. at East Br. Clarion R. Dam	73.2											
280	West Branch Clarion River at Wilcox	63.0		D - 3									
285	Clarion River at Johnsonburg	204		D - 3									
290	Clarion River at Ridgway	303	9,210	D - 2									
295	Clarion River at Cooksburg	807	21,800	D - 2									
305	Clarion River near Piney	951											
310	Clarion River at St. Petersburg	1,246											
315	Allegheny River at Parkers Landing	7,671											
325	Redbank Creek at St. Charles	528	12,200	D - 3									
330	Allegheny River near Rimer	8,389											
340	Mahoning Creek at Punxsutawney	158	4,460	D - 3									
345	Little Mahoning Creek at McCormick	87.4	3,430	D - 3									
350	Mahoning Creek near Dayton	321	6,110	D - 3									
360	Mahoning Creek at Mahoning Creek Dam	344		D - 3									
365	Allegheny River at Kittanning	8,973											
375	South Branch Plum Creek at Willet	30.0	902	D - 3									
380	Crooked Creek at Idaho	191	6,500	D - 2									
390	Crooked Creek at Crooked Creek Dam	278		D - 2									
400	Stony Creek at Ferndale	451	11,800	D - 2									
410	Little Conemaugh River at East Conemaugh	183	5,830	D - 2									
415	Conemaugh River at Seward	715	20,200	D - 2									
420	Blacklick Creek at Josephine	192		D - 2									
425	Two Lick Creek at Gracetown	171	6,200	D - 2									
430	Blacklick Creek at Blacklick	390	12,200	D - 2									
440	Conemaugh River at Tunnelton	1,358	29,400	D - 2									
450	Loyalhanna Creek at Kingston	172	6,960	D - 2									
455	Loyalhanna Creek at New Alexandria	265		D - 2									
470	Loyalhanna Creek at Loyalhanna Creek Dam	292		D - 2									
475	Kiskiminetas River at Avonmore	1,723	37,100	D - 2									
485	Kiskiminetas River at Vandergrift	1,825		D - 2									
490	Buffalo Creek near Freeport	137	4,230	D - 3									
495	Allegheny River at Natrona	11,410											
615	Buffalo Creek at Barrackville, W. Va.	115	5,920										
625	Deckers Creek at Morgantown, W. Va.	63.2	1,770										

Table 1. --Gaging station data with bar graph. --Continued

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water year								
					1880	1900	1910	1920	1930	1940	1950	1960	
630	Monongahela River at Lock 8, at Point Marion	2,720											
705	Big Sandy Creek at Rockville, W. Va.	200	7,600										
710	Cheat River near Pisgah, W. Va.	1,354	44,000										
720	Dunkard Creek at Shannopin	229	7,850	D - 2									
725	Monongahela River at Greensboro	4,407											
730	South Fork Tenmile Creek at Jefferson	180	6,000	D - 2									
740	Dunlap Creek at Allison	33.1	865	D - 2									
745	Redstone Creek at Waltersburg	73.7	2,260	D - 2									
750	Monongahela River at Charleroi	5,213											
765	Youghiogheny River at Friendsville, Md.	295	6,390										
775	Youghiogheny River at Youghiogheny River Dam	436											
780	Casselman River at Grantsville, Md.	62.5	2,780										
785	Big Piney Run near Salisbury	24.5	1,180	D - 2									
790	Casselman River at Markleton	382	11,700	D - 2									
800	Laurel Hill Creek at Ursina	121	4,600	D - 2									
810	Youghiogheny River below Confluence	1,029		D - 2									
815	Youghiogheny River at Ohiopyle	1,062		D - 2									
825	Youghiogheny River at Connellsville	1,326	32,000	D - 2									
830	Green Lick Run at Green Lick Reservoir	3.07	367	D - 2									
835	Youghiogheny River at Sutersville	1,715	38,100	D - 2									
840	Abers Creek near Murrys ville	4.39	649	D - 2									
845	Turtle Creek at Trafford	55.9	2,590	D - 2									
850	Monongahela River at Braddock	7,337											
855	Chartiers Creek at Carnegie	257	5,920	D - 3									
860	Ohio River at Sewickley	19,500											
1000	Shenango River near Turnerville	152		D - 2									
1010	Sugar Run at Pymatuning Dam	9.34	564	D - 2									
1015	Shenango River at Pymatuning Dam	167		D - 2									
1020	Shenango River near Jamestown	181		D - 2									
1025	Little Shenango River at Greenville	104	2,760	D - 2									
1030	Pymatuning Creek near Orangeville	169	3,240	D - 3									
1035	Shenango River at Sharpsville	588		D - 3									
1040	Shenango River at Sharon	608	6,770	D - 3									
1045	Shenango River at New Castle	792		D - 3									
1050	Neshannock Creek at Eastbrook	228		D - 3									
1055	Beaver River at Wampum	2,235											
1060	Connoquenessing Creek at Hazen	356	8,600	D - 3									
1065	Slippery Rock Creek at Wurtemburg	398	8,300	D - 3									
1075	Beaver River at Beaver Falls	2,106											
1080	Raccoon Creek at Moffatts Mill	178	5,360	D - 3									

FLOOD-FREQUENCY ANALYSIS

Table 1. --Gaging station data with bar graph. --Continued

No.	Gaging station	Drainage area (sq mi)	Mean annual floods (cfs)	Region and area	Annual peak records, water year							
					1880	1900	1910	1920	1930	1940	1950	1960
1085	Ohio River at Montgomery Island Dam	22, 960										
1095	Little Beaver Creek near East Liverpool, Ohio	505	11, 700									
1100	Yellow Creek near Hammondsville, Ohio	148	4, 370									
1105	Yellow Creek at Hammondsville, Ohio	169										
1120	Wheeling Creek at Elm Grove, W. Va.	282	9, 020									
2125	Ashtabula River near Ashtabula, Ohio	118	5, 400									
2130	Conneaut Creek at Amboy, Ohio	178	6, 390									
2135	Cattaraugus Creek at Gowanda, N. Y.	428	17, 700									
2215	Genesee River at Scio, N. Y.	309	7, 540									

<sup>a</sup> 1757, 1787, 1822, 1839, 1841, 1850, 1862, 1870, 1874, 1878-79<sup>b</sup> 1870<sup>c</sup> 1865<sup>d</sup> 1787, 1807, 1809, 1833, 1865<sup>e</sup> 1786, 1846, 1865, 1868, 1886<sup>f</sup> 1806, 1832, 1865, 1874<sup>g</sup> 1860

1. Results are not applicable to regulated streams.
2. Results cannot be applied to streams which drain areas smaller than the smallest area for which basic data are available.

The term "recurrence interval", as used in this report, means the average interval of time within which a given flood will be equaled or exceeded once. A 25-year flood, for example, is equaled or exceeded on the average once in 25 years. It is more meaningful to consider a 25-year flood as one that has a 4 percent chance of occurring in any one year.

A brief description of the methods of analysis are given in this section. For a more detailed description, the reader is referred to Geological Survey Water-Supply Paper 1543-A, "Flood-Frequency Analyses," by Tate Dalrymple.

#### Relation of Peak Discharge to Recurrence Interval

The regional relations between annual peak discharge and recurrence interval were determined by combining records of annual floods from individual gaging stations. In order to use this method it was necessary for the records to be based on the same time period and for them to be homogeneous.

#### Analysis of Gaging-Station Data

For each gaging station, plotting positions were computed for each annual flood for a common period of years (base period). Plotting positions were computed using the equation,  $RI = (n + 1)/m$ , where RI is the recurrence interval in years,  $n$  is the number of years of record, and  $m$  is the relative order of magnitude of the annual floods beginning with the highest as number 1. Records shorter than the base period were extended to that length by estimating annual floods for years of no record by correlation with records for nearby stations. Estimated floods were used only to obtain the proper order number for observed annual floods. Where available, historical flood data were used to extend the length of record.

Individual flood-frequency curves were plotted for each gaging station using special coordinate paper designed to make the plotted points approximate a straight line. A curve of best fit was determined visually for each station. (For an example, see fig. 4).

#### Test for Homogeneity

The station records were separated into homogeneous groups by means of a statistical test based on the theory of extreme values, as described in Water-Supply Paper 1543-A. <sup>1/</sup>

#### Composite Frequency Curve

A composite frequency curve was defined for each group of homogeneous station records. From the individual flood-frequency curves, the flood discharges were determined for selected recurrence intervals (1, 1.5, 2, 3, 5, 10, 15, 25, and 50). The selected flood discharges were reduced to dimensionless terms by expressing them as ratios to the mean annual flood (2.33-year recurrence interval). Using all records in the homogeneous group, the median ratio was determined for each selected recurrence interval. The median ratios were then plotted against the corresponding recurrence intervals and a smooth curve drawn on the basis of the plotted points.

#### Adjustment to Long Base Period

For reliable results, flood-frequency curves should be based on as long a period of record as possible. However, for this report, it did not seem feasible to extend all records back to cover the longest period. Accordingly, a curve was first developed for each region using all applicable records for a short base period. For the long-term records, two curves were drawn, one based on the

<sup>1/</sup>Dalrymple, Tate, 1960, Flood-frequency analyses: U. S. Geol. Survey Water-Supply Paper 1543-A, 80 p.

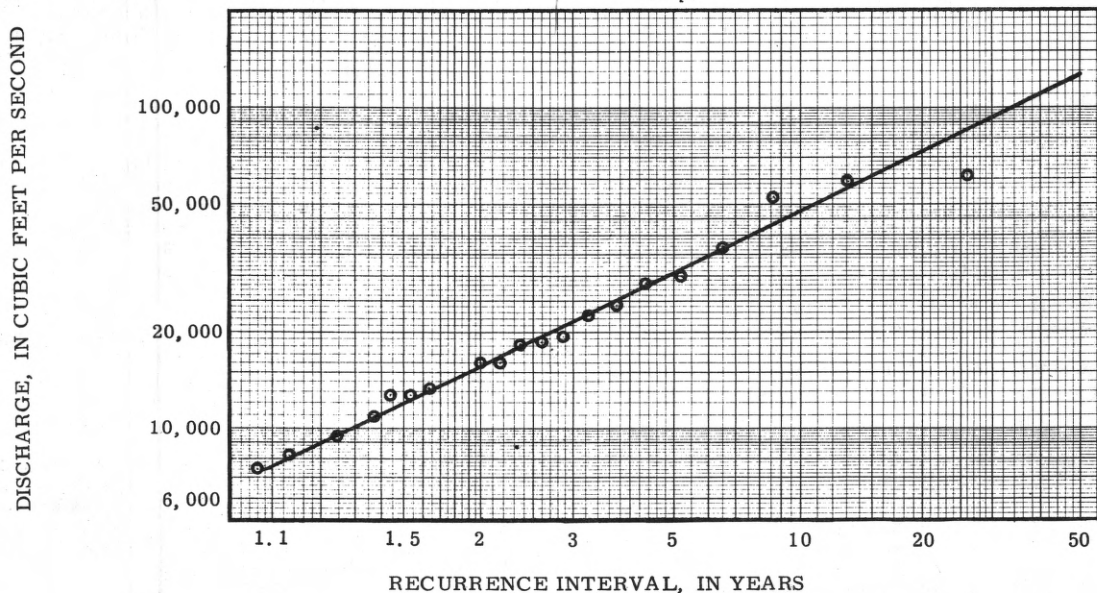


Figure 4. --Frequency of annual floods, Sinnemahoning Creek at Sinnemahoning.



short base period and the other on a long base period. The original curve was then adjusted to the long base period by ratios representing the differences between the latter two curves at selected recurrence intervals. The regions to which the final curves are applicable are referred to as "flood regions".

#### Relation of Mean Annual Flood to Drainage Area

By use of the curves described in the previous section, a flood-frequency curve can be drawn for any location in Pennsylvania as long as the magnitude of the mean annual flood is known. There are many physical characteristics that may affect the magnitude of a flood of any given frequency (including the mean annual flood) at a particular site on a stream. In Pennsylvania, the size of the drainage basin is the dominant factor.

To relate mean annual flood to drainage area, it is necessary that the mean annual floods for all gaging stations be based on the same time period. For the long-term records, the mean annual flood for each gaging station was determined for both the long base period and the short base period. The average ratio of the long-term mean annual flood to the short-term mean annual flood was then obtained. The average ratio was applied to the values of the short-term mean annual flood for the remaining stations to adjust the values to the long base period.

The adjusted long-term mean annual flood for each gaging station was plotted against the corresponding drainage area. There was a considerable scatter in the plotted points, which indicates the probable influence of factors other than size of drainage basin. To compensate for the effect of the outside influences, the plotted data were separated into groups and a separate curve relating mean annual flood to drainage area was prepared for each group. Grouping of the data and delineation of the areas to which the separate curves apply were based on geographical location, variations in topography, and, to some extent, on the underlying geology.

The areas to which the resulting curves apply are referred to as "hydrologic areas". The geographical boundaries of the areas need not, and generally do not, coincide with the boundaries of the flood regions.

#### **FLOOD FREQUENCY IN PENNSYLVANIA**

For Delaware River basin in Pennsylvania, flood-frequency relations as defined in the report "Delaware River Basin, Flood Frequency"<sup>2/</sup> were used. In that report, a short base period of 1931-55 was adjusted to a long base period of 1913-55. For the main stems of the Delaware and Schuylkill Rivers, historical data extending back to 1692 were used.

Curves for the remainder of Pennsylvania were defined for a short base period of 1933-57, adjusted to a long base period of 1914-57. For main stem streams in the Susquehanna River basin, historical data extending as far back as 1786 were used.

In making the analyses, records for several gaging stations were not used because of major regulation above the gaging station or short period of record (generally under 5 years). Records for two gaging stations that were operated in close proximity on the same stream for different periods of time were combined and used as one record whenever feasible.

#### Flood Regions of Pennsylvania

With the exclusion of the main stems of the Delaware, Lehigh, and Schuylkill Rivers, the Delaware River basin report indicated that the remainder of the Delaware River basin in Pennsylvania is in two homogeneous regions. Those regions have been designated as regions B and C in accordance with terminology used by Tice. On the basis of homogeneity tests, two additional regions in the remainder of Pennsylvania were outlined. Curves defined for those regions, designated as regions D and E, are not applicable to the main stem of the Susquehanna River and for certain portions of the main stems of the Chemung, West Branch Susquehanna, and Juniata Rivers. The homogeneous flood regions B, C, D, and E are shown on plate 2. Three additional homogeneous regions, which consist of the main stems of certain rivers and which are described in more detail in following paragraphs, have been designated as regions A, C, and F. Note that region C is applicable to both a homogeneous region, consisting of all the tributary streams in an area, and to the main stems of certain rivers.

The composite flood-frequency curves defined for the several regions have been designated by the same letters that were used for the regions, and are shown in figures 5-7. As explained in previous sections, these curves resulted from a plot of discharge as a ratio to the mean annual flood versus recurrence interval in years. A brief description of each flood region and a summary of the data on which each composite flood-frequency curve is based are given in the following section.

Region A consists of the main stem of the Lehigh River. Records for eight gaging stations in Pennsylvania and adjacent States were used in defining the composite flood-frequency curve.

Region B includes all of the Delaware River basin in Pennsylvania except hydrologic area 4 and the main stems of the Lehigh, Schuylkill, and Delaware Rivers. Records for 61 gaging stations in Pennsylvania and adjacent States were used in defining the composite flood-frequency curve.

Region C consists of the main stem of the Schuylkill and Delaware Rivers and a small area in the southeastern part of the State (hydrologic area 4). The flood-frequency curve is defined by records for 18 gaging stations.

Region D which lies roughly north and west of the Appalachian Front, covers nearly two-thirds of the State. It includes the Ohio and St. Lawrence River basins in Pennsylvania, about half of the Susquehanna River basin in the State, and a small part of the Potomac River basin. The flood-frequency curve is defined by records for 93 gaging stations, including a few stations in neighboring States. The curve is not applicable to those streams that are affected by major regulation from flood-control reservoirs. Region D includes the Youghiogheny and Kiskiminetas River basins, for which a flood-frequency curve was published in Geological Survey Circular 204. The curve published in the Circular and the curve for region D are in close agreement.

Region E which covers the southcentral part of the State, includes many tributaries of the Susquehanna River and a few tributaries of the Potomac River. The flood-frequency curve is defined by records for 33 gaging stations, including a few stations in Maryland.

Region F consists of the main stems of the Susquehanna and Chemung Rivers in Pennsylvania,

<sup>2/</sup> Tice, Richard H., 1958, Delaware River basin, flood-frequency: U. S. Geol. Survey open-file report, 10 p.

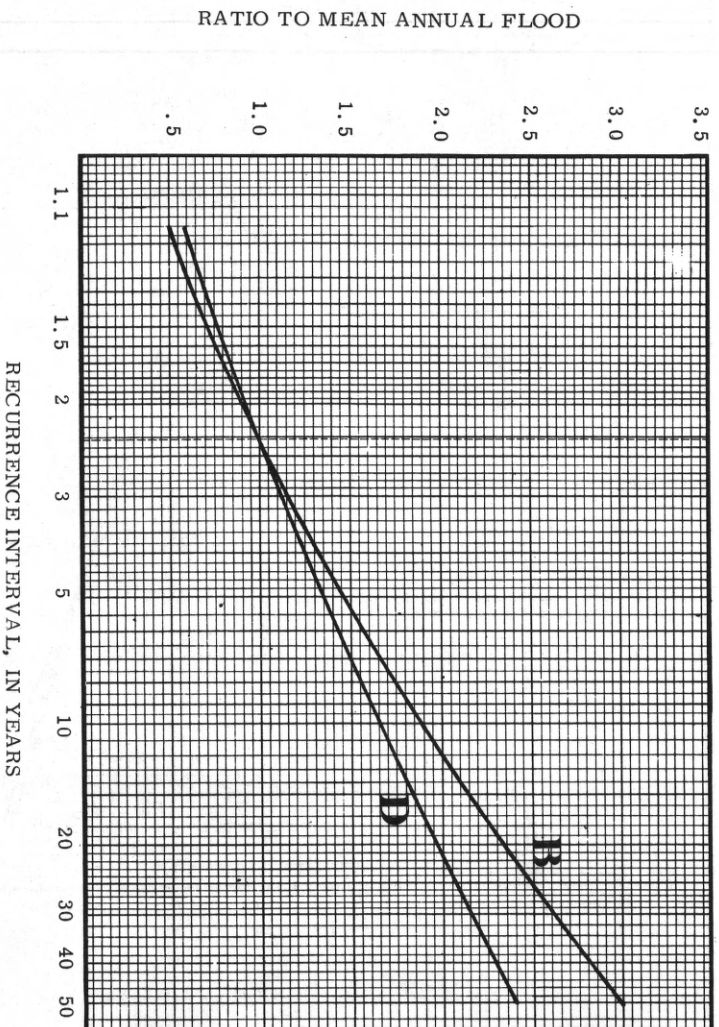


Figure 5. --Frequency of annual floods, regions B and D.

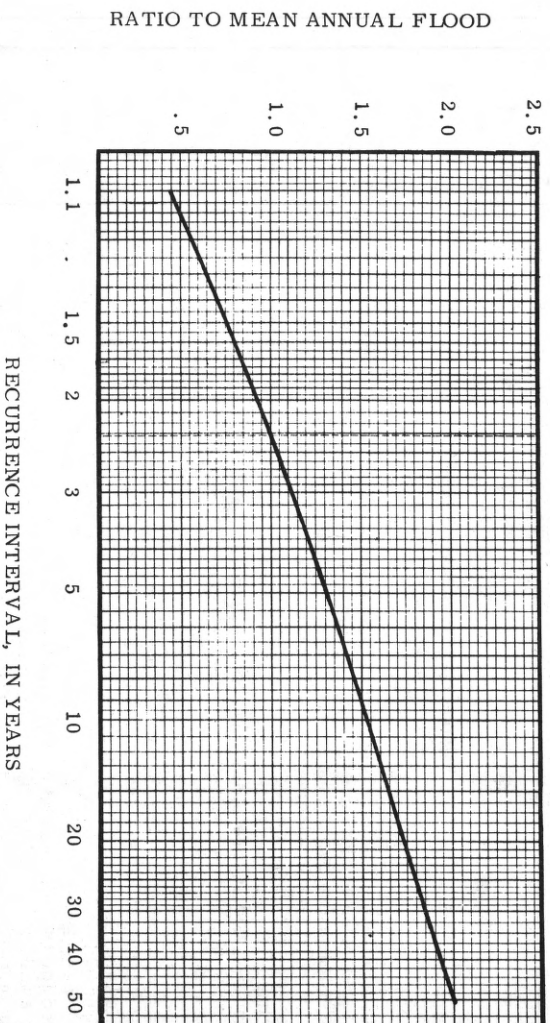


Figure 6. --Frequency of annual floods, region E.

and those portions of the main stems of the West Branch Susquehanna and Juniata Rivers that drain in excess of 1,000 square miles. The flood-frequency curve is defined by records for 13 gaging stations, including two stations in New York.

#### Hydrologic Areas of Pennsylvania

In order to apply flood-frequency curves described in the previous section, the magnitude of

the mean annual flood must be known. As mentioned previously, the dominant factor affecting the size of the mean annual flood in Pennsylvania is the size of the drainage basin. However, the relation of mean annual flood to drainage area was found to vary considerably within the State. Accordingly, the State was divided into 6 principal hydrologic areas, in each of which the base data indicate a similarity in hydrologic conditions relating to floods. Several of the hydrologic areas consist of two or more subareas. A curve of mean annual flood versus drainage area



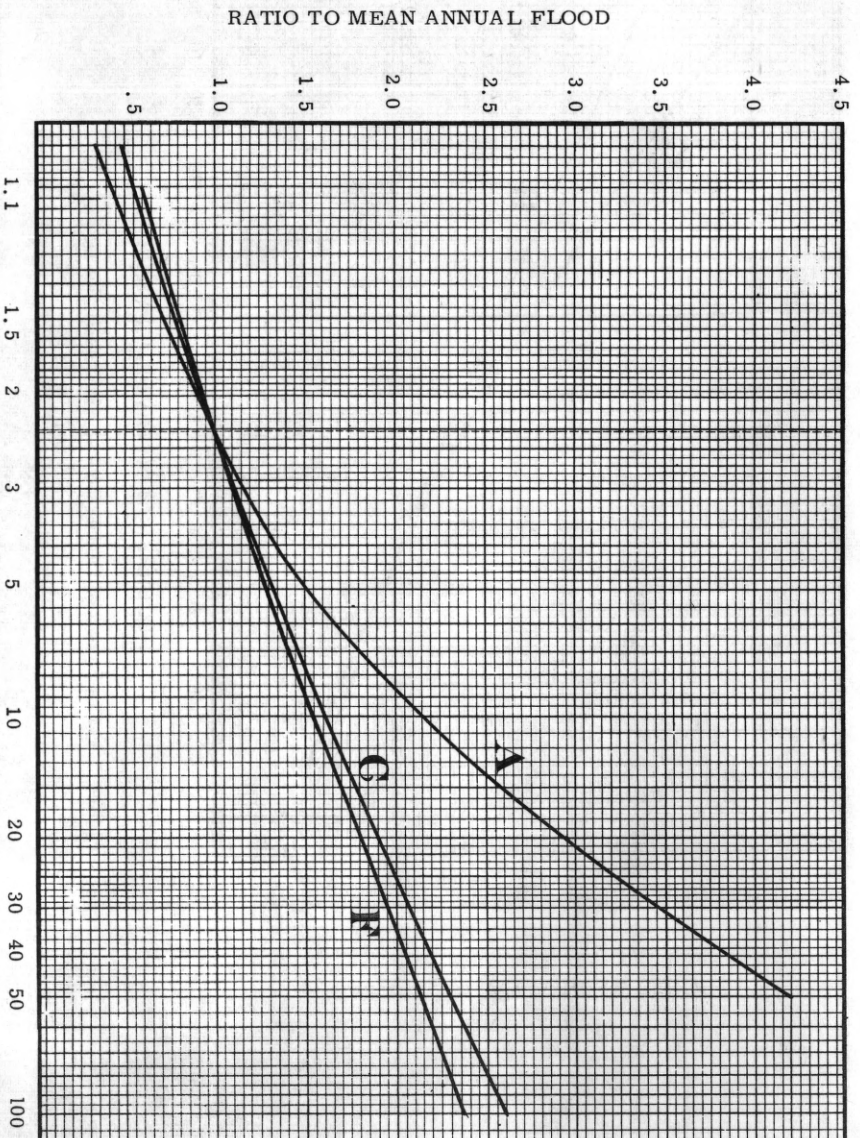


Figure 7.--Frequency of annual floods, regions A, C, and F.

was defined for each area. Since the larger rivers drain parts of several hydrologic areas, separate curves were drawn for the main stems of the Lehigh, Schuylkill, Delaware, Chemung, and Susquehanna Rivers; for those portions of the main stems of the West Branch Susquehanna and Juniata Rivers which drain over 1,000 square miles; and for that portion of the main stem of the Allegheny River between Eldred and Tionesta Creek.

The numbering system used to identify the various hydrologic areas and applicable curves in the Delaware River basin report has been continued in this report. Curve 1 applies only to a portion of the Delaware River basin. Curves 2-5 were constructed for the corresponding hydrologic areas in the Delaware River basin, but are also applicable to other areas in Pennsylvania. Curve 6 in the Delaware report does not apply to Pennsylvania and neither a hydrologic area 6 nor a curve 6 have been designated in this report. Curves 7 and 8 apply to the main stems of certain streams in the Delaware River basin. Curve 9 has been defined for certain areas in the Susquehanna River basin. Curves 10-14 have been defined for the main stems of certain streams in the Susquehanna and Ohio River basins. The six hydrologic area curves (nos. 1-5, 9) and the seven main stem curves (nos. 7, 8, 10-14) are presented in figures 8-11.

The hydrologic areas of Pennsylvania are shown on plate 2. Because of inadequate data for defining

the areal boundaries, it was sometimes necessary to select these boundaries somewhat arbitrarily. Generally, the boundaries follow drainage divides or major streams, but in some areas the boundaries cross stream lines. In a few instances, delineation of the boundaries was based on consideration of the underlying geological formations.

Area 1 is in southeastern Pennsylvania and includes the Tionesta, Nesquehoning, Perkiomen, and French Creek basins. The size of the mean annual flood in relation to drainage area is higher in area 1 than in any other hydrologic area of the State. Records of mean annual floods for seven gauging stations were used for defining the relation with drainage area.

Area 2 consists of six separate subareas, some of which are a considerable distance apart. The relation between mean annual flood and drainage area is defined by records for 59 gauging stations. The subareas are delineated as follows:

1. In northeastern Pennsylvania, includes the Lackawaxen River basin above Wallenpaupack Creek and numerous smaller basins which drain directly into the Delaware River.
2. In east-central Pennsylvania along the divide between the Delaware and Susquehanna River basins, includes tributary streams in the upper Lehigh and Schuylkill River basins and streams flowing from the east into the

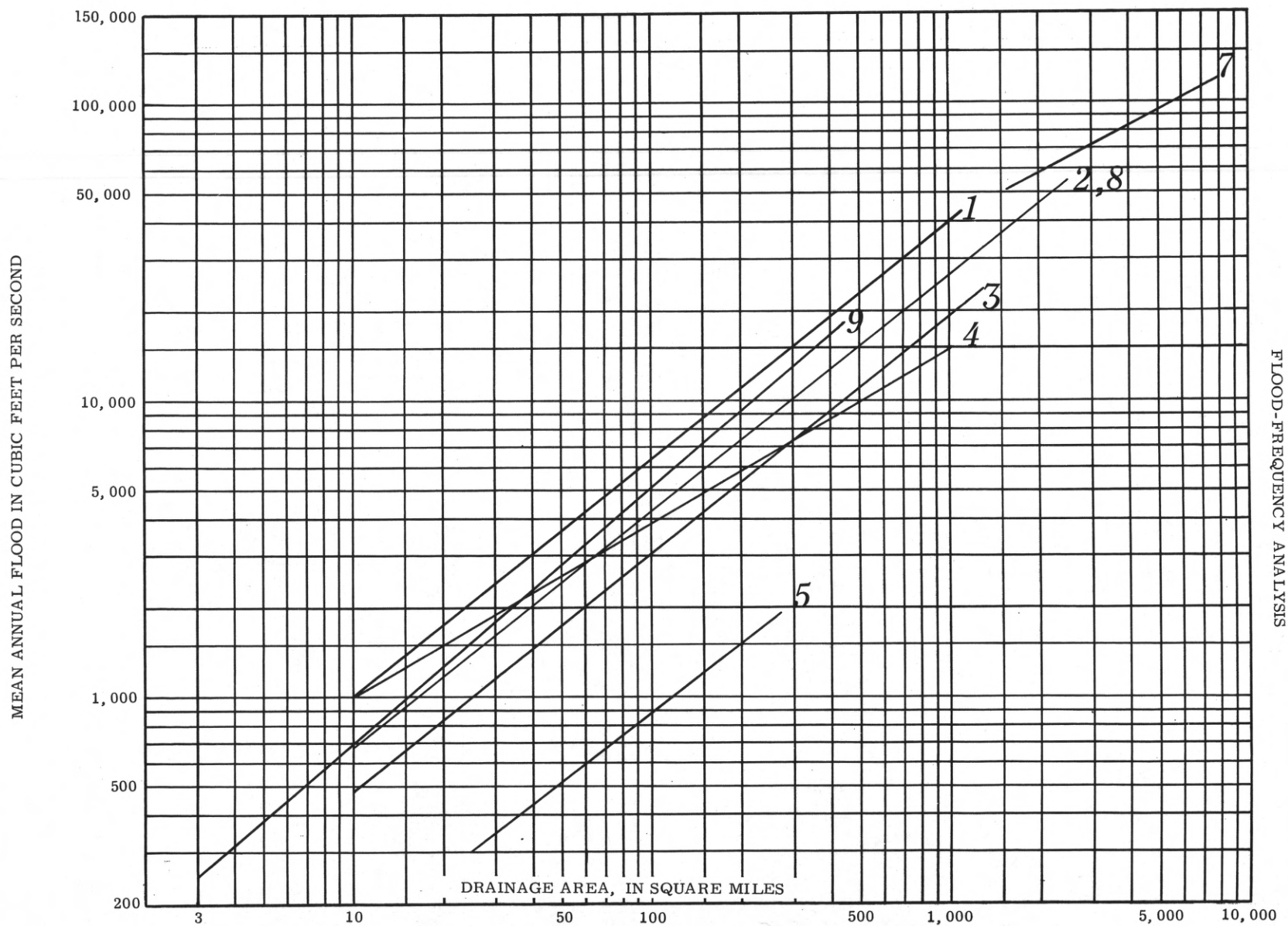


Figure 8. --Variation of the mean annual flood with drainage area in hydrologic areas 1-5 and 7-9.



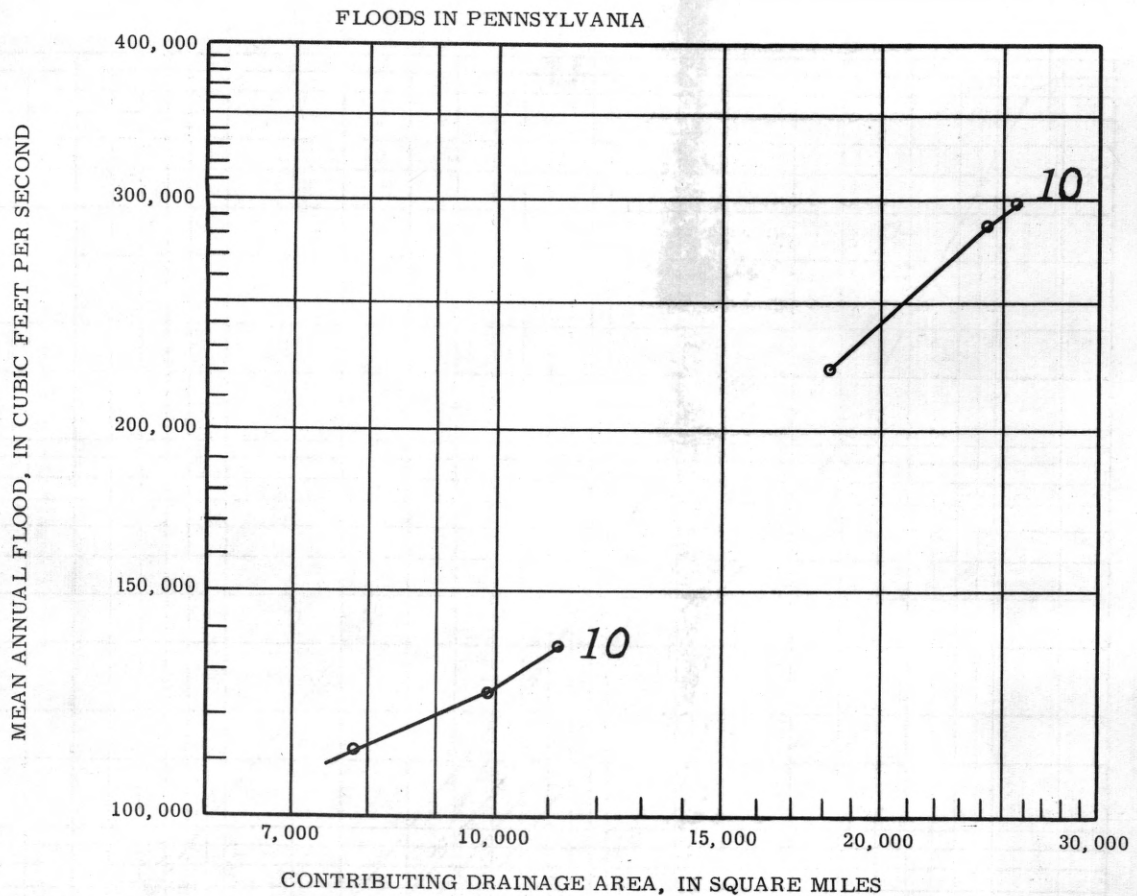


Figure 9. --Variation of mean annual flood with drainage area on the Susquehanna River below the Chemung River.

Susquehanna River in the vicinity of Wilkes-Barre.

3. In north-central Pennsylvania; includes the Sinnemahoning Creek and upper Clarion River basins.
4. In northwestern Pennsylvania; includes the Lake Erie drainage basin and the upper reaches of French Creek and Shenango River basins.
5. In south-central Pennsylvania; includes the Aughwick, Tuscarora, and West Conewago Creek basins and many small streams in the Potomac River basin.
6. In southwestern Pennsylvania; includes the Monongahela and Kiskiminetas River basins. The curve for hydrologic area 2 agrees closely with the curve used for Youghiogheny and Kiskiminetas River basins in Geological Survey Circular 204.

Area 3 consists of almost 50 percent of the State and includes numerous subareas in all sections of the State. Records of mean annual floods for 81 gaging stations were used for defining the relation with drainage area.

Area 4 consists of a small section of south-eastern Pennsylvania along the Maryland border which extends from Chester Creek basin in the east to Muddy Creek basin in the west, and includes the

lower portion of the Brandywine Creek basin. The relation of mean annual flood to drainage area is defined by records for seven gaging stations.

Area 5 consists of three separate subareas. Although separated by considerable distances, the subareas have similar runoff characteristics, probably caused primarily by the similarity of the underlying geological formations. Peak discharge per unit of drainage area is lower in hydrologic area 5 than elsewhere in the State. Records of mean annual floods for four gaging stations were used for defining the relation with drainage area. The subareas are delineated as follows:

1. In the east-central section of the State; includes the Little Lehigh and Monocacy Creek basins.
2. In central Pennsylvania; includes the Spring, Fishing, and Spruce Creek basins and the upper portion of Penn Creek basin.
3. Yellow Breeches Creek basin in south-central Pennsylvania.

Area 7 consists of the main stem of the Delaware River. The hydrologic area curve was based on records for six gaging stations.

Area 8 consists of the main stems of the Lehigh and Schuylkill Rivers. The hydrologic area curve was based on records for nine gaging stations.

MEAN ANNUAL FLOOD, IN CUBIC FEET PER SECOND

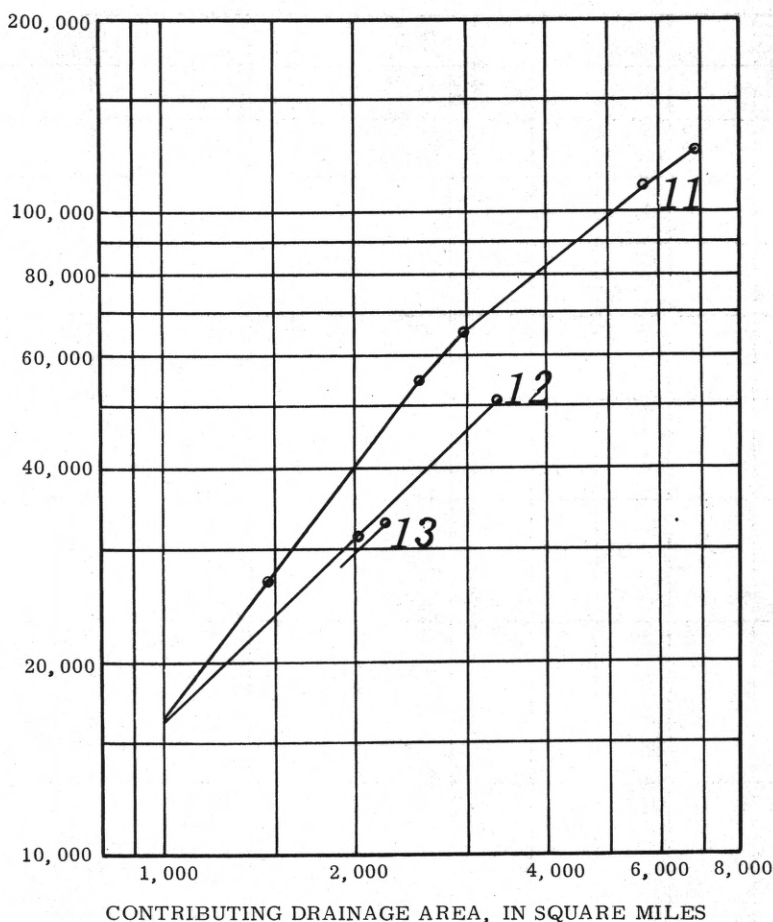


Figure 10. --Variation of mean annual flood with drainage area on the Chemung (in Pennsylvania only), West Branch Susquehanna, and Juniata Rivers and that portion of the Susquehanna River that drains an area of between 1,890 and 2,200 square miles.

Area 9 consists of two subareas, both of which are in the Susquehanna River basin. One subarea includes the Tioga River basin and streams tributary to the Susquehanna and West Branch Susquehanna Rivers in northeastern and north-central Pennsylvania. The second subarea includes the Cocolamus and Sherman Creek basins in the central portion of the State. The relation of mean annual flood to drainage area is defined by records for 13 gaging stations.

Areas 10-14 consist of the main stems of the Susquehanna and Chemung Rivers in Pennsylvania; those portions of the main stems of the West Branch Susquehanna and Juniata Rivers which drain in excess of 1,000 square miles; and that portion of the main stem of the Allegheny River between Eldred and Tionesta Creek. Separate curves have been defined for each main stem, with the curves being drawn exactly through the computed mean annual flood for each gaging station. The relation of mean annual flood to drainage area is defined by records for 17 gaging stations.

#### Summary of Flood-Frequency Relationships

Composite frequency curves B, D, and E, for floods with recurrence intervals of 50 years or less, and composite frequency curve C, for floods with recurrence intervals of 100 years or less, have been defined for four flood regions in Pennsylvania.

These flood regions are shown on plate 2. The frequency curves express flood magnitude as ratios to the mean annual flood. Curves applicable to regions B, D, and E are shown in figures 5 and 6. Curve applicable to region C is shown in figure 7. Region C curve is also applicable to the main stems of the Schuylkill and Delaware Rivers. Two additional curves, shown in figure 7, have been defined for the main stems of certain major rivers:

Curve A. -- Lehigh River (for floods of recurrence intervals of 50 years or less).

Curve F. -- Chemung and Susquehanna Rivers in Pennsylvania and those portions of West Branch Susquehanna and Juniata Rivers which drain in excess of 1,000 square miles (for floods of recurrence intervals of 100 years or less).

To estimate the mean annual flood in regions B, C, D, and E, six hydrologic areas (nos. 1-5, 9) have been delineated as shown on plate 2, and in each area the mean annual flood has been expressed as a function of the drainage area. The relation of mean annual flood to drainage area has been defined by seven separate curves for main stems of the larger rivers. Each of the several hydrologic area curves, which are shown in figures 8-11, applies to a separate area or stream, and should be used in accordance with the following discussion.

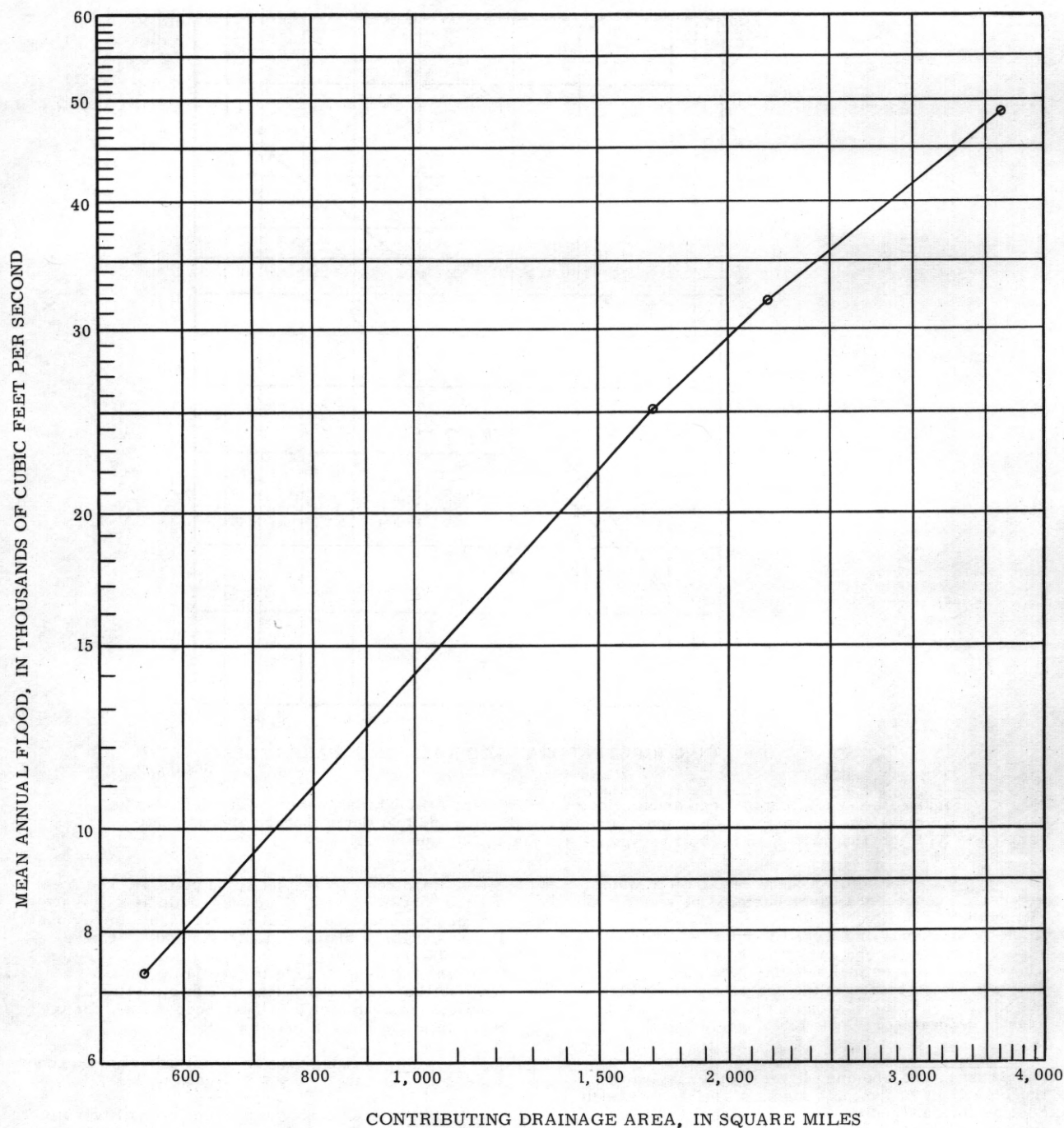


Figure 11. --Variation of mean annual flood with drainage area on the Allegheny River between Eldred and Tionesta Creek.

Curves 1-5, and 9 apply directly to areas 1-5, and 9 as shown on plate 2, except for the main stems of certain rivers that are listed in following paragraphs.

Curve 7 applies to the main stem of the Delaware River.

Curve 8 applies to the main stem of the Lehigh and Schuylkill Rivers.

Curve 10 applies to the main stem of the Susquehanna River below the Chemung River.

Curve 11 applies to the main stem of the Chemung River in Pennsylvania and that portion of the main stem of the West Branch Susquehanna River which drains in excess of 1,000 square miles.

Curve 12 applies to that portion of the main stem of the Juniata River which drains in excess of 1,000 square miles.

Curve 13 applies to that portion of the main stem of the Susquehanna River which drains between 1,890 and 2,200 square miles.

Curve 14 applies to that portion of the main stem of the Allegheny River between Eldred and Tionesta Creek.

Curves presented in this report do not apply to the main stem of the Allegheny River below Tionesta Creek nor to the main stems of the Monongahela and Ohio Rivers, which are subject to major regulation by flood-control reservoirs. Neither do the curves apply to those various tributary streams throughout the State that are subject to major regulation during periods of flood flow.

#### Definition of a Frequency Curve

A flood-frequency curve for any site in Pennsylvania, other than in those areas previously excepted, may be defined by the following procedure:

1. Determine the drainage area, in square miles, above site.
2. Determine from plate 2 the hydrologic area in which the stream lies, or note if the stream is one of the main stems for which a separate hydrologic area curve was drawn.
3. Determine the mean annual flood, in cubic feet per second, from the proper hydrologic area curve shown in figures 8-11.
4. Determine from plate 2 the flood region in which the stream lies, or note whether the stream is one of the main stems for which a separate ratio curve was drawn.
5. Determine ratio to mean annual flood for several recurrence intervals from the appropriate flood region curve shown in figures 5-7.
6. Multiply the discharge from step 3 by the ratios from step 5 to obtain discharges corresponding to the selected recurrence intervals.
7. Draw a frequency curve for the site on the basis of data obtained in step 6.

#### MAXIMUM FLOODS KNOWN

A report entitled "Flood Discharge Records relating to Pennsylvania Streams", has been prepared cooperatively by the U. S. Geological Survey and the Pennsylvania Department of Forests and Waters. The report, which has been published by the State agency, contains all known information concerning maximum flood discharges of Pennsylvania streams through 1959.

#### GAGING-STATION RECORDS

Peak gage heights and discharges for 229 gaging stations in Pennsylvania are tabulated in this section.

The base data collected at gaging stations consist of records of stage and measurements of discharge. The records of stage were obtained from direct water-surface observations for a nonrecording gage or from the continuous record produced by a water-stage recorder. Gage heights for major floods outside the period of record were obtained by

leveling to floodmarks. Measurements of discharge were made with a current meter or by indirect methods. Peak discharges are computed from peak gage heights through the medium of a stage-discharge relation.

Accompanying each table is a description of the gaging station that contains the following information:

1. Location of the gage.
2. Size of the drainage area.
3. Type, location and datum of gage.
4. Definition of the stage-discharge relation.
5. Bankfull stage, if known.
6. Pertinent remarks.

The locations of gaging stations used in the analysis are shown on plate 1. The identifying numbers of the gaging stations on this plate are shown next to the station name in table 1 and in the station descriptions accompanying the tables in this section.

A list of peaks above a selected base (partial-duration series) is given whenever the data are available and the stream was not materially affected by regulation; otherwise only annual peaks are given. In a few cases when the instantaneous maximum discharge could not be determined, the maximum daily discharge is given and is so noted.

Known major peaks, including historic peaks which occurred outside the period of record, are listed in the tables.

Underlines in the tabular data have the following significance:

1. Line in "water year" column means a break in record.
2. Line beginning at "date" column and extending through "discharge" column means change in site and datum with no break in record.
3. Line in only "gage height" column means change in datum only.
4. Line in "date" and "discharge" columns means change in site but no change in datum.
5. No underlines are used if changes in site and datum have been adjusted to present conditions.



Records for the following 58 gaging stations published in this section were not used in the analysis because they are less than 5 years in length during the base period, unless otherwise noted.

Station  
No.

4320	Wallenpaupack Creek at Wilsonville, Pa. <u>a/</u>
4325	Shohola Creek near Shohola, Pa.
4415	Pocono Creek near Stroudsburg, Pa.
4425	Brodhead Creek at Minisink Hills, Pa.
4535	Saucon Creek at Lanark, Pa.
4540	South Branch Saucon Creek at Friedensville, Pa.
4545	Saucon Creek at Friedensville, Pa.
4600	Tohickon Creek at Point Pleasant, Pa.
4650	Neshaminy Creek at Rushland, Pa.
4710	Tulpehocken Creek near Reading, Pa.
4725	Perkiomen Creek near Frederick, Pa.
4735	Schuylkill River at Norristown, Pa.
4740	Wissahickon Creek near Philadelphia, Pa.
4760	Crum Creek at Woodlyn, Pa.
5355	Lackawanna River at Moosic, Pa.
5385	Nescopeck Creek near St. Johns, Pa.
5390	Fishing Creek at Bloomsburg, Pa.
5460	North Bald Eagle Creek at Milesburg, Pa.
5470	Spring Creek at Bellefonte, Pa.
5490	Pine Creek at Waterville, Pa.
5685	Clark Creek near Carsonville, Pa.
5720	Upper Little Swatara Creek at Pine Grove, Pa.
5770	Susquehanna River at McCall Ferry, Pa.
120	Kinzua Creek at Dewdrop, Pa.
150	Conewago Creek at Russell, Pa. <u>a/</u>
200	Tionesta Creek at Tionesta Creek Dam, Pa. <u>a/</u>
235	French Creek at Carlton, Pa.
245	Sugar Creek at Wyattville, Pa.
255	Allegheny River at Franklin, Pa. <u>a/</u>
275	East Branch Clarion River at East Branch Clarion River Dam, Pa. <u>a/</u>
280	West Branch Clarion River at Wilcox, Pa.
305	Clarion River near Piney, Pa. <u>a/</u>
310	Clarion River at St. Petersburg, Pa. <u>a/</u>
315	Allegheny River at Parkers Landing, Pa. <u>a/</u>
330	Allegheny River near Rimer, Pa. <u>a/</u>
360	Mahoning Creek at Mahoning Creek Dam, Pa. <u>a/</u>
365	Allegheny River at Kittanning, Pa. <u>a/</u>
390	Crooked Creek at Crooked Creek Dam, Pa. <u>a/</u>
470	Loyalhanna Creek at Loyalhanna Creek Dam, Pa. <u>a/</u>
495	Allegheny River at Natrona, Pa. <u>a/</u>
630	Monongahela River at Point Marion, Pa. <u>a/</u>
725	Monongahela River at Greensboro, Pa. <u>a/</u>
750	Monongahela River at Charleroi, Pa. <u>a/</u>
775	Youghiogheny River at Youghiogheny River Dam, Pa. <u>a/</u>
810	Youghiogheny River below Confluence, Pa. <u>a/</u>
815	Youghiogheny River at Ohio pyle, Pa. <u>a/</u>
850	Monongahela River at Braddock, Pa. <u>a/</u>
860	Ohio River at Sewickley, Pa. <u>a/</u>
1000	Shenango River near Turnerville, Pa.
1015	Shenango River at Pymatuning Dam, Pa. <u>a/</u>
1020	Shenango River near Jamestown, Pa.
1045	Shenango River at New Castle, Pa.
1050	Neshannock Creek at Eastbrook, Pa.
1055	Beaver River at Wampum, Pa. <u>a/</u>
1075	Beaver River at Beaver Falls, Pa. <u>a/</u>
1085	Ohio River at Montgomery Island Dam, Pa. <u>a/</u>

The following gaging-station records are not published in this section because they had less than five years of record.

Brodhead Creek near Analomink, Pa.  
 Paradise Creek at Henryville, Pa.  
 McMichaels Creek at 7th Street bridge, at Stroudsburg, Pa.  
 Lehigh River below Bear Creek Reservoir near White Haven, Pa.  
 Lehigh River at Lehigh, Pa.  
 Schuylkill River at Schuylkill Haven, Pa.  
 Schuylkill River at Auburn, Pa.  
 Little Schuylkill River at Drehersville, Pa.  
 Darby Creek at Lansdowne, Pa.  
 East Branch Brandywine Creek at Dowingtown, Pa.  
 Corey Creek near Mainesburg, Pa.  
 Elk Run near Mainesburg, Pa.  
 Susquehanna River at Wysox, Pa.  
 Wyalusing Creek Wyalusing, Pa.  
 West Branch Susquehanna River at Curwensville, Pa.  
 First Fork Sinnemahoning Creek near Sinnemahoning, Pa.  
 Kettle Creek near Wesport, Pa.  
 North Bald Eagle Creek below Spring Creek at Milesburg, Pa.  
 North Bald Eagle Creek at Blanchard, Pa.  
 Marsh Creek at Blanchard, Pa.  
 Pine Creek below Little Pine Creek near Waterville, Pa.  
 Lycoming Creek near Williamsport, Pa.  
 Schell Run at Tyrone, Pa.  
 Yellow Creek at Loysburg, Pa.  
 Kishacoquillas Creek at Kulps, Pa.  
 Bixler Run near Loysville, Pa.  
 Swatara Creek at Jonestown, Pa.  
 West Branch Antietam Creek at Mont Alto, Pa.  
 Antietam Creek near Waynesboro, Pa.  
 Wills Creek at Hyndman, Pa.  
 Tionesta Creek at Butler Bridge, Pa.  
 Sandy Creek at Sandy Lake, Pa.  
 Clarion River near Clarion, Pa.  
 Redbank Creek at Mayport, Pa.  
 Stump Creek at Cramer, Pa.  
 Crooked Creek at Creekside, Pa.  
 Stoney Creek at Hallsopple, Pa.  
 McGinnis Run near Laughlinton, Pa.  
 Connoquenessing Creek near Ellwood Creek, Pa.

a/ Flow regulated.

## 4285. Delaware River above Lackawaxen River, near Barryville, N. Y.

Location. --Lat 41°30'30", long 74°59'15", on left bank 1.6 miles upstream from Lackawaxen River and 5.8 miles northwest of Barryville, Sullivan County.

Drainage area. --2,023 sq mi.

Gage. --Recording gage. Datum of gage is 600.22 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 55,000 cfs and extended on basis of slope-area measurements.

Remarks. --Flow regulated. Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Dec. 30, 1940	11.84	36,000	1951	Mar. 31, 1951	17.65	68,200
1942	May 23, 1942	23.19	116,000	1952	July 10, 1952	15.79	56,100
1943	Dec. 31, 1942	17.89	69,800	1953	Dec. 12, 1952	17.70	68,600
1944	Nov. 9, 1943	12.88	38,700	1954	Jan. 28, 1954	11.81	33,400
1945	Feb. 28, 1945	13.58	43,100	1955	Aug. 19, 1955	26.40	130,000
1946	Mar. 9, 1946	12.77	38,600	1956	Oct. 16, 1955	13.04	40,100
1947	Mar. 15, 1947	15.73	55,700	1957	Jan. 23, 1957	11.31	30,600
1948	Mar. 22, 1948	20.07	84,000				
1949	Dec. 31, 1948	17.63	68,100				
1950	Apr. 5, 1950	14.41	47,800				

## 4290. West Branch Lackawaxen River at Prompton, Pa.

Location. --Lat 41°35'15", long 75°19'40", on right bank 1,500 ft upstream from highway bridge at Prompton, Wayne County, and 2,000 ft upstream from Van Auker Creek.

Drainage area. --59.7 sq mi.

Gage. --Recording gage. Datum of gage is 1,083.78 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 3,600 cfs and extended by logarithmic plotting.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 1,900 cfs. Annual peaks are shown prior to 1946.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 23, 1942	16.7	—	1950	Apr. 4, 1950	6.35	3,140
1945	Mar. 3, 1945	<sup>a</sup> 6.16	—	1951	Nov. 25, 1950	8.42	5,230
	July 19, 1945	5.10	1,860		Dec. 4, 1950	6.85	3,540
1946	May 28, 1946	6.52	3,240		Mar. 31, 1951	5.94	2,640
					Apr. 13, 1951	5.85	2,540
1947	Apr. 5, 1947	8.45	5,230	1952	Apr. 15, 1952	5.98	2,740
	May 22, 1947	6.40	3,140		May 25, 1952	5.52	2,250
	July 8, 1947	5.40	2,140		July 10, 1952	5.50	2,250
1948	Mar. 16, 1948	5.21	1,950	1953	Dec. 11, 1952	5.34	2,150
	Mar. 20, 1948	5.26	2,020		Jan. 24, 1953	5.48	2,250
	Mar. 21, 1948	6.12	2,840				
	Apr. 14, 1948	5.19	1,980	1954	Apr. 17, 1954	5.18	2,020
1949	Dec. 30, 1948	5.69	2,440	1955	Aug. 18, 1955	9.24	5,860

## DELAWARE RIVER BASIN

West Branch Lackawaxen River at Prompton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Oct. 6, 1955	5.71	2,440	1957	Apr. 6, 1957	4.75	1,670
	Oct. 16, 1955	6.69	3,340	1958	Dec. 21, 1957	6.17	2,890
	Oct. 30, 1955	6.11	2,800		Apr. 6, 1958	5.78	2,530

<sup>a</sup>Backwater from ice.

## 4295. Dyberry Creek at Dyberry, Pa.

Location.--Lat 41°36'25", long 75°16'00", on right bank, 180 ft upstream from unnamed tributary, 1,700 ft below Dyberry Dam, 2.1 miles north of Honesdale, Wayne County, and 2.6 miles upstream from mouth.

Drainage area.--64.6 sq mi.

Gage.--Nonrecording gage prior to Oct. 1, 1957; recording gage thereafter. Prior to Oct. 1, 1957, at site 1.9 miles upstream at datum 13.70 ft higher. Datum of gage is 970.70 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and extended on basis of slope-area measurements.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 23, 1942	15.86	—	1952	Nov. 3, 1951	8.79	1,650
1944	Nov. 9, 1943	10.48	2,840	1952	Jan. 27, 1952	8.9	1,700
					Mar. 11, 1952	9.42	1,990
1945	Mar. 17, 1945	8.82	1,520		Apr. 15, 1952	10.45	2,750
	July 19, 1945	9.00	1,640		May 25, 1952	10.07	2,490
	July 28, 1945	10.05	2,390		July 10, 1952	14.6	15,500
1946	Mar. 9, 1946	9.00	1,640	1953	Dec. 11, 1952	12.17	6,080
	May 28, 1946	10.51	2,840		Jan. 24, 1953	10.41	2,750
1947	Apr. 5, 1947 May 22, 1947 July 8, 1947 July 22, 1947	11.60	4,760		Feb. 21, 1953	8.82	1,650
		9.4	1,770	1954	Dec. 7, 1953	8.79	1,650
		10.61	3,100		Mar. 1, 1954	8.68	1,600
		11.40	4,380		Apr. 17, 1954	9.78	2,260
1948	Mar. 17, 1948	8.78	1,520		May 10, 1954	9.45	1,990
	Mar. 20, 1948	9.76	2,220	1955	Nov. 21, 1954	8.54	1,570
	Mar. 22, 1948	9.58	2,060		Mar. 22, 1955	8.53	1,570
	Apr. 14, 1948	10.60	2,930		Aug. 18, 1955	13.78	11,400
1949	Dec. 30, 1948	10.0	2,390	1956	Oct. 6, 1955	9.38	2,150
	Jan. 6, 1949	9.6	2,060		Oct. 16, 1955	10.28	2,940
1950	Dec. 13, 1949	9.0	1,770		Oct. 30, 1955	9.59	2,300
	Apr. 4, 1950	11.0	3,800		Mar. 8, 1956	8.86	1,810
1951	Nov. 25, 1950 Dec. 4, 1950 Dec. 8, 1950 Feb. 21, 1951 Mar. 31, 1951 Apr. 13, 1951	9.0	1,770		Apr. 5, 1956	8.87	1,810
		11.0	3,800	1957	Apr. 6, 1957	8.82	1,750
		11.81	5,160	1958	Dec. 21, 1957	8.14	4,860
		11.32	4,240		Apr. 6, 1958	7.92	4,560
		8.5	1,500				
		8.6	1,550				
		10.98	3,800				
		8.97	1,750				

## 4300. Lackawaxen River near Honesdale, Pa.

Location. --Lat 41°33'45", long 75°14'55", 50 ft from left abutment on downstream side of Lemnizer Bridge, (Brown Street) in Honesdale, Wayne County, 1.2 miles downstream from Dyberry Creek.

Drainage area. --164 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 946.34 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 11,000 cfs and extended above by logarithmic plotting.

Bankfull stage. --13 ft.

Remarks. --Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 23, 1942	24.5	34,000	1953	Dec. 11, 1952	12.1	9,100
1949	Dec. 30, 1948	9.2	5,270		Jan. 24, 1953	10.49	6,880
	Jan. 6, 1949	7.7	3,590		Feb. 21, 1953	7.50	3,360
1950	Dec. 13, 1949	7.23	3,040	1954	Dec. 7, 1953	4.90	3,000
	Mar. 28, 1950	7.58	3,470		Mar. 2, 1954	5.30	3,400
	Apr. 4, 1950	9.12	5,150		Apr. 17, 1954	6.33	4,480
					May 10, 1954	5.45	3,500
1951	Nov. 26, 1950	11.0	7,470	1955	Nov. 21, 1954	4.92	3,000
	Dec. 4, 1950	10.5	6,830		Aug. 18, 1955	15.52	18,600
	Dec. 8, 1950	7.6	3,470	1956	Oct. 6, 1955	7.38	5,840
	Feb. 21, 1951	7.8	3,690		Oct. 16, 1955	8.62	7,450
	Mar. 31, 1951	9.0	5,030		Oct. 30, 1955	7.00	5,340
	Apr. 13, 1951	8.0	3,910		Nov. 16, 1955	5.05	3,000
1952	Nov. 3, 1951	7.6	3,470		Mar. 8, 1956	5.40	3,510
	Jan. 27, 1952	7.8	3,690		Apr. 5, 1956	5.10	3,200
	Mar. 11, 1952	9.7	5,870	1957	Apr. 6, 1957	6.21	4,390
	Apr. 15, 1952	10.0	6,230				
	May 25, 1952	9.2	5,270	1958	Dec. 21, 1957	7.81	6,360
	July 10, 1952	14.2	12,400		Apr. 6, 1958	8.04	6,620

## 4305. Lackawaxen River at West Hawley, Pa.

Location. --Lat 41°28'10", long 75°11'15", at Riverside Bridge at West Hawley, Wayne County, half a mile upstream from Middle Creek.

Drainage area. --206 sq mi.

Gage. --Nonrecording gage. \*Datum of gage is 885.50 ft above mean sea level (preliminary levels of 1934).

Stage-discharge relation. --Defined by current-meter measurements below 3,000 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 3,300 cfs.



## DELAWARE RIVER BASIN

Lackawaxen River at West Hawley, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 28, 1921	9.3	6,980	1932	Feb. 11, 1932	6.8	3,580
	June 18, 1922	8.2	5,460		Apr. 1, 1932	6.5	3,320
1923	Mar. 24, 1923	7.3	4,340		June 17, 1932	6.8	3,580
	Apr. 6, 1923	6.4	3,330	1933	Nov. 10, 1932	7.5	4,280
1924	Jan. 12, 1924	7.6	4,700		Nov. 19, 1932	6.6	3,470
	Apr. 7, 1924	9.0	6,550		June 6, 1933	6.5	3,380
	Sept. 30, 1924	10.48	8,840		Aug. 24, 1933	11.0	9,680
1925	Feb. 12, 1925	<sup>a</sup> 7.8	4,500	1934	July 28, 1934	8.75	6,270
					Sept. 17, 1934	6.9	3,740
1926	Nov. 13, 1925	6.4	3,290	1935	Dec. 1, 1934	7.9	4,730
1927	Nov. 17, 1926	10.5	8,840		July 9, 1935	7.7	4,530
	Jan. 23, 1927	6.6	3,480				
	Mar. 21, 1927	6.4	3,290	1936	Oct. 31, 1935	7.1	3,930
1928	Oct. 19, 1927	9.6	6,620		Nov. 13, 1935	6.6	3,470
	Nov. 18, 1927	8.0	4,900		Mar. 12, 1936	11.4	10,400
	Dec. 8, 1927	7.4	4,280		Mar. 18, 1936	15.32	18,300
	May 1, 1928	6.4	3,290	1937	Feb. 22, 1937	9.6	7,430
	June 30, 1928	10.3	8,700		Apr. 6, 1937	6.5	3,430
	July 14, 1928	8.5	5,430		Apr. 22, 1937	6.7	3,530
1929	Mar. 15, 1929	7.0	3,740	1938	Jan. 25, 1938	7.6	4,430
	Apr. 21, 1929	7.5	4,580		Sept. 22, 1938	9.5	7,280
1930	Mar. 8, 1930	6.24	3,170	1942	May 23, 1942	22.3	38,000
1931	Mar. 29, 1931	7.1	3,820				

<sup>a</sup>Backwater from ice.

## 4310. Middle Creek near Hawley, Pa.

Location.--Lat 41°29'05", long 75°13'20", at highway bridge, 0.1 mile downstream from Red Shale Brook, 2 miles northwest of Hawley, Wayne County, and 2.5 miles upstream from mouth.

Drainage area.--78.4 sq mi.

Gage.--Nonrecording gage and crest-stage indicator. Datum of gage is 1,017.73 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 3,500 cfs and extended above by slope-area measurement.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 23, 1942	18.0	—	1948	Mar. 17, 1948	8.2	1,890
1945	Mar. 4, 1945	8.0	1,760		Mar. 22, 1948	8.2	1,890
	Sept. 2, 1945	9.2	2,630		Apr. 15, 1948	8.4	2,030
1946	May 28, 1946	10.6	3,840	1949	Dec. 30, 1948	8.5	2,100
1947					Jan. 6, 1949	8.4	2,030
	Apr. 5, 1947	13.22	6,000	1950	Mar. 29, 1950	8.4	2,030
	July 8, 1947	12.62	5,460		Apr. 5, 1950	7.8	1,640
	July 22, 1947	10.0	3,270				

## Middle Creek near Hawley, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 26, 1950	11.1	4,150	1955	Mar. 22, 1955	9.65	2,720
	Dec. 4, 1950	9.92	3,190		Aug. 19, 1955	17.87	12,000
	Feb. 21, 1951	7.60	1,520	1956	Oct. 6, 1955	5.97	1,960
	Mar. 31, 1951	7.88	1,700		Oct. 16, 1955	9.01	4,030
	Apr. 13, 1951	7.64	1,520		Oct. 30, 1955	7.36	2,790
1952	Mar. 12, 1952	8.78	2,310		Nov. 16, 1955	5.77	1,850
	Apr. 15, 1952	10.31	3,510		Apr. 5, 1956	5.80	1,850
	May 25, 1952	8.95	2,470		Apr. 30, 1956	6.2	2,080
	July 10, 1952	14.17	6,970	1957	Apr. 6, 1957	7.97	3,280
1953	Dec. 11, 1952	10.5	3,670	1958	Dec. 21, 1957	5.69	1,800
	Jan. 24, 1953	8.4	2,030		Apr. 6, 1958	7.61	3,000
1954	Mar. 2, 1954	7.62	1,520		Apr. 28, 1958	7.05	2,580
	Apr. 17, 1954	8.35	2,030				

## 4315. Lackawaxen River at Hawley, Pa.

Location.--Lat 41°28'35", long 75°10'25", on left bank at bridge, at Hawley, Wayne County, 700 ft upstream from Wallenpaupack Creek and 550 ft downstream from Middle Creek.

Drainage area.--290 sq mi.

Gage.--Nonrecording gage prior to Aug. 10, 1938; recording gage Aug. 10, 1938 to Aug. 19, 1955; nonrecording gage and crest-stage indicator thereafter. Prior to 1938, at present site and datum. Aug. 10, 1938 to Feb. 13, 1956 at site 1,000 ft downstream at same datum. Datum of gage is 869.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended on basis of slope-area measurement.

Bankfull stage.--9 ft.

Remarks.--Base for partial-duration series, 6,000 cfs. Records exclude flow of Wallenpaupack Creek, (228 sq mi) which is diverted around station to hydro-electric plant downstream.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Feb. 20, 1909	9.56	6,980	1939	Dec. 6, 1938	6.64	6,480
1910	Apr. 26, 1910	7.80	<sup>a</sup> 4,560		Feb. 20, 1939	6.71	6,700
1911	Mar. 28, 1911	6.90	<sup>a</sup> 3,520	1940	Mar. 31, 1940	9.68	14,400
1912	Mar. 29, 1912	7.80	<sup>a</sup> 4,560		Apr. 5, 1940	6.85	6,930
				Apr. 9, 1940	7.54	8,580	
				Sept. 1, 1940	6.38	6,040	
1913	Jan. 8, 1913	9.40	6,750	1941	Apr. 6, 1941	6.33	<sup>a</sup> 5,930
	Mar. 27, 1913	10.3	8,170				
1914	Mar. 28, 1914	12.6	12,600	1942	Mar. 9, 1942	6.57	6,480
1915	Feb. 25, 1915	7.7	4,440		May 23, 1942	20.1	50,000
				Sept. 28, 1942	6.40	6,040	
1916	Apr. 2, 1916	9.8	7,360	1943	Nov. 25, 1942	6.60	6,480
	Apr. 14, 1916	8.9	6,020		Dec. 31, 1942	8.64	11,400
1917	Mar. 28, 1917	6.9	<sup>a</sup> 3,520	1944	Nov. 9, 1943	7.97	9,820
					Jan. 28, 1944	<sup>b</sup> 7.25	<u>      </u>
1938	Sept. 22, 1938	7.90	9,570	1945	Mar. 4, 1945	6.67	6,700
					Mar. 17, 1945	6.42	6,040
					July 19, 1945	6.46	6,260

## DELAWARE RIVER BASIN

Lackawaxen River at Hawley, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	May 28, 1946	8.20	10,300	1952	Mar. 12, 1952	7.08	8,070
1947	Apr. 5, 1947	9.98	15,300		Apr. 15, 1952	8.05	10,500
	May 22, 1947	6.77	6,930		May 25, 1952	7.01	7,800
	July 8, 1947	8.48	11,100		July 10, 1952	11.78	21,700
	July 22, 1947	7.56	8,820	1953	Dec. 11, 1952	9.40	14,500
					Jan. 24, 1953	7.39	8,880
1948	Mar. 17, 1948	6.82	6,930	1954	Apr. 17, 1954	6.71	7,020
	Mar. 22, 1948	7.25	7,860		May 10, 1954	6.31	6,030
	Apr. 15, 1948	7.01	7,390	1955	Aug. 19, 1955	20.6	51,900
1949	Dec. 30, 1948	7.56	8,820	1956	Oct. 6, 1955	7.68	9,420
	Jan. 6, 1949	6.72	6,700		Oct. 16, 1955	8.13	10,600
	Feb. 16, 1949	6.60	6,470		Oct. 30, 1955	7.36	8,570
1950	Dec. 13, 1949	6.90	7,160	1957	Apr. 6, 1957	10.38	7,810
	Mar. 29, 1950	6.71	6,710				
	Apr. 5, 1950	7.36	8,340	1958	Dec. 21, 1957	11.03	8,820
1951	Nov. 26, 1950	8.94	12,200		Apr. 6, 1958	10.00	7,810
	Dec. 4, 1950	8.30	10,600				
	Dec. 8, 1950	6.41	6,050				
	Feb. 22, 1951	6.56	6,490				
	Mar. 31, 1951	7.22	7,860				
	Apr. 13, 1951	6.64	6,490				

<sup>a</sup>Annual peak only.<sup>b</sup>Backwater from ice.

## DELAWARE RIVER BASIN

4320. Wallenpaupack Creek at Wilsonville, Pa.

Location. --At hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, 3 miles east of dam at lat 41°27'35", long 75°11'10", at Wilsonville, Wayne County, and 1½ miles south of Hawley.

Drainage area. --228 sq mi.

Gage. --Nonrecording gage at site 1,000 ft downstream from dam at datum 1,146.78 ft above mean sea level, unadjusted.

Remarks. --Only annual peaks are shown. Flow regulated by Lake Wallenpaupack since Nov. 3, 1925.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 29, 1914	—	<sup>a</sup> 4,840	1922	Mar. 9, 1922	4.5	4,400
1919	Mar. 10, 1919	—	1,794	1923	Mar. 24, 1923	3.30	2,340
1920	July 25, 1920	4.00	3,420	1924	Apr. 7, 1924	4.65	<sup>b</sup> 4,550
1921	Mar. 10, 1921	3.92	3,346	1925	Feb. 12, 1926	3.65	<sup>c</sup> 2,850

<sup>a</sup>Maximum daily discharge.<sup>b</sup>Maximum discharge recorded; may have been higher on Sept. 30, 1924.<sup>c</sup>Maximum peak discharge; maximum discharge during the year not determined, occurred 12:01 a.m. Oct. 1, 1924, stage falling.

## 4325. Shohola Creek near Shohola, Pa.

Location. --Lat 41°27'00", long 74°55'20", at highway bridge 1 3/4 miles south of Shohola, Pike County, and about 2 miles upstream from mouth.

Drainage area. --83.2 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 695 ft (from topographic map).

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	Mar. 11, 1919	3.5	735	1926	Feb. 26, 1926	—	<sup>a</sup> 800
1920	Mar. 13, 1920	4.8	1,810	1927	Nov. 16, 1926	4.6	1,610
	Mar. 27, 1920	4.2	1,250		Mar. 20, 1927	3.9	1,010
	July 25, 1920	4.0	1,090		May 11, 1927	3.4	673
1921	Mar. 10, 1921	4.5	1,520		Sept. 2, 1927	4.2	1,250
1922	Mar. 10, 1922	3.8	940	1928	Oct. 19, 1927	4.6	1,610
	June 18, 1922	4.0	1,090		Nov. 4, 1927	3.9	1,010
1923	Mar. 22-27, 1923	3.3	614		Nov. 18, 1927	4.0	1,090
1924	Jan. 12, 1924	3.5	735		Dec. 8, 1927	4.8	1,810
	Mar. 31, 1924	3.6	800		May 1, 1928	3.4	673
	Apr. 7, 1924	5.0	2,020		May 4, 1928	3.6	800
1925	Oct. 1, 1924	5.0	2,020		July 1, 1928	4.0	1,090
	Feb. 11, 1925	4.1	1,170		July 6, 1928	3.6	800
					Aug. 11, 1928	3.6	800

<sup>a</sup>Ice affected.

## 4340. Delaware River at Port Jervis, N. Y.

Location. --Lat 41°22'20", long 74°41'50", on right bank 250 ft downstream from bridge on U. S. Highways 6 and 209 at Port Jervis, Orange County, 1½ miles upstream from Neversink River, and 6.5 miles downstream from Mongaup River.

Drainage area. --3,076 sq mi.

Gage. --Nonrecording gage prior to Aug. 13, 1928; recording gage thereafter. Prior to Aug. 13, 1928, at site 250 ft upstream. Datum of gage is 415.35 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 89,000 cfs and extended on basis of slope-area measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 10, 1903	23.1	205,000	1916	Apr. 1, 1916	12.0	60,800
1905	Mar. 26, 1905	11.6	56,800	1917	Mar. 28, 1917	11.3	53,900
1906	Apr. 16, 1906	11.4	54,800	1918	Oct. 31, 1917	12.3	63,800
1907	Jan. 1, 1907	9.0	34,300	1919	Mar. 10, 1919	7.12	21,300
1908	Feb. 16, 1908	13.5	76,800	1920	Mar. 13, 1920	14.0	82,300
1909	Feb. 21, 1909	11.7	57,800	1921	Mar. 10, 1921	12.3	63,800
1910	Mar. 1, 1910	13.0	71,300	1922	Nov. 29, 1921	13.3	74,600
1911	Mar. 28, 1911	10.7	48,500	1923	Mar. 24, 1923	11.9	59,800
1912	Mar. 30, 1912	10.6	47,600	1924	Apr. 7, 1924	12.4	64,800
1913	Mar. 28, 1913	15.5	100,000	1925	Feb. 12, 1925	15.3	97,600
1914	Mar. 28, 1914	16.0	106,000				
1915	Feb. 25, 1915	10.3	45,200				



## DELAWARE RIVER BASIN

Delaware River at Port Jervis, N. Y.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Apr. 10, 1926	9.4	38,700	1941	Dec. 30, 1940	9.53	40,300
1927	Nov. 17, 1926	13.8	80,100	1942	May 23, 1942	17.76	140,000
1928	Oct. 20, 1927	13.1	72,400	1943	Dec. 31, 1942	13.99	84,000
1929	Mar. 15, 1929	11.9	63,600	1944	Nov. 9, 1943	10.49	46,500
1930	Mar. 9, 1930	8.05	29,400	1945	Mar. 18, 1945	10.76	51,200
1931	Mar. 30, 1931	8.82	35,100	1946	May 28, 1946	10.51	49,200
1932	Apr. 1, 1932	9.97	44,300	1947	Apr. 6, 1947	12.24	66,500
1933	Aug. 25, 1933	15.03	102,000	1948	Mar. 22, 1948	14.16	96,100
1934	Mar. 6, 1934	14.94	100,000	1949	Dec. 31, 1948	14.07	87,800
1935	Dec. 2, 1934	11.12	55,200	1950	Apr. 5, 1950	11.74	62,000
1936	Mar. 18, 1936	17.55	137,000	1951	Mar. 31, 1951	14.35	91,400
1937	Feb. 22, 1937	10.25	46,500	1952	July 10, 1952	13.50	81,000
1938	Sept. 22, 1938	14.95	101,000	1953	Dec. 12, 1952	14.72	96,300
1939	Dec. 6, 1938	11.25	55,600	1954	Jan. 28, 1954	9.18	37,700
1940	Apr. 1, 1940	15.55	113,000	1955	Aug. 19, 1955	23.91	233,000
				1956	Oct. 16, 1955	12.57	70,200
				1957	Apr. 7, 1957	9.76	42,400

## 4385. Delaware River at Montague, N. J.

Location. --Lat 41°18'30", long 74°47'50", on right bank at downstream side of old bridge pier and 0.4 mile upstream from toll bridge at Montague, Sussex County, three-quarters of a mile downstream from Saw Kill.

Drainage area. --3,480 sq mi.

Gage. --Nonrecording gage prior to Feb. 9, 1940; recording gage thereafter. Prior to Feb. 9, 1940, gage on upstream side of left span of bridge at datum 70 ft lower. Datum of present gage is 369.93 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 90,000 cfs and extended on basis of flood-routing study.

Bankfull stage. --30 ft.

Remarks. --Base for partial-duration series, 34,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 10, 1903	35.5	—	1944	Nov. 9, 1943	16.12	52,800
1936	Mar. 18, 1936	28.45	164,500		Mar. 18, 1944	14.30	40,700
1940	Apr. 1, 1940	24.33	123,100	1945	Feb. 28, 1945	<sup>a</sup> 15.42	—
	Apr. 9, 1940	19.87	82,300		Mar. 4, 1945	<sup>a</sup> 17.54	—
	Apr. 22, 1940	14.48	41,800		Mar. 18, 1945	17.06	59,700
1941	Dec. 30, 1940	14.88	44,400		July 20, 1945	15.32	47,200
	Apr. 6, 1941	13.80	37,600		July 30, 1945	15.00	45,100
1942	Mar. 10, 1942	17.19	60,600	1946	Dec. 27, 1945	<sup>a</sup> 14.70	—
	May 23, 1942	25.70	136,500		Jan. 7, 1946	13.31	34,600
	Sept. 28, 1942	18.76	73,100		Mar. 10, 1946	15.79	50,500
1943	Nov. 26, 1942	13.32	34,800		May 28, 1946	16.51	55,600
	Dec. 31, 1942	21.54	97,000	1947	Jan. 22, 1947	13.22	34,000
	Feb. 25, 1943	14.41	41,400		Mar. 15, 1947	15.72	50,000
	Mar. 18, 1943	16.00	52,000		Apr. 6, 1947	19.14	76,200
	May 22, 1943	13.42	35,400		July 22, 1947	14.00	38,700

## Delaware River at Montague, N. J.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 28, 1948	<sup>a</sup> 17.88	—	1952	Apr. 6, 1952	15.60	49,200
	Mar. 17, 1948	16.22	53,500	Cont.	Apr. 16, 1952	14.90	44,500
	Mar. 22, 1948	22.90	109,500		July 10, 1952	20.07	84,000
	Apr. 15, 1948	15.07	45,600				
1949	Dec. 31, 1948	21.75	98,800	1953	Dec. 12, 1952	22.62	108,000
	Jan. 6, 1949	17.63	64,000		Jan. 25, 1953	17.82	65,700
1950	Dec. 13, 1949	13.63	36,500	1954	Feb. 18, 1954	13.20	34,600
	Mar. 9, 1950	14.91	44,600	1955	Aug. 19, 1955	35.15	250,000
	Mar. 29, 1950	16.46	55,200				
	Apr. 5, 1950	17.81	65,500	1956	Oct. 16, 1955	19.68	80,800
1951	Nov. 26, 1950	21.04	92,500		Oct. 31, 1955	13.98	38,900
	Dec. 5, 1950	19.46	78,900		Mar. 9, 1956	13.79	37,700
	Dec. 8, 1950	13.79	37,400		Apr. 6, 1956	14.98	44,900
	Feb. 2, 1951	14.06	39,100		Apr. 17, 1956	13.67	37,000
	Mar. 31, 1951	22.66	107,200	1957	Apr. 7, 1957	14.80	43,800
1952	Nov. 8, 1951	14.79	43,700	1958	Dec. 21, 1957	18.47	70,800
	Jan. 27, 1952	13.83	37,700		Apr. 7, 1958	16.91	58,800
	Mar. 12, 1952	15.22	46,600				

<sup>a</sup>Backwater from ice.

## 4395. Bush Kill at Shoemakers, Pa.

Location. --Lat 41°05'15", long 75°02'20", at highway bridge, 0.1 mile downstream from Saw Creek, 0.7 mile northwest of Shoemakers, Monroe County and 2 miles southwest of Bush Kill.

Drainage area. --117 sq mi.

Gage. --Nonrecording gage prior to Aug. 12, 1938; recording gage thereafter. Datum of gage is 421.13 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 2,600 cfs and extended by logarithmic plotting.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 1,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Feb. 17, 1909	3.9	1,270	1916	Apr. 2, 1916	4.10	1,430
	Feb. 20, 1909	5.0	2,270		Apr. 14, 1916	3.70	1,120
	Feb. 24, 1909	4.1	1,430		July 27, 1916	4.00	1,350
	May 2, 1909	3.8	1,190	1917	Mar. 27, 1917	4.20	1,510
1910	Mar. 7, 1910	3.8	1,190	1918	Feb. 20, 1918	4.10	1,430
1911	June 14, 1911	3.7	1,120		Feb. 26, 1918	4.70	1,970
1912	Mar. 15, 1912	3.8	1,190		Apr. 22, 1918	3.80	1,190
1913	Mar. 28, 1913	4.0	1,350	1919	Mar. 10, 1919	4.10	1,430
1914	Mar. 29, 1914	4.0	1,350		July 22, 1919	5.10	2,380
1915	Feb. 24, 1915	4.75	2,070	1920	Mar. 13, 1920	4.50	1,780
					Mar. 27, 1920	4.40	1,690
					July 24, 1920	7.20	5,250

DELAWARE RIVER BASIN  
Bush Kill at Shoemakers, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	Oct. 1, 1920	3.7	1,120	1940	Mar. 15, 1940	<sup>a</sup> 4.10	—
	Mar. 10, 1921	4.50	1,780		Mar. 31, 1940	5.22	2,790
1922	Mar. 8, 1922	4.50	1,780		Apr. 1, 1940	5.22	2,790
1923	Mar. 24, 1923	3.90	1,270		Apr. 9, 1940	4.34	1,810
1924	Jan. 11, 1924	4.10	1,430		Apr. 22, 1940	3.54	1,090
	Jan. 17, 1924	3.90	1,270		Sept. 1, 1940	5.05	2,600
	Apr. 6, 1924	5.20	2,490	1941	Apr. 6, 1941	3.74	1,220
	May 13, 1924	3.90	1,270		July 8, 1941	3.56	1,090
	Sept. 30, 1924	5.50	2,830	1942	Mar. 9, 1942	4.37	1,810
1925	Feb. 12, 1925	4.09	1,430		May 23, 1942	4.18	1,660
1926	Nov. 13, 1925	4.80	2,070		Aug. 16, 1942	4.55	2,020
	Nov. 16, 1925	5.10	2,380		Sept. 28, 1942	5.28	2,920
	Dec. 6, 1925	3.70	1,120	1943	Nov. 25, 1942	3.84	1,340
	Feb. 25, 1926	3.90	1,270		Dec. 30, 1942	4.33	1,710
1927	Nov. 16, 1926	5.50	2,830	1944	Nov. 9, 1943	3.63	1,170
	Mar. 15, 1927	3.70	1,120		Apr. 25, 1944	4.10	1,500
1928	Oct. 19, 1927	4.70	1,970	1945	Mar. 18, 1945	3.78	1,290
	Nov. 4, 1927	4.20	1,510		July 19, 1945	5.99	3,900
	Nov. 18, 1927	4.50	1,780		July 29, 1945	4.30	1,760
	Dec. 8, 1927	4.70	1,970	1946	Dec. 26, 1945	<sup>a</sup> 5.67	—
	June 30, 1928	4.40	1,690		May 28, 1946	4.58	2,080
	July 5, 1928	4.40	1,690		June 2, 1946	3.93	1,420
	July 14, 1928	3.80	1,190	1947	Mar. 14, 1947	3.94	1,420
	Aug. 27, 1928	3.80	1,190		Apr. 6, 1947	4.19	1,580
	Sept. 3, 1928	4.00	1,350		May 26, 1947	3.93	1,420
1929	Mar. 15, 1929	3.83	1,190	1948	Mar. 21, 1948	4.59	2,080
1930	Nov. 18, 1929	3.75	1,150		Apr. 15, 1948	3.67	1,170
1931	Mar. 29, 1931	3.70	1,080	1949	Dec. 31, 1948	4.46	1,780
1932	Apr. 1, 1932	4.10	1,430		Jan. 6, 1949	4.10	1,560
1933	Oct. 6, 1932	4.5	1,780	1950	Mar. 29, 1950	4.17	1,540
	Nov. 1, 1932	3.8	1,190	1951	Nov. 26, 1950	4.07	1,500
	Nov. 10, 1932	4.0	1,350		Dec. 5, 1950	4.25	1,960
	Nov. 19, 1932	4.2	1,510		Dec. 8, 1950	4.47	1,900
	Apr. 18, 1933	4.1	1,430		Jan. 24, 1951	3.82	1,280
	Aug. 24, 1933	5.04	2,270		Mar. 31, 1951	5.62	2,860
	Sept. 4, 1933	3.9	1,270	1952	Nov. 8, 1951	5.37	2,980
	Sept. 16, 1933	5.7	3,070		Mar. 11, 1952	4.58	2,070
1934	Apr. 12, 1934	3.62	1,040		Apr. 5, 1952	4.59	2,070
1935	Dec. 1, 1934	4.7	1,970		Apr. 15, 1952	4.19	1,650
	July 10, 1935	5.9	3,330		Apr. 28, 1952	3.78	1,280
1936	Nov. 29, 1935	4.7	1,970		May 26, 1952	3.67	1,160
	Mar. 12, 1936	6.1	3,590	1953	Nov. 22, 1952	4.76	2,240
	Mar. 18, 1936	6.92	4,770		Dec. 11, 1952	6.50	4,680
	Apr. 6, 1936	4.00	1,350		Jan. 25, 1953	5.10	2,660
1937	Apr. 6, 1937	3.90	1,240	1954	Dec. 7, 1953	3.35	928
1938	Oct. 24, 1937	3.70	1,110	1955	Mar. 23, 1955	4.04	1,500
	Dec. 18, 1937	<sup>a</sup> 3.66	—		Aug. 19, 1955	13.95	23,400
	Jan. 25, 1938	4.80	2,070	1956	Oct. 16, 1955	5.96	3,680
	June 27, 1938	4.26	1,600		Oct. 31, 1955	4.08	1,450
	July 23, 1938	4.10	1,430		Nov. 16, 1955	3.71	1,110
	Sept. 21, 1938	4.47	1,780		Apr. 30, 1956	3.92	1,270
1939	Dec. 6, 1938	4.99	2,540	1957	Apr. 6, 1957	4.08	1,460
	Feb. 16, 1939	3.58	1,110		Apr. 9, 1957	3.85	1,260
				1958	Dec. 21, 1957	5.50	3,050
					Dec. 26, 1957	4.00	1,380
					Apr. 7, 1958	4.90	2,290

<sup>a</sup>Backwater from ice.

## 4410. McMichaels Creek at Stroudsburg, Pa.

Location. --Lat 40°58'45", long 75°12'05", at dismantled railroad bridge, 0.25 mile upstream from Little Pocono Creek and 3/4 mile southwest of Stroudsburg, Monroe County.

Drainage area. --65.3 sq mi.

Gage. --Nonrecording gage. Datum of gage is 403.93 ft above mean sea level (preliminary levels of 1912).

Stage-discharge relation. --Defined by current-meter measurements below 1,000 cfs and extended above by contracted-opening measurement.

Remarks. --Base for partial-duration series, 930 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Aug. 31, 1911	5.85	980	1927	Nov. 16, 1926	7.40	1,780
1912	Feb. 22, 1912	6.00	1,080	1928	Dec. 8, 1927	7.50	1,830
	Mar. 13, 1912	8.15	2,180		Jan. 25, 1928	5.8	980
1913	Mar. 14, 1913	6.0	1,080		July 23, 1928	6.6	1,380
	Mar. 27, 1913	8.20	2,180	1929	Jan. 6, 1929	6.1	1,130
	Apr. 28, 1913	5.70	930		Feb. 27, 1929	5.9	1,030
	Aug. 1, 1913	6.25	1,180		Mar. 6, 1929	5.7	930
1914	Nov. 9, 1913	6.80	1,480	1930	Oct. 2, 1929	6.1	1,130
	Jan. 31, 1914	7.20	1,680	1931	Mar. 8, 1931	4.9	580
	Mar. 17, 1914	5.66	930	1932	Mar. 28, 1932	5.66	930
1915	Jan. 7, 1915	9.00	2,580	1933	Nov. 1, 1932	7.5	1,830
	Jan. 13, 1915	8.00	2,080		Nov. 10, 1932	6.4	1,280
	Feb. 1, 1915	7.30	1,730		Nov. 19, 1932	6.2	1,180
	Feb. 24, 1915	6.60	1,380		Apr. 17, 1933	6.2	1,180
	Aug. 4, 1915	7.00	1,580		Aug. 24, 1933	8.7	2,430
1916	July 27, 1916	8.00	2,080		Sept. 4, 1933	9.4	2,820
1917	Jan. 14, 1917	7.05	1,580		Sept. 16, 1933	7.9	2,030
1918	Feb. 20, 1918	8.80	2,480	1934	June 19, 1934	5.61	888
	Feb. 26, 1918	7.40	1,780	1935	Dec. 1, 1934	7.1	1,630
1919	May 10, 1919	6.00	1,080		July 10, 1935	8.5	2,330
	July 21, 1919	7.00	1,580	1936	Nov. 29, 1935	5.76	980
1920	Mar. 13, 1920	8.00	2,080		Jan. 3, 1936	6.00	1,080
	Mar. 17, 1920	5.90	1,030		Mar. 12, 1936	10.5	3,480
1921	Mar. 25, 1921	5.40	795		Mar. 18, 1936	9.0	2,580
1922	Mar. 7, 1922	7.40	1,780		Apr. 6, 1936	6.8	1,480
1923	Jan. 1, 1923	6.00	1,080	1937	Dec. 20, 1936	6.19	1,180
	Jan. 16, 1923	5.7	930		Feb. 22, 1937	6.3	1,230
1924	Jan. 17, 1924	6.00	1,080	1938	Nov. 13, 1937	5.8	980
	Apr. 6, 1924	7.20	1,680		Jan. 25, 1938	7.0	1,580
	Sept. 30, 1924	7.40	1,780		June 28, 1938	6.2	1,180
1925	Mar. 19, 1925	6.00	1,080		July 23, 1938	6.1	1,130
1926	Nov. 16, 1925	5.90	1,030	1955	Sept. 21, 1938	6.6	1,380
	Feb. 25, 1926	5.80	980		Aug. 18, 1955	14.1	5,740



## DELAWARE RIVER BASIN

## 4415. Pocono Creek near Stroudsburg, Pa.

Location. --Lat 40°59'10", long 75°13'35", at highway bridge, 0.3 mile upstream from Flaglers Run, 1.3 miles west of Stroudsburg, Monroe County, and 1.9 miles upstream from mouth.

Drainage area. --41.0 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 475 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 500 cfs and extended to 3,300 cfs.

Remarks. --Base for partial-duration series, 1,600 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Mar. 15, 1912	6.3	2,100	1916	July 26, 1916	6.0	1,740
1913	Mar. 27, 1913	6.7	2,670	1917	Jan. 14, 1917	5.8	1,540
1914	Nov. 9, 1913	6.5	2,380		Mar. 27, 1917	5.8	1,540
	Jan. 31, 1914	5.9	1,640	1918	Feb. 26, 1918	7.1	3,300
1915	Jan. 7, 1915	6.8	2,820	1919	Mar. 9, 1919	5.9	1,640
	Feb. 24, 1915	6.3	2,100				

## 4425. Brodhead Creek at Minisink Hills, Pa.

Location. --Lat 40°59'55", long 75°08'35", on left bank 40 ft downstream from temporary bridge on State Highway 402 at Minisink Hills, Monroe County, 500 ft upstream from Marshall Creek, 1,500 ft downstream from Coates Paper Box Co., 0.8 mile upstream from mouth, and 3 miles southeast of East Stroudsburg.

Drainage area. --259 sq mi.

Gage. --Recorder gage prior to Aug. 19, 1955; nonrecording gage Aug. 23, 1955 to July 24, 1956; recording gage thereafter. Prior to Nov. 24, 1955, at site about 1,300 ft upstream at datum 2.19 ft higher. Datum of present gage is 301.84 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 4,600 cfs and extended on basis of computation of flow over dam and slope-area measurement.

Bankfull stage. --15 ft.

Remarks. --Base for partial-duration series, 4,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 25, 1950	9.80	9,820	1954	Dec. 7, 1953	6.35	4,840
	Dec. 4, 1950	9.59	9,470				
	Dec. 8, 1950	8.02	6,900	1955	Mar. 22, 1955	6.21	4,600
	Jan. 24, 1951	6.68	5,110		Aug. 19, 1955	29.9	68,800
	Feb. 8, 1951	6.90	5,370				
	Mar. 30, 1951	10.00	10,200	1956	Oct. 16, 1955	8.74	7,640
	Apr. 13, 1951	6.10	4,380		Apr. 30, 1956	7.59	5,430
1952	Nov. 7, 1951	10.45	10,900	1957	Apr. 6, 1957	7.43	5,130
	Mar. 11, 1952	9.64	9,490				
	Apr. 5, 1952	8.98	8,500	1958	Dec. 21, 1957	10.50	10,900
	Apr. 15, 1952	7.05	5,600		Dec. 26, 1957	7.64	5,600
	July 10, 1952	11.26	12,600		Apr. 6, 1958	7.57	5,600
	Sept. 1, 1952	7.98	6,970				
1953	Nov. 22, 1952	9.27	8,990				
	Dec. 11, 1952	14.43	19,900				
	Jan. 24, 1953	8.51	7,720				

## 4465. Delaware River at Belvidere, N. J.

Location. --Lat 40°49'36", long 75°05'02", on left bank at Belvidere, Warren County, 500 ft downstream from Pequest River.

Drainage area. --4, 535 sq mi.

Gage. --Nonrecording gage prior to Jan. 1, 1929; recording gage thereafter. Prior to Jan. 1, 1929, at site 200 ft upstream. Datum of gage is 226.43 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 110,000 cfs and extended on basis of flood-routing study.

Remarks. --Base for partial-duration series, 40,000 cfs. Only annual peaks are shown prior to Oct. 1, 1929.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 10, 1903	28.6	220,000	1940	Apr. 1, 1940	21.40	138,300
1923	Mar. 24, 1923	15.7	77,000		Apr. 9, 1940	17.38	95,800
1924	Apr. 7, 1924	19.0	114,000		Apr. 22, 1940	13.02	54,100
1925	Oct. 1, 1924	19.3	118,000	1941	Dec. 31, 1940	12.65	50,900
1926	Apr. 10, 1926	12.02	43,800	1942	Mar. 10, 1942	14.45	66,800
1927	Nov. 17, 1926	18.5	108,000		May 24, 1942	20.97	133,700
1928	Oct. 20, 1927	16.80	84,400		Sept. 28, 1942	16.14	83,300
1929	Mar. 15, 1929	15.90	79,000	1943	Nov. 26, 1942	12.10	46,500
1930	Mar. 9, 1930	11.4	39,200		Dec. 31, 1942	18.62	108,600
1931	Mar. 30, 1931	12.40	46,800		Feb. 25, 1943	12.43	49,100
1932	Apr. 2, 1932	13.6	57,000		Mar. 18, 1943	13.63	59,400
1933	Oct. 8, 1932	15.0	70,000		May 23, 1943	11.30	40,300
	Nov. 20, 1932	12.29	46,000	1944	Nov. 10, 1943	14.05	63,100
	Apr. 18, 1933	12.47	47,600		Mar. 18, 1944	12.05	46,100
	Aug. 25, 1933	19.90	122,000		Apr. 25, 1944	11.40	41,100
	Sept. 17, 1933	12.40	46,800	1945	Jan. 3, 1945	12.20	47,300
1934	Mar. 6, 1934	17.22	92,900		Mar. 4, 1945	13.73	60,300
1935	Dec. 2, 1934	15.03	70,900		Mar. 18, 1945	14.65	68,700
	Jan. 10, 1935	12.87	52,000		July 20, 1945	14.29	65,300
	July 10, 1935	13.52	57,000		July 30, 1945	12.82	52,400
1936	Nov. 1, 1935	12.08	45,600	1946	Mar. 10, 1946	13.45	57,800
	Nov. 14, 1935	12.28	47,200		May 29, 1946	14.62	68,500
	Nov. 30, 1935	11.65	42,200	1947	Mar. 15, 1947	13.27	56,200
	Mar. 12, 1936	22.22	148,000		Apr. 6, 1947	16.93	91,200
	Mar. 19, 1936	25.00	179,000		July 23, 1947	11.42	40,900
	Apr. 7, 1936	11.48	40,800	1948	Mar. 18, 1948	14.54	67,700
1937	Jan. 26, 1937	11.88	44,000		Mar. 23, 1948	19.68	119,800
	Feb. 23, 1937	14.50	67,200		Apr. 15, 1948	13.35	56,800
	Apr. 7, 1937	12.30	47,400	1949	Dec. 31, 1948	19.48	117,700
1938	Oct. 24, 1937	12.40	48,200		Jan. 7, 1949	15.66	78,500
	Jan. 26, 1938	14.88	71,000	1950	Mar. 10, 1950	11.58	42,100
	July 23, 1938	13.00	53,500		Mar. 29, 1950	14.80	70,200
	Aug. 12, 1938	14.50	67,200		Apr. 5, 1950	15.43	76,300
	Sept. 22, 1938	19.27	116,000	1951	Nov. 26, 1950	18.10	103,000
1939	Dec. 7, 1938	15.88	81,000		Dec. 5, 1950	17.12	93,200
	Feb. 17, 1939	12.40	48,200		Dec. 9, 1950	12.50	49,600
	Feb. 21, 1939	13.17	55,300		Jan. 25, 1951	11.40	40,800
					Feb. 3, 1951	11.55	41,900
					Feb. 23, 1951	11.41	40,900
					Mar. 31, 1951	19.75	120,600
				1952	Nov. 9, 1951	13.40	57,300
					Jan. 28, 1952	12.65	50,900
					Mar. 12, 1952	13.80	60,900

## DELAWARE RIVER BASIN

Delaware River at Belvidere, N. J.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952 Cont.	Apr. 6, 1952	14.65	68,800	1955	Aug. 19, 1955	30.21	273,000
	Apr. 16, 1952	13.79	60,800	1956	Oct. 16, 1955	18.13	93,300
	May 26, 1952	11.78	43,700		Oct. 31, 1955	11.90	41,300
	July 10, 1952	16.53	87,200		Apr. 6, 1956	12.58	46,100
1953	Nov. 23, 1952	11.70	43,100	1957	Apr. 7, 1957	13.90	55,700
	Dec. 12, 1952	20.00	122,000		Dec. 22, 1957	15.69	70,300
	Jan. 25, 1953	16.13	81,300	1958	Apr. 7, 1958	15.58	69,400
1954	Feb. 18, 1954	11.00	38,000				

## 4475. Lehigh River at Stoddartsville, Pa.

Location. --Lat 41°07'45", long 75°37'40", on left bank 75 ft upstream from concrete bridge on State Highway 115, at Stoddartsville, Luzerne County, 1.9 miles upstream from Tobyhanna Creek, and 4 miles southwest of Thornhurst.

Drainage area. --91.7 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1946; recording gage thereafter. Prior to Oct. 1, 1946, at site 350 ft downstream at datum 2.14 ft lower. Datum of present gage is 1,463.81 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 1,700 cfs and extended above on basis of slope-area measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 1,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 22, 1942	12.03	15,700	1951	Nov. 26, 1950	7.94	5,940
1944	Nov. 9, 1943	5.5	2,800		Dec. 4, 1950	8.59	7,250
	Apr. 25, 1944	4.1	1,540		Dec. 8, 1950	4.34	1,640
1945	July 15, 1945	4.2	1,380		Jan. 24, 1951	3.85	1,300
	July 19, 1945	6.1	3,090		Mar. 31, 1951	4.00	1,400
1946	May 28, 1946	5.6	2,640	1952	Mar. 11, 1952	5.21	2,310
1947	Apr. 5, 1947	4.82	2,010		Apr. 15, 1952	5.13	2,230
	May 22, 1947	4.17	1,500		July 10, 1952	4.90	2,070
	July 8, 1947	7.74	5,600	1953	Nov. 22, 1952	5.42	2,490
1948	Mar. 20, 1948	4.76	1,950		Dec. 11, 1952	6.64	3,640
	Dec. 30, 1948	5.38	2,490		Jan. 25, 1953	4.10	1,470
1949	Jan. 6, 1949	4.86	2,030	1954	Dec. 7, 1953	3.70	1,200
				1955	Aug. 14, 1955	5.28	2,450
1950	Dec. 27, 1949	2.75	666		Aug. 19, 1955	16.37	31,900
	Jan. 7, 1950	3.25	930	1956	Oct. 16, 1955	7.06	4,650
	Mar. 9, 1950	3.0	790		Oct. 30, 1955	4.17	1,500
	Mar. 28, 1950	4.64	1,870	1957	Apr. 6, 1957	3.64	1,360
	Apr. 5, 1950	4.67	1,870		Dec. 21, 1957	6.16	3,550
				1958	Apr. 7, 1958	4.17	1,700

## 4480. Lehigh River at Tannery, Pa.

Location. --Lat 41°02'25", long 75°45'45", on right bank 600 ft upstream from highway bridge at Tannery, Luzerne County and 1¼ miles upstream from Black Creek.

Drainage area. --322 sq mi.

Gage. --Nonrecording gage prior to Oct. 18, 1928; recording gage thereafter. Prior to Oct. 18, 1928 at site 600 ft downstream at datum 12.65 ft lower. Datum of present gage is 1,042.06 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 7,100 cfs and extended on basis of slope-area measurement.

Bankfull stage. --12 ft.

Remarks. --Base for partial-duration series, 3,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Jan. 19, 1915	7.3	3,750	1934	Apr. 1, 1934	5.22	<sup>b</sup> 3,010
	Feb. 25, 1915	7.2	3,650	1935	Dec. 1, 1934	8.99	8,430
1917	Mar. 28, 1917	8.0	4,450		July 10, 1935	13.12	19,400
	Aug. 8, 1917	7.7	4,150	1936	Nov. 29, 1935	7.04	5,350
1918	Oct. 30, 1917	9.0	5,550		Mar. 12, 1936	13.34	20,000
	Feb. 20, 1918	<sup>a</sup> 7.2	3,650		Mar. 18, 1936	13.01	19,100
	Apr. 18, 1918	8.3	4,780	1937	Apr. 6, 1937	5.66	3,400
1919	Mar. 9, 1919	6.8	<sup>b</sup> 3,250	1938	Oct. 23, 1937	8.80	7,900
1920	Mar. 12, 1920	8.3	4,560		Jan. 25, 1938	8.34	7,260
	Mar. 27, 1920	7.45	3,850		Jan. 27, 1938	6.03	4,010
1921	Mar. 10, 1921	7.5	3,950		July 22, 1938	6.62	4,790
1922	Nov. 29, 1921	7.4	3,850		July 23, 1938	6.94	5,210
	Dec. 2, 1921	7.4	3,850		Sept. 22, 1938	6.26	4,400
	Mar. 8, 1922	8.3	4,780	1939	Dec. 6, 1938	7.90	6,300
	June 4, 1922	7.2	3,650		Feb. 15, 1939	6.46	4,660
1923	July 28, 1923	7.8	4,250	1940	Mar. 31, 1940	10.46	12,100
1924	Jan. 11, 1924	8.0	4,450		Apr. 5, 1940	7.24	5,630
	Apr. 6, 1924	9.6	6,210		Apr. 9, 1940	7.48	6,050
	Sept. 30, 1924	13.2	10,400		Sept. 1, 1940	7.35	5,910
1925	Feb. 12, 1925	9.2	5,660	1941	Apr. 6, 1941	5.60	<sup>b</sup> 3,480
1926	Nov. 13, 1925	6.6	<sup>b</sup> 3,050	1942	Mar. 9, 1942	7.03	5,350
1927	Nov. 16, 1926	15.0	12,700		May 22, 1942	16.51	29,600
1928	Oct. 19, 1927	10.7	7,420		Sept. 27, 1942	7.94	6,650
	Nov. 18, 1927	9.2	5,770	1943	Dec. 30, 1942	8.17	7,070
	Dec. 8, 1927	8.0	4,450	1944	Oct. 27, 1943	5.96	4,010
	May 1, 1928	7.1	3,550		Oct. 29, 1943	6.43	4,530
	June 30, 1928	13.0	10,100		Nov. 9, 1943	9.70	9,910
	July 14, 1928	8.7	5,220		Apr. 25, 1944	5.82	3,780
1929	Mar. 15, 1929	6.27	4,340	1945	July 16, 1945	5.90	3,880
1930	June 11, 1930	5.41	<sup>b</sup> 3,090		July 19, 1945	8.02	6,750
1931	Mar. 29, 1931	7.50	6,300	1946	May 28, 1946	7.61	6,140
1932	Apr. 1, 1932	6.83	5,100	1947	Apr. 5, 1947	6.94	5,210
	Apr. 3, 1932	5.77	3,750		May 22, 1947	6.98	5,350
1933	Oct. 7, 1932	5.77	3,880		May 26, 1947	6.35	4,530
	Nov. 2, 1932	5.78	3,750		July 8, 1947	10.13	10,800
	Apr. 18, 1933	5.80	3,750		July 17, 1947	7.66	6,290
	Aug. 24, 1933	12.47	17,600	1948	Mar. 17, 1948	6.59	4,920
	Sept. 16, 1933	10.30	11,200		Mar. 20, 1948	6.99	5,420
					Apr. 15, 1948	5.95	4,200



## DELAWARE RIVER BASIN

Lehigh River at Tannery, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Dec. 30, 1948	8.42	7,420	1953	Nov. 22, 1952	9.17	8,800
	Jan. 6, 1949	7.40	5,940		Dec. 11, 1952	10.11	10,800
	May 7, 1949	6.26	4,560		Jan. 24, 1953	6.62	4,980
1950	Mar. 28, 1950	7.36	5,940	1954	Dec. 7, 1953	5.48	3,750
	Apr. 5, 1950	6.45	4,680				
1951	Nov. 26, 1950	10.9	12,800	1955	Aug. 14, 1955	7.97	6,760
	Dec. 4, 1950	11.7	15,200		Aug. 19, 1955	22.2	58,300
	Dec. 8, 1950	6.68	5,040	1956	Oct. 15, 1955	9.21	11,000
	Jan. 24, 1951	6.19	4,440		Oct. 30, 1955	5.46	4,630
	Mar. 31, 1951	7.00	5,420		Nov. 16, 1955	4.64	3,650
1952	Nov. 7, 1951	5.68	3,970	1957	Apr. 6, 1957	6.19	5,830
	Mar. 11, 1952	8.69	7,910		Apr. 9, 1957	5.11	4,340
	Apr. 6, 1952	5.86	4,190	1958	Dec. 21, 1957	10.50	13,900
	Apr. 15, 1952	6.94	5,340		Dec. 27, 1957	5.33	4,600
	Apr. 28, 1952	5.46	3,750		Apr. 6, 1958	7.28	7,350
	May 26, 1952	5.43	3,650				
	July 10, 1952	8.92	8,250				
	Sept. 2, 1952	5.46	3,750				

<sup>a</sup>Backwater from ice.<sup>b</sup>Annual peak only

## 4485. Dilldown Creek near Long Pond, Pa.

Location. --Lat 41°02'10", long 75°32'35", on left bank 60 ft above timber bridge on Shucks Mill Road, 2.8 miles upstream from Mud Run, 4 miles northeast of Albrightsville, and 4.4 miles west of Long Pond, Monroe County.

Drainage area. --2.39 sq mi (determined from boundary survey by U. S. Forest Service).

Gage. --Recording gage. Datum of gage is 1,665.07 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --2 ft.

Remarks. --Base for partial-duration series, 45 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Dec. 30, 1948	2.19	52	1953	Nov. 22, 1952	2.67	136
	Jan. 5, 1949	2.27	60		Dec. 5, 1952	2.215	54
	May 7, 1949	2.43	88		Dec. 11, 1952	3.075	244
1950	Mar. 8, 1950	2.30	64		Jan. 24, 1953	2.64	130
	Mar. 28, 1950	2.52	105		Feb. 21, 1953	2.18	50
1951				1954	Mar. 24, 1953	2.165	49
	Nov. 4, 1950	2.145	47		Dec. 7, 1953	2.175	50
	Nov. 25, 1950	2.91	196	1955	Apr. 17, 1954	2.13	46
	Dec. 4, 1950	3.005	222		Mar. 22, 1955	2.155	48
	Dec. 8, 1950	2.415	86		Aug. 14, 1955	2.625	126
	Jan. 24, 1951	2.325	71		Aug. 18, 1955	3.37	342
	Feb. 7, 1951	2.285	62	1956	Oct. 15, 1955	2.915	197
	Mar. 30, 1951	2.595	120		Oct. 30, 1955	2.46	94
1952	Apr. 12, 1951	2.325	71		Apr. 30, 1956	2.155	48
	Nov. 7, 1951	2.185	51	1957	Jan. 23, 1957	2.205	53
	Dec. 5, 1951	2.15	48		Apr. 6, 1957	2.185	51
	Dec. 21, 1951	2.15	48	1958	Dec. 20, 1957	3.31	321
	Mar. 11, 1952	2.71	145		Dec. 26, 1957	2.375	79
	Apr. 5, 1952	2.335	73		Apr. 6, 1958	2.73	150
	Apr. 15, 1952	2.35	75				
	July 10, 1952	3.195	281				
	Sept. 1, 1952	2.77	160				

## 4495. Wild Creek at Hatchery, Pa.

Location. --Lat 40°55'25", long 75°33'30", on left bank at Hatchery, Carbon County, 0.5 mile downstream from Cross Run, 2.2 miles upstream from Wild Creek Dam, and 4 miles upstream from mouth.

Drainage area. --16.8 sq mi.

Gage. --Recording gage. Datum of gage is 842.71 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 220 cfs and extended above on basis of contracted-opening measurement at gage height, 5.59 ft.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 250 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	July 8, 1941	5.50	1,720	1950	Mar. 28, 1950	3.00	179
1942	May 23, 1942	6.00	2,360	1951	Nov. 25, 1950	4.07	568
	June 7, 1942	3.33	268		Dec. 4, 1950	4.67	939
	Aug. 14, 1942	3.55	340		Dec. 8, 1950	3.66	381
	Sept. 27, 1942	3.88	475	1952	Mar. 11, 1952	3.69	393
1943	Dec. 30, 1942	3.54	336		May 25, 1952	3.48	290
1944	Nov. 9, 1943	4.16	606		July 9, 1952	4.76	1,010
	May 27, 1944	3.66	381		Sept. 1, 1952	4.12	595
1945	July 5, 1945	3.28	254	1953	Nov. 22, 1952	4.21	646
	July 9, 1945	3.63	370		Dec. 11, 1952	4.53	841
	July 15, 1945	4.28	688		Feb. 21, 1953	3.32	252
	July 20, 1945	4.38	748	1954	Dec. 7, 1953	2.93	168
1946	May 27, 1946	3.35	258	1955	Aug. 18, 1955	5.59	1,830
	July 23, 1946	3.38	265	1956	Oct. 16, 1955	3.27	251
1947	May 14, 1947	3.30	259		Apr. 30, 1956	3.51	326
	May 24, 1947	4.52	834	1957	Apr. 6, 1957	3.22	237
	July 7, 1947	3.85	462	1958	Dec. 20, 1957	3.69	393
	July 15, 1947	3.38	283		Apr. 6, 1958	3.32	265
1948	Apr. 1, 1948	3.39	266				
1949	Jan. 5, 1949	3.36	277				
	May 6, 1949	4.18	629				

## 4500. Pohopoco Creek near Parryville, Pa.

Location. --Lat 40°49'55", long 75°40'55", on right bank 1.2 miles downstream from Bull Run, 1.2 miles north of Parryville, Carbon County, and 2.3 miles upstream from mouth.

Drainage area. --109 sq mi.

Gage. --Recording gage. Prior to Dec. 12, 1955, at site 0.2 mile upstream at datum 4.64 ft higher. Datum of present gage is 454.61 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 1,100 cfs.

## DELAWARE RIVER BASIN

Pohopoco Creek near Parryville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	July 8, 1941	4.85	2,500	1950	Mar. 9, 1950	3.49	1,090
1942	May 23, 1942	7.42	5,270	1951	Nov. 25, 1950	4.57	2,000
	Aug. 14, 1942	5.04	2,480		Dec. 4, 1950	4.82	2,230
	Aug. 17, 1942	3.80	1,420		Dec. 8, 1950	3.79	1,310
	Sept. 28, 1942	5.90	3,400		Feb. 7, 1951	4.80	2,230
1943	Dec. 30, 1942	5.26	2,680		Mar. 31, 1951	3.72	1,230
	Feb. 21, 1943	3.80	1,300	1952	Nov. 7, 1951	3.53	1,120
1944	Nov. 9, 1943	4.41	1,850		Mar. 11, 1952	5.02	2,430
	Mar. 13, 1944	3.58	1,190		Apr. 5, 1952	4.49	1,930
	May 27, 1944	3.75	1,300		Apr. 16, 1952	3.60	1,160
1945	July 10, 1945	5.87	3,400		May 25, 1952	3.94	1,430
	July 15, 1945	5.50	2,960		July 10, 1952	5.67	3,180
	July 20, 1945	5.04	2,480		Sept. 1, 1952	4.90	2,330
1946	May 28, 1946	4.10	1,560	1953	Nov. 22, 1952	5.18	2,630
1947	Mar. 14, 1947	3.75	1,270		Dec. 11, 1952	6.00	3,520
	May 26, 1947	4.67	2,080		Jan. 24, 1953	3.93	1,430
	July 8, 1947	3.84	1,350	1954	Dec. 7, 1953	3.57	1,120
	July 17, 1947	3.55	1,120	1955	Aug. 13, 1955	3.40	1,260
1948	Mar. 20, 1948	3.31	960		Aug. 18, 1955	6.77	5,250
1949	Dec. 31, 1948	4.07	1,520	1956	Oct. 16, 1955	4.75	2,620
	Jan. 6, 1949	3.97	1,430	1957	Apr. 6, 1957	5.15	1,710
	May 7, 1949	3.80	1,310	1958	Dec. 21, 1957	6.88	2,850
					Jan. 22, 1958	4.63	1,380

## 4505. Aquashicola Creek at Palmerton, Pa.

Location. --Lat 40°48'20", long 75°35'55", on right bank 1, 200 ft upstream from Sixth Street Bridge in Palmerton, Carbon County and 1½ miles upstream from mouth.

Drainage area. --76.7 sq mi.

Gage. --Recording gage. Datum of gage is 389.08 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,500 cfs and extended on basis of contracted-opening measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 1,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 15, 1940	10.03	4,550	1944	Nov. 9, 1943	7.33	2,300
	Mar. 31, 1940	6.53	1,740		Mar. 7, 1944	5.72	1,250
	Apr. 9, 1940	5.48	1,130		Mar. 13, 1944	6.30	1,610
	Sept. 1, 1940	6.20	1,550		Apr. 25, 1944	5.68	1,250
1941	Nov. 15, 1940	4.84	805	1945	Feb. 27, 1945	5.70	1,010
1942	Feb. 17, 1942	5.44	1,100		July 10, 1945	13.63	11,700
	May 23, 1942	8.09	2,990		July 15, 1945	6.59	1,670
	Aug. 17, 1942	7.42	2,370		Sept. 9, 1945	5.62	1,100
	Sept. 28, 1942	9.08	3,650		Sept. 19, 1945	5.81	1,200
1943	Oct. 27, 1942	5.42	1,070	1946	May 28, 1946	6.28	1,490
	Dec. 30, 1942	7.68	2,590		July 2, 1946	5.60	1,080
	Feb. 21, 1943	5.47	1,100		July 23, 1946	6.10	1,370

## Aquashicola Creek at Palmerton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 20, 1947	6.19	1,300	1952 Cont.	Mar. 11, 1952	7.69	2,450
	Mar. 14, 1947	6.90	1,820		Apr. 5, 1952	6.87	1,850
	May 26, 1947	6.35	1,430		May 25, 1952	5.65	1,060
1948	Nov. 8, 1947	5.69	1,080		July 10, 1952	9.40	3,940
	Mar. 17, 1948	5.72	1,080		Sept. 1, 1952	7.24	2,060
	Aug. 22, 1948	6.07	1,220	1953	Nov. 22, 1952	7.90	2,610
1949	Dec. 30, 1948	7.97	2,660		Dec. 11, 1952	8.31	2,930
	Jan. 6, 1949	6.90	1,820		Jan. 24, 1953	6.20	1,370
	Apr. 19, 1949	5.81	1,120	1954	Dec. 7, 1953	6.50	1,570
	May 7, 1949	5.80	1,120	1955	Mar. 23, 1955	5.65	1,060
1950	Mar. 23, 1950	5.70	1,080		Aug. 14, 1955	6.51	1,580
					Aug. 19, 1955	9.82	4,380
1951	Nov. 26, 1950	7.05	1,980	1956	Oct. 16, 1955	7.55	2,370
	Dec. 4, 1950	7.06	2,020				
	Feb. 7, 1951	6.87	1,850	1957	Apr. 6, 1957	7.22	2,070
	Mar. 31, 1951	6.09	1,310				
	July 28, 1951	6.76	1,740	1958	Dec. 21, 1957	9.58	4,140
1952	Nov. 3, 1951	5.81	1,130		Jan. 22, 1958	6.85	1,800
	Nov. 8, 1951	6.88	1,850		Feb. 28, 1958	7.55	2,370

## 4510. Lehigh River at Walnutport, Pa.

Location. --Lat 40°45'20", long 75°36'15", on left bank 0.3 mile upstream from highway bridge at Walnutport, Northampton County, and 0.4 mile upstream from Trout Creek.

Drainage area. --889 sq mi.

Gage. --Recording gage. Datum of gage is 350.27 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --13 ft.

Remarks. --Base for partial-duration series, 9,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 23, 1942	20.6	—	1951 Cont.	Jan. 24, 1951	6.61	13,400
1947	Mar. 14, 1947	6.20	11,800		Feb. 7, 1951	7.17	16,200
	Apr. 6, 1947	5.64	9,400		Mar. 31, 1951	6.36	12,400
	May 22, 1947	6.24	11,800	1952	Nov. 3, 1951	5.94	10,500
	May 26, 1947	6.70	14,100		Nov. 8, 1951	7.17	15,800
	July 8, 1947	8.35	23,000		Dec. 5, 1951	6.05	10,500
	July 17, 1947	6.77	14,600		Mar. 11, 1952	9.42	27,300
1948	Mar. 17, 1948	5.95	10,600		Apr. 6, 1952	6.60	13,000
	Mar. 20, 1948	6.06	11,100		Apr. 16, 1952	6.46	12,600
	Apr. 1, 1948	5.71	9,600		Apr. 28, 1952	6.32	11,700
	Apr. 15, 1948	5.84	10,200		May 26, 1952	5.97	10,500
1949	Dec. 30, 1948	8.19	21,900		July 10, 1952	9.15	26,200
	Jan. 6, 1949	7.17	16,600		Sept. 1, 1952	6.62	13,000
	May 7, 1949	5.70	9,600	1953	Nov. 22, 1952	10.97	36,100
1950	Mar. 29, 1950	6.35	12,600		Dec. 6, 1952	5.83	9,900
					Dec. 11, 1952	10.20	31,700
1951	Nov. 25, 1950	11.26	38,200		Jan. 24, 1953	7.06	15,300
	Dec. 4, 1950	12.66	46,000	1954	Dec. 7, 1953	6.26	11,700
	Dec. 8, 1950	6.72	13,800				



DELAWARE RIVER BASIN  
Lehigh River at Walnutport, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 14, 1955	6.23	11,400	1957	Jan. 23, 1957	6.41	12,200
	Aug. 19, 1955	17.68	77,800		Apr. 6, 1957	7.89	18,400
1956	Oct. 16, 1955	9.21	25,600	1958	Dec. 21, 1957	11.35	37,600
	Oct. 30, 1955	5.89	10,100		Dec. 26, 1957	6.42	11,400
					Feb. 28, 1958	6.45	11,400
					Apr. 6, 1958	7.37	15,900

4515. Little Lehigh Creek near Allentown, Pa.

Location. --Lat 40°34'55", long 75°29'00", on right bank at highway bridge on Lehigh Parkway in Allentown, Lehigh County, 0.8 mile upstream from Cedar Creek, and 2.9 miles upstream from mouth.

Drainage area. --80.8 sq mi.

Gage. --Recording gage. Datum of gage is 253.41 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 980 cfs and extended by logarithmic plotting.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 450 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	July 9, 1935	9.5	—	1953	Nov. 22, 1952	4.22	925
1946	June 2, 1946	3.72	729		Dec. 11, 1952	4.11	870
	July 2, 1946	3.47	648		Jan. 24, 1953	3.56	650
	Aug. 18, 1946	5.14	1,300		Mar. 4, 1953	3.10	454
					Mar. 26, 1953	3.90	835
					Apr. 7, 1953	3.17	486
1947	July 17, 1947	3.28	618	1954	Dec. 7, 1953	3.82	747
1948	May 13, 1948	4.07	852				
	June 20, 1948	4.10	871	1955	Feb. 7, 1955	3.41	524
	Aug. 11, 1948	2.87	472		Aug. 13, 1955	3.83	714
1949	Dec. 30, 1948	3.00	502		Aug. 18, 1955	6.17	1,880
	Jan. 6, 1949	3.42	633		Aug. 22, 1955	3.66	637
1950	Mar. 23, 1950	3.22	399	1956	Oct. 15, 1955	5.46	1,530
					Feb. 7, 1956	3.82	700
1951	Nov. 25, 1950	4.75	1,080	1957	Apr. 5, 1957	3.35	594
	Jan. 15, 1951	3.27	456				
	Feb. 7, 1951	5.03	1,230	1958	Jan. 22, 1958	4.23	950
	Apr. 12, 1951	3.15	468		Feb. 28, 1958	6.30	1,960
1952	Nov. 7, 1951	3.49	631				
	Mar. 11, 1952	3.79	859				
	Apr. 28, 1952	3.47	746				
	July 10, 1952	3.12	495				
	Sept. 1, 1952	3.32	454				

## 4520. Jordan Creek at Allentown, Pa.

Location. --Lat 40°37'25", long 75°29'00", on right bank 200 ft upstream from bridge on State Highway 145, 0.5 mile northwest of city limit of Allentown, Lehigh County, and 2.5 miles upstream from mouth.

Drainage area. --75.8 sq mi.

Gage. --Recording gage and crest-stage indicator. Datum of gage is 259.82 ft above mean sea level, datum of 1929 (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurement below 1,900 cfs and extended on basis of slope-area measurement.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 1,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 27, 1945	3.66	1,370	1952	May 25, 1952	3.60	1,890
	Sept. 19, 1945	3.85	1,660	Cont.	July 10, 1952	3.33	1,450
1946	May 28, 1946	3.63	1,320		Sept. 1, 1952	3.52	1,750
	June 2, 1946	3.40	1,340	1953	Nov. 22, 1952	4.42	3,520
	July 2, 1946	3.39	1,330		Dec. 11, 1952	3.54	1,790
1947	Jan. 20, 1947	3.66	1,810		Jan. 24, 1953	3.28	1,370
	Mar. 14, 1947	3.42	1,380		Mar. 26, 1953	3.62	1,930
	May 26, 1947	3.96	2,380	1954	Dec. 7, 1953	4.19	3,070
1948	Feb. 20, 1948	<sup>a</sup> 3.65	—	1955	Feb. 7, 1955	3.60	1,840
	Aug. 20, 1948	3.63	1,680		Mar. 23, 1955	3.58	1,810
1949	Dec. 31, 1948	3.93	2,320		Aug. 14, 1955	3.34	1,410
	Jan. 6, 1949	3.63	1,750		Aug. 19, 1955	8.00	9,520
1950	Mar. 23, 1950	3.67	1,820	1956	Oct. 16, 1955	4.20	2,730
					Feb. 7, 1956	3.86	2,130
1951	Nov. 26, 1950	4.68	4,240	1957	Dec. 15, 1956	3.52	1,450
	Dec. 5, 1950	3.56	1,630		Apr. 6, 1957	4.32	2,710
	Feb. 7, 1951	5.19	5,940	1958	Dec. 21, 1957	3.59	1,590
	July 28, 1951	3.99	2,440		Jan. 22, 1958	4.50	2,040
1952	Nov. 7, 1951	4.05	2,560		Feb. 28, 1958	5.81	4,000
	Mar. 11, 1952	3.70	2,070		May 9, 1958	3.75	1,320
	Apr. 28, 1952	3.33	1,450		Sept. 27, 1958	5.41	3,280

<sup>a</sup>Backwater from ice.

## 4525. Monocacy Creek at Bethlehem, Pa.

Location. --Lat 40°38'30", long 75°22'50", on downstream side of right span of highway bridge at entrance to Monocacy Park at Bethlehem, Northampton County, 2.1 miles upstream from mouth.

Drainage area. --44.5 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 247.24 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation. --Defined by current-meter measurements below 560 cfs and extended on basis of slope-area measurements.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 300 cfs.

## DELAWARE RIVER BASIN

## Monocacy Creek at Bethlehem, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	July 10, 1945	9.74	5,200	1954	Dec. 7, 1953	4.1	351
1949	Dec. 31, 1948	4.34	354	1955	Feb. 7, 1955	4.69	501
	Jan. 6, 1949	4.18	329		Aug. 19, 1955	4.68	495
1950	Mar. 23, 1950	3.31	186	1956	Oct. 15, 1955	4.74	513
1951	June 23, 1951	4.34	393		Feb. 7, 1956	5.06	623
	July 28, 1951	4.42	419		June 24, 1956	4.89	560
1952	Mar. 11, 1952	4.20	368		July 9, 1956	3.98	309
	May 25, 1952	4.06	344	1957	Apr. 6, 1957	4.36	420
	July 9, 1952	4.00	321	1958	Dec. 21, 1957	4.00	330
	Sept. 1, 1952	4.03	321		Jan. 22, 1958	6.32	1,150
1953	Nov. 22, 1952	3.99	321		Feb. 28, 1958	7.63	2,340
	Dec. 11, 1952	4.25	373				
	May 23, 1953	4.04	330				

## 4530. Lehigh River at Bethlehem, Pa.

Location. --Lat 40°37'05", long 75°21'55", on left bank, 1,650 ft upstream from Minsi Trail Bridge at Bethlehem, Northampton County, and 2,400 ft downstream from Monocacy Creek.

Drainage area. --1,279 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1928; recording gage thereafter. Prior to Oct. 1, 1928 at site 4,130 ft upstream at datum 2.49 ft higher. Datum of present gage is 208.45 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 50,000 cfs and extended.

Bankfull stage. --18 ft.

Remarks. --Base for partial-duration series, 11,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902	Feb. 28, 1902	24.9	88,000	1914	Jan. 31, 1914	7.3	11,600
1903	Dec. 17, 1902	—	<sup>a</sup> 15,200	1915	Mar. 28, 1914	7.2	11,300
	Dec. 22, 1902	—	<sup>a</sup> 26,800		Jan. 7, 1915	8.5	15,000
	Mar. 1, 1903	—	<sup>a</sup> 20,100	1916	Jan. 13, 1915	11.52	24,500
	Mar. 24, 1903	—	<sup>a</sup> 17,000		Jan. 20, 1915	7.2	11,300
1904	Oct. 10, 1903	—	<sup>a</sup> 25,800		Feb. 1, 1915	10.2	20,100
	Mar. 7, 1904	—	<sup>a</sup> 20,000		Feb. 25, 1915	9.3	17,300
1905	Jan. 7, 1905	—	<sup>a</sup> 19,600	1917	Mar. 31, 1916	7.52	12,100
					July 26, 1916	9.0	16,400
1910	Dec. 14, 1909	7.5	11,800	1918	Jan. 14, 1917	7.8	12,900
	Jan. 22, 1910	13.78	32,200		Mar. 28, 1917	9.5	17,900
	Mar. 1, 1910	8.54	14,800	1919	Oct. 30, 1917	9.5	18,200
	Apr. 26, 1910	8.0	13,300		Feb. 20, 1918	13.0	29,100
1911	Aug. 31, 1911	7.77	12,700		Feb. 26, 1918	11.0	22,700
1912	Feb. 22, 1912	9.0	16,400	1920	Mar. 9, 1919	9.0	16,800
	Mar. 13, 1912	10.4	20,800		July 21, 1919	7.1	11,400
	Mar. 15, 1912	11.6	24,800	1920	Mar. 5, 1920	12.0	25,800
1913	Jan. 4, 1913	7.0	10,700		Mar. 13, 1920	10.5	21,200
	Mar. 14, 1913	7.1	11,000		Mar. 17, 1920	9.3	17,600
	Mar. 27, 1913	12.4	27,500				
	Apr. 13, 1913	11.0	22,700				

## Lehigh River at Bethlehem, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	Mar. 4, 1921	6.72	10,200	1942	Mar. 9, 1942	6.47	11,100
1922	Mar. 8, 1922	9.8	19,100		May 23, 1942	23.47	92,000
1923	Mar. 17, 1923	7.0	11,100		Sept. 28, 1942	9.72	23,000
1924	Jan. 11, 1924	8.4	15,000	1943	Oct. 27, 1942	6.45	10,800
	Jan. 17, 1924	9.0	16,800		Dec. 31, 1942	10.02	24,000
	Apr. 7, 1924	11.3	23,600	1944	Nov. 9, 1943	11.55	30,000
1925	Oct. 1, 1924	16.2	43,500		Mar. 13, 1944	6.98	13,100
	Feb. 12, 1925	13.0	29,100		Apr. 25, 1944	6.80	12,200
1926	Feb. 26, 1926	7.9	13,600	1945	July 10, 1945	8.10	17,600
1927	Oct. 20, 1926	10.7	21,800		July 15, 1945	8.27	18,300
	Nov. 17, 1926	16.7	44,000		July 21, 1945	8.30	18,300
1928	Nov. 18, 1927	10.6	21,400	1946	May 28, 1946	9.53	22,300
	Dec. 8, 1927	9.7	18,800		June 3, 1946	6.95	13,100
	Feb. 15, 1928	7.2	11,600		July 23, 1946	6.49	10,940
	June 30, 1928	13.4	30,700	1947	Mar. 15, 1947	7.38	14,800
	July 6, 1928	7.1	11,400		Apr. 6, 1947	6.42	10,500
1929	Mar. 6, 1929	7.8	16,600		May 22, 1947	7.08	13,500
1930	Oct. 3, 1929	6.50	11,600		May 26, 1947	8.47	18,900
1931	Feb. 18, 1931	5.73	8,820		July 8, 1947	9.48	22,300
1932	Apr. 1, 1932	6.56	12,000		July 17, 1947	7.84	16,500
1933	Nov. 2, 1932	7.30	14,700	1948	Nov. 9, 1947	6.25	9,940
	Nov. 10, 1932	6.06	10,400		Mar. 17, 1948	6.76	12,200
	Nov. 20, 1932	6.87	13,200		Mar. 20, 1948	6.80	12,200
	Mar. 22, 1933	6.13	10,400		Apr. 1, 1948	6.60	11,400
	Apr. 18, 1933	8.35	18,600		Apr. 15, 1948	7.02	13,100
	Aug. 24, 1933	18.70	64,800	1949	Dec. 31, 1948	10.77	26,900
	Sept. 4, 1933	9.80	23,300		Jan. 6, 1949	9.01	20,600
	Sept. 17, 1933	8.40	18,600	1950	Mar. 29, 1950	7.27	14,400
1934	Apr. 1, 1934	6.32	10,800	1951	Nov. 26, 1950	14.4	42,500
	Sept. 17, 1934	6.35	11,300		Dec. 5, 1950	15.31	46,900
1935	Dec. 2, 1934	11.73	30,400		Dec. 8, 1950	8.38	18,500
	July 10, 1935	18.53	63,700		Jan. 24, 1951	7.86	16,700
1936	Nov. 29, 1935	6.85	12,800		Feb. 7, 1951	9.89	23,700
	Mar. 12, 1936	17.04	55,700		Mar. 31, 1951	7.19	13,700
	Mar. 18, 1936	15.70	49,000		July 28, 1951	8.09	17,500
	Apr. 6, 1936	7.75	16,600	1952	Nov. 3, 1951	7.70	15,900
1937	Jan. 26, 1937	6.19	10,500		Nov. 8, 1951	9.16	22,600
	Feb. 22, 1937	6.24	10,500		Dec. 6, 1951	6.71	12,600
	Apr. 6, 1937	6.18	10,500		Jan. 28, 1952	6.29	11,000
1938	Oct. 23, 1937	9.37	22,400		Mar. 12, 1952	11.31	31,000
	Jan. 25, 1938	8.40	19,100		Apr. 6, 1952	7.46	15,800
	June 28, 1938	8.32	18,700		Apr. 16, 1952	7.16	14,600
	July 22, 1938	7.07	14,000		Apr. 29, 1952	7.28	15,000
	July 24, 1938	7.38	15,200		May 25, 1952	6.97	13,800
	Sept. 22, 1938	7.36	15,200		July 10, 1952	10.53	27,800
1939	Dec. 6, 1938	10.47	25,900		Sept. 2, 1952	7.41	15,400
	Dec. 10, 1938	6.26	10,800	1953	Nov. 22, 1952	13.75	41,200
	Feb. 16, 1939	7.10	13,900		Dec. 6, 1952	6.51	11,800
1940	Mar. 4, 1940	6.48	11,100		Dec. 11, 1952	12.26	35,000
	Mar. 15, 1940	12.83	35,000		Jan. 25, 1953	8.21	18,600
	Mar. 31, 1940	12.35	33,300		Mar. 26, 1953	6.27	11,000
	Apr. 9, 1940	7.83	16,500		May 23, 1953	6.34	11,000
	Sept. 1, 1940	8.13	17,600	1954	Dec. 7, 1953	7.73	16,600
1941	Apr. 6, 1941	5.68	8,210	1955	Aug. 14, 1955	7.23	14,700
					Aug. 19, 1955	23.38	91,300
				1956	Oct. 16, 1955	11.48	30,900
				1957	Apr. 6, 1957	9.75	23,800



## DELAWARE RIVER BASIN

Lehigh River at Bethlehem, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Dec. 21, 1957	14.03	41,800	1958	Feb. 28, 1958	10.47	26,700
	Dec. 27, 1957	7.28	13,700	Cont.	Apr. 7, 1958	8.30	17,700
	Jan. 22, 1958	7.49	14,500				

<sup>a</sup>Daily mean discharge; gage height unknown.

## 4535. Saucon Creek at Lanark, Pa.

Location. --Lat 40°32'50", long 75°25'30", on left bank 200 ft upstream from concrete highway bridge on U. S. Route 309 and 0.5 mile southeast of Lanark, Lehigh County.

Drainage area. --12.0 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 380.42 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 340 cfs and extended by logarithmic plotting.

Remarks. --Base for partial-duration series, 250 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 13, 1948	4.08	530	1951	Jan. 15, 1951	3.43	359
	June 20, 1948	3.80	455	Cont.	Feb. 7, 1951	4.02	505
1949	Dec. 30, 1948	3.67	431	1952	Dec. 21, 1951	3.70	431
	Jan. 6, 1949	3.62	407		Mar. 11, 1952	4.05	505
1950	Mar. 23, 1950	3.09	290		Apr. 28, 1952	3.61	407
				1953	Nov. 22, 1952	3.36	359
1951	Nov. 25, 1950	6.21	1,180		Dec. 11, 1952	5.01	795
	Dec. 4, 1950	3.56	407		Jan. 24, 1953	4.54	645

## 4540. South Branch Saucon Creek at Friedensville, Pa.

Location. --Lat 40°32'55", long 75°23'20", on right bank 275 ft upstream from concrete highway bridge on Spring Valley Road, 2,000 ft upstream from confluence with Saucon Creek and 0.8 mile southeast of Friedensville, Lehigh County.

Drainage area. --10.6 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 361.75 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 430 cfs and extended by logarithmic plotting.

Remarks. --Base for partial-duration series, 440 cfs.

## South Branch Saucon Creek at Friedensville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 13, 1948	2.95	682	1951 Cont.	Jan. 15, 1951	2.34	440
	June 20, 1948	2.35	440		Feb. 7, 1951	2.86	642
1949	Dec. 30, 1948	2.40	457		Apr. 12, 1951	2.43	457
	Jan. 5, 1949	2.55	528	1952	Mar. 11, 1952	2.84	603
1950	Mar. 23, 1950	2.22	390		Apr. 28, 1952	2.42	457
1951	Nov. 25, 1950	3.60	943	1953	Nov. 22, 1952	2.47	492
	Dec. 4, 1950	2.83	603		Dec. 11, 1952	2.97	682
					Jan. 24, 1953	2.35	440

## 4545. Saucon Creek at Friedensville, Pa.

Location. --Lat 40°33'20", long 75°23'05", on downstream side of single span steel-girder bridge on private road of Saucon Valley Country Club, 0.3 mile downstream from South Branch Saucon Creek and 0.5 mile southeast of Friedensville, Lehigh County.

Drainage area. --26.6 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 339.92 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 810 cfs by logarithmic plotting.

Remarks. --Base for partial-duration series, 730 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 13, 1948	11.87	1,040	1951	Nov. 25, 1950	12.49	1,330
	June 20, 1948	11.50	855		Dec. 4, 1950	12.03	1,080
1949	Dec. 30, 1948	11.40	810		Feb. 7, 1951	11.69	945
	Jan. 6, 1949	11.48	855	1952	Mar. 11, 1952	11.55	900
1950	Mar. 23, 1950	10.66	540		Apr. 28, 1952	11.35	810
				1953	Dec. 11, 1952	12.08	1,130
					Jan. 24, 1953	11.60	900

## 4575. Delaware River at Riegelsville, N. J.

Location. --Lat 40°35'36", long 75°11'17", on left bank 20 ft upstream from suspension bridge at Riegelsville, Warren County, and 600 ft upstream from Musconetcong River. Records include flow of Musconetcong River.

Drainage area. --6,328 sq mi (includes that of Musconetcong River).

Gage. --Nonrecording gage prior to Feb. 27, 1924; recording gage thereafter. Prior to Feb. 27, 1924; at bridge 20 ft downstream. Datum of gage is 125.12 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 160,000 cfs and extended on basis of flood-routing study and slope-area measurement.

Bankfull stage. --25 ft.

Remarks. --Base for partial-duration series, 48,000 cfs. Only annual peaks are shown prior to Oct. 1, 1924.

## DELAWARE RIVER BASIN

Delaware River at Riegelsville, N. J.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 10, 1903	35.9	275,000	1935	Dec. 2, 1934	18.7	87,900
1907	Jan. 1, 1907	14.4	61,000		Jan. 10, 1935	14.2	55,700
1908	Dec. 11, 1907	22.5	120,000		July 10, 1935	23.2	125,000
1909	Feb. 21, 1909	19.9	102,000	1936	Nov. 1, 1935	13.28	50,000
1910	Mar. 1, 1910	20.8	109,000		Nov. 15, 1935	13.02	48,200
1911	Mar. 28, 1911	16.0	72,600		Nov. 30, 1935	13.60	51,900
1912	Mar. 17, 1912	18.2	89,000		Mar. 12, 1936	29.8	185,000
1913	Mar. 28, 1913	25.2	144,000		Mar. 19, 1936	32.45	237,000
1914	Mar. 29, 1914	23.9	130,000		Apr. 7, 1936	13.93	53,800
1915	Feb. 26, 1915	18.0	86,100	1937	Jan. 26, 1937	13.70	53,600
1916	Apr. 3, 1916	19.6	97,700		Feb. 23, 1937	16.50	72,500
1917	Mar. 28, 1917	18.2	88,400		Apr. 7, 1937	13.70	53,600
1918	Oct. 31, 1917	18.6	90,700	1938	Oct. 25, 1937	14.56	56,200
1919	Mar. 11, 1919	11.2	38,700		Jan. 26, 1938	17.7	81,200
1920	Mar. 14, 1920	—	<sup>a</sup> 120,000		July 23, 1938	15.52	65,600
1921	Mar. 10, 1921	21.0	111,000		Aug. 12, 1938	15.55	66,200
1922	Nov. 29, 1921	20.4	106,000		Sept. 23, 1938	23.0	123,000
1923	Mar. 24, 1923	17.8	86,100	1939	Dec. 7, 1938	20.05	98,800
1924	Apr. 8, 1924	23.1	122,000		Feb. 17, 1939	14.00	55,600
1925	Oct. 1, 1924	24.2	132,000		Feb. 21, 1939	14.62	59,500
	Feb. 12, 1925	23.82	128,000	1940	Mar. 15, 1940	16.33	71,100
1926	Apr. 10, 1926	13.05	47,100		Apr. 1, 1940	26.47	154,000
1927	Nov. 17, 1926	22.6	118,000		Apr. 10, 1940	21.26	109,000
	Jan. 23, 1927	13.4	49,200		Apr. 22, 1940	17.58	80,500
	Mar. 15, 1927	16.12	67,400	1941	Dec. 31, 1940	13.80	54,300
	Mar. 22, 1927	13.3	48,600		Apr. 7, 1941	13.92	55,000
1928	Oct. 20, 1927	21.3	107,000	1942	Mar. 10, 1942	16.30	71,100
	Nov. 5, 1927	15.7	64,500		May 24, 1942	27.50	164,000
	Nov. 19, 1927	17.6	78,000		Sept. 28, 1942	19.67	96,200
	Dec. 9, 1927	18.66	86,200	1943	Nov. 26, 1942	13.60	53,000
	Dec. 15, 1927	13.6	50,500		Dec. 31, 1942	22.88	122,800
	June 7, 1928	13.28	48,600		Feb. 26, 1943	13.95	55,200
	July 1, 1928	18.84	87,000		Mar. 18, 1943	15.25	63,800
1929	Mar. 16, 1929	18.30	83,100	1944	Nov. 10, 1943	17.58	80,300
	Apr. 22, 1929	15.52	63,100		Mar. 18, 1944	13.05	49,600
1930	Mar. 9, 1930	12.4	43,300		Apr. 26, 1944	13.45	52,100
1931	Mar. 30, 1931	14.4	57,000	1945	Mar. 4, 1945	15.29	64,100
1932	Apr. 2, 1932	15.76	66,600		Mar. 19, 1945	16.43	72,000
1933	Oct. 8, 1932	16.4	70,800		July 20, 1945	18.10	84,200
	Nov. 21, 1932	14.38	57,000		July 30, 1945	14.33	57,700
	Apr. 19, 1933	15.5	64,500	1946	Mar. 10, 1946	15.04	59,400
	Aug. 25, 1933	25.0	141,000		May 29, 1946	18.25	81,600
	Sept. 4, 1933	13.58	51,900		June 3, 1946	13.55	50,200
	Sept. 17, 1933	15.69	65,900	1947	Mar. 15, 1947	15.45	62,100
1934	Mar. 6, 1934	18.20	84,100		Apr. 6, 1947	20.05	95,100
					May 26, 1947	14.07	53,300
				1948	Mar. 18, 1948	17.17	73,800
					Mar. 23, 1948	23.28	121,300
					Apr. 15, 1948	16.05	66,100
				1949	Dec. 31, 1948	24.50	131,900
					Jan. 7, 1949	19.73	92,600
				1950	Mar. 30, 1950	17.71	77,700
					Apr. 6, 1950	18.04	80,100
				1951	Nov. 27, 1950	22.50	114,700
					Dec. 5, 1950	21.93	110,000
					Dec. 9, 1950	15.52	62,500
					Jan. 25, 1951	13.66	50,900

## DELAWARE RIVER BASIN

49

Delaware River at Riegelsville, N. J.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951 Cont.	Feb. 8, 1951	13.58	50,400	1954	Dec. 8, 1953	12.80	46,800
	Feb. 23, 1951	13.28	48,600	1955	Aug. 19, 1955	38.85	340,000
	Apr. 1, 1951	24.03	127,000				
1952	Nov. 8, 1951	16.53	69,400	1956	Oct. 16, 1955	23.80	133,000
	Jan. 28, 1952	15.27	60,900		Oct. 31, 1955	13.85	53,200
	Mar. 12, 1952	17.19	73,900		Apr. 8, 1956	14.18	55,400
	Apr. 6, 1952	18.07	80,300		May 1, 1956	13.17	49,400
	Apr. 16, 1952	17.10	73,300	1957	Apr. 7, 1957	17.42	76,900
	May 26, 1952	14.31	54,800				
	July 11, 1952	20.40	97,800	1958	Dec. 22, 1957	21.28	109,000
1953	Nov. 23, 1952	17.18	73,900		Dec. 28, 1957	13.27	49,600
	Dec. 12, 1952	25.40	140,000		Apr. 7, 1958	19.29	91,600
	Jan. 25, 1953	19.70	92,400				
	Mar. 27, 1953	13.33	48,900				

<sup>a</sup>Estimated.

## DELAWARE RIVER BASIN

4595. Tohickon Creek near Pipersville, Pa.

Location. --Lat 40°26'00", long 75°07'00", on right bank at highway bridge, 1.5 miles northeast of Pipersville, Bucks County, and 4.5 miles upstream from mouth.

Drainage area. --97.4 sq mi.

Gage. --Recording gage. Datum of gage is 258.96 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 3,600 cfs and extended on basis of slope-area measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 3,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Oct. 31, 1935	7.43	6,210	1940	Apr. 20, 1940	5.96	3,740
	Nov. 17, 1935	6.04	3,890	Cont.	May 20, 1940	7.48	6,400
	Jan. 3, 1936	7.20	5,830				
	Mar. 11, 1936	7.22	5,830	1941	Nov. 15, 1940	5.51	3,080
	Mar. 18, 1936	6.59	4,780		Dec. 16, 1940	5.65	3,290
	Apr. 6, 1936	6.69	4,950		Dec. 28, 1940	5.42	2,940
	June 13, 1936	7.60	6,600		Feb. 7, 1941	5.50	3,080
1937	Dec. 20, 1936	6.00	3,820	1942	July 27, 1942	6.25	4,210
	Feb. 22, 1937	5.65	3,290		July 31, 1942	6.29	4,290
1938	Nov. 13, 1937	6.70	4,950		Aug. 9, 1942	10.48	13,700
	July 23, 1938	6.87	5,290		Aug. 13, 1942	6.60	4,780
	Sept. 21, 1938	9.11	10,000	1943	Dec. 30, 1942	7.06	5,650
1939	Dec. 6, 1938	7.12	5,650		May 20, 1943	7.34	6,020
	Jan. 31, 1939	6.90	5,290		May 26, 1943	6.73	4,950
	Feb. 3, 1939	6.75	5,120	1944	Nov. 9, 1943	5.92	3,660
	Feb. 28, 1939	6.45	4,530		Jan. 4, 1944	6.84	5,120
	Apr. 6, 1939	6.39	4,450		Mar. 13, 1944	6.41	4,450
	July 30, 1939	7.60	6,600		Apr. 24, 1944	7.49	6,400
1940	Mar. 4, 1940	6.78	5,120		Sept. 14, 1944	5.65	3,290
	Mar. 15, 1940	7.64	6,600				
	Apr. 8, 1940	6.75	5,120				



## DELAWARE RIVER BASIN

Tohickon Creek near Pipersville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Jan. 1, 1945	7.44	6,210	1952	Apr. 15, 1952	6.97	5,470
	Feb. 27, 1945	6.10	3,970	Cont.	Apr. 28, 1952	6.63	4,780
	July 19, 1945	9.52	11,000		May 26, 1952	5.67	3,290
1946	Nov. 29, 1945	5.50	3,080		Sept. 1, 1952	5.70	3,360
	May 18, 1946	6.15	4,050	1953	Nov. 22, 1952	7.45	6,210
	June 2, 1946	9.55	11,200		Dec. 5, 1952	5.57	3,150
	July 23, 1946	9.35	10,800		Dec. 11, 1952	7.19	5,830
1947	Mar. 14, 1947	5.27	2,740		Jan. 24, 1953	6.98	5,470
1948	May 13, 1948	6.87	5,290		Mar. 15, 1953	6.18	4,130
	June 20, 1948	7.47	6,400	1954	Dec. 7, 1953	5.65	3,290
1949	Dec. 30, 1948	7.43	6,210		Dec. 14, 1953	6.05	3,890
	Jan. 6, 1949	6.54	4,610	1955	Nov. 21, 1954	5.91	3,660
1950	Dec. 27, 1949	5.82	3,510		Feb. 7, 1955	6.31	4,290
	Mar. 23, 1950	5.84	3,580		Mar. 22, 1955	5.68	3,360
1951	Nov. 25, 1950	9.67	11,500		Aug. 13, 1955	8.61	8,780
	Dec. 8, 1950	5.92	3,660		Aug. 18, 1955	11.26	16,000
	Jan. 15, 1951	6.30	4,290	1956	Oct. 15, 1955	8.90	9,500
	Feb. 7, 1951	5.65	3,290		Feb. 18, 1956	5.72	3,360
	Mar. 30, 1951	6.19	4,130		Mar. 14, 1956	5.93	3,740
1952	Nov. 7, 1951	7.28	6,020	1957	Dec. 14, 1956	6.16	4,050
	Dec. 21, 1951	7.74	6,800		Apr. 5, 1957	6.57	4,780
	Mar. 11, 1952	6.71	4,950	1958	Dec. 21, 1957	7.93	7,210
	Apr. 5, 1952	7.12	5,650		Feb. 28, 1958	8.22	7,850
					Apr. 6, 1958	7.28	6,030

## 4600. Tohickon Creek at Point Pleasant, Pa.

Location. --Lat 40°25'25", long 75°04'00", at Point Pleasant, Bucks County, about one-eighth of a mile upstream from mouth.

Drainage area. --107 sq mi.

Gage. --Recording gage. Altitude of gage is 70 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual maximum daily discharges are shown except as noted. Gage heights unknown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1884	June 26, 1884	—	4,380	1898	Feb. 20, 1898	—	4,160
1885	Apr. 5, 1885	—	3,660	1899	Nov. 19, 1898	—	3,450
1886	Feb. 13, 1886	—	5,400	1901	Apr. 25, 1901	—	3,390
1887	Jan. 24, 1887	—	2,540	1902	Mar. 1, 1902	—	5,960
1888	Sept. 18, 1888	—	5,550	1903	Dec. 22, 1902	—	4,260
1889	July 31, 1889	—	4,710	1904	Oct. 9, 1903	—	4,970
1890	Feb. 8, 1890	—	<sup>a</sup> 4,230	1905	Jan. 7, 1905	—	4,170
1891	Aug. 24, 1891	—	<sup>a</sup> 11,300	1906	Apr. 10, 1906	—	3,200
1892	Jan. 14, 1892	—	3,160	1907	Sept. 29, 1907	—	4,120
1893	May 4, 1893	—	2,990	1908	Feb. 15, 1908	—	2,770
1894	May 21, 1894	—	<sup>a</sup> 11,500	1909	Feb. 24, 1909	—	3,050
1895	Apr. 9, 1895	—	3,860	1910	Apr. 25, 1910	—	3,550
1896	Feb. 6, 1896	—	6,520	1911	Aug. 31, 1911	—	2,520
1897	May 13, 1897	—	3,680	1912	Mar. 15, 1912	—	3,800
				1913	Dec. 31, 1912	—	2,760

<sup>a</sup>Momentary maximum discharge.

## 4635. Delaware River at Trenton, N. J.

Location. --Lat 40°13'18", long 74°46'38", on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, Mercer County, and half a mile upstream from Assunpink Creek.

Drainage area. --6,780 sq mi.

Gage. --Nonrecording gage prior to Oct. 2, 1928; recording gage thereafter. Prior to Oct. 2, 1928, on downstream side of highway bridge 500 ft downstream. Datum of gage is 7.77 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 230,000 cfs and extended by logarithmic plotting.

Bankfull stage. --12 ft.

Remarks. --Base for partial-duration series, 50,000 cfs. Only annual peaks are shown prior to Oct. 1, 1928.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 11, 1903	20.7	2,000	1934	Jan. 4, 1934	<sup>a</sup> 11.83	—
	Mar. 8, 1904	<sup>a</sup> 22.8	—		Mar. 5, 1934	<sup>a</sup> 14.2	—
1913	Mar. 28, 1913	13.3	160,000		Mar. 6, 1934	8.65	80,000
1914	Mar. 29, 1914	12.4	143,000	1935	Dec. 3, 1934	9.09	87,500
1915	Feb. 26, 1915	—	<sup>b</sup> 85,000		Jan. 11, 1935	6.85	55,800
1916	Apr. 3, 1916	9.5	93,800		Jan. 25, 1935	<sup>a</sup> 7.12	—
1917	Mar. 29, 1917	9.2	90,600		July 10, 1935	11.74	129,000
1918	Oct. 31, 1917	9.1	89,100	1936	Nov. 1, 1935	6.48	52,000
1919	July 22, 1919	7.8	69,200		Nov. 30, 1935	6.66	54,500
1920	Mar. 14, 1920	11.2	121,000		Jan. 3, 1936	<sup>a</sup> 16.12	—
1921	Mar. 11, 1921	10.4	108,000		Jan. 20, 1936	<sup>a</sup> 10.20	—
1922	Nov. 30, 1921	10.2	105,000		Mar. 13, 1936	15.34	199,000
1923	Mar. 24, 1923	8.2	74,800		Mar. 19, 1936	16.6	227,000
1924	Apr. 8, 1924	11.8	132,000		Apr. 8, 1936	6.80	55,800
1925	Feb. 13, 1925	13.0	154,000	1937	Jan. 27, 1937	6.78	55,800
1926	Apr. 10, 1926	6.20	48,100		Feb. 23, 1937	8.16	74,200
1927	Nov. 18, 1926	11.30	123,000		Apr. 8, 1937	6.73	54,500
1928	Oct. 20, 1927	10.91	116,000	1938	Oct. 25, 1937	7.00	58,400
1929	Mar. 16, 1929	8.9	84,800		Jan. 27, 1938	8.60	80,000
	Apr. 14, 1929	6.38	50,600		July 23, 1938	8.73	81,500
	Apr. 23, 1929	7.58	66,400		Aug. 12, 1938	7.38	63,500
1930	Jan. 26, 1930	<sup>a</sup> 8.08	—		Sept. 23, 1938	11.45	125,000
	Mar. 10, 1930	6.08	47,400	1939	Dec. 7, 1938	9.86	99,500
1931	Mar. 30, 1931	6.6	53,200		Jan. 30, 1939	<sup>a</sup> 7.40	—
1932	Apr. 2, 1932	7.63	66,100		Feb. 17, 1939	6.73	54,500
1933	Oct. 8, 1932	8.00	71,400		Feb. 22, 1939	7.20	60,900
	Nov. 21, 1932	7.05	58,400	1940	Jan. 16, 1940	<sup>a</sup> 8.12	—
	Feb. 13, 1933	<sup>a</sup> 7.90	—		Mar. 15, 1940	8.25	76,500
	Apr. 19, 1933	7.39	63,500		Apr. 1, 1940	12.85	151,600
	Aug. 25, 1933	12.66	147,000		Apr. 10, 1940	10.25	106,700
	Sept. 5, 1933	6.43	50,800		Apr. 22, 1940	7.50	66,400
	Sept. 17, 1933	7.64	66,100	1941	Dec. 31, 1940	6.57	54,400
					Apr. 7, 1941	6.75	56,800
				1942	Mar. 10, 1942	7.66	68,500
					May 24, 1942	13.35	161,200
					Aug. 9, 1942	6.19	50,000
					Sept. 29, 1942	9.28	91,800
				1943	Nov. 26, 1942	6.43	52,800
					Jan. 1, 1943	11.00	118,900
					Feb. 16, 1943	<sup>a</sup> 6.82	—
					Feb. 20, 1943	<sup>a</sup> 7.88	—
					Feb. 26, 1943	6.64	55,300
					Mar. 18, 1943	7.31	63,900

## DELAWARE RIVER BASIN

Delaware River at Trenton, N. J.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Nov. 10, 1943	8.47	78,000	1951	Dec. 9, 1950	7.60	66,300
	Apr. 26, 1944	6.66	54,000	Cont.	Jan. 25, 1951	6.48	51,900
1945	Jan. 12, 1945	<sup>a</sup> 8.24	—		Feb. 8, 1951	6.65	54,000
	Jan. 17, 1945	<sup>a</sup> 8.72	—		Feb. 23, 1951	6.40	50,900
	Mar. 5, 1945	7.18	60,600		Apr. 1, 1951	11.95	133,200
	Mar. 19, 1945	7.90	70,000	1952	Nov. 8, 1951	8.00	71,800
	July 21, 1945	8.75	82,200		Dec. 21, 1951	<sup>a</sup> 9.98	—
	July 30, 1945	6.86	56,600		Jan. 28, 1952	7.66	67,100
1946	Dec. 20, 1945	<sup>a</sup> 8.67	—		Mar. 13, 1952	8.32	76,300
	Dec. 26, 1945	<sup>a</sup> 11.01	—		Apr. 7, 1952	8.74	82,200
	Mar. 10, 1946	7.19	61,400		Apr. 16, 1952	8.30	76,000
	May 29, 1946	8.74	82,300		Apr. 28, 1952	6.52	52,300
	June 2, 1946	7.84	69,900		May 26, 1952	7.02	58,800
1947	Feb. 10, 1947	<sup>a</sup> 7.90	—		July 11, 1952	9.64	95,400
	Mar. 16, 1947	7.37	63,700	1953	Nov. 23, 1952	8.52	79,100
	Apr. 7, 1947	9.60	98,500		Dec. 12, 1952	12.30	139,000
	May 26, 1947	6.80	58,900		Jan. 26, 1953	9.37	91,400
	July 9, 1947	6.35	53,000	1954	Dec. 8, 1953	6.02	46,300
1948	Mar. 18, 1948	8.18	77,700	1955	Feb. 7, 1955	<sup>a</sup> 7.27	—
	Mar. 23, 1948	11.29	125,600		Aug. 20, 1955	20.83	329,000
	Apr. 16, 1948	7.69	70,900	1956	Oct. 17, 1955	11.93	133,000
1949	Jan. 1, 1949	12.06	139,100		Nov. 1, 1955	6.62	53,600
	Jan. 7, 1949	9.49	96,800		Apr. 8, 1956	7.11	59,900
1950	Mar. 30, 1950	8.45	77,600	1957	Apr. 7, 1957	8.41	77,500
	Apr. 6, 1950	8.60	79,800	1958	Dec. 22, 1957	10.47	108,000
1951	Nov. 27, 1950	11.07	118,200		Feb. 28, 1958	6.74	55,100
	Dec. 6, 1950	10.77	113,300		Apr. 7, 1958	9.50	93,300

<sup>a</sup>Backwater from ice.<sup>b</sup>Estimated.

## 4650. Neshaminy Creek at Rushland, Pa.

Location. --Lat 40°15'20", long 75°02'00", at highway bridge, 0.1 mile downstream from Little Neshaminy Creek,  $\frac{1}{2}$  mile west of Rushland, Bucks County, and 0.4 mile upstream from Mill Creek.

Drainage area. --134-sq mi.

Gage. --Recording gage prior to 1932; nonrecording gage thereafter. Prior to 1932, at different datum. Altitude of gage is 120 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only maximum daily discharges are shown. Gage heights unknown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	Feb. 10, 1885	—	4,484	1896	Feb. 6, 1896	—	8,707
1886	Feb. 11, 1886	—	5,767	1897	June 9, 1897	—	4,677
1887	June 23, 1887	—	3,159	1898	Feb. 20, 1898	—	5,076
1888	Jan. 1, 1888	—	4,890	1899	Feb. 27, 1899	—	3,950
1889	July 31, 1889	—	5,531	1900	May 19, 1900	—	3,990
1890	Oct. 27, 1889	—	3,750	1901	Mar. 11, 1901	—	4,624
1891	Aug. 24, 1891	—	3,280	1902	Feb. 26, 1902	—	6,060
1892	Jan. 13, 1892	—	3,584	1903	Feb. 26, 1903	—	4,984
1893	May 4, 1893	—	3,154	1904	Oct. 9, 1903	—	6,985
1894	May 21, 1894	—	9,010	1905	Jan. 7, 1905	—	4,064
1895	Apr. 9, 1895	—	3,234				

## Neshaminy Creek at Rushland, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	Mar. 4, 1906	—	3,050	1932	Mar. 28, 1932	—	5,960
1907	Sept. 29, 1907	—	4,630				
1908	Dec. 23, 1907	—	3,060	1933	Aug. 23, 1933	17.8	—
1909	Feb. 24, 1909	—	3,760		Aug. 24, 1933	—	8,100
1910	Mar. 1, 1910	—	3,539				
				1934	Sept. 8, 1934	—	10,500
1911	Aug. 31, 1911	—	5,330				
1912	Mar. 13, 1912	—	4,073				
1913	Oct. 24, 1912	—	3,630				

## 4655. Neshaminy Creek near Langhorne, Pa.

Location. --Lat 40°10'25", long 75°57'30", on left bank at bridge on State Highway 213, 0.3 mile downstream from Mill Creek and 1.7 miles west of Langhorne, Bucks County.

Drainage area. --210 sq mi.

Gage. --Recording gage. Datum of gage is 40.57 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 4,700 cfs and extended on basis of contracted-opening and slope-area measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 3,600 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 23, 1933	17.3	30,000	1939	Feb. 28, 1939	8.83	6,870
				Cont.	Apr. 7, 1939	10.41	9,990
1935	Feb. 15, 1935	<sup>a</sup> 11.80	—		Apr. 19, 1939	7.97	5,550
	Sept. 6, 1935	6.80	3,640				
1936	Nov. 17, 1935	8.98	7,230	1940	Jan. 15, 1940	6.62	3,640
	Jan. 3, 1936	12.53	14,800		Jan. 15, 1940	<sup>a</sup> 8.05	—
	Jan. 9, 1936	10.88	11,100		Feb. 20, 1940	<sup>a</sup> 11.12	—
	Feb. 27, 1936	<sup>a</sup> 7.59	—		Mar. 4, 1940	11.12	11,600
	Mar. 12, 1936	11.00	11,300		Mar. 15, 1940	11.45	12,200
	Mar. 18, 1936	10.24	9,570		Apr. 9, 1940	10.72	10,600
	Apr. 6, 1936	8.14	5,710		Apr. 20, 1940	9.58	8,350
1937	Dec. 17, 1936	7.43	4,670	1941	Nov. 15, 1940	7.22	4,390
	Dec. 20, 1936	9.09	7,410		Dec. 17, 1940	6.56	3,640
	Feb. 22, 1937	8.73	6,700		Feb. 8, 1941	8.81	6,870
	Apr. 27, 1937	8.14	5,710		Apr. 6, 1941	6.96	4,130
1938	Nov. 13, 1937	10.26	9,780		July 13, 1941	8.42	6,190
	Jan. 25, 1938	7.76	5,250		July 30, 1941	9.52	8,160
	June 8, 1938	6.90	4,000	1942	July 28, 1942	7.81	5,250
	July 20, 1938	7.59	4,950		Aug. 9, 1942	9.49	8,160
	July 22, 1938	9.73	8,550				
	July 23, 1938	15.94	24,800	1943	Dec. 28, 1942	7.52	4,810
	Sept. 20, 1938	8.67	6,700		Dec. 30, 1942	9.27	7,780
	Sept. 21, 1938	13.34	17,100		Feb. 11, 1943	8.20	5,870
1939	Dec. 4, 1938	7.54	4,810		Mar. 7, 1943	7.59	4,950
	Dec. 6, 1938	10.14	9,360		May 26, 1943	7.29	4,530
	Jan. 30, 1939	9.98	9,150		June 18, 1943	8.03	5,550
	Feb. 4, 1939	11.25	11,800	1944	Nov. 9, 1943	8.43	6,190
	Feb. 16, 1939	5.75	3,880		Dec. 27, 1943	<sup>a</sup> 7.24	—
					Jan. 4, 1944	9.88	8,950



## DELAWARE RIVER BASIN

Neshaminy Creek near Langhorne, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944 Cont.	Jan. 6, 1944	9.88	8,950	1952	Nov. 7, 1951	8.50	6,860
	Mar. 7, 1944	7.41	4,670		Dec. 21, 1951	11.73	13,000
	Mar. 13, 1944	10.12	9,360		Jan. 26, 1952	6.23	3,870
	Mar. 24, 1944	7.08	4,260		Feb. 4, 1952	8.0	6,120
	Apr. 25, 1944	9.16	7,590		Mar. 11, 1952	10.60	10,600
	Apr. 27, 1944	6.82	3,880		Mar. 19, 1952	6.14	3,760
1945	Nov. 28, 1944	9.00	7,230		Apr. 5, 1952	8.30	6,560
	Dec. 12, 1944	8.50	6,360		Apr. 28, 1952	10.76	11,000
	Jan. 2, 1945	10.2	9,570		May 25, 1952	7.78	5,840
	Feb. 22, 1945	8.00	5,550		June 1, 1952	8.36	6,710
	Feb. 27, 1945	7.85	5,250		Sept. 1, 1952	6.27	3,980
	July 19, 1945	10.28	9,780	1953	Nov. 22, 1952	9.59	8,690
	July 23, 1945	8.84	6,870		Dec. 6, 1952	7.00	4,790
	Sept. 19, 1945	8.54	6,360		Dec. 11, 1952	8.87	7,490
1946	Nov. 22, 1945	6.95	4,130		Jan. 9, 1953	6.51	4,200
	Nov. 29, 1945	9.37	7,970		Jan. 24, 1953	9.27	8,160
	Dec. 26, 1945	8.04	5,550		Mar. 4, 1953	6.33	3,980
	Mar. 27, 1946	6.94	4,000		Mar. 13, 1953	6.97	4,790
	June 2, 1946	14.54	20,500		Mar. 16, 1953	8.71	7,170
	July 22, 1946	7.96	5,550		Apr. 7, 1953	8.08	6,260
	July 24, 1946	10.48	10,200	1954	Dec. 14, 1953	8.38	6,710
1947	May 22, 1947	6.25	3,210	1955	Nov. 21, 1954	8.3	6,560
1948	Nov. 8, 1947	8.28	6,030		Feb. 7, 1955	7.02	4,790
	Nov. 12, 1947	8.16	6,410		Mar. 22, 1955	7.72	5,700
	Feb. 18, 1948	6.62	4,310		Aug. 13, 1955	13.55	17,300
	Feb. 29, 1948	6.30	3,980		Aug. 19, 1955	22.84	49,300
	Apr. 1, 1948	6.47	4,200	1956	Oct. 15, 1955	9.96	9,430
	May 5, 1948	6.12	3,760		Feb. 3, 1956	8.17	6,410
	May 13, 1948	—	<sup>b</sup> —		Feb. 6, 1956	7.35	5,300
1949					Feb. 18, 1956	7.37	5,300
	Dec. 30, 1948	11.77	13,200		Mar. 8, 1956	5.95	3,650
	Jan. 6, 1949	8.86	7,490		Mar. 14, 1956	8.99	7,650
	Jan. 22, 1949	6.30	3,980		May 7, 1956	6.83	4,550
	Jan. 28, 1949	6.99	4,790	1957	Nov. 2, 1956	8.48	6,860
	Mar. 23, 1949	6.10	3,760		Dec. 15, 1956	6.58	4,310
1950	July 13, 1949	6.02	3,650		Apr. 6, 1957	7.76	5,840
	Dec. 27, 1949	8.08	6,260	1958	Dec. 21, 1957	9.05	7,650
	Mar. 23, 1950	8.63	7,010		Dec. 26, 1957	7.48	5,430
	Aug. 3, 1950	10.03	9,430		Jan. 15, 1958	6.66	4,430
1951	Nov. 26, 1950	14.92	21,700		Jan. 22, 1958	7.32	5,170
	Dec. 4, 1950	6.18	3,870		Jan. 25, 1958	7.35	5,300
	Dec. 8, 1950	8.12	6,260		Feb. 28, 1958	11.13	11,700
	Jan. 15, 1951	7.22	5,040		Mar. 26, 1958	6.98	4,790
	Feb. 7, 1951	7.64	5,560		Apr. 7, 1958	9.09	7,820
	Feb. 21, 1951	7.28	5,170		Apr. 30, 1958	6.61	4,310
	Mar. 31, 1951	7.81	5,840				

<sup>a</sup>Backwater from ice.<sup>b</sup>Annual maximum; discharge not determined.

## 4675. Schuylkill River at Pottsville, Pa.

Location. --Lat 40°41'00", long 76°11'10", on upstream side of Palo Alto Highway bridge at Pottsville, Schuylkill County, and 1.3 miles downstream from Mill Creek.

Drainage area. --53.4 sq mi.

Gage. --Nonrecording gage. Datum of gage is 599.24 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,000 cfs and extended.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 450 cfs prior to 1951 and 600 cfs thereafter.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Nov. 8, 1943	6.8	3,320	1951	Feb. 7, 1951	5.1	1,490
	Sept. 14, 1944	4.3	905	Cont.	July 28, 1951	4.6	1,100
1945	May 17, 1945	3.6	501	1952	Aug. 12, 1951	4.0	740
	July 19, 1945	7.5	4,240		Nov. 3, 1951	4.1	790
	July 29, 1945	4.1	785		Nov. 7, 1951	4.1	790
1946	Jan. 7, 1946	3.5	452	1953	Dec. 5, 1951	5.0	1,400
	May 21, 1946	3.85	638		Mar. 11, 1952	6.0	2,390
	May 27, 1946	5.6	1,970		Apr. 14, 1952	3.8	640
	July 23, 1946	3.9	667		Apr. 28, 1952	4.4	970
1947	Mar. 14, 1947	3.7	554		May 25, 1952	4.1	790
	May 22, 1947	4.5	1,030		Sept. 1, 1952	5.5	1,870
	June 8, 1947	4.0	740	1954	Nov. 21, 1952	7.4	4,100
	July 8, 1947	7.1	3,710		Dec. 5, 1952	4.0	740
	July 15, 1947	7.0	3,580		Dec. 11, 1952	5.9	2,280
	July 21, 1947	5.1	1,490		Jan. 24, 1953	4.9	1,320
1948	Mar. 19, 1948	3.45	490		May 23, 1953	3.8	640
	Apr. 1, 1948	3.6	550		May 26, 1953	4.0	740
	May 7, 1948	3.35	450	1955	Dec. 6, 1953	4.2	850
	May 13, 1948	3.55	530		Mar. 1, 1954	4.36	970
1949	Dec. 30, 1948	4.4	970	1956	Aug. 18, 1955	6.33	2,760
	Jan. 5, 1949	4.3	910		Oct. 15, 1955	4.06	770
1950	Mar. 27, 1950	3.9	690	1957	Sept. 6, 1956	4.58	1,070
	July 11, 1950	4.5	1,030		Apr. 6, 1957	4.80	1,220
1951	Nov. 25, 1950	7.9	4,800	1958	Dec. 21, 1957	5.13	1,510
	Dec. 4, 1950	7.0	3,580		Dec. 26, 1957	4.93	1,350
	Dec. 8, 1950	4.8	1,240		Apr. 6, 1958	3.90	750
	Jan. 24, 1951	4.3	910				

## 4685. Schuylkill River at Landingville, Pa.

Location. --Lat 40°37'45", long 76°07'30", on left bank at two-span bridge at Landingville, Schuylkill County, 0.1 mile upstream from Mahannon Creek, 5 miles downstream from West Branch of Schuylkill River.

Drainage area. --133 sq mi.

Gage. --Recording gage. Datum of gage is 470.64 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurement.

Remarks. --Base for partial-duration series, 1,300 cfs.

## DELAWARE RIVER BASIN

Schuylkill River at Landingville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Nov. 8, 1947	6.67	1,690	1951	Apr. 12, 1951	7.26	1,520
	Nov. 12, 1947	—	1,520	Cont.	July 28, 1951	7.55	1,670
	Apr. 1, 1948	—	1,610		Aug. 12, 1951	7.27	1,370
	Apr. 14, 1948	—	1,420				
1949	Dec. 30, 1948	8.07	2,630	1952	Nov. 3, 1951	8.80	2,050
	Jan. 6, 1949	—	1,960		Nov. 7, 1951	8.45	1,800
					Dec. 5, 1951	9.98	2,950
1950	July 11, 1950	6.75	1,690		Mar. 11, 1952	12.93	5,380
					Apr. 28, 1952	9.16	2,410
1951	Nov. 25, 1950	13.29	8,570		May 12, 1952	8.06	1,680
	Dec. 4, 1950	12.65	7,460		May 25, 1952	8.42	1,860
	Dec. 8, 1950	8.38	2,990		July 9, 1952	8.09	1,680
	Jan. 24, 1951	8.02	2,190		Aug. 17, 1952	7.48	1,330
	Feb. 7, 1951	9.95	3,800		Sept. 1, 1952	12.06	3,930

## 4695. Little Schuylkill River at Tamaqua, Pa.

Location. --Lat 40°48'20", long 75°58'20", on left bank at pumping plant of Panther Valley Water Co., 0.6 mile upstream from Tamaqua, Schuylkill County, and 0.8 mile upstream from Panther Creek.

Drainage area. --42.9 sq mi.

Gage. --Nonrecording gage prior to June 21, 1927; recording gage thereafter. Prior to June 21, 1927, at site 3,600 ft downstream at datum 28.64 ft lower. Datum of present gage is 817.48 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 3,200 cfs and extended on basis of contracted-opening measurement.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Mar. 13, 1920	4.00	1,020	1928	Oct. 12, 1927	3.73	1,340
	Sept. 30, 1920	3.80	865		Oct. 19, 1927	3.53	1,150
1921	Mar. 3, 1921	3.85	902		Nov. 17, 1927	3.72	1,300
					Dec. 8, 1927	4.20	1,770
1922	Mar. 7, 1922	6.0	3,000		Jan. 25, 1928	3.35	1,000
					Feb. 14, 1928	5.11	2,740
1923	Mar. 16, 1923	3.32	520		Feb. 23, 1928	3.47	1,100
					Apr. 29, 1928	3.03	744
1924	Dec. 6, 1923	3.6	720		June 29, 1928	4.90	2,510
	Jan. 11, 1924	4.8	1,780		July 5, 1928	3.66	1,260
	Jan. 16, 1924	3.8	865		July 14, 1928	3.00	720
	Apr. 6, 1924	4.0	1,020	1929	Mar. 5, 1929	3.85	1,320
	Sept. 30, 1924	7.5	5,000		Aug. 14, 1929	3.10	800
				1930	Oct. 2, 1929	3.78	1,390
1925	Feb. 11, 1925	5.6	2,620		Apr. 7, 1930	3.04	752
1926	Nov. 13, 1925	4.3	1,290	1931	May 13, 1931	3.64	505
	Nov. 16, 1925	4.1	1,110				
	Feb. 26, 1926	4.0	1,020	1932	Mar. 31, 1932	4.54	1,000
	Mar. 7, 1926	4.0	1,020				
1927	Nov. 16, 1926	5.68	2,740	1933	Nov. 1, 1932	4.48	1,040
	Jan. 21, 1927	3.9	935		Nov. 19, 1932	4.18	830
	July 23, 1927	3.82	1,390		Apr. 17, 1933	4.89	1,320

DELAWARE RIVER BASIN  
Little Schuylkill River at Tamaqua, Pa.--Continued

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Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 24, 1933	7.50	3,740	1948	Nov. 12, 1947	4.11	746
Cont.	Sept. 4, 1933	7.10	3,320		Apr. 1, 1948	4.38	930
					Apr. 14, 1948	4.07	722
1934	Mar. 31, 1934	5.05	1,480				
1935	Dec. 1, 1934	5.70	1,980	1949	Dec. 30, 1948	4.84	1,300
	July 9, 1935	7.35	3,630		Jan. 5, 1949	4.13	759
1936	Mar. 12, 1936	5.59	1,890	1950	Mar. 21, 1950	4.19	734
	Mar. 18, 1936	5.65	1,940				
	Apr. 6, 1936	4.15	810	1951	Nov. 25, 1950	6.75	3,020
1937	Dec. 20, 1936	4.31	868		Dec. 4, 1950	6.50	2,720
	Feb. 22, 1937	4.58	1,060		Dec. 8, 1950	4.58	1,040
1938	Oct. 23, 1937	5.94	2,220		Jan. 24, 1951	4.70	1,190
	Jan. 25, 1938	4.46	1,000		Feb. 7, 1951	5.68	2,000
	June 27, 1938	5.14	1,540		July 28, 1951	6.14	2,360
1939	Dec. 6, 1938	4.56	1,070	1952	Nov. 3, 1951	4.37	922
	Jan. 5, 1939	4.16	782		Nov. 7, 1951	5.03	1,460
1940	Mar. 15, 1940	5.05	1,460		Dec. 5, 1951	5.29	1,660
	Mar. 30, 1940	6.32	2,540		Mar. 11, 1952	5.47	1,790
	Aug. 31, 1940	4.90	1,340		Apr. 14, 1952	4.06	716
1941	Apr. 6, 1941	3.11	248		Apr. 28, 1952	4.36	915
1942	May 17, 1942	4.45	982		May 25, 1952	4.42	959
	May 22, 1942	7.95	4,310		July 22, 1952	4.72	1,180
	Sept. 27, 1942	5.27	1,620		Aug. 17, 1952	4.29	865
1943	Dec. 30, 1942	5.31	1,660		Sept. 1, 1952	4.80	1,260
	May 19, 1943	5.39	1,750	1953	Nov. 22, 1952	6.70	2,920
1944	Oct. 26, 1943	4.27	852		Dec. 11, 1952	5.53	1,880
	Nov. 9, 1943	6.31	2,540		Jan. 24, 1953	5.11	1,500
	Mar. 13, 1944	4.38	930		Mar. 24, 1953	4.16	778
1945	July 19, 1945	5.57	1,880		May 23, 1953	4.69	1,180
	Sept. 18, 1945	4.02	698	1954	Dec. 7, 1953	4.18	791
1946	May 21, 1946	4.27	852		Mar. 1, 1954	4.62	1,100
	May 28, 1946	5.46	1,790	1955	Aug. 18, 1955	11.10	7,790
	June 2, 1946	4.15	772		Aug. 22, 1955	4.33	718
1947	Mar. 14, 1947	4.30	872	1956	Oct. 15, 1955	6.93	2,870
	May 22, 1947	4.36	915		Oct. 30, 1955	4.41	756
	July 8, 1947	7.18	3,420	1957	Apr. 6, 1957	5.28	1,660
	July 15, 1947	5.53	1,880				
	July 17, 1947	4.68	1,180	1958	Dec. 21, 1957	5.73	2,050
	July 21, 1947	4.53	1,060		Dec. 26, 1957	4.60	1,100
					Feb. 28, 1958	4.25	838
					Apr. 6, 1958	4.35	908

4705. Schuylkill River at Berne, Pa.

Location. --Lat 40°31'20", long 75°59'55", on right bank at highway bridge at Berne, Berks County, 0.5 mile upstream from Mill Creek and 6.5 miles downstream from Little Schuylkill River.

Drainage area. --355 sq mi.

Gage. --Recording gage. Datum of gage is 310.65 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 17,000 cfs and extended by logarithmic plotting.

Bankfull stage. --12 ft.

Remarks. --Base for partial-duration series, 4,400 cfs.



DELAWARE RIVER BASIN  
Schuylkill River at Berne, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May — 1942	15.0	26,900	1952	May 25, 1952	8.16	5,390
1948	Nov. 4, 1947	8.38	3,530	Cont.	July 10, 1952	8.27	5,650
	Nov. 8, 1947	8.92	6,500		Sept. 1, 1952	10.26	11,600
	Nov. 12, 1947	8.58	5,820	1953	Nov. 22, 1952	12.86	19,900
	Feb. 18, 1948	<sup>a</sup> 11.16	—		Dec. 6, 1952	8.02	5,000
	Apr. 1, 1948	8.64	5,710		Dec. 11, 1952	10.21	11,300
	Apr. 15, 1948	8.32	4,280		Jan. 24, 1953	9.41	8,870
1949	Dec. 30, 1948	10.28	10,400		Mar. 24, 1953	7.78	4,500
	Jan. 6, 1949	8.86	7,560		May 23, 1953	8.06	5,130
1950	Mar. 23, 1950	8.38	5,430		May 26, 1953	8.07	5,130
1951	Nov. 26, 1950	14.52	23,300	1954	Dec. 7, 1953	9.19	8,290
	Dec. 4, 1950	14.46	24,200		Mar. 2, 1954	8.77	7,150
	Dec. 8, 1950	9.15	8,400	1955	Aug. 19, 1955	15.73	29,400
	Jan. 24, 1951	8.46	6,100	1956	Oct. 15, 1955	9.33	8,580
	Feb. 7, 1951	10.71	12,500	1957	Apr. 6, 1957	9.96	10,700
				1958	Dec. 21, 1957	10.76	13,100
1952	Nov. 3, 1951	8.04	4,950		Dec. 26, 1957	8.44	6,140
	Nov. 7, 1951	8.86	7,080		Jan. 22, 1958	8.08	5,220
	Dec. 5, 1951	9.81	10,100		Feb. 28, 1958	9.51	9,170
	Mar. 11, 1952	12.02	17,000		Apr. 6, 1958	8.30	5,740
	Apr. 28, 1952	9.26	8,580				

<sup>a</sup>Backwater from ice.

4710. Tulpehocken Creek near Reading, Pa.

Location. --Lat 40°22'10", long 75°58'45", on right bank at covered bridge 1 mile downstream from Cacoosing Creek, 2.5 miles upstream from mouth, and 3.5 miles northwest of square at Reading, Berks County.

Drainage area. --211 sq mi.

Gage. --Recording gage. Datum of gage is 216.60 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 3,500 cfs and extended by logarithmic plotting.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Nov. 7, 1951	4.13	2,100	1955	Feb. 7, 1955	6.43	4,700
	Dec. 5, 1951	4.65	2,760		Mar. 22, 1955	4.45	2,420
	Feb. 4, 1952	4.13	2,160		Aug. 18, 1955	7.94	6,760
	Mar. 11, 1952	5.32	3,650	1956	Feb. 6, 1956	4.93	2,910
	Apr. 28, 1952	5.12	3,360		Sept. 6, 1956	7.42	6,000
	May 25, 1952	4.16	2,160	1957	Dec. 14, 1956	4.15	2,110
	July 10, 1952	6.44	4,700		Apr. 6, 1957	5.42	3,480
	Sept. 1, 1952	8.65	7,680	1958	Dec. 21, 1957	4.24	2,210
1953	Nov. 22, 1952	6.67	5,090		Jan. 22, 1958	5.88	4,080
	Dec. 11, 1952	4.92	3,080		Feb. 28, 1958	6.90	5,350
	Jan. 24, 1953	4.64	2,760		Apr. 6, 1958	4.38	2,360
	Mar. 24, 1953	4.18	2,210		Sept. 27, 1958	6.96	5,480
	May 23, 1953	5.29	3,650				
	May 26, 1953	5.18	3,500				
1954	Dec. 7, 1953	5.68	9,840				
	Mar. 1, 1954	4.10	2,100				

## 4715. Schuylkill River at Reading, Pa.

Location. --Lat 40°20'10", long 75°56'15", at Penn Street Bridge, Reading, Berks County, 1 mile downstream from Tulpehocken Creek, and 2.1 miles upstream from Angelica Creek.

Drainage area. --880 sq mi.

Gage. --Nonrecording gage. Datum of gage is 188.50 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements below 27,000 cfs and extended by logarithmic plotting.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 12,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1757	July 15, 1757	15.0	37,200	1907	Jan. 1, 1907	8.1	16,900
1787	Oct. 6, 1786	17.3	47,200		Mar. 15, 1907	7.1	14,200
1822	Feb. 21, 1822	10.6	23,600		Sept. 24, 1907	6.0	11,300
1839	Jan. 25, 1839	13.9	33,300	1908	Dec. 11, 1907	10.0	21,900
1841	Jan. 6, 1841	15.8	40,000		Feb. 16, 1908	13.3	31,300
1850	July 20, 1850	18.6	53,900		Feb. 27, 1908	13.8	32,900
	Sept. 2, 1850	23.0	80,000		May 8, 1908	8.9	19,000
1862	June 5, 1862	16.0	41,200		July 23, 1908	5.4	9,740
1870	Oct. 4, 1869	21.6	71,200	1909	Feb. 25, 1909	5.4	9,740
	Apr. 19, 1870	10.2	22,500	1910	Jan. 22, 1910	12.1	27,600
1874	Oct. 19, 1873	11.7	26,500		Feb. 22, 1910	6.8	13,400
1878	Nov. 9, 1877	7.6	15,600		Mar. 1, 1910	6.2	11,900
1879	Dec. 11, 1878	6.6	12,900		Apr. 25, 1910	5.7	10,500
1881	Feb. 11, 1881	10.2	22,500	1911	Sept. 1, 1911	5.6	10,300
1885	Aug. 3, 1885	9.2	19,800	1912	Oct. 2, 1911	6.9	13,700
1890	Nov. 30, 1889	7.2	14,500		Feb. 22, 1912	6.6	12,900
1891	Aug. 24, 1891	12.2	27,900		Mar. 13, 1912	11.2	25,100
1893	May 3, 1893	9.2	19,800		Mar. 16, 1912	8.1	16,900
1894	May 21, 1894	16.8	44,800	1913	Mar. 14, 1913	6.9	13,700
1902	Dec. 15, 1901	12.0	27,300		Mar. 27, 1913	12.2	27,900
	Dec. 30, 1901	9.0	19,300		Apr. 28, 1913	7.9	16,400
	Jan. 22, 1902	11.2	25,100	1914	Jan. 31, 1914	5.7	10,500
	Feb. 28, 1902	21.5	70,600	1915	Jan. 13, 1915	12.3	26,700
1903	Dec. 17, 1902	9.8	21,400		Feb. 2, 1915	9.1	18,600
	Dec. 22, 1902	12.1	27,600		Feb. 25, 1915	7.0	13,400
1904	Oct. 10, 1903	7.0	14,000	1916	July 26, 1916	10.0	20,800
	Jan. 22, 1904	8.8	18,800	1917	Mar. 12, 1917	6.6	12,400
	Feb. 23, 1904	8.8	18,800	1918	Feb. 20, 1918	12.3	26,700
1905	Jan. 7, 1905	10.3	22,700		Feb. 26, 1918	12.0	25,800
	Mar. 22, 1905	5.6	10,300	1919	Mar. 10, 1919	7.9	15,100
1906	Feb. 22, 1906	6.2	11,900	1920	Mar. 6, 1920	<sup>a</sup> 18.2	—
	Mar. 4, 1906	13.3	31,300		Mar. 13, 1920	11.6	25,000
	July 3, 1906	8.0	16,600		Mar. 17, 1920	7.7	14,600
				1921	May 5, 1921	6.6	11,900
				1922	Dec. 3, 1921	6.8	12,400
					Mar. 8, 1922	9.13	18,200
				1923	Mar. 4, 1923	5.8	10,000
				1924	Jan. 17, 1924	9.0	18,000
					Apr. 7, 1924	9.4	19,000

DELAWARE RIVER BASIN  
Schuylkill River at Reading, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Oct. 1, 1924	16.5	38,300	1928	Nov. 18, 1927	7.8	12,400
	Feb. 12, 1925	14.8	31,300		Dec. 8, 1927	8.5	14,100
1926	Jan. 19, 1926	9.6	17,000		Feb. 15, 1928	8.8	14,900
	Feb. 19, 1926	7.8	12,400		June 30, 1928	9.8	17,600
	Feb. 25, 1926	10.7	19,900	1929	Feb. 26, 1929	10.9	20,400
1927	Nov. 17, 1926	10.0	18,100		Mar. 6, 1929	11.0	20,700
				1930	Oct. 2, 1929	9.0	15,400

<sup>a</sup>Backwater from ice.

4720. Schuylkill River at Pottstown, Pa.

Location. --Lat 40°14'30", long 75°39'05", on right bank at Hanover Street Bridge in Pottstown, Montgomery County, 0.3 mile downstream from Manatawny Creek.

Drainage area. --1,147 sq mi.

Gage. --Nonrecording gage prior to Nov. 23, 1928; recording gage thereafter. Datum of gage is 117.86 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --14 ft.

Remarks. --Base for partial-duration series, 7,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902	Feb. 28, 1902	21.0	53,900	1933	Apr. 18, 1933	11.23	20,400
1928	Oct. 20, 1927	7.9	12,000	Cont.	May 30, 1933	5.99	7,740
	Nov. 18, 1927	8.3	12,900		July 3, 1933	6.07	7,950
	Dec. 8, 1927	9.0	14,600		July 17, 1933	6.03	7,740
	Feb. 8, 1928	6.6	9,040		Aug. 24, 1933	19.2	47,800
	Feb. 15, 1928	11.3	20,700		Sept. 5, 1933	9.07	14,900
	Feb. 24, 1928	10.0	17,100		Sept. 17, 1933	6.02	7,740
	Apr. 29, 1928	8.2	12,700	1934	Jan. 5, 1934	<sup>a</sup> 7.88	—
	June 30, 1928	10.6	18,600		Jan. 8, 1934	<sup>a</sup> 5.92	7,530
	July 6, 1928	7.8	11,800		Mar. 4, 1934	<sup>a</sup> 11.02	—
	July 14, 1928	7.6	11,300		Mar. 5, 1934	5.91	7,530
	July 28, 1928	6.0	7,740		Apr. 1, 1934	8.93	14,400
1929	Feb. 7, 1929	5.93	7,530		Sept. 17, 1934	6.59	8,960
	Feb. 27, 1929	11.44	20,600		Sept. 30, 1934	11.59	21,600
	Mar. 6, 1929	11.27	20,700	1935	Dec. 2, 1934	10.70	18,900
	Apr. 17, 1929	7.07	10,200		Jan. 30, 1935	6.19	7,690
1930	Oct. 3, 1929	9.71	16,400		July 10, 1935	14.89	31,000
	Nov. 19, 1929	6.50	8,820	1936	Nov. 18, 1935	6.40	8,120
	Apr. 7, 1930	6.30	8,380		Jan. 3, 1936	8.80	13,800
1931	July 11, 1931	5.81	7,320		Jan. 10, 1936	6.22	7,690
1932	Mar. 28, 1932	9.17	15,100		Feb. 27, 1936	<sup>a</sup> 9.12	—
1933	Nov. 2, 1932	8.62	13,700		Mar. 12, 1936	15.13	31,800
	Nov. 20, 1932	8.07	12,500		Mar. 18, 1936	12.54	24,000
	Mar. 21, 1933	8.64	13,700		Apr. 6, 1936	9.70	16,200
	Apr. 12, 1933	6.76	9,480	1937	Dec. 20, 1936	6.43	8,120
					Jan. 25, 1937	6.19	7,690
					Feb. 22, 1937	7.05	9,460

## Schuylkill River at Pottstown, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Oct. 24, 1937	10.32	17,800	1949	Dec. 31, 1948	13.18	25,100
	Jan. 25, 1938	7.67	11,100		Jan. 6, 1949	11.74	20,400
	June 28, 1938	6.91	9,230	1950	Feb. 16, 1950	8.48	8,850
	July 21, 1938	6.37	8,120		Mar. 23, 1950	10.27	12,300
	July 22, 1938	6.27	7,920		Sept. 11, 1950	7.88	7,840
	July 24, 1938	6.15	7,690	1951	Nov. 26, 1950	17.90	42,000
1939	Dec. 6, 1938	10.66	18,900		Dec. 5, 1950	15.10	31,700
	Feb. 4, 1939	7.61	10,800		Dec. 8, 1950	9.69	14,600
	Feb. 16, 1939	6.00	7,260		Jan. 15, 1951	—	—
	Mar. 1, 1939	6.89	9,200		Jan. 24, 1951	—	—
	Apr. 7, 1939	6.19	7,680		Feb. 8, 1951	—	—
1940	Jan. 15, 1940	<sup>a</sup> 6.75	—		Feb. 22, 1951	7.13	8,470
	Mar. 4, 1940	9.70	16,000	1952	Apr. 13, 1951	6.87	8,080
	Mar. 15, 1940	13.48	27,000		Nov. 3, 1951	7.29	8,870
	Mar. 31, 1940	10.09	17,100		Nov. 8, 1951	9.74	15,400
	Apr. 9, 1940	9.30	15,000		Dec. 6, 1951	9.37	14,600
	Apr. 21, 1940	7.89	11,400		Dec. 21, 1951	7.55	10,300
	May 20, 1940	6.55	8,390		Jan. 3, 1952	6.81	8,620
	Sept. 1, 1940	8.57	13,100		Jan. 28, 1952	7.42	9,890
1941	Dec. 16, 1940	5.70	6,560		Feb. 4, 1952	6.91	8,830
1942	May 17, 1942	6.75	8,720		Mar. 12, 1952	12.74	23,900
	May 23, 1942	20.15	50,800		Apr. 6, 1952	6.11	7,210
	Aug. 9, 1942	7.66	10,900		Apr. 16, 1952	6.58	8,210
	Aug. 14, 1942	6.42	7,970		Apr. 29, 1952	10.53	17,500
	Aug. 17, 1942	9.20	14,700		May 26, 1952	8.50	12,400
	Sept. 28, 1942	12.06	22,800		June 1, 1952	6.11	7,210
1943	Oct. 27, 1942	6.44	7,970		July 10, 1952	9.30	14,300
	Dec. 31, 1942	11.27	20,500		Sept. 2, 1952	11.02	18,900
	May 20, 1943	6.41	7,940	1953	Nov. 22, 1952	14.12	28,300
1944	Oct. 27, 1943	6.68	8,600		Dec. 6, 1952	7.38	9,890
	Nov. 9, 1943	12.95	25,000		Dec. 11, 1952	10.31	16,900
	Jan. 4, 1944	6.97	9,270		Jan. 25, 1953	9.63	15,100
	Mar. 13, 1944	7.71	10,400		Feb. 21, 1953	6.24	7,410
	Mar. 24, 1944	6.69	8,160		Mar. 26, 1953	7.37	9,890
	Apr. 25, 1944	7.44	9,960		May 23, 1953	8.08	11,500
	Apr. 27, 1944	6.57	8,160		May 26, 1953	9.29	14,300
1945	Feb. 27, 1945	7.81	11,100		June 1, 1953	6.93	8,830
	Mar. 7, 1945	6.16	7,520	1954	Dec. 7, 1953	9.91	15,900
	July 16, 1945	7.43	10,200		Mar. 2, 1954	7.93	11,000
	July 20, 1945	9.66	16,000	1955	Feb. 7, 1955	7.11	9,270
	July 23, 1945	7.63	10,700		Mar. 23, 1955	8.37	12,100
	Sept. 19, 1945	11.29	20,500		Aug. 13, 1955	8.09	11,400
					Aug. 19, 1955	17.98	43,300
					Aug. 22, 1955	6.84	8,700
1946	Nov. 29, 1945	7.20	8,420	1956	Oct. 16, 1955	8.22	11,700
	May 28, 1946	11.02	18,300		Feb. 7, 1956	6.72	8,420
	June 2, 1946	11.75	20,700		Mar. 14, 1956	6.32	7,620
1947	Mar. 15, 1947	7.82	9,740		Sept. 7, 1956	6.88	8,830
	May 22, 1947	8.20	10,700	1957	Nov. 3, 1956	7.04	9,040
	May 26, 1947	9.68	14,600		Dec. 15, 1956	7.48	10,100
	May 30, 1947	6.76	7,580		Apr. 6, 1957	11.28	19,700
	July 8, 1947	10.20	16,000	1958	Dec. 21, 1957	10.92	18,600
	July 15, 1947	7.49	9,070		Dec. 27, 1957	7.39	9,890
	July 17, 1947	10.08	15,700		Jan. 22, 1958	8.71	12,900
1948	Nov. 9, 1947	7.91	9,970		Feb. 28, 1958	12.66	23,900
	Nov. 12, 1947	7.29	8,630		Mar. 27, 1958	7.55	10,300
	Apr. 1, 1948	6.79	7,580		Apr. 7, 1958	8.43	12,200
	Apr. 15, 1948	7.58	9,290		May 9, 1958	6.83	8,620
	May 8, 1948	7.33	8,630		Sept. 28, 1958	7.63	10,300
	May 13, 1948	8.18	10,700				

<sup>a</sup>Backwater from ice.



## DELAWARE RIVER BASIN

## 4725. Perkiomen Creek near Frederick, Pa.

Location. --Lat 40°16'30", long 75°27'20", 0.7 mile upstream from West Swamp Creek, 1.3 miles east of Zieglersville, 4.5 miles southeast of Frederick, Montgomery County, and 12 miles northwest of Norristown.

Drainage area. --152 sq mi.

Gage. --Nonrecording gage. Altitude of gage 140 ft (from topographic map).

Remarks. --Only maximum daily discharges are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	Dec. 7, 1884	—	3,420	1901	May 11, 1901	—	4,720
1886	Feb. 13, 1886	—	4,400	1902	Feb. 28, 1902	—	6,840
1887	Jan. 24, 1887	—	4,100	1903	Feb. 28, 1903	—	6,180
1888	Sept. 18, 1888	—	5,300	1904	Sept. 15, 1904	—	5,460
1889	July 31, 1889	—	5,570	1905	Jan. 7, 1905	—	5,710
1890	Feb. 8, 1890	—	<sup>a</sup> 8,340	1906	May 4, 1906	—	4,050
1891	Mar. 21, 1891	—	4,800	1907	Sept. 29, 1907	—	4,850
1892	Jan. 14, 1892	—	3,700	1908	Feb. 15, 1908	—	5,570
1893	May 4, 1893	—	5,140	1909	Feb. 24, 1909	—	3,370
1894	May 21, 1894	—	8,770	1910	Jan. 22, 1910	—	4,590
1895	Apr. 9, 1895	—	4,200	1911	Aug. 31, 1911	—	2,090
1896	Feb. 6, 1896	—	9,790	1912	Mar. 15, 1912	—	5,200
1897	May 13, 1897	—	4,750	1913	Mar. 27, 1913	—	4,950
1898	Feb. 20, 1898	—	5,550				
1899	Feb. 27, 1899	—	4,040				
1900	Feb. 5, 1900	—	3,610				

<sup>a</sup>Momentary maximum discharge.

## 4730. Perkiomen Creek at Graterford, Pa.

Location. --Lat 40°13'45", long 75°27'10", on left bank 1,650 ft upstream from highway bridge at Graterford, Montgomery County, half a mile upstream from Landis Brook, and 2½ miles north of Collegeville.

Drainage area. --279 sq mi.

Gage. --Nonrecording gage prior to Sept. 13, 1927; recording gage thereafter. Prior to Sept. 7, 1921, at site 1,650 ft downstream at datum 3.29 ft lower. Datum of present gage is 112.66 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 12,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 6,800 cfs. Only annual peaks are shown for 1917-26, 1957-58. Flow regulated since Dec. 21, 1956.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Jan. 7, 1915	14.33	19,800	1918	Feb. 15, 20, 1918	12.7	15,600
	Jan. 13, 1915	13.98	18,900				
	Jan. 18, 1915	10.15	9,600	1919	July 21, 1919	13.5	17,400
	Feb. 1, 1915	14.83	21,300				
	Feb. 24, 1915	10.00	9,200	1920	Nov. 13, 1919	8.6	6,720
	Aug. 4, 1915	16.04	24,900				
1916	Dec. 18, 1915	10.50	10,200	1921	Feb. 28, 1921	8.6	6,700
	July 25, 1916	8.8	7,050				
1917	Mar. 12, 1917	9.8	8,820	1922	Mar. 20, 1922	5.6	4,120
				1923	Mar. 16, 1923	5.8	4,420

DELAWARE RIVER BASIN  
Perkiomen Creek at Graterford, Pa.--Continued

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Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Apr. 6, 1924	7.6	7,200	1939	Dec. 6, 1938	8.56	8,940
1925	July 26, 1925	8.2	8,220		Feb. 3, 1939	10.75	14,800
1926	Mar. 7, 1926	5.2	3,530		Feb. 28, 1939	9.34	10,300
1927	Oct. 25, 1926	8.0	7,880		Apr. 6, 1939	9.72	11,100
	Nov. 16, 1926	10.2	13,000	1940	Mar. 4, 1940	10.23	12,200
1928	Oct. 12, 1927	8.44	8,580		Mar. 15, 1940	12.71	19,100
	Oct. 19, 1927	9.31	10,300		Apr. 8, 1940	10.31	12,400
	Nov. 3, 1927	8.98	9,680		Apr. 20, 1940	9.00	9,680
	Nov. 17, 1927	10.82	13,600		May 20, 1940	13.28	22,100
	Dec. 8, 1927	10.10	12,000		Sept. 25, 1940	7.17	6,520
	Feb. 8, 1928	8.33	8,400	1941	Nov. 15, 1940	8.98	9,680
	Feb. 23, 1928	8.13	8,050		Dec. 17, 1940	9.21	10,100
	Apr. 24, 1928	7.75	7,540		Dec. 28, 1940	—	—
	Apr. 28, 1928	8.77	9,300	1942	Aug. 9, 1942	15.50	30,200
	July 14, 1928	13.36	21,200		Aug. 14, 1942	8.93	9,490
	Aug. 7, 1928	7.15	6,560		Aug. 18, 1942	7.92	7,710
1929	Feb. 7, 1929	7.93	7,710	1943	Dec. 30, 1942	10.96	14,200
	Feb. 26, 1929	11.22	14,700		May 20, 1943	8.30	8,770
	Mar. 6, 1929	7.10	6,400		May 26, 1943	9.92	12,600
	Apr. 16, 1929	8.77	9,300		June 18, 1943	11.62	17,000
	Aug. 14, 1929	10.45	12,600	1944	Oct. 27, 1943	7.43	6,860
1930	Oct. 2, 1929	11.62	15,800		Oct. 28, 1943	7.48	7,150
1931	July 14, 1931	6.16	5,020		Nov. 9, 1943	11.43	16,400
1932	Jan. 7, 1932	7.44	6,880		Jan. 6, 1944	8.21	8,560
	Mar. 28, 1932	10.27	12,400		Mar. 13, 1944	10.20	13,300
1933	Nov. 7, 1932	9.34	10,300	1945	Apr. 24, 1944	10.55	14,300
	Nov. 10, 1932	9.22	10,100		Nov. 27, 1944	7.60	7,200
	Nov. 19, 1932	9.39	10,500		Jan. 1, 1945	11.94	17,900
	Feb. 20, 1933	7.66	7,370		Feb. 26, 1945	8.32	8,770
	Mar. 21, 1933	9.58	10,900		July 19, 1945	8.09	8,350
	Apr. 17, 1933	9.25	10,100		Sept. 18, 1945	10.00	14,000
	July 17, 1933	9.41	10,500	1946	Nov. 29, 1945	8.42	9,030
	Aug. 23, 1933	16.65	34,600		May 19, 1946	7.67	7,540
1934	Jan. 7, 1934	8.11	8,050		June 2, 1946	16.23	31,700
	Mar. 5, 1934	8.72	9,120		July 23, 1946	12.18	18,900
	Mar. 28, 1934	7.90	7,710	1947	May 5, 1947	6.35	5,230
	Apr. 1, 1934	8.06	8,050	1948	May 5, 1948	9.07	9,870
	Sept. 8, 1934	10.12	12,000		May 7, 1948	7.36	6,960
	Sept. 30, 1934	12.34	19,100		May 13, 1948	10.19	12,200
1935	Feb. 15, 1935	<sup>a</sup> 9.31	—		June 20, 1948	8.20	8,580
	July 9, 1935	18.26	39,900	1949	Dec. 30, 1948	11.85	17,800
	Aug. 4, 1935	7.83	7,540		Jan. 6, 1949	10.77	13,600
	Sept. 4, 1935	11.55	15,800	1950	Dec. 27, 1949	7.99	8,150
1936	Nov. 17, 1935	10.94	13,900		Mar. 23, 1950	9.61	10,900
	Nov. 29, 1935	7.64	7,200	1951	Nov. 25, 1950	14.60	26,100
	Jan. 3, 1936	11.40	16,400		Dec. 4, 1950	8.94	10,200
	Jan. 9, 1936	8.50	8,760		Dec. 8, 1950	8.23	8,580
	Mar. 1, 1936	<sup>a</sup> 7.78	—		Jan. 15, 1951	8.96	10,500
	Mar. 5, 1936	<sup>a</sup> 9.70	—		Jan. 24, 1951	7.74	7,540
	Mar. 12, 1936	9.79	11,300		Feb. 7, 1951	9.83	11,300
	Mar. 18, 1936	10.46	12,900		Mar. 31, 1951	7.69	7,540
	Apr. 6, 1936	9.60	10,900	1952	Nov. 7, 1951	10.03	11,700
	June 13, 1936	9.08	9,870		Dec. 21, 1951	10.85	13,600
1937	Dec. 20, 1936	<sup>a</sup> 7.33	—		Feb. 4, 1952	7.40	6,960
	Feb. 22, 1937	7.38	6,770		Mar. 11, 1952	10.98	15,600
1938	Feb. 20, 1938	7.11	6,410		Apr. 28, 1952	11.21	16,100
	July 23, 1938	8.82	9,300		May 26, 1952	8.71	9,740
	Sept. 21, 1938	10.50	14,000		June 1, 1952	7.75	7,740
					July 10, 1952	11.15	16,100

## DELAWARE RIVER BASIN

Perkiomen Creek at Graterford, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Nov. 22, 1952	13.36	22,400	1955	Aug. 13, 1955	14.26	24,200
	Dec. 11, 1952	12.49	19,700		Aug. 19, 1955	14.08	23,600
	Jan. 10, 1953	7.67	7,540	1956	Oct. 15, 1955	12.72	19,100
	Jan. 24, 1953	11.31	16,400		Feb. 6, 1956	7.70	7,370
	Mar. 4, 1953	7.36	6,960		Feb. 18, 1956	8.20	8,220
	Mar. 15, 1953	8.31	8,800		Mar. 14, 1956	9.90	11,500
	Apr. 7, 1953	8.51	9,260	1957	Apr. 5, 1957	9.35	10,500
	May 23, 1953	7.95	8,150	1958	Feb. 28, 1958	11.23	14,700
	May 26, 1953	7.98	8,150				
1954	Dec. 7, 1953	8.27	8,800				
	Dec. 10, 1953	8.43	9,030				
	Dec. 14, 1953	8.68	9,740				

<sup>a</sup>Backwater from ice affect.<sup>b</sup>Crest believed to have exceeded 6,800 cfs.

## 4735. Schuylkill River at Norristown, Pa.

Location. --Lat 40°06'40", long 75°20'25", at Schuylkill Navigation Company Dam, 800 ft upstream from DeKalb Street Bridge in Norristown, Montgomery County, and 1.5 miles upstream from Diamond Run.

Drainage area. --1,760 sq mi.

Gage. --Nonrecording gage prior to May 27, 1929; recording gage thereafter. Prior to May 27, 1929, at site 800 ft downstream at datum 1.59 ft lower. Altitude of gage is 48 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Base for partial-duration series, 23,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	Oct. 19, 1927	7.76	27,900	1930	Oct. 2, 1929	10.26	41,200
	Nov. 18, 1927	8.20	30,100		July 15, 1931	10.40	42,000
	Dec. 8, 1927	8.70	32,700	1932	Mar. 28, 1932	8.83	33,200
	Feb. 8, 1928	9.7	25,900		Nov. 4, 1932	8.20	30,100
	Feb. 15, 1928	9.5	25,100	1933	Nov. 10, 1932	8.00	29,000
	Apr. 28, 1928	9.9	26,700		Nov. 19, 1932	7.63	26,900
	July 14, 1928	12.1	36,400		Mar. 22, 1933	10.2	41,000
1929	Feb. 26, 1929	12.1	36,400		Apr. 12, 1933	8.73	32,700
	Mar. 6, 1929	10.3	28,300		Apr. 17, 1933	7.96	29,000
	Apr. 16, 1929	9.4	24,700				

## 4740. Wissahickon Creek near Philadelphia, Pa.

Location. --Lat 40°00'55", long 75°12'25", about 900 ft upstream from mouth, in Philadelphia, Philadelphia County.

Drainage area. --64.6 sq mi.

Gage. --Recording gage. Altitude of gage is 30 ft (from topographic map).

Remarks. --Maximum daily discharges are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	July 22, 1897	—	2,820	1901	Aug. 24, 1901	—	1,100
1898	Feb. 20, 1898	—	1,510	1902	Feb. 28, 1902	—	1,980
1899	Feb. 27, 1899	—	1,280	1903	Jan. 3, 1903	—	1,240
				1905	Jan. 7, 1905	—	1,750
				1906	Mar. 4, 1906	—	1,120

## 4745. Schuylkill River at Philadelphia, Pa.

Location. --Lat 39°58'00", long 75°11'05", on left bank just upstream from Fairmount Dam in Philadelphia, Philadelphia County, 8.2 miles upstream from mouth.

Drainage area. --1,893 sq mi.

Gage. --Recording gage. Prior to Nov. 26, 1956 at site on right bank just upstream from Fairmount Dam. Datum of gage is 5.74 above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 46,000 cfs and extended.

Bankfull stage. --12 ft.

Remarks. --Base for partial-duration series, 18,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1870	Oct. 4, 1869	17.0	135,000	1942	May 24, 1942	12.44	61,400
1902	Mar. 1, 1902	14.8	98,000		Aug. 9, 1942	13.10	71,500
1932	Mar. 28, 1932	10.27	33,300		Aug. 18, 1942	9.00	21,000
1933	Nov. 1, 1932	8.87	19,200		Sept. 28, 1942	9.15	22,400
	Nov. 7, 1932	9.74	27,600	1943	Dec. 30, 1942	11.36	47,800
	Nov. 10, 1932	9.94	29,600		Feb. 11, 1943	8.68	18,300
	Nov. 19, 1932	9.71	27,100		May 26, 1943	9.46	25,300
	Mar. 20, 1933	9.16	21,800		June 18, 1943	8.83	19,600
	Mar. 21, 1933	10.26	33,300	1944	Nov. 9, 1943	11.19	45,200
	Apr. 12, 1933	10.19	32,200		Jan. 4, 1944	9.75	28,800
	Apr. 17, 1933	9.65	26,600		Jan. 6, 1944	9.45	25,300
	Aug. 24, 1933	14.70	96,200		Mar. 13, 1944	10.11	32,100
1934	Jan. 7, 1934	8.83	19,200		Apr. 25, 1944	10.44	35,400
	Mar. 5, 1934	10.03	30,100		Apr. 28, 1944	8.97	20,600
	Apr. 1, 1934	8.84	19,200	1945	Jan. 1, 1945	11.06	43,900
	Sept. 8, 1934	9.38	24,100		Feb. 27, 1945	9.25	23,300
	Sept. 30, 1934	11.30	44,800		July 19, 1945	9.65	26,800
1935	Dec. 2, 1934	8.95	20,000		Sept. 19, 1945	11.92	54,400
	July 9, 1935	14.10	82,000	1946	Nov. 29, 1945	10.19	33,200
	Sept. 5, 1935	9.84	28,600		Dec. 26, 1945	9.57	26,800
1936	Nov. 17, 1935	9.01	20,500		Mar. 28, 1946	9.14	22,400
	Jan. 3, 1936	11.70	49,600		June 2, 1946	14.57	94,600
	Jan. 9, 1936	9.61	26,100		July 23, 1946	10.63	37,800
	Mar. 12, 1936	11.62	48,400	1947	May 26, 1947	8.63	17,900
	Mar. 18, 1936	10.84	38,800	1948	May 7, 1948	9.20	21,700
	Mar. 22, 1936	9.02	20,500		May 13, 1948	10.18	31,500
	Apr. 6, 1936	9.63	26,600	1949	Dec. 30, 1948	12.00	54,400
1937	Dec. 20, 1936	8.60	17,100		Jan. 6, 1949	10.96	40,800
1938	July 23, 1938	10.21	32,200		Jan. 28, 1949	8.78	18,100
	Sept. 21, 1938	10.66	37,700	1950	Feb. 15, 1950	8.88	19,600
1939	Dec. 6, 1938	10.06	31,100		Mar. 23, 1950	10.12	31,000
	Jan. 30, 1939	9.35	23,600	1951	Nov. 25, 1950	14.32	89,800
	Feb. 3, 1939	11.08	42,400		Dec. 5, 1950	10.70	37,600
	Feb. 28, 1939	9.70	27,100		Dec. 8, 1950	9.55	25,500
	Apr. 7, 1939	9.97	29,600		Jan. 15, 1951	9.14	21,800
1940	Mar. 4, 1940	11.23	43,600		Feb. 7, 1951	10.74	37,600
	Mar. 15, 1940	11.72	49,600	1952	Nov. 7, 1951	10.52	34,800
	Apr. 9, 1940	10.43	34,400		Dec. 21, 1951	10.98	40,800
	Apr. 20, 1940	9.80	28,100		Jan. 28, 1952	8.98	20,500
	May 21, 1940	10.04	30,100		Feb. 4, 1952	9.09	21,400
1941	Nov. 15, 1940	9.22	22,300		Mar. 11, 1952	10.89	40,000
	Dec. 17, 1940	9.08	21,400		Apr. 28, 1952	11.92	53,000
	Dec. 28, 1940	8.74	18,300		May 26, 1952	10.03	30,000
					June 1, 1952	9.44	24,600
					July 10, 1952	9.86	29,000
					Sept. 2, 1952	9.22	22,300



## DELAWARE RIVER BASIN

Schuylkill River at Philadelphia, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Nov. 22, 1952	12.41	60,300	1955	Mar. 23, 1955	—	<sup>a</sup> —
	Dec. 11, 1952	11.70	50,200		Aug. 13, 1955	11.25	44,200
	Jan. 10, 1953	8.93	20,000		Aug. 19, 1955	14.32	90,100
	Jan. 25, 1953	9.34	23,600	1956	Oct. 15, 1955	11.12	33,500
	Mar. 26, 1953	9.17	21,800		Mar. 14, 1956	9.22	24,200
	Mar. 26, 1953	8.96	20,000				
	Apr. 7, 1953	8.86	19,200	1957	Apr. 6, 1957	9.95	32,400
	May 23, 1953	8.89	19,600				
	May 26, 1953	9.85	28,000	1958	Dec. 21, 1957	8.92	21,300
1954	Dec. 7, 1953	9.28	23,200		Feb. 28, 1958	10.07	33,500
	Dec. 14, 1953	9.36	23,600		Mar. 27, 1958	8.68	19,500
					Apr. 7, 1958	9.38	26,200

<sup>a</sup>Crest believed to have exceeded 18,000 cfs.

## 4760. Crum Creek at Woodlyn, Pa.

Location.--Lat 39°52'45", long 75°21'00", at highway bridge at Woodlyn, Delaware County, 2 miles northeast of Chester, and 2½ miles upstream from mouth.

Drainage area.--33.3 sq mi.

Gage.--Nonrecording gage prior to July 13, 1931; recording gage thereafter. Datum of gage is 19.58 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 550 cfs and extended by logarithmic plotting.

Remarks.--Base for partial-duration series, 330 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Mar. 28, 1932	3.00	334	1936	Nov. 17, 1935	4.37	637
1933	Apr. 12, 1933	3.67	471		Jan. 3, 1936	5.00	775
	Apr. 17, 1933	3.43	428		Jan. 9, 1936	5.08	799
	June 26, 1933	3.72	482		Feb. 26, 1936	3.60	460
	Aug. 23, 1933	7.56	1,420		Mar. 12, 1936	3.75	493
1934	Mar. 5, 1934	4.38	637		Mar. 18, 1936	4.15	592
	May 3, 1934	3.23	386		Apr. 6, 1936	3.42	418
1935	July 9, 1935	4.52	660	1937	Feb. 22, 1937	3.48	428
	Sept. 4, 1935	6.22	1,060				

## 4765. Ridley Creek at Moylan, Pa.

Location.--Lat 39°54'10", long 75°23'35", at Fox Bank Bridge at Moylan, Delaware County, and 1 mile south of Media.

Drainage area.--31.9 sq mi.

Gage.--Recording gage. Datum of gage is 87.36 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation.--Defined by current-meter measurements below 1,300 cfs and extended on basis of contracted-opening measurement.

Remarks.--Base for partial-duration series, 750 cfs.

DELAWARE RIVER BASIN  
Ridley Creek at Moylan, Pa.--Continued

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Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Mar. 28, 1932	4.60	891	1944	Jan. 6, 1944	4.30	865
1933	May 24, 1933	4.55	866	1945	Jan. 1, 1945	4.49	980
	Aug. 23, 1933	7.36	2,680		July 5, 1945	4.36	842
1934	Mar. 5, 1934	4.86	1,080		Aug. 1, 1945	4.39	920
1935	July 9, 1935	7.81	3,000		Sept. 18, 1945	4.59	1,040
	Sept. 4, 1935	5.46	1,330	1946	Nov. 29, 1945	4.67	978
1936	Nov. 17, 1935	4.28	820		Dec. 26, 1945	4.72	1,000
	Jan. 3, 1936	5.85	1,590	1947	May 22, 1947	3.44	483
	Jan. 9, 1936	5.26	1,280	1948	May 5, 1948	4.06	740
	Mar. 11, 1936	4.14	752	1949	Dec. 30, 1948	4.60	1,040
	Mar. 18, 1936	4.60	955	1950	Aug. 3, 1950	5.85	1,590
1937	Feb. 22, 1937	4.10	770	1951	Nov. 25, 1950	10.84	5,720
1938	June 12, 1938	4.56	932	1952	Nov. 7, 1951	4.68	1,000
	June 27, 1938	4.66	978		Dec. 21, 1951	5.23	1,280
	July 23, 1938	8.16	3,320		Feb. 4, 1952	4.18	775
	Aug. 7, 1938	4.18	775		Mar. 11, 1952	5.60	1,490
1939	Feb. 3, 1939	4.66	978		Apr. 5, 1952	4.47	918
	Aug. 19, 1939	4.62	955		July 9, 1952	4.64	1,020
1940	Mar. 4, 1940	4.92	1,100	1953	Nov. 22, 1952	4.43	918
	Mar. 15, 1940	6.14	1,770		Dec. 11, 1952	4.15	782
1941	Feb. 7, 1941	4.03	746		Jan. 24, 1953	4.32	850
1942	July 31, 1942	4.29	820	1954	Dec. 14, 1953	3.89	670
	Aug. 9, 1942	4.55	932	1955	Aug. 18, 1955	9.42	<sup>a</sup> 4,390
	Aug. 13, 1942	4.68	1,000				
1943	Dec. 30, 1942	4.48	980				
	May 12, 1943	4.20	775				

<sup>a</sup>Annual peak only.

4770. Chester Creek near Chester, Pa.

Location. --Lat 39°52'10", long 75°24'30", on right bank 10 ft upstream from Dutton Mill Bridge and 3 miles north-west of Chester, Delaware County.

Drainage area. --61.1 sq mi.

Gage. --Recording gage. Datum of gage is 23.41 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 2,400 cfs and extended on basis of contracted-opening measurement.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Mar. 28, 1932	7.41	2,100	1935	July 9, 1935	7.78	2,480
1933	Nov. 10, 1932	7.20	2,070		Sept. 4, 1935	8.72	2,920
	Apr. 12, 1933	6.20	1,500	1936	Nov. 17, 1935	6.66	1,770
	Apr. 17, 1933	6.13	1,450		Jan. 3, 1936	9.94	4,330
	Aug. 23, 1933	11.48	6,250		Jan. 9, 1936	10.50	5,000
1934	Mar. 5, 1934	7.83	2,480		Feb. 25, 1936	6.82	1,830
					Mar. 12, 1936	6.63	1,710

## DELAWARE RIVER BASIN

Chester Creek near Chester, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	6.25	1,500	1948	Nov. 4, 1947	7.50	2,180
Cont.	Apr. 6, 1936	6.36	1,600		Nov. 8, 1947	6.30	1,430
					Nov. 12, 1947	7.90	2,420
1937	Feb. 22, 1937	6.14	1,350		May 5, 1948	6.72	1,770
					July 14, 1948	6.20	1,500
1938	Nov. 13, 1937	6.25	1,390				
	June 27, 1938	8.22	2,600	1949	Dec. 30, 1948	7.14	1,940
	July 23, 1938	10.57	5,120				
	July 25, 1938	6.88	1,690	1950	Aug. 3, 1950	10.48	5,000
	Aug. 7, 1938	6.80	1,650				
	Sept. 21, 1938	6.53	1,520	1951	Nov. 25, 1950	16.21	14,400
					Mar. 20, 1951	6.34	1,530
1939	Jan. 30, 1939	6.50	1,520				
	Feb. 3, 1939	7.48	2,180	1952	Nov. 7, 1951	8.68	2,920
	Apr. 6, 1939	6.95	1,740		Dec. 21, 1951	9.11	3,200
	Aug. 19, 1939	9.23	3,630		Feb. 4, 1952	7.01	1,880
					Mar. 11, 1952	8.08	2,540
1940	Jan. 14, 1940	6.18	1,390		Mar. 19, 1952	6.33	1,530
	Mar. 4, 1940	7.91	2,420		Apr. 5, 1952	6.55	1,680
	Mar. 15, 1940	10.26	4,770		July 9, 1952	9.52	3,920
	Apr. 8, 1940	6.68	1,600				
	Apr. 20, 1940	6.34	1,440	1953	Nov. 22, 1952	6.26	1,530
	May 21, 1940	7.34	2,130		Dec. 11, 1952	6.17	1,480
					Jan. 24, 1953	6.73	1,730
1941	Feb. 7, 1941	6.11	1,350				
	Mar. 11, 1941	6.08	1,350	1954	Dec. 14, 1953	6.46	1,630
1942	Aug. 13, 1942	7.80	2,360	1955	Feb. 7, 1955	6.02	1,400
					Aug. 13, 1955	8.28	2,840
1943	Dec. 30, 1942	7.80	2,360		Aug. 18, 1955	13.57	9,380
	Mar. 6, 1943	6.76	1,650				
	Apr. 19, 1943	6.00	1,310	1956	June 1, 1956	6.75	1,830
	June 27, 1943	7.79	2,360		July 21, 1956	7.98	2,620
1944	Apr. 24, 1944	6.35	1,480	1957	Apr. 2, 1957	4.57	802
1945	July 5, 1945	8.56	3,100	1958	Dec. 21, 1957	6.17	1,500
	Aug. 1, 1945	9.98	4,440		Jan. 22, 1958	6.41	1,600
	Sept. 18, 1945	7.34	2,130		Jan. 25, 1958	6.00	1,400
					Feb. 27, 1958	6.60	1,710
1946	Nov. 29, 1945	8.23	2,600		Apr. 6, 1958	6.96	1,950
	June 2, 1946	8.30	2,660		July 24, 1958	6.72	1,770
	July 23, 1946	6.65	1,560		July 27, 1958	6.80	1,830
					Aug. 25, 1958	6.00	1,400
1947	May 1, 1947	7.56	2,240				

## 4805. West Branch Brandywine Creek at Coatesville, Pa.

Location. --Lat 39°59'00", long 75°49'35", at bridge on U. S. Highway 30 in Coatesville, Chester County, and 0.6 mile upstream from Sucker Run.

Drainage area. --45.8 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Datum of gage is 302.38 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 390 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 650 cfs.

DELAWARE RIVER BASIN  
West Branch Brandywine Creek at Coatesville, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Aug. 9, 1942	12.3	8,600	1947	June 15, 1947	3.0	675
1944	Nov. 9, 1943	3.53	945		July 8, 1947	3.00	675
	Jan. 4, 1944	4.2	1,340	1948	Nov. 4, 1947	3.1	725
	Mar. 13, 1944	3.5	945		Nov. 24, 1947	3.0	675
					May 5, 1948	3.9	1,170
1945	Jan. 1, 1945	3.9	1,160		Aug. 22, 1948	3.4	885
	Feb. 23, 1945	3.0	780		Sept. 10, 1948	3.3	830
	July 2, 1945	3.5	1,060	1949	Dec. 30, 1948	3.9	1,170
	July 15, 1945	3.1	835		Jan. 5, 1949	3.6	995
	July 18, 1945	3.9	1,280	1950	Mar. 23, 1950	3.15	785
	Sept. 18, 1945	7.3	3,670		July 11, 1950	3.17	785
1946	Nov. 29, 1945	3.29	945		Aug. 3, 1950	3.3	835
	Feb. 28, 1946	3.15	890	1951	Nov. 25, 1950	6.9	3,330
	May 17, 1946	3.00	780		Dec. 4, 1950	3.7	1,050
	June 2, 1946	3.56	1,110		Dec. 8, 1950	4.3	1,410
	June 12, 1946	3.00	780		Jan. 15, 1951	3.0	685
	July 22, 1946	4.37	1,570		Feb. 7, 1951	4.0	1,230
					June 29, 1951	3.0	685

4810. Brandywine Creek at Chadds Ford, Pa.

Location. --Lat 39°52'10", long 75°35'35", on left bank 27 ft upstream from Pennsylvania Railroad bridge at Chadds Ford, Delaware County.

Drainage area. --287 sq mi.

Gage. --Nonrecording gage prior to May 21, 1927; recording gage thereafter. Datum of gage is 150.45 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 7,000 cfs and extended on basis of depth-area study.

Remarks. --Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Feb. 21, 1912	12.00	10,600	1919	July 22, 1919	10.25	7,180
	Feb. 27, 1912	8.20	4,320	1920	Jan. 9, 1920	7.9	4,000
	Mar. 13, 1912	11.6	9,800		Mar. 5, 1920	15.0	17,200
	Mar. 15, 1912	10.0	6,840	1921	Dec. 1, 1920	6.0	2,560
1913	Apr. 28, 1913	7.8	3,900	1922	Feb. 2, 1922	7.4	3,540
1914	Jan. 24, 1914	8.2	4,320		Feb. 20, 1922	8.0	4,100
	Apr. 16, 1914	7.7	3,810	1923	Apr. 29, 1923	7.0	3,220
	July 28, 1914	7.6	3,720		Jan. 17, 1924	10.0	6,840
1915	Jan. 7, 1915	10.4	7,520	1924	Jan. 26, 1924	8.2	4,320
	Jan. 12, 1915	11.0	8,620		Feb. 20, 1924	9.0	5,320
	Feb. 2, 1915	11.3	9,200		Apr. 6, 1924	9.2	5,600
	Feb. 6, 1915	7.5	3,630		Sept. 30, 1924	9.6	6,200
	Aug. 4, 1915	14.7	16,500	1925	Feb. 11, 1925	10.5	7,700
1916	June 16, 1916	8.6	4,790		Jan. 18, 1926	7.6	3,720
1917	Jan. 22, 1917	8.3	4,430	1926	Feb. 19, 1926	8.4	4,550
1918	Jan. 12, 1918	11.8	10,200		Feb. 25, 1926	9.4	5,900
	Jan. 15, 1918	8.0	4,100		Mar. 6, 1926	7.5	3,630
	Feb. 13, 1918	10.0	6,840				
	Feb. 16, 1918	9.3	5,750				
	Feb. 20, 1918	8.8	5,050				
	Mar. 26, 1918	9.0	5,320				



DELAWARE RIVER BASIN  
Brandywine Creek at Chadds Ford, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Nov. 16, 1926	7.4	3,540	1940	Mar. 4, 1940	9.13	5,460
	Dec. 28, 1926	8.0	4,100		Mar. 15, 1940	9.65	6,190
	July 23, 1927	8.2	4,320		Apr. 9, 1940	8.88	5,180
	Sept. 19, 1927	10.1	7,010		Apr. 20, 1940	8.15	4,320
1928					Sept. 25, 1940	7.59	3,720
	Oct. 13, 1927	8.79	5,050	1941	Feb. 8, 1941	8.92	5,060
	Nov. 18, 1927	9.50	6,050		Mar. 11, 1941	7.84	3,900
	Dec. 8, 1927	8.79	5,050	1942	Aug. 9, 1942	14.80	16,800
	Feb. 8, 1928	8.42	4,550		Aug. 13, 1942	7.96	4,100
	Apr. 28, 1928	8.3	4,430	1943	Oct. 26, 1942	7.52	3,630
	June 6, 1928	9.40	5,900		Dec. 30, 1942	9.08	5,360
	June 22, 1928	7.48	3,630		Feb. 11, 1943	7.87	3,990
	July 14, 1928	8.70	4,920		Mar. 7, 1943	7.65	3,720
	July 28, 1928	7.75	3,900		Apr. 20, 1943	7.93	4,000
1929	Aug. 18, 1928	11.00	8,620	1944	Nov. 9, 1943	8.56	4,690
	Feb. 7, 1929	7.62	3,720		Dec. 27, 1943	7.66	3,810
	Feb. 27, 1929	9.77	6,520		Jan. 4, 1944	10.6	7,880
1930	Apr. 16, 1929	8.97	5,320		Mar. 13, 1944	8.77	4,930
					Apr. 25, 1944	7.62	3,720
1931	Oct. 2, 1929	8.47	4,670		Sept. 14, 1944	8.43	4,550
	July 10, 1931	10.80	8,240	1945	Jan. 2, 1945	9.10	4,360
1932	Mar. 28, 1932	9.06	5,460		July 5, 1945	8.50	4,430
					July 18, 1945	7.73	3,630
1933	Nov. 10, 1932	7.68	3,810		Sept. 19, 1945	10.87	8,240
	Nov. 19, 1932	7.41	3,540	1946	Nov. 29, 1945	8.14	4,280
	Mar. 21, 1933	8.02	4,100		Dec. 26, 1945	8.14	4,280
	Apr. 12, 1933	8.55	4,790		May 17, 1946	7.61	3,720
	Apr. 17, 1933	8.37	4,550		June 2, 1946	10.02	7,110
	Aug. 4, 1933	9.69	6,360		July 23, 1946	11.14	8,810
1934	Aug. 24, 1933	14.01	14,800	1947	July 8, 1947	6.00	2,500
	Mar. 3, 1934	8.19	4,320	1948	Nov. 4, 1947	8.31	4,380
1935	Mar. 5, 1934	8.48	4,670		Nov. 8, 1947	7.62	3,720
	July 9, 1935	10.00	7,000		Feb. 14, 1948	7.42	3,540
1936	Sept. 4, 1935	8.38	4,550		Feb. 18, 1948	7.98	4,080
	Nov. 18, 1935	9.51	6,050		May 5, 1948	7.72	3,810
1937	Jan. 3, 1936	11.21	9,000		Sept. 10, 1948	9.64	6,190
	Jan. 9, 1936	10.08	7,010	1949	Dec. 30, 1948	9.10	5,360
	Feb. 26, 1936	7.95	4,100		Jan. 6, 1949	7.96	4,080
	Feb. 29, 1936	7.45	3,540	1950	Mar. 23, 1950	8.08	4,180
	Mar. 12, 1936	9.46	6,050		Aug. 3, 1950	8.65	4,690
	Mar. 18, 1936	8.54	4,670	1951	Nov. 25, 1950	12.54	11,600
	Apr. 6, 1936	8.03	4,100		Jan. 15, 1951	7.86	4,000
	Dec. 20, 1936	7.57	3,720		Feb. 8, 1951	9.67	6,360
1938	Feb. 22, 1937	7.76	3,790	1952	Apr. 13, 1951	7.40	3,540
	Apr. 27, 1937	7.22	3,380		Nov. 7, 1951	9.45	5,900
	Oct. 23, 1937	7.40	3,540		Dec. 21, 1951	9.49	6,050
	Nov. 13, 1937	8.00	4,100		Feb. 4, 1952	8.30	4,430
	June 8, 1938	8.65	4,790		Mar. 11, 1952	9.09	5,460
	June 12, 1938	7.33	3,460		Apr. 28, 1952	9.04	5,320
	June 27, 1938	11.37	9,400	1953	May 26, 1952	8.81	5,050
1939	July 23, 1938	10.45	7,520		June 1, 1952	7.83	3,900
	Sept. 21, 1938	7.48	3,630		July 10, 1952	8.31	4,430
	Jan. 30, 1939	7.93	4,000		Nov. 22, 1952	9.55	6,200
	Feb. 4, 1939	9.08	5,460		Dec. 11, 1952	9.51	6,050
	Mar. 1, 1939	8.12	4,210		Jan. 24, 1953	9.63	6,200
	Apr. 7, 1939	7.40	3,540		Mar. 16, 1953	7.92	4,000
1939	June 14, 1939	8.05	4,210				
	Aug. 20, 1939	10.72	8,060				

## 4815. Brandywine Creek at Wilmington, Del.

Location. --Lat 39°46'10", long 75°34'20", in Wilmington, New Castle County, 0.2 mile downstream from Henry Clay Bridge and 4.2 miles upstream from mouth.

Drainage area. --314 sq mi.

Gage. --Recording and concrete control. Datum of gage is 68.23 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 30, 1947	7.79	4,730	1953	Jan. 25, 1953	8.61	5,820
1948	Sept. 10, 1948	8.41	5,160	1954	Dec. 14, 1953	7.13	3,780
1949	Dec. 30, 1948	8.25	4,940	1955	Aug. 19, 1955	13.89	17,800
1950	Aug. 3, 1950	7.86	4,610				
				1956	Mar. 14, 1956	7.75	5,020
1951	Nov. 25, 1950	11.34	11,500	1957	Nov. 2, 1956	10.36	9,620
1952	July 9, 1952	9.32	6,960	1958	Feb. 28, 1958	9.41	7,790

## SUSQUEHANNA RIVER BASIN

## 5030. Susquehanna River at Conklin, N. Y.

Location. --Lat 42°02'10", long 75°48'10", at Conklin, Broome County, three-quarters of a mile downstream from Little Snake Creek and 3½ miles downstream from Pennsylvania State line.

Drainage area. --2,240 sq mi.

Gage. --Nonrecording prior to Oct. 4, 1914; recording thereafter.

Stage-discharge relation. --Defined by current-meter measurements below 37,000 cfs and extended by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 28, 1913	18.3	52,000	1931	Mar. 30, 1931	12.16	22,800
1914	Mar. 30, 1914	17.45	47,000	1932	Apr. 1, 1932	13.75	29,000
1915	July 8, 1915	16.15	40,500	1933	Oct. 8, 1932	13.10	25,000
				1934	Mar. 5, 1934	13.2	25,400
1916	Apr. 2, 1916	16.48	42,100	1935	July 9, 1935	16.95	41,900
1917	Mar. 28, 1917	13.55	28,700				
1918	Mar. 1, 1918	12.87	25,900	1936	Mar. 18, 1936	20.14	61,600
1919	Oct. 31, 1918	10.65	17,900	1937	Jan. 26, 1937	12.88	24,300
1920	Mar. 29, 1920	15.05	35,200	1938	Sept. 23, 1938	15.89	34,100
				1939	Feb. 21, 1939	15.64	33,100
1921	Mar. 10, 1921	13.18	27,100	1940	Apr. 1, 1940	19.13	51,800
1922	Nov. 29, 1921	16.03	39,900				
1923	Mar. 24, 1923	13.23	27,300	1941	Apr. 6, 1941	13.40	24,900
1924	Sept. 30, 1924	16.86	44,000	1942	Mar. 19, 1942	14.45	28,100
1925	Feb. 12, 1925	17.04	44,900	1943	Dec. 31, 1942	18.76	48,600
				1944	Mar. 18, 1944	15.00	30,000
1926	Apr. 10, 1926	14.0	30,600	1945	Mar. 18, 1945	14.17	27,500
1927	Mar. 15, 1927	14.8	33,600				
1928	Oct. 19, 1927	16.9	43,500	1946	Mar. 9, 1946	15.49	32,900
1929	Mar. 17, 1929	17.6	47,000	1947	Apr. 6, 1947	15.04	31,000
1930	Dec. 20, 1929	10.9	18,600	1948	Mar. 22, 1948	20.83	60,500
				1949	Dec. 31, 1948	14.39	28,400
				1950	Mar. 29, 1950	15.87	34,600

## SUSQUEHANNA RIVER BASIN

Susquehanna River at Conklin, N. Y.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Dec. 4, 1950	16.20	36,100	1956	Apr. 7, 1956	16.04	39,200
1952	Mar. 12, 1952	13.40	24,700	1957	Jan. 23, 1957	11.74	21,400
1953	Jan. 25, 1953	13.61	25,400	1958	Apr. 7, 1958	15.83	38,300
1954	Feb. 18, 1954	14.55	29,000				
1955	Mar. 13, 1955	12.72	22,500				

<sup>a</sup>Occurred Mar. 17, 1944; backwater from ice.

5150

## 5180. Tioga River at Tioga, Pa.

Location.--Lat 41°54'30", long 77°07'45", on left bank 150 ft upstream from highway bridge at Tioga, Tioga County, and three-quarters of a mile upstream from Crooked Creek.

Drainage area.--282 sq mi.

Gage.--Recording gage. 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. Datum of gage is 1,021.0 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,800 cfs and extended on basis of slope-area and contracted-opening measurement.

Remarks.--Base for partial-duration series, 6,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 20, 1939	—	6,300	1951	Nov. 25, 1950	11.33	25,400
1940	Mar. 31, 1940	10.48	16,200		Dec. 8, 1950	6.96	7,670
	Apr. 4, 1940	—	10,700		Mar. 30, 1951	10.02	18,900
1941	Apr. 5, 1941	7.42	6,930	1952	Mar. 11, 1952	8.85	14,000
1942	Mar. 9, 1942	9.63	12,900		Apr. 5, 1952	6.29	6,700
1943	Dec. 30, 1942	10.27	15,300	1953	Dec. 11, 1952	8.35	12,300
1944	May 7, 1944	8.82	10,400		Mar. 24, 1953	6.72	7,710
1945	Mar. 3, 1945	—	8,920		May 26, 1953	6.25	6,610
	May 18, 1945	8.84	10,500	1954	Mar. 1, 1954	9.62	12,800
1946	May 27, 1946	13.36	39,000		May 4, 1954	7.94	7,840
1947	Apr. 5, 1947	10.82	22,800	1955	Feb. 23, 1955	<sup>a</sup> 8.04	—
1948	Mar. 22, 1948	8.21	11,600		Mar. 4, 1955	6.66	5,210
	Apr. 14, 1948	—	6,730	1956	Oct. 14, 1955	12.69	25,700
	May 24, 1948	—	8,120		Oct. 16, 1955	7.66	7,460
1949	Dec. 30, 1948	5.95	5,180		Mar. 6, 1956	8.05	8,400
1950	Mar. 28, 1950	7.59	9,550	1957	Jan. 22, 1957	<sup>a</sup> 10.32	—
					Apr. 6, 1957	8.56	9,740
				1958	Mar. 1, 1958	<sup>a</sup> 7.72	—
					Apr. 7, 1958	7.52	7,140

<sup>a</sup>Backwater from ice.

## 5200. Cowanesque River near Lawrenceville, Pa.

Location. --Lat 41°59'10", long 77°09'00", on left bank three-quarters of a mile downstream from Cook Creek, 1 3/4 miles southwest of Lawrenceville, Tioga County, and 2 1/2 miles upstream from mouth.

Drainage area. --295 sq mi.

Gage. --Recording gage.

Stage-discharge relation. --Defined by current-meter measurements below 7,200 cfs and extended by logarithmic plotting.

Remarks. --Base for partial-duration series, 6,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Jan. 1, 1952	<sup>a</sup> 10.18	—	1955	Feb. 28, 1955	<sup>a</sup> 10.99	—
	Jan. 18, 1952	7.91	7,380		Mar. 4, 1955	7.47	6,410
	Jan. 27, 1952	7.67	6,760	1956	Oct. 14, 1955	10.47	18,200
	Mar. 11, 1952	9.60	12,500		Nov. 16, 1955	8.96	11,400
	Apr. 5, 1952	8.61	9,020		Mar. 6, 1956	9.30	12,700
1953	Dec. 11, 1952	8.46	8,550		Mar. 8, 1956	9.41	13,200
	Mar. 24, 1953	9.83	13,400		Apr. 3, 1956	8.48	9,550
	May 26, 1953	7.72	6,430	1957	Jan. 22, 1957	<sup>a</sup> 10.87	—
1954	Jan. 27, 1954	<sup>a</sup> 9.23	—		Jan. 23, 1957	7.59	6,860
	Mar. 1, 1954	9.17	10,900		Apr. 6, 1957	7.77	7,340
	June 2, 1954	8.80	9,640		Apr. 25, 1957	8.30	8,940
				1958	Mar. 1, 1958	<sup>a</sup> 8.88	—
					Apr. 7, 1958	—	8,940

<sup>a</sup>Backwater from ice.

## 5310. Chemung River at Chemung, N. Y.

Location. --Lat 42°00'10", long 76°38'00", on right bank 60 ft downstream from highway bridge, three-quarters of a mile southwest of Chemung, Chemung County, and 10 miles upstream from mouth.

Drainage area. --2,530 sq mi, approximately.

Gage. --Nonrecording prior to Jan. 10, 1930, recording thereafter. Datum of gage is 778.63 ft above mean sea level, adjustment of 1912 (levels by Corps of Engineers).

Stage-discharge relation. --Defined by current-meter measurements below 65,000 cfs and extended above on basis of slope area and contracted-opening measurements and velocity-area studies.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 8, 1904	17.6	63,200	1916	June 18, 1916	17.46	68,900
1905	Mar. 20, 1905	14.9	44,600	1917	Mar. 12, 1917	11.7	27,600
1906	Mar. 28, 1906	12.8	32,700	1918	Mar. 15, 1918	17.96	67,000
1907	Apr. 27, 1907	10.7	22,670	1919	May 23, 1919	16.72	58,300
1908	Feb. 16, 1908	14.95	44,900	1920	Mar. 13, 1920	17.18	61,200
1909	May 2, 1909	15.85	50,700	1921	Feb. 17, 1921	11.55	29,000
1910	Apr. 25, 1910	16.76	57,000	1922	Mar. 8, 1922	12.36	30,800
1911	Mar. 28, 1911	9.44	17,000	1923	Mar. 5, 1923	13.65	37,900
1912	Mar. 30, 1912	15.98	51,600	1924	Apr. 7, 1924	15.55	49,700
1913	Mar. 26, 1913	16.5	52,500	1925	Feb. 12, 1925	15.2	47,400
1914	Mar. 29, 1914	17.0	59,900	1926	Mar. 26, 1926	12.1	29,500
1915	Feb. 25, 1915	16.42	55,700	1927	Nov. 17, 1926	14.1	40,500
				1928	Dec. 2, 1927	14.9	45,400
				1929	Apr. 21, 1929	17.1	57,400
				1930	Feb. 26, 1930	11.7	26,300



## SUSQUEHANNA RIVER BASIN

Chemung River at Chemung, N. Y.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Mar. 29, 1931	10.69	21,600	1946	May 28, 1946	23.97	132,000
1932	Apr. 1, 1932	14.13	39,400	1947	Apr. 6, 1947	18.01	66,500
1933	Aug. 25, 1933	13.03	33,400	1948	Mar. 22, 1948	18.26	69,300
1934	Mar. 4, 1934	13.00	32,300	1949	Jan. 6, 1949	10.86	20,500
1935	July 9, 1935	19.45	86,000	1950	Mar. 29, 1950	19.12	80,300
1936	Mar. 12, 1936	19.57	87,300	1951	Mar. 31, 1951	19.19	81,300
1937	Aug. 27, 1937	15.18	44,000	1952	Mar. 12, 1952	17.17	54,300
1938	Nov. 14, 1937	14.58	40,100	1953	Mar. 25, 1953	16.09	46,000
1939	Feb. 21, 1939	17.80	68,000	1954	Mar. 2, 1954	14.70	37,300
1940	Apr. 1, 1940	19.62	87,800	1955	Mar. 2, 1955	14.02	33,900
1941	Apr. 6, 1941	16.92	55,300	1956	Oct. 15, 1955	20.13	89,000
1942	Mar. 10, 1942	17.47	60,700	1957	Apr. 6, 1957	15.10	39,700
1943	Dec. 31, 1942	19.04	77,400	1958	Apr. 7, 1958	16.94	52,400
1944	May 8, 1944	14.40	36,900				
1945	Mar. 4, 1945	16.79	54,100				

## 5315. Susquehanna River at Towanda, Pa.

Location. --Lat 41°45'55", long 76°26'25", on right bank under Bridge Street Bridge at Towanda, Bradford County, 1 3/4 miles upstream from Towanda Creek.

Drainage area. --7,797 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1938; recording gage thereafter. Datum of gage is 694.38 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --16 ft.

Remarks. --Base for partial-duration series, 68,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1865	Mar. 17, 1865	25.0	188,000	1902	Mar. 2, 1902	24.5	184,000
1893	Mar. 10, 1893	15.3	101,000		Mar. 14, 1902	12.0	69,200
	May 4, 1893	16.0	109,000		Mar. 17, 1902	12.9	76,800
1894	Mar. 8, 1894	12.3	71,700	1903	Feb. 5, 1903	13.5	82,200
1895	Apr. 10, 1895	14.8	95,200		Mar. 1, 1903	14.4	91,000
1896	Mar. 31, 1896	15.5	103,000		Mar. 12, 1903	12.6	74,200
1897	Mar. 25, 1897	11.3	63,600		Mar. 24, 1903	15.5	103,000
1898	Apr. 25, 1898	12.6	74,200		Aug. 30, 1903	15.2	99,500
1899	Mar. 6, 1899	10.5	57,300	1904	Oct. 11, 1903	15.8	106,000
1900	Feb. 23, 1900	11.0	61,200		Jan. 3, 1904	12.0	69,200
1901	Mar. 27, 1901	15.7	105,000		Mar. 4, 1904	13.7	84,000
	Apr. 7, 1901	12.3	71,700		Mar. 27, 1904	17.8	133,000
	Apr. 22, 1901	13.2	79,400	1905	Mar. 26, 1905	15.0	97,300
				1906	Dec. 4, 1905	11.0	61,200
				1908	Dec. 11, 1907	11.8	67,600
					Dec. 24, 1907	12.6	74,200
					Feb. 16, 1908	14.9	96,200
					Mar. 16, 1908	14.0	87,000
					Mar. 30, 1908	13.6	83,100

## SUSQUEHANNA RIVER BASIN

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Susquehanna River at Towanda, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Feb. 21, 1909	12.0	69,200	1929	Mar. 17, 1929	16.8	119,000
	May 2, 1909	15.0	97,300		Apr. 22, 1929	19.9	165,000
1910	Jan. 22, 1910	13.0	77,600	1930	Mar. 8, 1930	12.1	65,100
	Mar. 2, 1910	18.4	142,000		Mar. 29, 1931	12.4	67,500
	Mar. 8, 1910	13.4	81,200	1932	Apr. 1, 1932	14.76	88,000
	Apr. 25, 1910	14.3	90,000		Apr. 3, 1932	14.1	81,700
1911	Mar. 28, 1911	14.2	89,000	1933	Aug. 25, 1933	12.9	71,500
1912	Feb. 27, 1912	12.0	69,200		Mar. 6, 1934	13.6	77,400
	Mar. 30, 1912	16.0	109,000	1935	Jan. 10, 1935	16.5	99,500
	Apr. 2, 1912	15.0	97,300		July 9, 1935	21.1	144,000
	Apr. 8, 1912	12.0	69,200	1936	Mar. 13, 1936	22.34	157,000
1913	Jan. 9, 1913	14.3	90,000		Mar. 19, 1936	25.03	188,000
	Mar. 28, 1913	20.7	146,000	1937	Jan. 23, 1937	13.1	73,300
1914	Mar. 29, 1914	20.4	173,000		Jan. 26, 1937	12.9	71,700
	Apr. 9, 1914	14.1	88,000	1938	Jan. 26, 1938	11.74	62,100
	May 13, 1914	15.0	97,300		Feb. 21, 1939	19.13	128,000
1915	Jan. 8, 1915	13.8	85,000	1939	Mar. 28, 1939	12.57	69,300
	Feb. 16, 1915	12.8	75,900		Apr. 1, 1940	23.84	176,000
	Feb. 25, 1915	17.5	129,000	1940	Apr. 5, 1940	19.75	134,000
	July 9, 1915	17.5	129,000		Apr. 9, 1940	18.13	118,000
1916	Mar. 31, 1916	18.3	140,000		Apr. 22, 1940	12.87	71,700
	Apr. 15, 1916	13.3	80,300		Apr. 6, 1941	18.47	122,000
	June 18, 1916	12.4	72,600	1942	Mar. 10, 1942	17.21	109,000
1917	Mar. 28, 1917	12.2	70,900		Mar. 18, 1942	15.27	92,200
	Oct. 31, 1917	12.2	70,900		May 24, 1942	13.06	73,300
1918	Feb. 21, 1918	13.8	85,000	1943	Dec. 31, 1942	23.30	171,000
	Mar. 2, 1918	14.7	94,200		Mar. 18, 1943	14.70	86,800
	Mar. 15, 1918	17.2	124,000		Apr. 22, 1943	12.88	71,700
	May 23, 1919	12.4	72,600		May 13, 1943	13.25	74,100
1920	Mar. 13, 1920	17.2	124,000		May 22, 1943	12.57	69,300
	Mar. 17, 1920	12.6	74,200	1944	Mar. 18, 1944	13.98	81,300
	Mar. 28, 1920	12.6	74,200		May 8, 1944	13.85	79,700
1921	Mar. 10, 1921	12.3	71,700	1945	Mar. 4, 1945	16.15	99,400
1922	Nov. 29, 1921	15.6	104,000		Mar. 7, 1945	13.04	73,300
	Feb. 24, 1922	12.4	72,600		Mar. 18, 1945	14.40	84,500
	Mar. 8, 1922	13.6	83,100		Mar. 22, 1945	15.51	93,300
1923	Mar. 4, 1923	13.4	81,200	1946	Mar. 10, 1946	14.41	84,500
	Apr. 6, 1923	12.4	72,600		May 29, 1946	25.08	191,000
1924	Apr. 7, 1924	17.8	133,000		June 3, 1946	12.61	70,100
1925	Oct. 1, 1924	16.8	119,000	1947	Mar. 26, 1947	13.15	74,900
	Feb. 12, 1925	18.7	146,000		Apr. 6, 1947	19.60	132,000
1926	Mar. 26, 1926	13.5	82,200		June 4, 1947	13.15	74,900
	Apr. 9, 1926	13.6	83,100	1948	Mar. 17, 1948	16.71	104,000
1927	Nov. 17, 1926	16.6	116,000		Mar. 23, 1948	23.04	168,000
	Mar. 15, 1927	14.9	96,200		Apr. 15, 1948	14.06	82,100
	Mar. 21, 1927	13.0	77,600	1949	Dec. 31, 1948	12.88	72,500
	May 25, 1927	14.8	95,200		Jan. 7, 1949	12.77	71,700
1928	Oct. 20, 1927	17.3	126,000	1950	Mar. 29, 1950	21.18	148,000
	Nov. 18, 1927	13.6	83,100		Apr. 5, 1950	16.72	102,000
	Mar. 27, 1928	12.2	70,900				
	May 1, 1928	13.2	79,400				

## SUSQUEHANNA RIVER BASIN

Susquehanna River at Towanda, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 27, 1950	17.96	115,000	1955	Mar. 2, 1955	14.82	84,300
	Dec. 5, 1950	15.93	94,200				
	Dec. 9, 1950	13.50	73,500	1956	Oct. 16, 1955	18.96	124,000
	Mar. 31, 1951	18.91	124,000		Mar. 8, 1956	22.28	160,000
1952	Mar. 12, 1952	17.59	111,000		Apr. 5, 1956	18.27	118,000
	Apr. 6, 1952	13.16	71,100	1957	Jan. 24, 1957	13.63	74,300
1953	Dec. 12, 1952	15.61	91,500		Apr. 7, 1957	15.56	91,500
	Mar. 25, 1953	13.62	74,300	1958	Apr. 8, 1958	20.86	144,000
1954	May 4, 1954	12.48	65,500		Apr. 23, 1958	13.39	72,000

5320. Towanda Creek near Monroeton, Pa.

Location. --Lat 41°42'25", long 76°28'20", at Lehigh Valley Railroad bridge, 1,000 ft upstream from South Branch Towanda Creek, and half a mile south of Monroeton, Bradford County.

Drainage area. --215 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1942; recording gage thereafter. Prior to Oct. 1, 1942 at site 1 mile upstream at datum 20.44 ft higher. Datum of present gage is 753.70 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 9,500 cfs and extended on basis of slope-area and contracted-opening measurements.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 4,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Jan. 31, 1914	6.9	6,900	1923	Mar. 16, 1923	5.0	3,380
	Mar. 28, 1914	7.07	7,960	1924	Jan. 11, 1924	7.3	7,900
	May 13, 1914	6.3	5,530		Apr. 6, 1924	8.6	12,200
1915	Jan. 7, 1915	8.8	12,900		May 12, 1924	5.9	4,720
	Jan. 19, 1915	6.8	6,650		Sept. 30, 1924	7.8	9,400
	Feb. 15, 1915	6.9	6,900	1925	Feb. 11, 1925	7.25	7,650
	Feb. 24, 1915	6.7	6,410		Nov. 13, 1925	5.5	3,960
	July 8, 1915	10.31	19,900	1926	Nov. 16, 1926	11.0	22,000
	Aug. 6, 1915	7.0	7,150		Nov. 19, 1926	6.4	5,740
1916	Mar. 30, 1916	6.8	7,080		Jan. 22, 1927	6.3	5,530
	Apr. 14, 1916	6.0	4,920		Mar. 14, 1927	6.3	5,530
	June 16, 1916	6.5	5,960	1927	Apr. 22, 1927	5.8	4,530
1917	Jan. 14, 1917	5.7	4,340		Oct. 19, 1927	8.5	11,800
	Aug. 9, 1917	9.5	15,700		Nov. 18, 1927	5.8	4,530
1918	Oct. 30, 1917	5.7	4,340		Dec. 8, 1927	6.5	5,960
	Feb. 26, 1918	7.0	7,150	1928	Apr. 30, 1928	7.4	8,200
	Mar. 14, 1918	8.0	10,000		June 6, 1928	7.1	7,400
	Apr. 15, 1918	6.8	6,650		June 30, 1928	7.0	7,150
1919	Mar. 9, 1919	5.7	4,340	1929	Feb. 26, 1929	5.7	4,340
	July 22, 1919	8.8	12,900		May 2, 1929	7.6	8,800
1920	Mar. 5, 1920	7.0	7,150	1930	Mar. 8, 1930	6.4	5,740
	Mar. 12, 1920	7.8	9,400	1931	Apr. 2, 1931	5.52	4,310
	July 24, 1920	6.5	5,960		Mar. 31, 1932	5.7	4,340
1921	Apr. 23, 1921	5.7	4,340	1932	Nov. 19, 1932	5.8	4,530
1922	Mar. 7, 1922	7.6	8,800		Aug. 24, 1933	10.2	18,500
	June 3, 1922	6.2	5,320		Sept. 4, 1933	8.7	12,500

## Towanda Creek near Monroeton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Nov. 19, 1932	5.8	4,530	1947	Mar. 14, 1947	6.55	6,030
	Aug. 24, 1933	10.2	18,500		Apr. 5, 1947	10.33	19,800
	Sept. 4, 1933	8.7	12,500		May 25, 1947	7.50	8,460
1934	Sept. 17, 1934	6.8	6,650	1948	Mar. 16, 1948	5.83	4,520
1935	Dec. 1, 1934	7.5	8,500		Apr. 14, 1948	6.70	6,260
1936	Nov. 13, 1935	6.0	4,920	1949	Nov. 20, 1948	6.42	5,600
	Mar. 12, 1936	10.12	18,100		Dec. 30, 1948	6.62	6,030
	Mar. 18, 1936	10.78	21,200	1950	Mar. 28, 1950	7.29	7,850
1937	Jan. 22, 1937	6.0	2,950		Apr. 4, 1950	5.83	4,520
					Sept. 1, 1950	7.38	8,150
1938	Oct. 23, 1937	5.7	4,340	1951	Nov. 25, 1950	11.77	27,400
	Oct. 28, 1937	5.8	4,530		Dec. 4, 1950	7.11	7,280
	Nov. 13, 1937	6.4	5,740		Dec. 8, 1950	7.04	7,010
1939	Dec. 10, 1938	7.3	7,300		Jan. 24, 1951	5.83	4,520
	Feb. 15, 1939	7.0	7,150		Feb. 7, 1951	6.21	5,190
	Feb. 20, 1939	6.4	5,740		Mar. 30, 1951	6.84	6,500
1940	Mar. 30, 1940	10.0	17,700	1952	Mar. 11, 1952	10.38	20,300
	Apr. 4, 1940	7.1	7,400	1953	Dec. 11, 1952	7.91	10,200
	Apr. 20, 1940	6.6	6,180		Jan. 24, 1953	5.46	4,490
	July 23, 1940	5.8	4,530		Mar. 24, 1953	6.62	6,590
1941	Apr. 5, 1941	7.8	8,643	1954	Mar. 1, 1954	5.33	4,530
1942	Dec. 24, 1941	6.65	6,180		May 4, 1954	9.56	16,600
	Mar. 9, 1942	7.82	8,640	1955	Dec. 30, 1954	5.42	4,800
	May 23, 1942	7.9	8,860				
	Sept. 27, 1942	6.2	5,390	1956	Oct. 14, 1955	7.87	10,500
1943	Dec. 30, 1942	8.09	10,100		Mar. 6, 1956	5.84	5,490
	Apr. 20, 1943	6.36	5,020		Mar. 8, 1956	6.39	6,630
1944					Apr. 4, 1956	5.08	4,320
	Oct. 28, 1943	6.12	4,490	1957	Nov. 2, 1956	9.17	15,000
	Nov. 9, 1943	7.55	7,950		Apr. 6, 1957	8.59	12,800
	May 7, 1944	9.70	16,800	1958	Dec. 21, 1957	6.80	7,490
	June 24, 1944	6.54	5,450		Apr. 7, 1958	6.21	6,230
1945	Mar. 3, 1945	6.53	5,470		Apr. 22, 1958	6.83	7,490
1946	Mar. 9, 1946	6.74	5,980				
	May 28, 1946	12.53	31,300				

<sup>a</sup>Backwater from ice

## 5335. North Fork Mehoopany Creek near Lovelton, Pa.

Location. --Lat 41°31'50", long 76°09'20", 0.5 mile upstream from bridge on State Highway 87, 0.5 mile downstream from Douglas Hollow, 1.7 miles east of Lovelton, Wyoming County, and 2.1 miles upstream from mouth.

Drainage area. --35.2 sq mi.

Gage. --Nonrecording gage prior to April 4, 1941; recording gage thereafter. Datum of gage is 842.67 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 3,400 cfs and extended by logarithmic plotting.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 600 cfs.



## SUSQUEHANNA RIVER BASIN

North Fork Mehoopany Creek near Lovelton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1941	Apr. 6, 1941	4.26	624	1951	Nov. 25, 1950	8.54	8,290		
1942	Dec. 24, 1941	4.46	727		Dec. 4, 1950	6.17	2,360		
	Feb. 17, 1942	<sup>a</sup> 5.0	—		Dec. 8, 1950	5.72	1,700		
	Mar. 9, 1942	4.98	1,020		Jan. 24, 1951	5.46	1,420		
	May 22, 1942	5.52	1,470		Feb. 1, 1951	4.78	816		
1943	Dec. 30, 1942	5.33	1,320		Feb. 7, 1951	5.66	1,640		
1944	Nov. 9, 1943	5.35	1,320		Mar. 30, 1951	4.89	902		
	May 7, 1944	4.95	985		Apr. 12, 1951	4.99	982		
	May 23, 1944	4.47	684	1952	Mar. 11, 1952	8.76	9,300		
	June 24, 1944	4.31	600			May 12, 1952	4.65	775	
1945	Feb. 22, 1945	<sup>a</sup> 5.52	—			May 25, 1952	4.88	936	
	Feb. 27, 1945	4.15	502		1953	Nov. 22, 1952	4.74	838	
	1946	Mar. 9, 1946	4.52	620			Dec. 11, 1952	6.15	2,240
		May 27, 1946	8.28	7,640			Jan. 24, 1953	4.50	603
1947		Mar. 14, 1947	5.09	1,080			Mar. 26, 1953	4.55	636
		Apr. 5, 1947	7.16	4,340	1954	Feb. 17, 1954	4.66	708	
1948	Mar. 21, 1948	5.32	1,270			Mar. 1, 1954	5.00	960	
	Apr. 14, 1948	4.74	788			Apr. 17, 1954	5.00	960	
	June 27, 1948	4.69	753	1955	Dec. 30, 1954	4.50	603		
1949	Dec. 30, 1948	5.19	1,160			Aug. 13, 1955	5.83	1,840	
	Apr. 14, 1949	5.45	1,420			Aug. 18, 1955	5.93	1,960	
	May 20, 1949	4.73	781	1956	Oct. 15, 1955	7.86	6,220		
1950	Mar. 8, 1950	5.43	1,420			Oct. 30, 1955	4.85	778	
	Mar. 28, 1950	5.74	1,760			Nov. 16, 1955	4.84	768	
	Apr. 4, 1950	4.61	697			Mar. 8, 1956	5.28	1,200	
	1957					Apr. 6, 1957	5.80	1,780	
1958						Dec. 20, 1957	6.46	2,740	
						Dec. 26, 1957	4.75	770	
						Apr. 6, 1958	5.48	1,440	
					Apr. 22, 1958	4.92	896		

<sup>a</sup>Backwater from ice

## 5340. Tunkhannock Creek at Dixon, Pa.

Location. --Lat 41°33'30", long 75°53'40", on left bank 20 ft downstream from abandoned highway bridge, 300 feet upstream from bridge on U. S. Highway 6 at Dixon, Wyoming County, 3 miles northeast of Tunkhannock and 4 miles upstream from mouth.

Drainage area. --383 sq mi.

Gage. --Nonrecording gage prior to Aug. 10, 1938; recording gage thereafter. Datum of gage is 610.50 ft above mean sea level (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 5,200 cfs and extended on basis of contracted-opening measurement of peak flow.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 5,700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	9.99	14,400	1916	Dec. 26, 1915	7.1	6,120
	Apr. 9, 1914	7.6	7,280		Mar. 30, 1916	10.7	16,800
1915					Apr. 14, 1916	7.15	6,340
	Jan. 13, 1915	8.2	8,880	1917	Jan. 14, 1917	7.05	5,900
	Feb. 15, 1915	7.8	7,800		Feb. 27, 1917	6.9	5,700

## Tunkhannock Creek at Dixon, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	Oct. 30, 1917	11.7	20,900	1937	Jan. 25, 1937	6.86	5,620
	Feb. 20, 1918	9.2	11,800	1938	Oct. 23, 1937	10.60	16,500
	Feb. 26, 1918	7.5	7,040		Dec. 18, 1937	7.4	6,470
	Mar. 14, 1918	7.7	7,540		Jan. 25, 1938	7.5	6,650
1919	Apr. 12, 1919	5.9	3,990		Sept. 22, 1938	7.44	6,470
1920	Nov. 27, 1919	8.8	10,600	1939	Dec. 6, 1938	9.00	11,200
	Mar. 6, 1920	9.3	12,100		Dec. 10, 1938	8.34	9,160
	Mar. 12, 1920	10.0	14,400		Feb. 15, 1939	9.90	14,000
	Mar. 17, 1920	7.4	6,800		Feb. 20, 1939	7.63	6,830
	Mar. 27, 1920	7.25	6,340	1940	Mar. 31, 1940	13.50	29,400
	July 24, 1920	7.5	7,040		Apr. 5, 1940	7.76	7,800
	Sept. 12, 1920	8.1	8,600		Apr. 8, 1940	7.25	5,840
1921	Oct. 1, 1920	9.3	12,100	1941	Apr. 6, 1941	6.95	5,500
	Dec. 1, 1920	7.3	6,560				
	Dec. 14, 1920	8.0	8,320	1942	Mar. 9, 1942	7.36	6,800
	Mar. 3, 1921	7.0	5,900		May 23, 1942	12.45	24,000
	Mar. 10, 1921	8.1	8,600	1943	Nov. 25, 1942	7.90	8,060
1922	Nov. 29, 1921	8.3	9,160		Dec. 2, 1942	8.46	9,720
	Mar. 8, 1922	7.7	7,540		Dec. 30, 1942	11.95	22,200
	June 18, 1922	12.0	22,200		Feb. 24, 1943	7.05	5,900
	June 29, 1922	8.1	8,600		Mar. 17, 1943	7.72	7,540
1923	Mar. 16, 1923	7.5	7,040		Mar. 20, 1943	7.66	7,540
1924	Jan. 11, 1924	7.4	6,800		May 21, 1943	7.44	6,800
	Apr. 6, 1924	10.1	14,800		May 26, 1943	6.89	5,700
	Sept. 30, 1924	13.1	27,400	1944	Nov. 9, 1943	9.97	14,400
1925	Feb. 11, 1925	11.3	19,200		Apr. 25, 1944	7.00	5,900
1926	Apr. 9, 1926	7.1	5,810	1945	Feb. 27, 1945	7.29	6,560
1927	Oct. 6, 1926	11.2	18,800		Mar. 4, 1945	8.44	9,440
	Nov. 16, 1926	9.6	13,000		July 29, 1945	7.51	6,430
1928	Oct. 19, 1927	11.05	18,000	1946	May 21, 1946	9.03	11,200
	Nov. 18, 1927	7.4	6,290		May 28, 1946	11.60	20,400
	Dec. 8, 1927	7.8	7,800	1947	Mar. 14, 1947	7.86	8,060
	Feb. 22, 1928	7.2	5,970		Mar. 25, 1947	7.71	7,540
	June 6, 1928	7.2	5,970		Apr. 5, 1947	13.96	32,200
	June 30, 1928	8.7	10,300		July 8, 1947	8.00	8,320
				1948	Mar. 16, 1948	8.75	10,600
1929	Mar. 14, 1929	7.2	5,970		Mar. 22, 1948	8.08	8,600
1930	Dec. 20, 1929	7.0	5,750		Apr. 14, 1948	8.17	8,880
1931	July 10, 1931	6.9	5,590		June 28, 1948	7.06	6,120
				1949	Dec. 30, 1948	8.94	10,900
1932	Feb. 10, 1932	9.8	13,700		Jan. 6, 1949	8.49	9,720
	Apr. 1, 1932	7.9	8,060	1950	Dec. 13, 1949	7.15	6,340
1933	Oct. 6, 1932	9.0	11,200		Mar. 9, 1950	7.22	6,340
	Nov. 1, 1932	6.9	5,700		Mar. 28, 1950	9.72	13,400
	Nov. 19, 1932	8.8	10,600	1951	Nov. 26, 1950	13.19	28,000
	Aug. 24, 1933	11.1	18,400		Dec. 4, 1950	13.21	28,000
	Sept. 4, 1933	6.9	5,700		Feb. 7, 1951	7.68	7,540
	Sept. 16, 1933	7.8	7,800		Mar. 20, 1951	6.88	5,700
1934	Mar. 5, 1934	7.4	6,800	1952	Jan. 27, 1952	7.13	6,120
	Sept. 17, 1934	9.0	11,200		Mar. 11, 1952	11.70	20,900
1935	Dec. 1, 1934	9.7	13,400		Apr. 15, 1952	8.08	18,600
					May 26, 1952	6.92	5,700
1936	Nov. 13, 1935	10.8	17,200		July 10, 1952	7.61	7,280
	Mar. 12, 1936	9.6	13,000	1953	Dec. 11, 1952	9.76	13,700
	Mar. 18, 1936	11.36	19,600		Jan. 24, 1953	7.78	7,800
					Mar. 26, 1953	7.48	7,040

## SUSQUEHANNA RIVER BASIN

Tunkhannock Creek at Dixon, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Mar. 2, 1954	7.27	6,720	1957	Apr. 6, 1957	9.92	14,000
	Apr. 17, 1954	10.36	15,800				
1955	Aug. 19, 1955	7.92	8,150	1958	Dec. 21, 1957	8.13	8,610
					Dec. 26, 1957	7.40	7,000
1956	Oct. 16, 1955	12.95	26,700		Feb. 28, 1958	6.68	5,700
	Oct. 30, 1955	7.21	6,630		Apr. 7, 1958	8.67	10,300
	Nov. 16, 1955	7.26	6,800				
	Feb. 25, 1956	6.92	6,060				
	Mar. 8, 1956	8.61	10,000				

5345. Lackawanna River at Archbald, Pa.

Location.--Lat 41°30'15", long 75°32'35", on right bank in Archbald, Lackawanna County, 0.5 mile upstream from White Oak Run, and Gilmartin Street Bridge.

Drainage area.--108 sq mi.

Gage.--Recording gage. Datum of gage is 889.33 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,200 cfs and extended above on basis of slope-area measurement of peak flow.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 2,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 31, 1940	7.36	4,680	1949	Dec. 30, 1948	—	3,300
	Apr. 4, 1940	5.40	2,440		Jan. 6, 1949	5.41	2,430
	Apr. 9, 1940	5.74	2,740	1950	Mar. 28, 1950	5.76	2,840
	Sept. 1, 1940	5.34	2,340		Apr. 5, 1950	5.13	2,160
1941	Apr. 6, 1941	4.98	2,050	1951	Nov. 25, 1950	7.43	4,920
1942	May 22, 1942	10.58	9,510		Dec. 4, 1950	6.29	3,500
					Mar. 31, 1951	5.33	2,380
1943	Dec. 30, 1942	5.87	2,960	1952	Apr. 15, 1952	5.84	2,960
	Mar. 17, 1943	5.27	2,300				
1944	Nov. 9, 1943	6.22	3,380	1953	Dec. 11, 1952	5.72	2,780
1945	July 19, 1945	5.46	2,520		Jan. 25, 1953	5.25	2,260
				1954	Apr. 17, 1954	5.09	2,110
1946	May 28, 1946	6.32	3,500				
	July 2, 1946	5.09	2,150	1955	Aug. 19, 1955	7.50	5,050
1947	Apr. 5, 1947	8.11	5,880				
	May 22, 1947	6.15	3,380	1956	Oct. 15, 1955	8.02	5,770
	July 8, 1947	5.63	2,720				
1948	Mar. 21, 1948	5.58	2,660	1957	Apr. 6, 1957	5.20	2,210
				1958	Dec. 21, 1957	5.45	2,480
					Apr. 6, 1958	5.60	2,660

## 5355. Lackawanna River at Moosic, Pa.

Location. --Lat 41°21'30", long 75°43'50", at highway bridge at River Street or Moosic Road, at Moosic, Lackawanna County, and 0.4 mile above Spring Brook.

Drainage area. --264 sq mi.

Gage. --Nonrecording gage. Datum of gage is 619.46 ft above mean sea level, datum unknown.

Stage-discharge relation. --Defined by current-meter measurements below 3,800 cfs and extended on basis of slope-area measurements of peak flow.

Remarks. --Base for partial-duration series, 2,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	8.00	7,520	1923	Mar. 23, 1923	4.8	2,460
	July 10, 1914	8.13	7,710				
	Jan. 19, 1914	4.85	2,400	1924	Jan. 11, 1924	5.2	2,840
1915	Feb. 16, 1915	5.6	3,460		Jan. 16, 1924	5.0	2,580
	Feb. 25, 1915	5.1	2,700		Apr. 7, 1924	6.2	4,360
1916	Apr. 2, 1916	6.8	5,360		May 13, 1924	4.9	2,460
	Apr. 14, 1916	5.8	3,720		Sept. 30, 1924	8.49	8,500
	Apr. 27, 1916	5.0	2,580	1925	Feb. 11, 1925	6.7	5,580
1917	Mar. 24, 1917	5.2	2,840	1926	Nov. 16, 1925	4.7	2,340
1918	Oct. 31, 1917	8.8	9,100	1927	Nov. 16, 1926	8.0	7,520
	Feb. 20, 1918	5.35	3,120		Jan. 22, 1927	5.0	2,580
	Feb. 26, 1918	4.9	2,460		Mar. 14, 1927	5.8	3,720
	Apr. 18, 1918	4.9	2,460		Mar. 21, 1927	4.9	2,460
1919	May 10, 1919	4.5	2,020		May 25, 1927	5.2	2,840
1920	Nov. 27, 1919	5.0	2,580	1928	Oct. 19, 1927	9.3	10,200
	Mar. 5, 1920	5.1	2,710		Nov. 17, 1927	6.6	5,020
	Mar. 13, 1920	7.7	6,950		Dec. 8, 1927	6.0	4,040
	Mar. 27, 1920	5.1	2,710		Mar. 27, 1928	5.1	2,710
	July 24, 1920	6.3	4,520		Apr. 24, 1928	4.95	2,580
1921	Dec. 2, 1920	5.0	2,580		May 1, 1928	5.8	3,720
	Mar. 10, 1921	5.4	3,300		June 29, 1928	6.6	6,770
1922	Nov. 29, 1921	6.6	5,380		July 5, 1928	5.7	3,570
	Dec. 3, 1921	5.1	2,710		July 13, 1928	6.1	4,200
	Feb. 24, 1922	5.2	2,840				
	Mar. 8, 1922	5.1	2,710				
	Apr. 15, 1922	5.3	2,980				
	June 18, 1922	6.1	4,200				
	June 29, 1922	5.3	2,980				
	July 1, 1922	6.0	4,040				

## 5360. Lackawanna River at Old Forge, Pa.

Location. --Lat 41°21'30", long 75°44'40", on right bank 150 ft upstream from Delaware, Lackawanna and Western Railroad bridge and 0.5 mile upstream from St. Johns Creek.

Drainage area. --332 sq mi.

Gage. --Recording gage. Datum of gage is 595.26 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 5,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 4,200 cfs.



## SUSQUEHANNA RIVER BASIN

Lackawanna River at Old Forge, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Dec. 6, 1938	7.71	6,980	1949	Dec. 30, 1948	8.11	8,340
	Feb. 15, 1939	7.89	7,320		Jan. 6, 1949	6.69	5,920
1940	Mar. 31, 1940	11.86	14,300	1950	Mar. 9, 1950	5.76	4,410
	Apr. 5, 1940	6.67	5,290		Mar. 28, 1950	7.92	7,960
	Apr. 9, 1940	6.70	5,290		Apr. 5, 1950	6.20	5,070
1941	Apr. 6, 1941	5.61	4,130	1951	Nov. 25, 1950	8.81	9,490
1942	May 23, 1942	15.30	20,900		Dec. 4, 1950	9.80	11,300
					Mar. 31, 1951	5.70	4,270
1943	Nov. 25, 1942	6.15	4,530	1952	Mar. 11, 1952	7.44	7,110
	Dec. 30, 1942	8.53	8,340		Apr. 15, 1952	7.71	7,620
1944	Nov. 9, 1943	7.52	6,740		May 26, 1952	6.60	5,750
	Apr. 25, 1944	6.00	4,440	1953	Dec. 11, 1952	7.87	7,960
1945	Mar. 4, 1945	—	—		Jan. 24, 1953	6.97	6,430
	July 19, 1945	8.15	7,860		Mar. 26, 1953	5.66	4,270
	Sept. 2, 1945	6.56	5,340	1954	Apr. 17, 1954	6.59	5,750
1946	May 28, 1946	8.47	8,510				
	July 31, 1946	6.44	5,190	1955	Aug. 19, 1955	20.05	31,000
1947	Mar. 14, 1947	6.00	4,440	1956	Oct. 16, 1955	9.53	10,800
	Apr. 5, 1947	10.72	12,200	1957	Apr. 6, 1957	7.29	6,940
	May 22, 1947	7.77	7,220		Apr. 8, 1957	5.70	4,220
	July 8, 1947	8.98	9,190		1958	Dec. 21, 1957	6.27
1948	Mar. 16, 1948	6.00	4,590	Apr. 6, 1958		7.90	7,960
	Mar. 21, 1948	6.26	5,190				
	Apr. 14, 1948	6.21	4,740				

## 5365. Susquehanna River at Wilkes-Barre, Pa.

Location. --Lat 41°15'00", long 75°52'55", on left bank at foot of West Union Street, Wilkes-Barre, Luzerne County, 800 ft downstream from North Street Bridge and 1.6 miles upstream from Toby Creek.

Drainage area. --9,960 sq mi.

Gage. --Nonrecording gage prior to Oct. 30, 1929; recording gage Oct. 31, 1929 to Oct. 15, 1943; nonrecording gage Oct. 16, 1943 to Mar. 23, 1949; recording gage thereafter. At numerous sites within 1,300 ft of present site. Datum of gage is 512.07 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --22 ft.

Remarks. --Base for partial-duration series, 82,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1787	Oct. 5, 1786	29	189,000	1891	Jan. 24, 1891	26.8	164,000
1807	Apr. 1807	30	202,000		Feb. 19, 1891	23.5	130,000
					Feb. 27, 1891	23.0	125,000
1809	July 1809	20	95,200		Mar. 24, 1891	18.0	80,500
1833	May 14, 1833	28	176,000	1892	Jan. 14, 1892	20.0	97,100
1865	Mar. 18, 1865	33.1	232,000		Jan. 23, 1892	18.0	72,800
					Feb. 26, 1892	20.0	97,100
					Mar. 28, 1892	17.0	72,800
				Apr. 4, 1892	21.6	112,000	

SUSQUEHANNA RIVER BASIN  
Susquehanna River at Wilkes-Barre, Pa.--Continued

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Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1893	Feb. 16, 1893	18.0	80,500	1910	Jan. 23, 1910	19.6	93,700
	Mar. 11, 1893	<sup>a</sup> 28.7	—		Mar. 3, 1910	26.1	157,000
	May 5, 1893	22.0	115,000		Apr. 25, 1910	21.6	112,000
1894	Mar. 8, 1894	19.0	88,600	1911	Mar. 29, 1911	19.7	94,500
	May 21, 1894	20.0	97,100		Apr. 8, 1911	17.2	74,300
1895	Mar. 3, 1895	<sup>a</sup> 27.0	—	1912	Mar. 19, 1912	17.9	79,700
	Apr. 10, 1895	21.8	113,000		Mar. 31, 1912	22.0	115,000
1896	Jan. 1, 1896	19.0	88,600		Apr. 3, 1912	23.2	127,000
	Feb. 7, 1896	19.0	88,600	1913	Jan. 9, 1913	20.2	97,200
	Mar. 3, 1896	17.0	72,800		Mar. 28, 1913	28.5	184,000
	Mar. 21, 1896	17.0	72,800	1914	Feb. 1, 1914	17.1	70,800
	Apr. 1, 1896	24.0	135,000		Mar. 29, 1914	28.3	182,000
1897	Oct. 15, 1896	19.0	88,600		Apr. 9, 1914	21.3	107,000
	Mar. 26, 1897	17.0	72,800		Apr. 21, 1914	17.3	72,400
1898	Jan. 16, 1898	<sup>a</sup> 21.8	—		May 14, 1914	21.0	105,000
	Apr. 26, 1898	17.8	78,900	1915	Jan. 9, 1915	18.8	84,900
1899	Jan. 7, 1899	<sup>a</sup> 25.0	—		Jan. 20, 1915	17.5	74,000
	Mar. 6, 1899	18.2	82,100		Feb. 17, 1915	18.8	84,900
1900	Jan. 21, 1900	18.8	86,800		Feb. 26, 1915	23.3	127,000
	Feb. 9, 1900	<sup>a</sup> 17.8	—		July 10, 1915	22.6	120,000
	Mar. 2, 1900	19.7	94,500	1916	Apr. 2, 1916	26.5	160,000
1901	Nov. 28, 1900	22.0	115,000		June 18, 1916	17.0	70,000
	Mar. 12, 1901	<sup>a</sup> 21.5	—	1917	Mar. 28, 1917	17.7	75,700
	Mar. 28, 1901	21.6	112,000	1918	Oct. 30, 1917	18.1	79,000
	Apr. 8, 1901	18.2	82,100		Feb. 21, 1918	17.5	74,100
	Apr. 23, 1901	19.2	90,300		Mar. 2, 1918	18.9	85,700
	May 31, 1901	17.8	78,900		Mar. 15, 1918	23.0	124,000
1902	Dec. 15, 1901	27.0	166,000		Apr. 17, 1918	18.3	80,700
	Jan. 23, 1902	<sup>a</sup> 18.2	—	1919	May 24, 1919	16.6	66,900
	Mar. 2, 1902	31.4	213,000	1920	Mar. 13, 1920	26.0	155,000
	Mar. 18, 1902	20.4	101,000		Mar. 18, 1920	18.3	80,700
1903	Dec. 23, 1902	18.2	82,100		Mar. 28, 1920	18.4	81,500
	Jan. 31, 1903	17.7	78,200	1921	Mar. 10, 1921	19.0	86,600
	Feb. 5, 1903	19.5	92,800	1922	Nov. 29, 1921	22.3	117,000
	Mar. 2, 1903	21.4	110,000		Mar. 9, 1922	18.6	83,200
	Mar. 10, 1903	19.6	93,700	1923	Mar. 5, 1923	19.6	91,800
	Mar. 12, 1903	19.3	91,100	1924	Apr. 8, 1924	23.5	129,000
	Mar. 25, 1903	22.4	119,000	1925	Oct. 1, 1924	21.7	111,000
	Aug. 30, 1903	20.5	101,000		Feb. 13, 1925	25.1	145,000
1904	Oct. 11, 1903	21.7	112,000	1926	Mar. 26, 1926	19.4	90,100
	Jan. 23, 1904	20.5	101,000		Apr. 10, 1926	18.6	83,200
	Feb. 10, 1904	25.7	152,000	1927	Nov. 17, 1926	22.7	121,000
	Mar. 9, 1904	30.6	204,000		Mar. 15, 1927	19.7	92,700
	Mar. 27, 1904	22.9	124,000		Mar. 22, 1927	17.4	73,300
1905	Mar. 26, 1905	23.4	129,000		May 26, 1927	18.9	85,700
1906	Apr. 1, 1906	18.1	81,300	1928	Oct. 20, 1927	24.7	141,000
1907	Mar. 16, 1907	16.0	65,500		Nov. 19, 1927	17.9	77,400
1908	Dec. 12, 1907	19.8	95,400		Mar. 28, 1928	17.2	71,600
	Dec. 25, 1907	18.7	86,100		May 1, 1928	20.2	97,200
	Feb. 17, 1908	23.5	130,000		June 27, 1928	17.1	70,800
	Mar. 16, 1908	21.0	106,000	1929	Mar. 17, 1929	23.1	125,000
	Mar. 30, 1908	20.2	98,800		Apr. 22, 1929	26.4	159,000
1909	Feb. 21, 1909	18.6	85,300				
	Feb. 26, 1909	18.6	85,300				
	Apr. 15, 1909	17.9	79,700				
	May 2, 1909	23.0	125,000				

## SUSQUEHANNA RIVER BASIN

Susquehanna River at Wilkes-Barre, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Mar. 9, 1930	16.7	67,600	1945	Mar. 5, 1945	21.8	119,000
1931	Mar. 30, 1931	17.6	74,700		Mar. 18, 1945	19.2	95,800
1932	Apr. 2, 1932	20.5	107,000		Mar. 23, 1945	19.4	97,600
1933	Aug. 25, 1933	19.72	99,800	1946	Mar. 10, 1946	19.1	94,800
1934	Mar. 6, 1934	18.0	85,500		May 29, 1946	32.01	210,000
1935	Jan. 11, 1935	20.75	107,000	1947	Apr. 7, 1947	24.88	151,000
	July 10, 1935	25.39	151,000	1948	Mar. 18, 1948	21.48	118,000
1936	Mar. 13, 1936	28.60	184,000		Mar. 23, 1948	28.76	193,000
	Mar. 20, 1936	33.07	232,000		Apr. 15, 1948	19.36	98,700
1937	Jan. 23, 1937	17.15	77,300	1949	Dec. 31, 1948	17.39	82,700
1938	Sept. 24, 1938	14.70	64,900	1950	Mar. 30, 1950	27.04	172,000
1939	Feb. 22, 1939	23.80	137,000		Apr. 6, 1950	21.75	119,000
	Mar. 28, 1938	16.90	82,300	1951	Nov. 27, 1950	21.75	119,000
1940	Apr. 1, 1940	31.53	212,000		Dec. 5, 1950	21.31	114,000
	Apr. 22, 1940	18.48	93,000		Apr. 1, 1951	22.72	128,000
1941	Apr. 7, 1941	23.50	138,000	1952	Mar. 13, 1952	22.39	124,000
1942	Mar. 11, 1942	20.62	111,000	1953	Dec. 12, 1952	19.43	98,000
	Mar. 19, 1942	18.68	94,600	1954	May 5, 1954	16.85	78,900
	May 24, 1942	17.20	82,600	1955	Mar. 3, 1955	17.80	85,900
1943	Jan. 1, 1943	29.37	191,000	1956	Oet. 16, 1955	26.45	166,000
	Mar. 18, 1943	19.40	101,000		Mar. 9, 1956	28.17	186,000
1944	May 9, 1944	18.5	90,000		Apr. 6, 1956	22.50	126,000
				1957	Apr. 7, 1957	20.48	107,000
				1958	Apr. 8, 1958	26.80	170,000
					Apr. 28, 1958	17.48	83,800

<sup>a</sup>Backwater from ice.

## 5370. Toby Creek at Luzerne, Pa.

Location. --Lat 41°16'55", long 75°53'45", on right bank 150 ft upstream from bridge on U. S. Highway 309 in Luzerne, Luzerne County, 0.5 mile upstream from outlet works of flood basin and 2.5 miles upstream from mouth.

Drainage area. --32.4 sq mi.

Gage. --Recording gage. Datum of gage is 574.60 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 1,000 cfs and extended above.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 630 cfs.

SUSQUEHANNA RIVER BASIN  
Toby Creek at Luzerne, Pa.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Feb. 17, 1942	<sup>a</sup> 2.50	—	1951	Nov. 25, 1950	2.58	691
	May 22, 1942	—	<sup>b</sup> 1,600		Dec. 4, 1950	3.59	1,580
1943	Dec. 30, 1942	4.8	3,010		Feb. 7, 1951	2.60	705
1944	Oct. 26, 1943	2.59	662	1952	July 9, 1952	2.65	740
	Nov. 9, 1943	3.44	1,420		July 22, 1952	2.94	962
	Mar. 13, 1944	2.78	640	1953	Dec. 11, 1952	2.83	874
1945	July 19, 1945	2.79	822		Jan. 24, 1953	2.96	978
1946	May 28, 1946	4.48	1,800	1954	Apr. 17, 1954	3.21	1,200
	July 2, 1946	3.87	1,210	1955	Aug. 18, 1955	4.33	2,420
	July 31, 1946	5.01	2,440	1956	Oct. 15, 1955	2.56	695
1947	May 22, 1947	2.58	628		Feb. 25, 1956	2.47	634
1948	Mar. 16, 1948	2.79	790	1957	Apr. 6, 1957	3.80	1,840
	Apr. 14, 1948	3.19	1,170	1958	Jan. 22, 1958	3.18	1,240
1949	Dec. 30, 1948	3.20	1,180		Feb. 28, 1958	2.58	721
	Apr. 14, 1949	2.83	874		Apr. 6, 1958	2.55	699
1950	Mar. 8, 1950	2.93	954				
	Mar. 28, 1950	3.06	1,060				

<sup>a</sup>Backwater from ice.

<sup>b</sup>No gage height record, discharge estimated.

5375. Solomon Creek at Wilkes-Barre, Pa.

Location. --Lat 41°13'40", long 75°54'15", at bridge of Central Railroad of Pennsylvania at southwest city limit of Wilkes-Barre, Luzerne County, 0.4 mile downstream from Spring Run, and 3.4 miles upstream from mouth.

Drainage area. --15.7 sq mi.

Gage. --Recording gage. Datum of gage is 548.31 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 350 cfs and extended on basis of computation of flow through culvert.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 320 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 30, 1940	5.48	1,430	1946	May 28, 1946	2.88	360
1941	June 16, 1941	1.98	233		June 2, 1946	3.04	480
					July 31, 1946	4.90	1,200
1942	May 22, 1942	5.50	1,380	1947	May 22, 1947	5.08	1,260
	July 6, 1942	2.86	325		July 8, 1947	3.68	837
1943	Dec. 30, 1942	3.60	745		Aug. 17, 1947	6.40	1,610
1944	Oct. 26, 1943	3.96	900	1948	Apr. 14, 1948	2.95	420
	Oct. 28, 1943	2.98	408	1949	Dec. 30, 1948	3.29	594
	Nov. 9, 1943	4.06	920		Jan. 5, 1949	2.94	450
1945	July 15, 1945	4.15	960		May 7, 1949	3.90	860
	July 19, 1945	5.14	1,290	1950	Mar. 28, 1950	3.18	528
	July 28, 1945	2.86	336				
	Sept. 1, 1945	4.50	1,080				



## SUSQUEHANNA RIVER BASIN

Solomon Creek at Wilkes-Barre, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 25, 1950	4.51	1,080	1954	May 10, 1954	3.04	351
	Dec. 4, 1950	5.32	1,320		Aug. 19, 1954	3.28	507
	Jan. 24, 1951	2.95	390		Aug. 29, 1954	3.00	325
	Feb. 7, 1951	2.97	402	1955	July 6, 1955	3.50	630
1952	Nov. 3, 1951	3.23	558		Aug. 11, 1955	3.08	377
	Nov. 7, 1951	3.28	504		Aug. 13, 1955	3.25	480
	Mar. 11, 1952	3.90	830		Aug. 18, 1955	9.83	2,450
	May 25, 1952	3.07	370	1956	Oct. 15, 1955	4.40	1,040
	July 9, 1952	4.28	1,000		Oct. 30, 1955	3.52	630
	Sept. 2, 1952	4.59	1,110		Nov. 16, 1955	3.53	655
1953	Oct. 2, 1952	3.00	325		Apr. 29, 1956	3.82	780
	Nov. 22, 1952	3.54	688		May 7, 1956	3.50	630
	Dec. 11, 1952	4.16	940		June 23, 1956	3.26	486
	Jan. 6, 1953	3.06	364		Aug. 15, 1956	3.01	332
	Sept. 3, 1953	3.30	520		Sept. 6, 1956	4.38	1,040
	Sept. 5, 1953	3.09	384	1957	Apr. 6, 1957	4.67	514
1954	Dec. 6, 1953	4.01	880		Feb. 28, 1958	4.34	438
	Mar. 1, 1954	—	—				

5380. Wapwallopen Creek near Wapwallopen, Pa.

Location. --Lat 41°03'35", long 76°05'40", on left bank 100 ft upstream from Harts Bridge, 2¼ miles southeast of Wapwallopen, Luzerne County, and 3.7 miles upstream from mouth.

Drainage area. --43.8 sq mi.

Gage. --Nonrecording gage prior to Mar. 15, 1930; recording gage thereafter. Datum of gage is 752.41 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 1,300 cfs and extended above.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 580 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Mar. 12, 1920	5.60	1,150	1928	Oct. 13, 1927	4.4	635
1921	Mar. 3, 1921	4.20	580		Oct. 19, 1927	6.3	1,390
					Nov. 18, 1927	5.3	955
1922	Nov. 29, 1921	4.60	705		Apr. 29, 1928	4.5	670
	Mar. 7, 1922	5.70	1,120		June 29, 1928	6.2	1,340
	Apr. 15, 1922	5.80	1,160		July 22, 1928	4.6	705
1923	Mar. 5, 1923	5.50	1,040	1929	Feb. 27, 1929	5.3	—
	July 28, 1923	5.80	1,160		May 3, 1929	4.0	510
1924	Jan. 11, 1924	5.40	995	1930	Apr. 7, 1930	4.25	584
	Jan. 16, 1924	5.10	880	1931	May 13, 1931	3.15	295
	July 8, 1924	6.10	1,300				
	Sept. 30, 1924	7.90	2,240	1932	Apr. 1, 1932	4.88	807
1925	Feb. 11, 1925	9.62	—		June 17, 1932	4.72	734
	Feb. 12, 1925	6.6	1,540	1933	Oct. 6, 1932	4.35	616
1926	Nov. 16, 1925	3.9	480		July 24, 1933	6.00	1,260
					Aug. 24, 1933	7.31	1,900
1927	Nov. 16, 1926	7.6	2,070		Sept. 4, 1933	4.56	682
					Sept. 16, 1933	5.84	1,170

## Wapwallopen Creek near Wapwallopen, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Apr. 1, 1934	5.74	1,120	1947	May 22, 1947	6.50	1,490
1935	Dec. 1, 1934	5.82	1,170		July 8, 1947	6.72	1,590
	July 9, 1935	7.05	1,740		Aug. 9, 1947	5.73	1,130
					Aug. 17, 1947	4.70	766
1936	Nov. 29, 1935	4.98	845	1948	Apr. 14, 1948	4.87	818
	Mar. 12, 1936	6.37	1,440		July 13, 1948	6.06	1,300
	Mar. 18, 1936	6.58	1,540				
	Mar. 21, 1936	4.23	584	1949	Dec. 30, 1948	5.36	1,010
1937	Jan. 25, 1937	4.01	511		Jan. 5, 1949	4.66	750
1938	Oct. 23, 1937	6.80	1,640		Jan. 31, 1949	<sup>a</sup> 4.26	—
	Dec. 18, 1937	<sup>a</sup> 5.96	—		May 7, 1949	5.39	1,010
	June 27, 1938	4.68	735	1950	Mar. 28, 1950	5.18	940
	July 22, 1938	4.93	827	1951	Nov. 25, 1950	7.69	2,140
	July 23, 1938	5.07	866		Dec. 4, 1950	8.28	2,500
1939	Dec. 6, 1938	5.61	1,080		Jan. 24, 1951	4.29	636
	Dec. 10, 1938	4.85	790		Feb. 7, 1951	4.37	652
	Feb. 15, 1939	5.03	866	1952	Nov. 7, 1951	4.24	620
1940	Mar. 31, 1940	8.84	2,840		Mar. 11, 1952	5.64	1,090
	Aug. 31, 1940	4.25	620		May 26, 1952	4.16	590
1941	Aug. 16, 1941	5.77	1,170		July 9, 1952	4.67	750
1942	May 23, 1942	7.52	2,020		July 22, 1952	8.96	2,980
1943	Dec. 30, 1942	5.78	1,170	1953	Nov. 22, 1952	4.40	668
1944	Oct. 27, 1943	5.17	922		Dec. 11, 1952	5.99	1,260
	Oct. 28, 1943	4.16	590	1954	Dec. 7, 1953	4.46	698
	Nov. 9, 1943	6.83	1,640		Mar. 1, 1954	4.10	601
	Mar. 13, 1944	4.96	852	1955	Aug. 18, 1955	9.23	3,140
	Apr. 24, 1944	4.18	605		Aug. 22, 1955	4.62	748
1945	Jan. 1, 1945	<sup>a</sup> 4.70	—	1956	Oct. 15, 1955	6.32	1,400
	Feb. 27, 1945	<sup>a</sup> 5.55	—		Oct. 30, 1955	4.74	789
	Sept. 19, 1945	4.35	652		Nov. 16, 1955	4.57	727
	Sept. 26, 1945	4.98	870		Sept. 6, 1956	4.87	822
1946	Feb. 28, 1946	4.15	590	1957	Dec. 14, 1956	4.58	742
	May 27, 1946	4.65	750		Apr. 6, 1957	6.08	1,300
	June 2, 1946	4.60	733		Apr. 8, 1957	4.27	642
				1958	Dec. 21, 1957	5.17	940
					Dec. 26, 1957	4.21	628

<sup>a</sup>Backwater from ice.

## 5385. Nescopeck Creek near St. Johns, Pa.

Location. --Lat 41°01'15", long 76°00'40", on highway bridge half a mile southwest of St. Johns, Luzerne County.

Drainage area. --49 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 930 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 500 cfs and extended above.

Remarks. --Base for partial-duration series, 570 cfs.

## SUSQUEHANNA RIVER BASIN

Nescopeck Creek near St. Johns, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Nov. 27, 1919	4.7	825	1923	Mar. 4, 1923	4.4	710
	Mar. 6, 1920	<sup>a</sup> —	—		July 29, 1923	5.9	1,350
	Mar. 13, 1920	8.0	2,540	1924	Oct. 25, 1923	4.0	570
1921	Mar. 4, 1921	4.1	605		Jan. 12, 1924	4.0	570
					Jan. 17, 1924	4.7	825
1922	Nov. 29, 1921	5.5	1,170		Apr. 7, 1924	4.1	605
	Dec. 4, 1921	4.1	605		Sept. 30, 1924	7.5	2,240
	Feb. 24, 1922	4.1	605	1925	Feb. 9, 1925	5.14	990
	Mar. 8, 1922	6.4	1,610		May 11, 1925	4.0	570
	Apr. 11, 1922	4.2	640	1926	Nov. 13, 1925	4.0	570
	Apr. 16, 1922	4.1	605		Nov. 16, 1925	4.0	570
	June 8, 1922	4.3	675				

<sup>a</sup>Backwater from ice.

## 5390. Fishing Creek near Bloomsburg, Pa

Location. --Lat 41°04'40", long 76°25'55", on left bank 25 ft downstream from highway bridge 0.3 mile upstream from Deerlick Run, 0.9 mile west of Orangeville, and 5.5 miles northeast of Bloomsburg, Columbia County.

Drainage area. --274 sq mi.

Gage. --Recording gage. Datum of gage is 540.68 ft above mean sea level (Reading Co. benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 5,300 cfs and extended on basis of contracted-opening measurement of peak flow.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 4,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Dec. 10, 1938	6.64	4,420	1949	Dec. 30, 1948	9.71	11,700
	Feb. 15, 1939	6.52	4,270		Jan. 6, 1949	6.51	4,600
1940	Mar. 15, 1940	7.04	5,050		Apr. 14, 1949	6.61	4,790
	Mar. 31, 1940	12.08	18,100	1950	Jan. 7, 1950	7.31	5,560
	Apr. 4, 1940	6.50	4,270		Mar. 29, 1950	6.47	4,510
	Apr. 9, 1940	8.04	6,910		June 1, 1950	6.85	4,690
	Apr. 20, 1940	7.44	5,750	1951	Nov. 26, 1950	10.10	12,000
1941	Apr. 6, 1941	5.87	3,340		Dec. 4, 1950	10.78	14,000
1942	Dec. 26, 1941	8.82	8,660	1952	Mar. 11, 1952	11.49	16,200
	May 23, 1942	10.26	13,400		May 12, 1952	6.79	4,740
1943	Dec. 30, 1942	10.74	14,300		May 16, 1952	6.79	4,740
1944	Nov. 9, 1943	9.77	12,000	1953	Nov. 22, 1952	8.84	8,660
	Mar. 13, 1944	6.50	4,590		Dec. 11, 1952	7.54	5,950
	Mar. 24, 1944	6.57	4,700		Jan. 24, 1953	7.44	5,770
	Apr. 25, 1944	6.39	4,420	1954	Apr. 17, 1954	7.58	6,140
	May 7, 1944	6.43	4,510	1955	Aug. 19, 1955	8.54	8,070
1945	Mar. 4, 1945	6.51	4,600		Oct. 16, 1955	8.33	7,540
	Sept. 19, 1945	6.59	4,790	1957	Apr. 6, 1957	9.25	9,610
1946	Mar. 9, 1946	6.97	5,570		Apr. 9, 1957	6.15	4,270
	May 21, 1946	7.05	5,570	1958	Dec. 21, 1957	8.74	8,430
	May 28, 1946	10.69	14,200		Dec. 27, 1957	6.81	4,740
1947	July 22, 1947	6.24	4,150		Jan. 22, 1958	6.41	4,120
					Feb. 28, 1958	8.24	7,330
1948	Mar. 17, 1948	6.75	5,170		July 8, 1958	6.69	4,580
	Mar. 20, 1948	6.64	4,790				
	Apr. 15, 1948	7.63	6,120				

## 5395. Little Fishing Creek at Eysers Grove, Pa.

Location. --Lat 41°04'50", long 76°30'40", 15 ft upstream from State Highway 42, 0.7 miles southeast of Eysers Grove, Columbia County, 3 miles southeast of Millville, and 5.1 miles upstream from mouth.

Drainage area. --56.5 sq mi.

Gage. --Nonrecording gage prior to Apr. 4, 1941; recording gage thereafter. Datum of gage is 558.48 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,000 cfs and extended above.

Remarks. --Base for partial-duration series, 1,200 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Apr. 5, 1941	4.87	1,040	1950	Mar. 21, 1950	5.52	1,720
1942	Dec. 24, 1941	5.70	1,710	Cont.	June 1, 1950	5.54	1,760
	May 23, 1942	6.02	1,950	1951	Nov. 25, 1950	6.52	2,450
1943	Dec. 30, 1942	6.35	2,260		Dec. 4, 1950	6.75	2,690
	May 26, 1943	4.78	1,270		Jan. 24, 1951	4.70	1,210
1944	Oct. 26, 1943	5.33	1,620		Feb. 7, 1951	5.41	1,650
	Nov. 9, 1943	5.32	1,580		Feb. 21, 1951	4.72	1,210
	Mar. 13, 1944	5.42	1,650	1952	Jan. 27, 1952	4.78	1,270
	Mar. 24, 1944	4.87	1,240		Mar. 11, 1952	7.34	3,100
	May 7, 1944	4.90	1,330		May 12, 1952	5.18	1,510
	May 24, 1944	4.87	1,300		May 25, 1952	5.48	1,720
1945	Feb. 27, 1945	<sup>a</sup> 4.85	—		July 22, 1952	4.94	1,350
	Mar. 3, 1945	4.82	1,270	1953	Nov. 22, 1952	6.23	2,210
	Sept. 18, 1945	5.47	1,680		Dec. 5, 1952	5.32	1,580
1946	Feb. 28, 1946	6.33	2,290		Dec. 11, 1952	4.80	1,250
	Mar. 9, 1946	5.08	1,450		Jan. 24, 1953	4.83	1,280
	May 27, 1946	6.45	2,370	1954	Mar. 1, 1954	5.34	1,620
1947	Mar. 14, 1947	5.20	1,510	1955	Aug. 18, 1955	5.66	1,860
1948	Mar. 16, 1948	5.41	1,650	1956	Oct. 14, 1955	6.53	2,470
	Apr. 14, 1948	5.06	1,420	1957	Nov. 2, 1956	6.47	2,450
1949	Dec. 30, 1948	6.06	2,140		Apr. 6, 1957	5.57	1,790
1950	Jan. 7, 1950	5.03	1,420	1958	Dec. 21, 1957	4.68	1,260
	Mar. 8, 1950	5.24	1,540		Jan. 22, 1958	4.70	1,260
					Feb. 28, 1958	6.44	2,370
					July 7, 1958	5.41	1,670

<sup>a</sup>Backwater from ice.

## 5400. Fishing Creek at Bloomsburg, Pa.

Location. --Lat 41°00'10", long 76°27'50", at Red Rock Bridge, Railroad Street, Bloomsburg, Columbia County, and 2 miles upstream from mouth.

Drainage area. --355 sq mi.

Gage. --Nonrecording gage. Datum of gage is 462.46 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 5,000 cfs and extended above.

Remarks. --Base for partial-duration series, 5,000 cfs.



## SUSQUEHANNA RIVER BASIN

Fishing Creek at Bloomsburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	10.8	10,600	1923	May 13, 1923	7.8	5,080
	Apr. 9, 1914	9.2	7,460	Cont.	July 29, 1923	12.0	13,200
1915	Jan. 7, 1915	12.0	12,800	1924	Jan. 11, 1924	8.1	5,560
	Feb. 25, 1915	12.6	14,000		Apr. 7, 1924	12.5	13,800
1916	Apr. 14, 1916	10.4	9,800		May 12, 1924	8.6	6,380
	July 26, 1916	15.0	19,700		Sept. 30, 1924	17.3	23,000
1917	Mar. 28, 1917	8.9	6,920	1925	Feb. 12, 1925	13.0	15,000
1918	Oct. 30, 1917	13.7	16,700	1926	Nov. 13, 1925	8.6	6,380
	Mar. 14, 1918	11.0	11,000		Feb. 26, 1926	8.3	5,880
1919	July 21, 1919	7.6	4,770	1927	Nov. 16, 1926	15.6	21,500
1920	Nov. 27, 1919	9.1	7,280		Mar. 14, 1927	8.5	5,080
	Mar. 5, 1920	11.3	11,600		Mar. 21, 1927	9.2	6,200
	Mar. 13, 1920	11.4	11,800	1928	Oct. 19, 1927	10.2	8,030
1921	Dec. 14, 1920	10.5	10,000		Nov. 18, 1927	10.1	7,840
	Mar. 10, 1921	8.5	6,200		Dec. 8, 1927	9.0	5,870
	Apr. 23, 1921	9.3	7,640		Mar. 30, 1928	8.7	5,390
1922	Nov. 29, 1921	9.7	8,400		Apr. 28, 1928	8.8	5,540
	Feb. 23, 1922	8.1	5,560		June 29, 1928	9.5	6,730
	Mar. 8, 1922	11.0	11,000		July 6, 1928	14.0	16,900
	Apr. 15, 1922	9.5	8,000		July 12, 1928	8.6	5,240
	June 6, 1922	11.9	13,000		July 14, 1928	10.1	7,840
	July 2, 1922	10.5	10,000		July 23, 1928	9.5	6,730
1923	Mar. 5, 1923	8.8	6,740	1929	Feb. 26, 1929	10.4	8,420
	Mar. 16, 1923	9.0	7,100		May 3, 1929	14.09	17,100
	Mar. 24, 1923	8.2	5,720	1930	Nov. 18, 1929	9.2	5,630
				1931	Mar. 29, 1931	7.6	3,720

## 5405. Susquehanna River at Danville, Pa.

Location. --Lat 40°57'30", long 76°37'10", on right bank 200 ft upstream from Mill Street Bridge at Danville, Montour County, and 0.8 mile upstream from Mahoning Creek.

Drainage area. --11,220 sq mi, approximately.

Gage. --Nonrecording gage prior to July 1, 1939; recording gage thereafter. Prior to July 1, 1939, gage at or near Mill Street Bridge. Datum of gage is 431.29 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 250,000 cfs.

Bankfull stage. --20 ft.

Historical data. --Maximum stage known prior to 1899, 28 ft March 18, 1865.

Remarks. --Base for partial-duration series, 90,000 cfs. Only annual peaks are shown subsequent to Sept. 30, 1951.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1900	Mar. 2, 1900	15.9	105,000	1902	Mar. 14, 1902	16.3	109,000
1901	Nov. 28, 1900	18.5	135,000	Cont.	Mar. 18, 1902	16.9	116,000
	Mar. 29, 1901	18.0	129,000	1903	Feb. 6, 1903	15.8	104,000
	Apr. 23, 1901	15.7	103,000		Mar. 2, 1903	17.8	127,000
	May 31, 1901	15.0	95,100		Mar. 25, 1903	18.2	132,000
1902	Dec. 16, 1901	22.8	188,000		Aug. 31, 1903	15.3	98,400
	Mar. 3, 1902	26.9	243,000				

## Susquehanna River at Danville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Oct. 12, 1903	17.2	120,000	1931	Mar. 30, 1931	14.35	88,500
	Jan. 25, 1904	<sup>a</sup> 26.2	—	1932	Apr. 2, 1932	17.05	119,000
	Feb. 10, 1904	<sup>a</sup> 24.6	—	1933	Aug. 25, 1933	17.04	119,000
	Mar. 9, 1904	<sup>a</sup> 24	—	1934	Mar. 6, 1934	14.5	89,600
	Mar. 27, 1904	19.6	148,000	1935	Jan. 11, 1935	16.2	108,000
1905	Mar. 26, 1905	18.62	136,000		July 11, 1935	20.0	153,000
1906	Mar. 30, 1906	15.2	97,300	1936	Mar. 19, 1936	<sup>b</sup> 28.0	—
	Apr. 1, 1906	15.4	99,500		Mar. 20, 1936	27.4	250,000
1907	Mar. 17, 1907	13.0	73,400	1937	Jan. 23, 1937	15.2	93,400
1908	Dec. 12, 1907	15.6	102,000	1938	Oct. 24, 1937	13.8	79,400
	Feb. 17, 1908	17.4	122,000	1939	Feb. 22, 1939	19.2	139,000
	Mar. 16, 1908	17.0	117,000	1940	Apr. 2, 1940	25.25	222,000
1909	May 2, 1909	18.4	134,000	1941	Apr. 7, 1941	19.45	142,000
1910	Mar. 3, 1910	21.0	165,000	1942	Mar. 11, 1942	17.08	116,000
	Apr. 26, 1910	16.8	115,000		Mar. 19, 1942	15.82	100,100
1911	Mar. 29, 1911	15.2	97,300		May 23, 1942	16.10	103,400
1912	Apr. 3, 1912	17.97	129,000	1943	Jan. 1, 1943	24.00	204,000
1913	Mar. 28, 1913	23.11	192,000		Mar. 19, 1943	16.42	108,000
1914	Mar. 29, 1914	22.6	186,000		Apr. 22, 1943	14.92	91,000
1915	Jan. 9, 1915	15.6	102,000	1944	May 9, 1944	15.48	97,600
	Feb. 26, 1915	19.0	141,000	1945	Mar. 5, 1945	17.55	121,000
1916	Apr. 2, 1916	21.8	175,000		Mar. 18, 1945	16.04	103,000
1917	Mar. 29, 1917	14.8	92,900		Mar. 23, 1945	16.79	112,000
1918	Mar. 16, 1918	18.6	139,000	1946	Mar. 10, 1946	16.30	108,000
1919	May 24, 1919	13.7	80,800		May 29, 1946	25.98	234,000
1920	Mar. 14, 1920	20.9	170,000	1947	Apr. 7, 1947	19.95	150,000
1921	Mar. 10, 1921	15.5	101,000	1948	Mar. 18, 1948	17.69	122,000
1922	Nov. 30, 1921	18.1	133,000		Mar. 24, 1948	22.63	184,000
	Mar. 9, 1922	15.5	101,000		Apr. 16, 1948	17.08	115,000
1923	Mar. 5, 1923	15.8	105,000	1949	Jan. 1, 1949	15.16	89,600
1924	Apr. 8, 1924	18.8	142,000	1950	Mar. 30, 1950	21.81	168,000
1925	Oct. 1, 1924	18.3	135,000	1951	Nov. 27, 1950	18.09	118,000
	Feb. 13, 1925	20.3	162,000		Dec. 5, 1950	19.02	131,000
1926	Mar. 27, 1926	15.5	101,000		Apr. 2, 1951	18.58	123,000
	Apr. 10, 1926	14.7	91,900	1952	Mar. 13, 1952	18.84	127,000
1927	Nov. 17, 1926	18.8	142,000	1953	Dec. 13, 1952	16.80	103,000
	Mar. 16, 1927	16.2	109,000	1954	May 5, 1954	14.71	82,100
	May 26, 1927	16.1	108,000	1955	Mar. 3, 1955	15.09	85,900
1928	Oct. 21, 1927	19.9	156,000	1956	Mar. 9, 1956	22.47	175,000
	May 2, 1928	16.2	109,000	1957	Apr. 8, 1957	17.78	114,000
1929	Mar. 17, 1929	18.1	133,000	1958	Apr. 8, 1958	21.87	169,000
	Apr. 23, 1929	20.35	163,000				
1930	Mar. 9, 1930	13.5	78,700				

<sup>a</sup>Backwater from ice.<sup>b</sup>Backwater from West Branch Susquehanna River.

## SUSQUEHANNA RIVER BASIN

5410. West Branch Susquehanna River at Bower, Pa.

Location. --Lat 40°53'50", long 78°40'40", on right bank on downstream side of highway bridge at Bower, Clearfield County, 4.6 miles downstream from Chest Creek and Mahaffey.

Drainage area. --315 sq mi.

Gage. --Nonrecording gage prior to Oct. 17, 1929; recording gage thereafter. Datum of gage is 1,206.39 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 7,200 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 4,400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	May 31, 1889	18.5	27,000	1925	Feb. 9, 1925	11.2	6,960
1914	Nov. 9, 1913	10.5	5,900		Feb. 11, 1925	10.5	5,900
	Jan. 31, 1914	10.2	5,450	1926	Feb. 26, 1926	10.0	5,160
	Mar. 28, 1914	10.0	5,160		Sept. 5, 1926	13.1	10,500
1915	Jan. 7, 1915	12.2	8,640	1927	Jan. 22, 1927	12.8	9,810
	Jan. 19, 1915	10.1	5,300		Mar. 8, 1927	11.1	6,800
	Feb. 2, 1915	11.0	6,650		Mar. 21, 1927	11.8	7,940
	Feb. 15, 1915	10.4	5,750		May 19, 1927	10.4	5,750
1916	Oct. 19, 1915	11.1	6,800	1928	Oct. 20, 1927	11.1	6,800
	Dec. 18, 1915	11.0	6,650		Nov. 29, 1927	9.6	4,600
	Jan. 2, 1916	11.3	7,120		Dec. 14, 1927	11.4	7,280
	Mar. 22, 1916	10.1	5,300		Dec. 16, 1927	10.0	5,160
	Mar. 28, 1916	12.4	9,010		Feb. 5, 1928	9.6	5,020
	Apr. 14, 1916	9.8	4,880		Feb. 15, 1928	9.5	4,460
	June 3, 1916	12.7	9,600		Mar. 30, 1928	11.8	7,940
1917	Jan. 6, 1917	9.7	4,740		Apr. 8, 1928	10.0	5,160
	Jan. 22, 1917	11.1	6,800		Apr. 30, 1928	10.1	5,300
	Mar. 12, 1917	10.1	5,300		June 10, 1928	9.8	4,880
	Aug. 14, 1917	9.65	4,600	1929	Jan. 18, 1929	10.2	5,450
1918	Feb. 15, 1918	10.3	5,600		Feb. 26, 1929	11.5	7,440
	Feb. 20, 1918	13.8	12,200		Apr. 5, 1929	11.57	7,120
	Feb. 26, 1918	11.45	7,280	1930	Oct. 23, 1929	10.31	4,870
	Mar. 14, 1918	10.50	5,900		Feb. 26, 1930	11.27	6,550
1919	Oct. 31, 1918	11.0	6,680	1931	Apr. 4, 1931	10.74	5,500
	Jan. 2, 1919	10.4	5,750	1932	Apr. 1, 1932	9.96	4,160
	May 10, 1919	11.0	6,680	1933	Mar. 15, 1933	11.48	6,930
	May 21, 1919	10.0	5,160		May 10, 1933	10.41	5,020
1920	Nov. 2, 1919	9.5	4,460	1934	Sept. 30, 1934	9.35	3,540
	Nov. 27, 1919	10.8	6,350	1935	July 25, 1935	11.65	7,120
	Mar. 6, 1920	13.7	12,200	1936	Mar. 11, 1936	10.89	5,840
	Mar. 12, 1920	13.75	12,200		Mar. 18, 1936	19.74	31,500
	June 18, 1920	12.7	9,600	1937	Nov. 5, 1936	10.72	5,500
1921	May 5, 1921	9.5	4,460		Jan. 22, 1937	11.81	7,520
	Aug. 8, 1921	11.5	7,300		Jan. 25, 1937	11.32	6,550
1922	Nov. 2, 1921	10.0	5,160		Apr. 28, 1937	11.50	6,930
	Nov. 29, 1921	12.58	8,950	1938	Oct. 29, 1937	10.02	4,600
	Apr. 15, 1922	12.4	9,010		Dec. 18, 1937	12.66	9,490
1923	Mar. 13, 1923	9.6	4,600	1939	Feb. 15, 1939	9.82	4,320
	May 13, 1923	11.2	6,850	1940	Mar. 19, 1940	10.74	5,660
1924	Dec. 23, 1923	10.0	5,160		Mar. 31, 1940	14.05	12,700
	Dec. 28, 1923	9.5	4,460		Apr. 20, 1940	10.68	5,660
	Jan. 3, 1924	10.3	5,600	1941	June 5, 1941	9.95	4,600
	Jan. 17, 1924	9.6	4,600				
	Mar. 30, 1924	12.4	9,010				
	Apr. 6, 1924	10.0	5,160				
	May 12, 1924	11.0	6,650				
	June 29, 1924	13.4	11,200				
	Aug. 25, 1924	10.0	5,160				

## West Branch Susquehanna River at Bower, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 9, 1942	11.13	6,320	1951	Jan. 4, 1951	10.89	5,980
	Mar. 17, 1942	10.0	4,600	Cont.	Jan. 21, 1951	10.31	5,040
	Apr. 10, 1942	10.23	4,890		Mar. 31, 1951	10.64	5,500
1943	Dec. 30, 1942	14.60	14,300		Apr. 30, 1951	11.66	7,410
	Apr. 20, 1943	10.54	5,340	1952	Jan. 2, 1952	10.90	5,980
	May 12, 1943	10.43	5,190		Jan. 27, 1952	13.53	11,400
1944	Mar. 17, 1944	10.64	5,500		Mar. 11, 1952	11.76	7,600
1945	Feb. 22, 1945	<sup>a</sup> 15.15	—		Apr. 14, 1952	10.08	4,740
	Feb. 27, 1945	11.71	7,410		May 21, 1952	10.03	4,590
	Mar. 3, 1945	13.09	10,400		May 25, 1952	9.97	4,590
	Mar. 7, 1945	13.44	11,200	1953	May 26, 1953	11.20	6,490
	Mar. 22, 1945	10.46	5,340		May 31, 1953	12.01	8,000
1946	Jan. 6, 1946	<sup>a</sup> 12.82	—		June 7, 1953	9.94	4,450
	Feb. 27, 1946	<sup>a</sup> 10.52	—	1954	Mar. 2, 1954	12.95	10,200
	May 27, 1946	11.96	8,000	1955	Oct. 16, 1954	12.55	9,270
	June 2, 1946	10.02	4,600		Dec. 30, 1954	12.18	8,410
	June 13, 1946	12.03	8,000		Feb. 23, 1955	10.02	4,590
	June 21, 1946	10.91	5,980		Mar. 1, 1955	10.01	4,590
1947	Apr. 26, 1947	9.30	3,660		Mar. 4, 1955	10.39	5,190
1948	Apr. 14, 1948	13.30	10,900	1956	Feb. 25, 1956	12.35	8,830
	Apr. 28, 1948	9.87	4,460		Mar. 8, 1956	11.62	7,220
1949	Jan. 6, 1949	9.87	4,460		Apr. 3, 1956	10.42	5,190
	Jan. 27, 1949	9.98	4,600		May 7, 1956	10.33	5,040
1950	Jan. 10, 1950	10.80	5,820		May 13, 1956	11.91	7,800
	Feb. 15, 1950	10.17	4,890		July 3, 1956	12.84	9,720
	Mar. 28, 1950	11.45	6,850		Aug. 8, 1956	10.23	4,890
1951	Nov. 5, 1950	12.20	8,410	1957	Jan. 23, 1957	11.34	6,670
	Dec. 4, 1950	10.72	5,660		Aug. 6, 1957	11.75	7,600
				1958	May 8, 1958	10.43	5,190
					July 23, 1958	10.0	4,590

<sup>a</sup>Backwater from ice.

## 5415. Clearfield Creek at Dimeling, Pa.

Location. --Lat 40°58'15", long 78°24'25", on right bank on downstream side of highway bridge at Dimeling, Clearfield County, 400 ft downstream from Little Clearfield Creek.

Drainage area. --371 sq mi.

Gage. --Nonrecording gage prior to Oct. 17, 1928; recording gage thereafter. Datum of gage is 1,146.08 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 15,000 cfs and extended by logarithmic plotting.

Bankfull stage. --10 ft.

Remarks. --Base for partial-duration series, 4,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Nov. 10, 1913	9.7	5,270	1916	Jan. 22, 1916	9.56	5,100
	Jan. 31, 1914	10.8	7,340	Cont.	Mar. 23, 1916	<sup>a</sup> 16.10	—
	Mar. 28, 1914	9.8	5,440		Mar. 28, 1916	12.3	10,500
	Apr. 16, 1914	9.7	5,270		Apr. 14, 1916	9.40	4,760
1915	Jan. 7, 1915	12.2	10,300		June 3, 1916	11.88	9,660
	Feb. 2, 1915	9.8	5,440		June 17, 1916	10.28	6,360
	Feb. 25, 1915	9.4	4,760	1917	Dec. 28, 1916	10.06	5,990
1916	Dec. 18, 1915	9.82	5,440		Jan. 22, 1917	<sup>a</sup> 13.24	—
	Jan. 2, 1916	9.96	5,800		Mar. 12, 1917	10.46	6,750
					June 8, 1917	9.40	4,760



## SUSQUEHANNA RIVER BASIN

Clearfield Creek at Dimeling, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	Feb. 13, 1918	<sup>a</sup> 16.5	—	1936	Mar. 12, 1936	11.96	10,600
	Feb. 20, 1918	12.0	9,880		Mar. 18, 1936	18.49	30,600
	Feb. 26, 1918	10.9	7,540	1937	Nov. 5, 1936	10.17	6,030
	Mar. 16, 1918	10.3	6,360		Jan. 22, 1937	11.98	9,900
1919	Oct. 31, 1918	9.80	5,440		Jan. 25, 1937	10.17	6,030
	May 10, 1919	9.38	4,760		Apr. 27, 1937	12.39	10,900
	May 22, 1919	11.5	8,790	1938	Oct. 29, 1937	10.13	5,840
1920	Nov. 27, 1919	9.72	5,270		Dec. 18, 1937	11.73	9,160
	Jan. 10, 1920	12.7	11,500	1939	Feb. 15, 1939	9.18	4,320
	Mar. 6, 1920	<sup>a</sup> 12.8	—		Mar. 31, 1940	14.23	15,400
	Mar. 11, 1920	<sup>a</sup> 18.5	—	1940	Apr. 4, 1940	9.88	5,480
	Mar. 13, 1920	12.8	11,700		Apr. 21, 1940	10.37	6,410
	Mar. 17, 1920	10.0	5,800	1941	Apr. 5, 1941	9.91	5,480
	June 17, 1920	12.3	10,500		June 6, 1941	9.87	5,480
1921	May 5, 1921	10.4	6,560	1942	Mar. 9, 1942	11.03	7,610
	Aug. 8, 1921	10.6	6,940	1943	Dec. 30, 1942	13.21	12,900
1922	Nov. 29, 1921	12.0	9,880		Jan. 19, 1943	9.42	4,720
	Feb. 3, 1922	10.4	6,560		Apr. 21, 1943	9.98	5,680
	Apr. 15, 1922	11.7	9,220		May 12, 1943	9.60	5,020
1923	Mar. 4, 1923	10.6	6,940	1944	Mar. 17, 1944	10.19	6,040
	May 13, 1923	10.68	7,140		May 27, 1944	9.57	5,020
1924	Dec. 23, 1923	9.5	4,920	1945	Feb. 27, 1945	10.27	6,220
	Dec. 29, 1923	9.4	4,760		Mar. 4, 1945	11.22	8,030
	Jan. 3, 1924	10.3	6,360		Mar. 7, 1945	12.09	10,200
	Jan. 17, 1924	9.8	5,440		May 18, 1945	10.24	6,040
	Feb. 6, 1924	9.8	5,440	1946	May 28, 1946	11.28	8,250
	Mar. 30, 1924	11.4	8,580		June 3, 1946	9.67	5,180
	May 13, 1924	11.9	9,660		June 14, 1946	10.77	7,200
	June 30, 1924	12.0	9,880		June 21, 1946	9.89	5,510
	Aug. 25, 1924	12.6	11,200	1947	Apr. 26, 1947	8.39	3,370
1925	Feb. 9, 1925	12.65	11,200		Feb. 14, 1948	<sup>a</sup> 14.89	—
	Feb. 12, 1925	11.6	9,000	1948	Apr. 14, 1948	12.48	11,200
1926	Feb. 26, 1926	10.0	5,800		Jan. 6, 1949	9.15	4,390
	Sept. 6, 1926	11.3	8,370	1950	Jan. 10, 1950	9.53	4,850
1927	Mar. 8, 1927	11.8	9,440		Mar. 28, 1950	10.98	7,610
1928	Oct. 20, 1927	10.6	6,940	1951	Oct. 10, 1950	9.69	5,170
	Dec. 14, 1927	9.6	5,100		Nov. 5, 1950	9.63	5,010
	Mar. 30, 1928	11.1	7,960		Dec. 4, 1950	10.33	6,220
	Apr. 8, 1928	10.2	6,180		Dec. 8, 1950	10.13	5,860
	May 1, 1928	10.3	6,360	1951	Jan. 4, 1951	9.75	5,340
	June 22, 1928	9.4	4,760		Jan. 21, 1951	9.51	4,850
					Mar. 31, 1951	10.25	6,040
1929	Feb. 27, 1929	<sup>a</sup> 18.4	—	1952	Jan. 2, 1952	9.59	5,010
	Mar. 14, 1929	9.9	5,620		Jan. 27, 1952	11.14	7,820
	Apr. 5, 1929	12.3	10,500		Mar. 11, 1952	11.27	8,250
1930	Oct. 23, 1929	11.0	7,630	1953	Mar. 24, 1953	9.65	5,010
	Feb. 26, 1930	10.65	6,810		May 26, 1953	10.37	6,410
1931	Apr. 4, 1931	9.99	5,650		May 31, 1953	10.30	6,220
1932	Apr. 1, 1932	9.66	5,130	1954	Mar. 2, 1954	12.89	12,200
1933	Mar. 15, 1933	10.63	6,950		Oct. 17, 1954	11.63	8,930
	May 10, 1933	9.65	4,950	1955	Dec. 30, 1954	10.32	6,220
1934	Dec. 18, 1933	8.22	2,960				
	Mar. 4, 1934	<sup>a</sup> 13.2	—				
1935	Jan. 1, 1935	<sup>a</sup> 11.61	—				
	May 7, 1935	9.2	4,290				

## Clearfield Creek at Dimeling, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Feb. 25, 1956	10.22	6,040	1957	Jan. 23, 1957	9.29	4,550
	Mar. 8, 1956	10.13	5,860		Apr. 6, 1957	10.21	6,040
	Apr. 4, 1956	9.28	4,550		Apr. 9, 1957	9.28	4,550
	May 13, 1956	11.91	9,650	1958	July 23, 1958	9.51	4,850
	July 2, 1956	11.21	8,030				

<sup>a</sup>Backwater from ice.

## 5420. Moshannon Creek at Osceola Mills, Pa.

Location. --Lat 40°50'55", long 78°16'05", on left bank 10 ft upstream from Pennsylvania Railroad bridge at Osceola Mills, Clearfield County, and 0.1 mile downstream from Trout Run.

Drainage area. --68.8 sq mi.

Gage. --Recording gage. Datum of gage is 1,446.98 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 1,500 cfs and extended above on basis of contracted-opening measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 600 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	17.7	—	1951	Oct. 10, 1950	4.18	600
1941	Apr. 5, 1941	5.25	1,060		Nov. 26, 1950	6.61	1,680
	June 5, 1941	5.37	1,110		Dec. 4, 1950	6.73	1,720
1942	Dec. 24, 1941	5.23	1,060		Dec. 8, 1950	6.23	1,500
	Mar. 9, 1942	5.30	1,080		Jan. 4, 1951	4.64	740
	Mar. 16, 1942	4.29	665	1952	Jan. 21, 1951	4.65	740
	Mar. 22, 1942	4.75	844		Mar. 30, 1951	6.08	1,460
1943	Dec. 30, 1942	7.84	2,220		June 14, 1951	4.42	617
	Apr. 21, 1943	5.53	1,200		Jan. 1, 1952	4.83	848
	May 12, 1943	4.82	865		Jan. 27, 1952	5.76	1,320
	May 21, 1943	5.14	1,020		Mar. 11, 1952	8.35	2,490
					Mar. 23, 1952	4.39	621
1944	Mar. 17, 1944	5.61	1,230		May 25, 1952	4.52	675
	May 7, 1944	4.78	865	1953	Nov. 22, 1952	4.48	743
	May 24, 1944	4.90	907		Dec. 11, 1952	4.37	684
	May 27, 1944	4.68	824		Mar. 24, 1953	5.58	1,230
1945	Feb. 27, 1945	5.05	972		May 26, 1953	6.72	1,720
	Mar. 3, 1945	5.97	1,410		May 31, 1953	5.51	1,180
	Mar. 7, 1945	6.68	1,720		Aug. 10, 1953	4.50	743
	Mar. 21, 1945	6.01	1,410	1954	Mar. 1, 1954	9.00	2,760
	May 18, 1945	7.28	2,000				
1946	Feb. 27, 1946	4.20	627	1955	Oct. 16, 1954	8.75	2,670
	May 27, 1946	6.95	1,860		Dec. 30, 1954	5.35	1,140
	June 2, 1946	5.13	1,020	1956	Mar. 4, 1955	4.27	694
	June 12, 1946	4.50	743		Oct. 14, 1955	4.66	846
	June 21, 1946	4.35	684	1957	Feb. 25, 1956	5.64	1,230
1947	May 18, 1947	3.96	562		Mar. 8, 1956	6.11	1,460
					Apr. 3, 1956	4.03	622
1948	Feb. 14, 1948	4.48	—		Apr. 7, 1956	4.20	676
	Apr. 12, 1948	5.30	1,040		May 7, 1956	4.97	965
	Apr. 14, 1948	7.58	2,130		May 13, 1956	7.08	1,900
1949	Jan. 26, 1949	4.23	620		July 2, 1956	6.24	1,500
					July 4, 1956	4.61	826
1950	Jan. 10, 1950	4.85	880		Aug. 5, 1956	4.07	622
	Mar. 28, 1950	5.78	1,320		Aug. 12, 1956	5.03	1,000
1958				1957	Apr. 6, 1957	—	—
					Apr. 9, 1957	5.85	1,320
1958				1958	Apr. 7, 1958	4.76	885
					May 7, 1958	4.20	676

## SUSQUEHANNA RIVER BASIN

## 5425. West Branch Susquehanna River at Karthaus, Pa.

Location. --Lat 41°06'55", long 78°06'40", on left bank 900 ft upstream from highway bridge at Karthaus, Clearfield County, 1,000 ft upstream from Mosquito Creek and 3.3 miles downstream from Moshannon Creek. Records include flow of Mosquito Creek.

Drainage area. --1,462 sq mi, including that of Mosquito Creek.

Gage. --Nonrecording gage prior to Oct. 1, 1940; recording gage thereafter. Prior to Oct. 1, 1940 at site 900 ft downstream. Datum of gage is 830.59 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 50,000 cfs and extended above.

Bankfull stage. --19 ft.

Remarks. --Base for partial-duration series, 13,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	24.5	135,000	1951	Oct. 10, 1950	7.46	13,200
1940	Mar. 19, 1940	6.50	14,800		Nov. 5, 1950	9.07	20,200
	Apr. 1, 1940	12.4	50,900		Nov. 25, 1950	12.16	38,300
	Apr. 7, 1940	8.4	24,700		Dec. 5, 1950	8.96	19,700
	Apr. 22, 1940	7.3	18,800		Dec. 8, 1950	8.33	16,600
					Jan. 5, 1951	8.15	16,200
1941	Mar. 5, 1941	<sup>a</sup> 8.95	—		Jan. 21, 1951	8.01	15,400
	Apr. 6, 1941	8.79	19,600		Feb. 22, 1951	8.05	15,400
1942	Dec. 25, 1941	7.46	13,600		Mar. 5, 1951	7.51	13,400
	Mar. 10, 1942	9.38	22,600		Mar. 31, 1951	9.12	20,200
	Mar. 17, 1942	8.15	16,600		Apr. 30, 1951	7.77	14,600
1943	Dec. 30, 1942	13.82	50,200	1952	Jan. 2, 1952	8.61	17,800
	Jan. 20, 1943	7.86	15,200		Jan. 27, 1952	11.21	31,900
	Apr. 21, 1943	9.36	22,600		Mar. 12, 1952	10.42	27,100
	May 12, 1943	9.10	21,100		Apr. 16, 1952	8.22	16,200
					May 21, 1952	7.58	13,800
1944	Mar. 17, 1944	9.13	21,100		May 26, 1952	8.49	17,400
	May 25, 1944	8.07	16,100	1953	Mar. 25, 1953	8.53	17,400
1945	Feb. 27, 1945	9.33	22,100		May 27, 1953	10.34	26,500
	Mar. 4, 1945	11.62	35,600		May 31, 1953	9.57	22,700
	Mar. 7, 1945	12.47	41,100	1954	Mar. 2, 1954	11.42	33,100
	Mar. 22, 1945	9.52	23,100	1955	Oct. 17, 1954	9.05	19,700
	May 18, 1945	8.60	18,600		Dec. 30, 1954	9.62	22,700
1946	May 28, 1946	11.95	36,900		Feb. 23, 1955	7.94	15,000
	June 3, 1946	7.90	14,700		Mar. 5, 1955	8.33	16,600
	June 14, 1946	8.67	18,200		Mar. 23, 1955	7.41	13,000
	June 22, 1946	7.77	14,300	1956	Feb. 26, 1956	9.59	22,700
1947	May 19, 1947	7.26	12,400		Mar. 8, 1956	10.73	28,900
1948	Apr. 14, 1948	12.91	43,200		Apr. 4, 1956	8.02	15,400
1949	Jan. 27, 1949	7.73	13,900		May 13, 1956	10.14	25,300
1950	Jan. 11, 1950	8.72	18,200		July 3, 1956	9.40	21,700
	Feb. 15, 1950	7.91	14,700		Aug. 7, 1956	8.16	16,200
	Mar. 28, 1950	10.44	27,100	1957	Jan. 23, 1957	<sup>a</sup> 8.23	—
					Apr. 6, 1957	9.42	21,700
				1958	Apr. 7, 1958	7.45	13,000
					May 8, 1958	8.28	16,600

<sup>a</sup>Backwater from ice.

## 5430. Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.

Location. --Lat 41°24'45", long 78°11'50", on downstream side of first pier from right bank of highway bridge at Sterling Run, Cameron County, 300 ft upstream from Sterling Run.

Drainage area. --272 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1931; recording gage Oct. 1, 1931, to Sept. 30, 1932; nonrecording gage Oct. 1, 1932 to Sept. 30, 1942; recording gage thereafter. Prior to Oct. 1, 1932 at present site; Oct. 1, 1932 to Sept. 30, 1942, at site 800 ft upstream. Datum of gage is 894.84 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 6,200 cfs and extended above on basis of slope-area measurement of peak flow.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 4,700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	6.0	8,340	1933	Mar. 15, 1933	6.10	4,990
1915	Feb. 25, 1915	4.97	6,090	1934	Apr. 12, 1934	5.2	3,330
1916	Mar. 28, 1916	6.6	9,800	1935	May 8, 1935	5.80	4,380
1917	Aug. 15, 1917	10.0	20,000	1936	Mar. 12, 1936	8.40	11,800
1918	Feb. 20, 1918	7.30	11,600		Mar. 17, 1936	12.0	28,400
	Mar. 14, 1918	7.70	12,600	1937	Jan. 22, 1937	7.37	8,210
1919	May 22, 1919	5.84	7,880		Jan. 25, 1937	7.14	7,390
					Apr. 28, 1937	6.70	6,370
1920	Mar. 5, 1920	<sup>a</sup> 10.4	—	1938	Dec. 18, 1937	7.25	7,660
	Mar. 13, 1920	5.9	8,110		Mar. 6, 1938	6.53	5,890
	Mar. 17, 1920	4.4	4,820	1939	Feb. 15, 1939	5.9	4,580
1921	Mar. 7, 1921	3.22	2,470	1940	Mar. 31, 1940	7.0	7,130
1922	Nov. 2, 1921	4.5	4,880		Apr. 4, 1940	7.1	7,390
1923	Mar. 5, 1923	6.4	9,280	1941	Apr. 15, 1941	6.6	6,130
	May 12, 1923	5.8	7,840	1942	Mar. 9, 1942	6.54	5,890
	May 21, 1923	7.0	10,800		Mar. 17, 1942	6.74	6,370
1924	Apr. 6, 1924	5.7	7,650		July 18, 1942	15.0	47,800
1925	Feb. 12, 1925	7.8	12,700	1943	Dec. 30, 1942	8.30	14,800
1926	Feb. 26, 1926	4.4	4,820		Mar. 17, 1943	5.12	5,680
	Mar. 23, 1926	4.6	5,240		Apr. 21, 1943	7.45	11,600
1927	Jan. 22, 1927	4.4	4,820		May 26, 1943	5.06	5,470
	Mar. 8, 1927	4.5	5,030		June 2, 1943	7.26	11,300
	Mar. 14, 1927	5.0	6,090	1944	Mar. 17, 1944	6.80	6,620
	Mar. 21, 1927	5.1	6,310	1945	Mar. 3, 1945	5.99	8,660
	May 25, 1927	6.2	8,820		Mar. 7, 1945	4.67	5,850
1928	Dec. 14, 1927	4.9	5,870		Mar. 17, 1945	5.05	6,450
	Dec. 16, 1927	5.6	7,420		Mar. 22, 1945	5.76	8,190
	Apr. 8, 1928	5.0	6,090	1946	Oct. 2, 1945	5.27	7,080
	June 6, 1928	6.4	9,300		May 27, 1946	9.66	21,600
1929	Jan. 19, 1929	4.7	5,450		June 13, 1946	4.67	5,850
	Mar. 15, 1929	5.6	7,420	1947	Apr. 5, 1947	5.27	7,080
1930	Jan. 13, 1930	4.82	5,660		June 7, 1947	4.10	4,730
1931	June 8, 1931	4.27	4,500	1948	Mar. 20, 1948	4.90	6,250
1932	Dec. 13, 1931	4.73	5,450		Apr. 12, 1948	6.51	9,900
	Jan. 15, 1932	4.60	5,240		Apr. 14, 1948	5.05	6,450
	Jan. 18, 1932	5.18	6,530	1949	Jan. 28, 1949	3.45	3,560
	Apr. 1, 1932	4.62	5,240	1950	Jan. 7, 1950	5.07	6,660
	May 8, 1932	6.47	9,550		Mar. 28, 1950	5.46	7,520
					Apr. 5, 1950	5.54	6,640



## SUSQUEHANNA RIVER BASIN

Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 5, 1950	6.83	10,100	1954	Mar. 1, 1954	7.45	12,100
	Nov. 25, 1950	10.65	25,800		Mar. 5, 1955	5.36	6,430
	Mar. 31, 1951	6.19	8,320	1955	Mar. 1, 1955	5.20	6,040
1952	Jan. 18, 1952	6.65	9,500		Mar. 5, 1955	5.20	6,040
	Jan. 27, 1952	6.02	7,790	1956	Oct. 15, 1955	5.19	6,040
	Mar. 11, 1952	4.73	5,250		Feb. 25, 1956	5.43	6,430
	Apr. 15, 1952	5.21	6,070		Mar. 8, 1956	8.92	17,800
	May 25, 1952	5.44	6,440		Apr. 4, 1956	4.67	5,140
					May 13, 1956	5.01	5,670
1953	Mar. 24, 1953	5.79	7,300		Aug. 6, 1956	4.56	4,970
	May 23, 1953	8.74	17,000	1957	Jan. 23, 1957	5.11	6,430
	May 26, 1953	6.90	10,400		Apr. 7, 1958	4.15	4,990
	May 31, 1953	5.63	6,850				

<sup>a</sup>Backwater from ice.

## 5435. Sinnemahoning Creek at Sinnemahoning, Pa.

Location. --Lat 41°19'00", long 78°06'10", on left bank 0.2 mile upstream from Grove Run and 0.7 mile upstream from Pennsylvania Railroad bridge at Sinnemahoning, Cameron County.

Drainage area. --685 sq mi.

Gage. --Recording gage. Datum of gage is 769.36 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 31,000 cfs and extended on basis of slope-area measurement of peak flow.

Bankfull stage. --17 ft.

Remarks. --Base for partial-duration series, 8,400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	21.94	61,200	1948	Mar. 20, 1948	7.87	10,700
1939	Feb. 15, 1939	7.19	8,120		Apr. 12, 1948	9.67	16,000
					Apr. 14, 1948	9.41	15,100
1940	Mar. 31, 1940	10.57	19,100	1949	Jan. 28, 1949	6.58	7,450
	Apr. 5, 1940	10.00	17,000		Jan. 7, 1950	8.04	11,000
	Apr. 9, 1940	7.81	10,400	1950	Mar. 27, 1950	7.25	8,900
1941	Apr. 5, 1941	8.01	10,900		Mar. 29, 1950	9.68	16,000
					Apr. 5, 1950	7.86	10,700
1942	Mar. 9, 1942	8.54	12,400	1951	Nov. 5, 1950	10.98	19,900
	July 18, 1942	21.58	59,800		Nov. 25, 1950	19.66	52,200
1943	Dec. 30, 1942	13.44	28,300		Dec. 4, 1950	7.97	11,000
	Apr. 21, 1943	11.14	20,200		Jan. 4, 1951	7.61	9,930
	May 26, 1943	7.47	9,670		Feb. 22, 1951	7.23	8,900
	June 3, 1943	8.62	12,700		Mar. 31, 1951	9.76	16,300
1944	Mar. 17, 1944	8.78	13,300	1952	Jan. 18, 1952	10.11	17,200
1945	Mar. 3, 1945	10.40	18,100		Jan. 27, 1952	10.47	18,400
	Mar. 7, 1945	9.40	15,100		Mar. 11, 1952	8.94	13,600
	Mar. 17, 1945	8.11	11,300		Apr. 15, 1952	9.05	13,900
	Mar. 22, 1945	9.90	16,600		May 25, 1952	9.97	16,900
	May 18, 1945	7.56	9,930	1953	Mar. 24, 1953	9.26	14,800
1946	Oct. 2, 1945	8.04	11,000		May 23, 1953	11.67	22,400
	May 28, 1946	15.76	36,700		May 26, 1953	11.32	21,000
	June 13, 1946	7.74	10,200		May 31, 1953	9.38	15,100
1947	Apr. 5, 1947	7.42	9,410	1954	Mar. 1, 1954	12.25	24,100
	May 22, 1947	7.34	9,150		Apr. 27, 1954	7.96	11,000

## Sinnemahoning Creek at Sinnemahoning, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Dec. 30, 1954	8.12	11,300	1956	Apr. 5, 1956	7.54	9,670
	Mar. 1, 1955	8.61	12,700		May 13, 1956	8.59	12,700
	Mar. 5, 1955	8.05	11,000		Aug. 7, 1956	8.23	11,600
	Mar. 22, 1955	7.26	9,150	1957	Jan. 23, 1957	8.58	12,700
1956	Oct. 15, 1955	8.97	13,900	1958	Apr. 7, 1958	7.78	10,400
	Nov. 16, 1955	7.25	8,900		May 8, 1958	7.63	9,830
	Feb. 25, 1956	9.86	16,600				
	Mar. 8, 1956	13.87	30,000				

## 5445. Kettle Creek at Cross Fork, Pa.

Location. --Lat 41°28'30", long 77°49'35", on right bank just upstream from bridge on State Highway 144, 0.2 mile downstream from Potter-Clinton County line, 0.7 mile southwest of village of Cross Fork, Potter County.

Drainage area. --136 sq mi.

Gage. --Recording gage. Datum of gage is 1,027.12 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 2,500 cfs and extended on basis of slope-area measurement of peak flow.

Remarks. --Base for partial-duration series, 2,400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	14	20,000	1949	Feb. 16, 1949	3.96	1,260
1941	Apr. 6, 1941	5.42	2,370	1950	Apr. 5, 1950	6.69	4,180
1942	Dec. 24, 1941	5.87	2,860	1951	Nov. 25, 1950	11.04	12,400
	Mar. 9, 1942	6.37	3,520		Mar. 30, 1951	8.74	7,400
	May 22, 1942	7.98	6,100	1952	Jan. 18, 1952	5.46	2,680
	July 18, 1942	5.96	2,960		Apr. 6, 1952	5.59	2,850
1943	Dec. 30, 1942	6.50	3,660	1953	Mar. 24, 1953	6.61	4,050
	Apr. 21, 1943	5.94	2,960		May 23, 1953	5.97	3,310
1944	Mar. 17, 1944	5.50	2,470	1954	Mar. 2, 1954	6.32	3,670
	May 8, 1944	5.60	2,580	1955	Mar. 5, 1955	5.24	2,460
1945	Mar. 18, 1945	6.45	3,520				
1946	May 28, 1946	10.38	11,000				
1947	Apr. 6, 1947	5.49	2,470	1956	Oct. 14, 1955	7.35	5,140
1948	Mar. 20, 1948	5.50	2,680		Mar. 8, 1956	7.37	5,140
	Mar. 22, 1948	5.45	2,630		Apr. 5, 1956	5.86	3,190
	Apr. 12, 1948	5.35	2,520	1957	Jan. 23, 1957	<sup>a</sup> 5.74	—
	Apr. 15, 1948	5.56	2,800		Apr. 6, 1957	4.39	1,620
				1958	Dec. 21, 1957	5.60	2,850
					Apr. 7, 1958	5.40	2,630

<sup>a</sup>Backwater from ice.

## SUSQUEHANNA RIVER BASIN

5455. West Branch Susquehanna River at Renovo, Pa.

Location. --Lat 41°19'30", long 77°45'05", on left bank on upstream side of Eighth Street Bridge at Renovo, Clinton County, 1 mile upstream from Paddy Run.

Drainage area. --2,975 sq mi.

Gage. --Nonrecording gage prior to Mar. 17, 1930; recording gage thereafter. Datum of gage is 634.19 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 87,000 cfs and extended above on basis of slope-area measurement of peak flow.

Bankfull stage. --16 ft.

Remarks. --Base for partial-duration series, 31,000 cfs. Only annual peaks are shown after December 1955. Flow regulated. Records prior to 1908 from U. S. Weather Bureau.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	28.8	254,000	1916	Mar. 28, 1916	15.8	87,000
1894	May 21, 1894	23	187,000		June 4, 1916	12.4	56,600
1896	Mar. 31, 1896	10.4	46,900		June 17, 1916	14.6	76,200
1897	Mar. 7, 1897	8.5	32,800	1917	Mar. 7, 1917	<sup>a</sup> 10.7	—
1898	Mar. 24, 1898	15.4	101,000		Mar. 17, 1917	8.8	32,800
	Mar. 30, 1898	10.0	43,700	1918	Feb. 20, 1918	14.5	75,300
1899	Mar. 6, 1899	9.0	36,300		Feb. 26, 1918	10.1	41,700
1900	Jan. 21, 1900	<sup>a</sup> 12.0	—	1919	May 11, 1919	11.4	50,800
1901	Nov. 27, 1900	11.0	52,200		May 22, 1919	13.8	69,400
	Apr. 8, 1901	8.5	32,800	1920	Nov. 27, 1919	8.8	33,900
	Apr. 22, 1901	11.1	53,200		Mar. 6, 1920	<sup>a</sup> 9.9	—
	May 30, 1901	10.0	43,700		Mar. 13, 1920	15.0	81,300
1902	Dec. 15, 1901	13.5	79,100		Mar. 17, 1920	9.6	39,500
	Mar. 1, 1902	<sup>a</sup> 17.0	—		June 18, 1920	9.2	36,700
	Mar. 14, 1902	8.8	34,900	1921	Mar. 8, 1921	7.97	28,600
	Mar. 17, 1902	8.5	32,800	1922	Nov. 29, 1921	11.2	50,700
	Apr. 9, 1902	12.5	67,400		Apr. 16, 1922	8.6	32,500
	July 4, 1902	11.0	52,200	1923	Feb. 18, 1923	8.9	34,600
1903	Feb. 5, 1903	11.0	52,200		Mar. 5, 1923	13.06	65,800
	Mar. 1, 1903	13.0	73,400		May 13, 1923	11.8	55,400
	Mar. 9, 1903	10.0	43,700	1924	Jan. 1, 1924	8.9	34,600
	Mar. 24, 1903	9.0	36,300		Jan. 4, 1924	9.2	36,700
1906	Dec. 4, 1905	11.7	59,000		Mar. 30, 1924	10.2	43,700
	Jan. 24, 1906	10.0	43,700		Apr. 7, 1924	13.0	65,000
1907	Jan. 21, 1907	10.0	43,700		May 13, 1924	10.8	47,900
	Mar. 15, 1907	<sup>a</sup> 14.0	—		June 30, 1924	9.4	38,100
1908	Feb. 16, 1908	13.5	71,100	1925	Feb. 12, 1925	14.5	77,000
1909	Apr. 30, 1909	15.5	88,100	1926	Jan. 19, 1926	8.9	34,600
1910	Mar. 1, 1910	—	<sup>b</sup> 61,000		Feb. 26, 1926	9.0	35,300
1911	Jan. 15, 1911	13.1	62,300		Sept. 6, 1926	11.1	50,000
1912	Oct. 2, 1911	11.15	67,900	1927	Jan. 23, 1927	11.8	55,400
1913	Jan. 9, 1913	14.9	83,000		Mar. 8, 1927	10.5	45,800
	Mar. 27, 1913	12.8	65,500		Mar. 14, 1927	8.4	31,100
1914	Feb. 14, 1914	8.74	34,500		Mar. 21, 1927	11.8	55,400
	Mar. 28, 1914	12.54	63,100		May 25, 1927	9.6	39,500
1915	Jan. 8, 1915	13.0	67,100	1928	Nov. 29, 1927	8.85	33,900
					Dec. 14, 1927	10.7	47,200
					Dec. 17, 1927	10.4	45,100
					Mar. 31, 1928	10.2	43,700
					Apr. 8, 1928	9.2	36,700
					May 1, 1928	8.8	33,900
					June 6, 1928	11.9	56,200
					July 6, 1928	9.9	41,600

## West Branch Susquehanna River at Renovo, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 27, 1929	8.4	31,100	1945	Feb. 27, 1945	9.97	37,700
	Mar. 15, 1929	12.3	59,400		Mar. 4, 1945	13.94	69,000
1930	Feb. 27, 1930	9.8	42,200		Mar. 7, 1945	14.18	71,700
1931	Apr. 5, 1931	8.97	36,400		Mar. 17, 1945	10.12	38,400
	May 24, 1931	8.47	32,900		Mar. 22, 1945	11.90	52,600
1932	Apr. 1, 1932	9.80	42,200		May 18, 1945	10.80	43,800
1933	Mar. 15, 1933	11.09	52,000	1946	May 28, 1946	20.11	130,000
1934	Apr. 12, 1934	6.85	21,500		June 13, 1946	9.62	34,900
1935	May 8, 1935	9.13	33,600	1947	Apr. 6, 1947	8.48	28,000
1936	Mar. 6, 1936	<sup>a</sup> 14.0	—	1948	Apr. 15, 1948	15.07	79,800
	Mar. 12, 1936	15.33	82,500	1949	Jan. 29, 1949	8.75	29,800
	Mar. 18, 1936	29.39	236,000	1950	Jan. 7, 1950	9.02	31,000
1937	Nov. 6, 1936	8.97	32,900		Jan. 11, 1950	9.47	34,200
	Jan. 22, 1937	13.02	62,200		Mar. 29, 1950	13.21	63,000
	Jan. 25, 1937	11.63	51,000		Apr. 5, 1950	9.99	37,700
	Apr. 28, 1937	13.21	63,800	1951	Nov. 5, 1950	11.60	50,200
1938	Dec. 18, 1937	12.83	57,400		Nov. 26, 1950	21.96	151,000
1939	Feb. 16, 1939	8.65	27,900		Dec. 5, 1950	10.30	39,800
1940	Mar. 19, 1940	<sup>a</sup> 13.03	—		Dec. 8, 1950	9.45	33,200
	Apr. 1, 1940	16.51	92,900		Feb. 22, 1951	9.06	31,100
	Apr. 5, 1940	13.26	63,800		Mar. 31, 1951	12.79	59,800
	Apr. 9, 1940	10.80	43,800	1952	Jan. 2, 1952	9.34	32,500
	Apr. 21, 1940	10.10	38,400		Jan. 18, 1952	10.22	39,000
1941	Mar. 5, 1941	<sup>a</sup> 14.37	—		Jan. 27, 1952	13.33	63,800
	Apr. 6, 1941	10.79	43,800		Mar. 12, 1952	12.01	53,400
1942	Mar. 9, 1942	14.38	73,500		Apr. 16, 1952	11.03	45,400
	Mar. 17, 1942	9.92	37,000		May 26, 1952	10.82	43,800
	May 23, 1942	9.14	31,400	1953	Mar. 24, 1953	11.21	47,000
	July 18, 1942	18.92	117,000		May 23, 1953	11.17	47,000
1943	Dec. 30, 1942	17.74	105,000		May 26, 1953	12.74	59,000
	Apr. 21, 1943	13.55	66,300		May 31, 1953	11.58	50,200
	May 12, 1943	10.34	39,800	1954	Mar. 2, 1954	14.79	77,600
	June 3, 1943	9.12	31,900	1955	Dec. 31, 1954	10.74	43,000
1944	Jan. 29, 1944	<sup>a</sup> 11.15	—		Mar. 2, 1955	10.15	39,000
	Mar. 17, 1944	11.16	47,000		Mar. 5, 1955	10.46	41,400
					Mar. 23, 1955	9.20	31,800
				1956	Oct. 15, 1955	10.53	41,400
					Mar. 8, 1956	15.40	82,500
				1957	Apr. 7, 1957	10.48	41,400
				1958	Apr. 7, 1958	10.31	39,800

<sup>a</sup>Backwater from ice.<sup>b</sup>Maximum daily discharge.

## 5460. North Bald Eagle Creek at Milesburg, Pa.

Location. --Lat 40°56'30", long 77°47'40", at Milesburg, Centre County, 0.5 mile upstream from Spring Creek and 1.4 miles downstream from Snowshoe Creek.

Drainage area. --119 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 690 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 2,000 cfs and extended above.

Remarks. --Only annual peaks are shown.



## SUSQUEHANNA RIVER BASIN

North Bald Eagle Creek at Milesburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Sept. 9, 1911	6.5	6,730	1921	Dec. 14, 1920	5.7	5,200
1912	Oct. 2, 1911	11.0	17,000	1922	Nov. 29, 1921	7.0	7,750
1913	Mar. 27, 1913	6.4	6,530	1923	Mar. 3, 1923	8.0	9,800
1914	Mar. 28, 1914	6.0	5,750	1924	Apr. 6, 1924	7.7	9,150
1915	Feb. 24, 1915	6.6	6,930	1925	Feb. 10, 1925	5.50	4,850
1916	June 17, 1916	11.5	18,500	1926	Feb. 26, 1926	5.1	3,970
1917	Mar. 11, 1917	4.7	3,390	1927	Jan. 22, 1927	5.7	5,300
1918	Feb. 26, 1918	8.3	10,400	1928	Mar. 30, Apr. 30	5.6	5,000
1919	May 22, 1919	6.6	6,930				
1920	Mar. 12, 1920	8.2	10,000	1934	Apr. 11, 1934	5.3	4,470

## 5465. Spring Creek near Axemann, Pa.

Location. --Lat 40°53'25", long 77°47'40", on right bank at upstream side of highway bridge, 1.6 miles west of Axemann, Centre County, 1.7 miles southwest of Bellefonte, and 2.5 miles upstream from Logan Branch.

Drainage area. --87.2 sq mi.

Gage. --Nonrecording gage prior to Nov. 19, 1940; recording thereafter. Datum of gage is 788.81 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 650 cfs and extended above.

Bankfull stage. --4 ft.

Historical data. --Flood of March 1936 reached a stage of 8.6 ft, from information by local residents.

Remarks. --Base for partial-duration series, 350 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 1936	8.6	—	1946	Nov. 29, 1945	3.79	577
1941	Mar. 22, 1941	3.62	500		Feb. 28, 1946	4.27	822
1942	Mar. 8, 1942	3.75	560		May 27, 1946	3.53	456
	Mar. 9, 1942	3.39	402		June 2, 1946	3.54	460
	Apr. 4, 1942	3.61	496	1947	June 8, 1947	3.01	229
	May 23, 1942	3.92	642	1948	Feb. 14, 1948	3.50	398
1943	Dec. 30, 1942	4.56	990		Apr. 14, 1948	4.02	685
	Jan. 17, 1943	3.33	369		May 13, 1948	4.07	712
	Jan. 18, 1943	3.30	357	1949	Dec. 30, 1948	3.49	438
	Mar. 12, 1943	3.69	529	1950	Mar. 28, 1950	3.79	577
	Apr. 21, 1943	3.90	632	1951	Nov. 25, 1950	5.44	1,670
	Aug. 4, 1943	3.65	510		Dec. 4, 1950	3.96	671
1944	Jan. 26, 1944	3.48	433		Dec. 8, 1950	3.82	606
	Jan. 27, 1944	3.61	492		Feb. 7, 1951	4.45	950
	Mar. 13, 1944	3.58	478		Feb. 13, 1951	3.49	454
	Mar. 17, 1944	3.38	390		Feb. 21, 1951	3.28	368
	May 7, 1944	4.03	712		Mar. 30, 1951	4.23	832
	May 28, 1944	3.40	398	1952	Mar. 11, 1952	3.98	696
	June 2, 1944	3.35	378	1953	Mar. 24, 1953	3.79	590
1945	Feb. 27, 1945	3.34	373		May 26, 1953	5.13	1,430
	Mar. 4, 1945	3.41	402		May 31, 1953	4.12	750
	Mar. 7, 1945	3.52	451		June 7, 1953	3.53	472
	Mar. 22, 1945	3.75	558				
	May 18, 1945	3.41	402				
	May 29, 1945	3.88	622				

## Spring Creek at Axemann, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Mar. 1, 1954	4.09	750	1956	Feb. 18, 1956	3.81	605
1955	Oct. 16, 1954	3.63	518	Cont.	Feb. 25, 1956	4.42	920
	Feb. 23, 1955	3.40	416		Mar. 8, 1956	3.27	364
	Mar. 22, 1955	3.33	383		Aug. 6, 1956	3.36	400
	Aug. 13, 1955	3.43	426		Aug. 12, 1956	3.26	360
				1957	Apr. 6, 1957	3.91	650
1956	Oct. 15, 1955	3.30	370	1958	Jan. 15, 1958	3.40	416
	Jan. 30, 1956	3.65	528		Feb. 26, 1958	3.80	600
	Feb. 10, 1956	3.71	556		Feb. 28, 1958	3.74	571
	Feb. 15, 1956	3.52	468				

## 5470. Spring Creek near Bellefonte, Pa.

Location. --Lat 40°55'20", long 77°47'10", at highway bridge, 0.4 mile downstream from Buffalo Run, three-quarters of a mile east of Bellefonte, Centre County, and 1.7 miles upstream from mouth.

Drainage area. --145 sq mi.

Gage. --Nonrecording gage. Datum of gage is 714.25 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 1,000 cfs and extended above by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	May 19, 1911	5.4	3,410	1916	June 17, 1916	5.4	2,740
1912	Mar. 15, 1912	6.4	5,160	1917	Feb. 24, 1917	4.2	1,340
1913	Mar. 27, 1913	3.8	1,380	1918	Feb. 26, 1918	5.0	2,210
1914	Mar. 28, 1914	3.5	1,090'	1919	May 22, 1919	4.3	1,430
1915	Feb. 15, 1915	3.9	1,480				

## 5480. North Bald Eagle Creek at Beech Creek Station, Pa.

Location. --Lat 41°03'55", long 77°34'00", at downstream end of center pier of highway bridge just downstream from Beech Creek, at Beech Creek Station, Clinton County.

Drainage area. --559 sq mi.

Gage. --Nonrecording gage prior to Jan. 10, 1930; recording gage thereafter. Datum of gage is 571.74 ft above mean sea level (Pennsylvania State highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 12,000 cfs and extended above by logarithmic plotting.

Remarks. --Base for partial-duration series, 5,700 cfs. Only annual peaks prior to 1920 are shown.

## SUSQUEHANNA RIVER BASIN

North Bald Eagle Creek at Beech Creek Station, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Sept. 9, 1911	8.8	10,800	1938	Dec. 19, 1937 Jan. 25, 1938	7.34 6.69	7,560 6,420
1912	Oct. 2, 1911	10.9	15,700	1939	Feb. 15, 1939	6.17	5,520
1913	Mar. 27, 1913	9.4	12,000	1940	Mar. 31, 1940 Apr. 4, 1940 Apr. 9, 1940 Apr. 21, 1940	11.06 7.08 6.63 6.90	16,200 7,180 6,240 6,800
1914	Mar. 28, 1914	9.3	11,800	1941	Apr. 6, 1941	6.33	5,970
1915	Feb. 25, 1915	9.0	11,100	1942	Dec. 24, 1941 Mar. 9, 1942 Apr. 4, 1942 May 22, 1942	7.48 7.31 7.19 9.00	8,010 7,630 7,440 11,100
1916	June 17, 1916	13.2	22,000	1943	Dec. 30, 1942 Apr. 21, 1943 May 12, 1943	10.94 8.70 6.43	15,700 10,500 5,970
1917	Mar. 12, 1917	6.6	6,550	1944	Mar. 17, 1944 May 7, 1944	6.91 9.38	6,870 12,000
1918	Feb. 26, 1918	9.5	12,300	1945	Mar. 4, 1945 Mar. 7, 1945 Mar. 22, 1945 May 18, 1945	7.71 8.12 9.02 6.72	8,410 9,210 11,100 6,510
1919	May 22, 1919	9.4	12,000	1946	Nov. 29, 1945 Feb. 28, 1946 May 27, 1946	8.23 6.26 12.48	9,420 5,790 20,000
1920	Nov. 27, 1919 Mar. 13, 1920 Mar. 17, 1920	6.4 10.2 7.0	5,960 13,900 7,060	1947	June 8, 1947	5.60	4,610
1921	May 5, 1921	7.3	8,120	1948	Apr. 12, 1948 Apr. 15, 1948	6.86 9.65	6,870 12,500
1922	Nov. 29, 1921 Apr. 15, 1922	9.5 7.8	12,300 8,610	1949	Dec. 30, 1948 May 21, 1949	7.91 6.3	8,810 5,780
1923	Mar. 4, 1923 Mar. 5, 1923 July 28, 1923	8.9 8.6 6.6	10,700 10,300 6,320	1950	Jan. 10, 1950 Mar. 27, 1950 Mar. 29, 1950	7.00 6.32 7.94	7,060 5,780 8,810
1924	Jan. 17, 1924 Mar. 29, 1924 Apr. 6, 1924 May 9, 1924 May 12, 1924 June 29, 1924	7.5 6.4 11.0 6.4 8.9 7.4	8,010 5,960 15,900 5,960 10,900 7,820	1951	Nov. 25, 1950 Dec. 4, 1950 Dec. 8, 1950 Mar. 31, 1951 June 14, 1951	12.96 7.31 6.59 9.18 7.72	21,400 7,630 6,320 11,600 8,410
1925	Feb. 12, 1925	9.2	11,600	1952	Jan. 27, 1952 Mar. 11, 1952 May 25, 1952	6.94 9.52 7.18	6,870 12,300 7,440
1926	Feb. 26, 1926 Sept. 5, 1926	7.6 7.4	8,840 7,820	1953	Mar. 24, 1953 May 23, 1953 May 26, 1953 May 31, 1953	8.59 8.05 10.30 8.34	10,300 9,010 14,200 9,630
1927	Nov. 16, 1926 Mar. 8, 1927 Mar. 21, 1927	7.8 6.9 7.4	9,330 6,870 7,820	1954	Mar. 2, 1954	9.24	11,600
1928	Apr. 30, 1928 June 6, 1928	8.2 6.8	10,100 6,680	1955	Oct. 16, 1954 Mar. 22, 1955	6.28 6.53	5,780 6,140
1929	Feb. 26, 1929 Mar. 14, 1929 Apr. 17, 1929 May 28, 1929	7.2 7.4 7.2 7.3	7,440 8,360 7,440 7,630	1956	Oct. 15, 1955 Mar. 8, 1956	8.58 7.93	10,300 8,810
1930	Feb. 26, 1930	6.16	5,720	1957	Apr. 9, 1957	7.96	9,010
1931	Apr. 2, 1931 May 8, 1931 May 23, 1931	6.30 6.75 8.71	5,780 6,680 11,500	1958	Feb. 28, 1958	<sup>a</sup> —	—
1932	Apr. 1, 1932 May 11, 1932	7.53 6.73	8,600 6,500				
1933	Mar. 15, 1933	6.69	6,760				
1934	Apr. 12, 1934	6.37	6,120				
1935	Jan. 10, 1935	6.00	5,350				
1936	Mar. 12, 1936 Mar. 18, 1936	10.90 14.42	15,700 25,600				
1937	Jan. 22, 1937 Apr. 28, 1937	7.05 8.88	6,990 10,900				

<sup>a</sup>Backwater from ice, discharge not determined.

## 5485. Pine Creek at Cedar Run, Pa.

Location. --Lat 41°31'20", long 77°26'55", on left bank at downstream side of highway bridge at village of Cedar Run, Lycoming County, 2,000 ft downstream from Cedar Run and 1.2 miles upstream from Gamble Run.

Drainage area. --604 sq mi.

Gage. --Nonrecording gage prior to Feb. 13, 1930; recording gage thereafter. Datum of gage is 780.36 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 16,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 5,900 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	May 11, 1919	5.7	7,800	1937	Nov. 5, 1936	5.37	6,810
	May 22, 1919	9.1	19,500		Jan. 22, 1937	5.91	8,400
1920	Mar. 13, 1920	7.5	12,500		Jan. 25, 1937	5.15	6,260
					Aug. 27, 1937	7.23	12,300
1921	Feb. 16, 1921	5.0	5,700	1938	Oct. 29, 1937	5.32	6,670
1922	Nov. 29, 1921	5.52	7,230		Nov. 13, 1937	7.96	15,100
	Mar. 7, 1922	5.4	6,940		Jan. 25, 1938	5.58	7,520
	Apr. 18, 1922	5.1	6,100		Mar. 6, 1938	5.51	7,230
1923	Mar. 4, 1923	6.3	9,600		June 27, 1938	5.34	6,810
1924	Jan. 11, 1924	5.5	7,230	1939	Feb. 20, 1939	6.32	9,600
	Jan. 17, 1924	5.1	6,100	1940	Mar. 31, 1940	7.90	14,700
	Apr. 6, 1924	8.6	16,700		Apr. 4, 1940	7.89	14,700
	Apr. 18, 1924	5.3	6,660		Apr. 9, 1940	7.12	12,000
	May 12, 1924	7.1	12,000		Apr. 12, 1940	5.94	8,400
	Sept. 30, 1924	5.9	8,400	1941	Apr. 5, 1941	6.33	9,600
1925	Feb. 12, 1925	7.2	11,500	1942	Dec. 24, 1941	6.00	8,700
1926	Jan. 19, 1926	<sup>a</sup> 8.6	—		Mar. 9, 1942	7.34	12,600
	Mar. 25, 1926	5.8	8,140		Mar. 18, 1942	5.29	6,670
1927	Nov. 16, 1926	6.1	8,990		May 22, 1942	8.26	16,300
	Mar. 8, 1927	5.5	7,230		July 18, 1942	7.50	13,200
	Mar. 21, 1927	5.6	7,520	1943	Dec. 30, 1942	7.56	13,500
1928	Nov. 29, 1927	5.6	7,580		Mar. 17, 1943	5.50	7,230
	Mar. 27, 1928	5.6	7,580		Apr. 21, 1943	7.33	12,600
	Apr. 8, 1928	5.2	6,400		May 12, 1943	5.80	8,100
	Apr. 30, 1928	5.7	7,870		May 21, 1943	5.16	6,280
	June 6, 1928	7.2	12,200	1944	Nov. 8, 1943	5.18	6,410
1929	Mar. 14, 1929	7.16	12,200		Mar. 17, 1944	5.50	7,230
	Apr. 6, 1929	7.10	12,000		May 7, 1944	6.40	9,900
	Apr. 21, 1929	6.40	9,870		June 19, 1944	5.36	6,820
1930	Nov. 18, 1929	5.0	5,840	1945	Mar. 3, 1945	6.67	10,800
1931	May 24, 1931	5.09	6,120		Mar. 7, 1945	5.05	6,020
1932	Apr. 1, 1932	5.91	8,470		Mar. 18, 1945	6.53	10,200
	May 11, 1932	5.84	8,110		Mar. 22, 1945	5.47	7,090
1933	Nov. 10, 1932	5.44	7,100		May 5, 1945	5.27	6,540
	Aug. 24, 1933	5.13	6,260		May 18, 1945	6.28	9,600
1934	Apr. 12, 1934	5.03	5,980		June 2, 1945	5.15	6,280
1935	Jan. 9, 1935	4.82	5,330	1946	Jan. 6, 1946	5.50	7,230
	Mar. 6, 1935	<sup>a</sup> 5.00	—		Mar. 7, 1946	5.52	7,230
1936	Mar. 12, 1936	9.30	20,300		Mar. 9, 1946	5.33	6,820
	Mar. 18, 1936	11.39	30,900		May 28, 1946	14.39	52,000
	Mar. 26, 1936	6.24	9,300		June 2, 1946	6.00	6,600
				1947	Apr. 5, 1947	9.01	18,100
					May 22, 1947	6.11	6,900
				1948	Feb. 20, 1948	—	8,700
					Mar. 17, 1948	6.10	7,800
					Mar. 22, 1948	8.90	18,100



## SUSQUEHANNA RIVER BASIN

Pine Creek at Cedar Run, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Apr. 12, 1948	6.13	7,800	1953	Dec. 11, 1952	6.96	10,500
Cont.	Apr. 14, 1948	7.25	11,300		Jan. 24, 1953	5.84	6,640
					Mar. 24, 1953	7.95	14,500
1949	Dec. 30, 1948	5.19	5,130		May 23, 1953	6.55	8,880
1950	Jan. 7, 1950	5.87	7,050	1954	Mar. 1, 1954	8.76	17,700
	Mar. 28, 1950	7.26	11,700		May 4, 1954	5.91	6,790
	Apr. 5, 1950	8.35	16,100	1955	Mar. 4, 1955	6.06	7,240
1951	Oct. 9, 1950	5.82	6,900	1956	Oct. 14, 1955	9.19	19,600
	Nov. 5, 1950	5.66	6,450		Mar. 8, 1956	8.83	17,600
	Nov. 25, 1950	11.77	33,400		Apr. 5, 1956	7.58	12,900
	Dec. 4, 1950	6.28	8,000	1957	Nov. 2, 1956	6.52	8,700
	Dec. 8, 1950	6.52	8,700		Jan. 23, 1957	5.84	6,640
	Mar. 30, 1951	10.88	28,100		Apr. 6, 1957	6.21	7,690
1952	Jan. 18, 1952	6.32	8,000		Apr. 25, 1957	5.92	6,790
	Mar. 11, 1952	7.66	13,300	1958	Dec. 21, 1957	6.26	7,840
	Apr. 6, 1952	7.03	10,500		Apr. 7, 1958	7.04	10,500
	Apr. 15, 1952	5.68	6,190		Apr. 17, 1958	5.69	6,190
	May 25, 1952	6.08	7,390		May 7, 1958	5.80	6,490

<sup>a</sup>Backwater from ice.

## 5490. Pine Creek near Waterville, Pa.

Location. --Lat 41°18'45", long 77°22'45", at highway bridge on State Highway 44, 0.7 mile downstream from Bottom Run, 0.9 mile northwest of Waterville, Lycoming County, and 1.0 mile upstream from Little Pine Creek.

Drainage area. --750 sq mi.

Gage. --Nonrecording gage. Datum of gage is 608.04 ft above mean sea level (unadjusted).

Stage-discharge relation. --Defined by current-meter measurements below 22,000 cfs and extended.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	May 1, 1909	12.5	30,000	1916	Apr. 14, 1916	9.9	19,600
1910	Apr. 26, 1910	12.16	28,570	1917	Mar. 12, 1917	6.7	9,500
				1918	Mar. 14, 1918	12.3	28,700
1911	Mar. 28, 1911	5.67	6,830	1919	May 22, 1919	12.1	27,900
1912	Apr. 3, 1912	8.73	15,600	1920	Mar. 13, 1920	9.9	19,600
1913	Mar. 27, 1913	12	27,900				
1914	Mar. 28, 1914	11.41	25,500				
1915	Feb. 25, 1915	9.97	19,900				

## 5495. Blockhouse Creek near English Center, Pa.

Location. --Lat 41°28'30", long 77°13'50", on right bank just downstream from bridge on State Highway 284, 0.7 mile upstream from Blacks Creek, 1.7 miles upstream from confluence with Texas Creek, and 5 miles north-east of English Center, Lycoming County.

Drainage area. --37.7 sq mi.

Gage. --Recording gage. Datum of gage is 1,041.85 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 920 cfs and extended on basis of contracted-opening measurement.

Remarks. --Base for partial-duration series, 1,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	9.0	5,780	1950	Mar. 28, 1950	5.57	1,700
1941	Apr. 5, 1941	5.39	1,450		Apr. 5, 1950	4.83	1,220
1942	Dec. 24, 1941	7.29	3,340		Sept. 1, 1950	5.06	1,350
	Mar. 9, 1942	6.53	2,460	1951	Nov. 25, 1950	7.26	3,360
	Mar. 16, 1942	5.00	1,140		Dec. 8, 1950	5.74	1,850
	May 22, 1942	6.34	2,250		Mar. 30, 1951	8.61	5,180
1943	Dec. 30, 1942	6.42	2,300	1952	Mar. 11, 1952	7.17	3,240
	Feb. 21, 1943	<sup>a</sup> 5.10	—		Apr. 5, 1952	4.90	1,250
	Apr. 21, 1943	5.47	1,460	1953	Nov. 22, 1952	4.91	1,250
1944	Nov. 9, 1943	6.06	1,960		Dec. 11, 1952	6.96	3,010
	May 7, 1944	6.02	1,920		Mar. 24, 1953	5.94	2,010
1945	Feb. 22, 1945	<sup>a</sup> 5.07	—	1954	Nov. 23, 1953	4.94	1,280
	Mar. 3, 1945	5.28	1,340		Mar. 1, 1954	6.93	2,900
1946	Nov. 22, 1945	5.05	1,180		May 4, 1954	5.15	1,420
	Nov. 29, 1945	5.21	1,280	1955	Mar. 4, 1955	4.14	780
	Feb. 27, 1946	6.28	2,200	1956	Oct. 14, 1955	7.67	3,830
	May 27, 1946	8.81	5,480		Mar. 8, 1956	5.00	1,320
	July 21, 1946	4.96	1,120	1957	Nov. 2, 1956	7.85	4,010
1947	Apr. 5, 1947	4.86	1,060		Apr. 5, 1957	5.36	1,560
1948	Mar. 21, 1948	5.19	1,460	1958	Dec. 20, 1957	4.96	1,280
	Apr. 14, 1948	5.17	1,420		Jan. 15, 1958	4.95	1,280
1949	Nov. 20, 1948	5.06	1,360				

<sup>a</sup>Backwater from ice.

## 5500. Lycoming Creek near Trout Run, Pa.

Location. --Lat 41°25'05", long 77°02'00", on right bank 150 ft upstream from highway bridge, 300 ft upstream from Pennsylvania Railroad bridge, 0.5 mile downstream from Grays Run, and 2 3/4 miles upstream from village of Trout Run, Lycoming County.

Drainage area. --173 sq mi.

Gage. --Nonrecording gage prior to May 26, 1939; recording gage thereafter. Prior to May 26, 1939 at site 150 ft downstream. Datum of gage is 693.95 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 9,200 cfs and extended above.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 2,900 cfs.

## SUSQUEHANNA RIVER BASIN

Lycoming Creek near Trout Run, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	10.28	5,760	1940	Mar. 31, 1940	10.10	6,630
	May 13, 1914	8.2	3,400		Apr. 4, 1940	9.88	6,370
					Apr. 8, 1940	9.91	6,370
1915	Jan. 7, 1915	10.3	5,760	1941	Apr. 5, 1941	8.98	5,220
	Feb. 24, 1915	9.99	5,730				
	July 8, 1915	11.30	7,420	1942	Dec. 24, 1941	13.72	11,500
1916	Mar. 31, 1916	8.8	4,380		Mar. 9, 1942	9.85	6,240
	June 17, 1916	10.8	6,740		May 22, 1942	10.94	7,670
	Apr. 14, 1916	8.4	3,980		Sept. 27, 1942	7.50	3,590
1917	Mar. 27, 1917	7.4	2,980	1943	Dec. 30, 1942	9.43	5,720
	Aug. 9, 1917	9.3	4,930		Apr. 21, 1943	8.20	4,320
1918	Feb. 26, 1918	10.1	5,850	1944	Nov. 9, 1943	11.71	8,710
	Mar. 14, 1918	10.2	5,970		Mar. 17, 1944	7.07	3,190
					May 7, 1944	10.56	7,280
1919	May 22, 1919	10.8	6,740	1945	Mar. 3, 1945	7.72	3,790
	July 22, 1919	12.14	8,550		Mar. 16, 1945	7.80	3,890
1920	Mar. 12, 1920	8.5	4,080		Mar. 17, 1945	7.94	3,990
1921	Dec. 14, 1920	8.8	4,380		Mar. 22, 1945	7.20	3,290
					May 28, 1945	8.58	4,760
1922	June 3, 1922	11.24	7,280		June 3, 1945	7.68	3,790
1923	Mar. 16, 1923	7.10	2,690	1946	Nov. 22, 1945	8.30	4,430
					Nov. 29, 1945	7.54	3,590
1924	Jan. 11, 1924	9.60	5,260		Mar. 9, 1946	8.98	5,220
	Apr. 6, 1924	13.80	11,000		May 27, 1946	19.37	21,800
	Sept. 30, 1924	10.00	5,730	1947	Oct. 12, 1946	7.14	3,280
1925	Feb. 11, 1925	9.50	5,150		Apr. 5, 1947	8.92	5,550
1926	Nov. 13, 1925	7.80	3,380		Aug. 21, 1947	7.86	4,210
	Mar. 25, 1926	7.6	3,180		Aug. 26, 1947	7.27	3,500
1927	Nov. 16, 1926	16.3	15,400	1948	Mar. 16, 1948	7.24	3,390
	Mar. 13, 1927	8.1	4,250		Mar. 21, 1948	8.90	5,550
1928	Apr. 30, 1928	7.7	3,810		Apr. 1, 1948	7.12	3,280
	June 6, 1928	11.0	8,000		Apr. 2, 1948	6.94	3,060
	June 30, 1928	9.0	5,300		Apr. 14, 1948	5.16	5,160
1929	Mar. 14, 1929	8.42	4,580	1949	Nov. 20, 1948	9.83	6,810
1930	Mar. 8, 1930	6.80	2,860		Dec. 30, 1948	7.33	3,650
1931	May 23, 1931	6.74	2,760	1950	Mar. 28, 1950	8.71	5,290
1932	Mar. 31, 1932	6.60	2,660		Apr. 4, 1950	8.79	5,420
					Sept. 1, 1950	7.82	4,180
1933	Nov. 10, 1932	7.3	3,380	1951	Nov. 25, 1950	12.58	10,900
	Nov. 19, 1932	6.9	2,960		Dec. 4, 1950	8.01	4,420
	Aug. 24, 1933	13.9	11,800		Dec. 8, 1950	9.13	5,830
	Sept. 10, 1933	10.5	7,150		Jan. 24, 1951	6.56	2,920
1934	Apr. 11, 1934	7.84	3,920		Mar. 30, 1951	11.86	9,850
1935	Dec. 1, 1934	9.4	5,780	1952	Dec. 5, 1951	6.89	3,220
1936	Nov. 13, 1935	7.8	3,920		Feb. 4, 1952	7.64	3,960
	Mar. 12, 1936	11.99	9,100		Mar. 11, 1952	11.78	9,700
	Mar. 18, 1936	17.34	17,000		Apr. 5, 1952	8.88	5,550
1937	Apr. 6, 1937	6.6	3,100	1953	Nov. 22, 1952	8.68	5,290
1938	Nov. 13, 1937	13.74	11,500		Dec. 11, 1952	12.31	10,400
1939	Feb. 15, 1939	6.6	3,100		Jan. 24, 1953	8.10	4,540
	Feb. 20, 1939	6.8	3,300		Mar. 24, 1953	10.46	7,790
				1954	Nov. 23, 1953	7.44	3,740
					Feb. 21, 1954	7.90	4,300
					Mar. 1, 1954	11.24	8,800
					May 4, 1954	10.10	7,230
				1955	Dec. 30, 1954	6.67	3,020
					Mar. 4, 1955	6.73	3,020

## Lycoming Creek near Trout Run, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Oct. 14, 1955	16.40	16,800	1958	Dec. 21, 1957	10.61	7,930
	Oct. 16, 1955	7.40	3,740		Dec. 26, 1957	6.72	3,020
	Mar. 8, 1956	8.44	4,900		Apr. 6, 1958	7.72	4,070
	Apr. 4, 1956	6.88	3,220		Apr. 22, 1958	6.69	3,020
1957	Nov. 2, 1956	12.21	10,300				
	Jan. 23, 1957	7.00	3,320				
	Apr. 6, 1957	8.67	5,290				

## 5510. Grafius Run at Williamsport, Pa.

Location.--Lat 41°15'15", long 77°00'40", on left bank 10 ft downstream from footbridge at end of Vallamont Drive in Williamsport, Lycoming County, and 1.5 miles upstream from mouth.

Drainage area.--3.14 sq mi.

Gage.--Recording gage. Datum of gage is 553.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 99 cfs and extended above.

Remarks.--Base for partial-duration series, 65 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 3, 1940	1.63	107	1947	Jan. 15, 1947	1.55	71
	Apr. 8, 1940	1.65	111	1948	Mar. 16, 1948	1.79	131
	Apr. 21, 1940	1.48	77		Apr. 2, 1948	1.72	113
	June 1, 1940	1.55	90		Apr. 14, 1948	2.13	245
	July 23, 1940	1.43	70		July 13, 1948	1.59	88
1941	Aug. 15, 1941	1.40	62		July 23, 1948	2.30	245
1942	Nov. 7, 1941	1.68	117	1949	Nov. 1, 1948	1.87	99
	Dec. 24, 1941	2.54	420		Nov. 6, 1948	2.35	238
	July —, 1942	1.60	85		Nov. 20, 1948	1.84	101
1943	Dec. 30, 1942	2.30	309		Dec. 30, 1948	1.98	169
	Feb. 11, 1943	1.62	90		May 20, 1949	1.51	69
	Mar. 7, 1943	1.62	90	1950	Dec. 26, 1949	1.54	65
	Apr. 19, 1943	1.71	111		Mar. 28, 1950	2.28	293
	Aug. 14, 1943	1.61	87	1951	Nov. 25, 1950	2.91	606
1944	Oct. 26, 1943	1.85	148		Dec. 4, 1950	1.94	176
	Nov. 8, 1943	2.25	288		Dec. 7, 1950	2.01	198
	Mar. 12, 1944	1.58	81		Mar. 30, 1951	1.72	114
	May 7, 1944	1.61	87	1952	Mar. 11, 1952	2.56	430
	June 19, 1944	2.47	386		Apr. 5, 1952	1.55	82
1945	Mar. 21, 1945	1.74	118		Apr. 16, 1952	1.53	78
	May 28, 1945	1.55	75		July 21, 1952	1.54	80
	June 2, 1945	2.15	249	1953	Nov. 22, 1952	1.49	70
	Sept. 27, 1945	1.74	103		Dec. 11, 1952	2.03	206
1946	Nov. 22, 1945	1.60	82		Mar. 24, 1953	1.76	125
	Nov. 29, 1945	2.43	367		May 22, 1953	2.53	415
	Feb. 28, 1946	2.00	195		May 23, 1953	1.52	76
	Mar. 8, 1946	1.93	173				
	May 27, 1946	3.43	910				
	Sept. 24, 1946	1.79	130				

Note.--1940 records, April to September only.



## SUSQUEHANNA RIVER BASIN

## 5515. West Branch Susquehanna River at Williamsport, Pa.

Location. --Lat 41°14'15", long 76°59'55", on left bank at upstream edge of Market Street Bridge at Williamsport, Lycoming County, 350 ft upstream from Hagermans Run.

Drainage area. --5,682 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1928; recording gage thereafter. Datum of gage is 494.98 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 210,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --20 ft.

Remarks. --Base for partial-duration series, 51,000 cfs. Only annual peaks are shown prior to 1901.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	Apr. 10, 1895	12.0	52,400	1913	Jan. 9, 1913	17.4	102,000
1896	Mar. 31, 1896	14.4	72,700		Mar. 27, 1913	20.4	135,000
1897	Mar. 25, 1897	11.9	51,600		Apr. 29, 1913	12.0	52,400
1898	Mar. 24, 1898	21.0	141,000		May 29, 1913	12.4	55,400
1899	Mar. 5, 1899	13.5	64,600	1914	Mar. 29, 1914	18.9	119,000
1900	Jan. 21, 1900	14.6	74,600		May 13, 1914	14.15	70,900
1901	Nov. 27, 1900	17.0	98,600	1915	Jan. 8, 1915	16.3	91,900
	Apr. 22, 1901	15.9	87,400		Feb. 16, 1915	12.65	57,000
	May 30, 1901	14.0	69,100		Feb. 25, 1915	17.4	103,000
1902	Dec. 15, 1901	20.7	138,000	1916	Mar. 29, 1916	20.5	136,000
	Mar. 1, 1902	21.7	149,000		Apr. 15, 1916	14.8	76,500
	Mar. 17, 1902	13.8	67,300		June 4, 1916	16.2	
	Apr. 10, 1902	17.0	98,600		June 17, 1916	21.0	141,000
1903	Feb. 4, 1903	16.0	88,400	1917	Mar. 13, 1917	11.6	49,400
	Mar. 1, 1903	17.7	106,000	1918	Feb. 21, 1918	21.4	145,000
	Mar. 10, 1903	13.2	62,000		Feb. 27, 1918	14.56	74,600
	Mar. 24, 1903	13.3	62,800		Mar. 15, 1918	19.12	121,000
1904	Nov. 18, 1903	12.0	52,400	1919	May 11, 1919	15.7	85,400
	Jan. 23, 1904	16.2			May 22, 1919	20.9	140,000
	Mar. 4, 1904	21.0	141,000	1920	Mar. 13, 1920	20.4	135,000
	Mar. 8, 1904	18.0	109,000		Mar. 18, 1920	13.5	64,600
	Mar. 24, 1904	18.0	109,000	1921	Mar. 9, 1921	11.8	50,900
	Apr. 2, 1904	17.2	100,000	1922	Nov. 29, 1921	15.8	86,400
1905	Mar. 20, 1905	19.4	124,000	1923	Mar. 5, 1923	21.6	147,000
1906	Dec. 4, 1905	16.8	96,600		May 13, 1923	14.5	73,600
1907	Mar. 15, 1907	18.8	117,000	1924	Mar. 31, 1924	13.0	60,300
1908	Feb. 16, 1908	17.0	98,600		Apr. 7, 1924	19.0	120,000
	Mar. 20, 1908	17.4	103,000		May 13, 1924	16.2	90,400
	Mar. 30, 1908	12.4	55,400	1925	Feb. 12, 1925	19.5	125,000
1909	Feb. 17, 1909	12.0	52,400	1926	Sept. 6, 1926	13.5	64,600
	Feb. 25, 1909	14.5	73,600	1927	Dec. 23, 1926	14.7	75,600
	Apr. 15, 1909	12.8	58,600		Jan. 22, 1927	18.7	117,000
	May 1, 1909	21.0	141,000		Mar. 9, 1927	13.6	65,500
1910	Jan. 22, 1910	12.5	56,200		Mar. 15, 1927	13.4	63,700
	Mar. 1, 1910	16.4	92,500		Mar. 22, 1927	15.5	83,400
	Apr. 26, 1910	17.3	102,000		May 26, 1927	12.8	58,600
1911	Jan. 15, 1911	19.0	120,000	1928	Dec. 15, 1927	13.3	62,800
1912	Oct. 3, 1911	16.0	88,400		Dec. 17, 1927	14.0	69,100
	Mar. 16, 1912	18.4	113,000		Apr. 9, 1928	12.2	53,900
	Mar. 30, 1912	16.6	94,500		May 1, 1928	13.7	66,400
	Apr. 3, 1912	17.9	108,000		June 6, 1928	17.86	108,000
					July 6, 1928	14.5	73,700

## West Branch Susquehanna River at Williamsport, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Mar. 15, 1929	16.62	94,500	1945	Mar. 23, 1945	16.31	80,500
1930	Feb. 27, 1930	12.29	54,700	Cont.	May 18, 1945	14.78	67,700
1931	May 24, 1931	12.76	58,600	1946	Nov. 30, 1945	13.16	56,000
1932	Apr. 1, 1932	14.68	75,600		Mar. 9, 1946	13.58	58,800
	May 12, 1932	13.94	68,200		May 28, 1946	29.63	223,000
1933	Mar. 16, 1933	14.30	71,800	1947	Apr. 6, 1947	12.16	49,600
	Aug. 24, 1933	14.00	69,100	1948	Mar. 22, 1948	13.67	59,500
1934	Jan. 2, 1934	11.49	48,800		Apr. 15, 1948	20.63	124,000
1935	Jan. 10, 1935	12.20	53,900	1949	Dec. 31, 1948	12.54	51,500
1936	Mar. 12, 1936	23.6	164,000	1950	Mar. 29, 1950	18.35	101,000
	Mar. 18, 1936	33.57	264,000		Apr. 5, 1950	16.01	77,800
1937	Jan. 24, 1937	16.74	95,000	1951	Nov. 6, 1950	13.66	59,300
	Jan. 27, 1937	14.42	72,800		Nov. 26, 1950	28.11	206,000
	Apr. 29, 1937	16.23	90,000		Dec. 5, 1950	14.90	68,500
1938	Nov. 14, 1937	13.30	57,800		Dec. 9, 1950	13.96	61,600
	Dec. 19, 1937	16.10	80,600		Mar. 31, 1951	20.15	119,000
1939	Feb. 21, 1939	12.30	51,600	1952	Jan. 3, 1952	13.55	58,600
1940	Apr. 1, 1940	22.73	146,000		Jan. 19, 1952	13.33	56,400
	Apr. 5, 1940	19.33	112,000		Jan. 28, 1952	16.59	83,200
	Apr. 9, 1940	16.87	89,900		Apr. 16, 1952	15.36	72,500
	Apr. 21, 1940	13.85	64,000		May 26, 1952	14.71	66,900
1941	Apr. 6, 1941	15.46	72,500	1953	Mar. 25, 1953	16.64	83,200
1942	Dec. 25, 1941	13.35	56,800		May 23, 1953	16.08	78,700
	Mar. 10, 1942	16.23	82,600		May 27, 1953	15.78	76,000
	Mar. 18, 1942	13.58	61,000		June 1, 1953	15.52	73,300
	May 23, 1942	19.19	101,000	1954	Mar. 2, 1954	19.97	117,000
	July 19, 1942	18.76	110,000	1955	Dec. 31, 1954	13.27	56,400
1943	Dec. 31, 1942	23.03	148,000		Mar. 2, 1955	12.88	53,600
	Apr. 22, 1943	19.00	109,000		Mar. 6, 1955	13.61	58,600
	May 13, 1943	13.33	60,300		Mar. 23, 1955	12.84	52,900
1944	Mar. 18, 1944	14.95	68,000	1956	Oct. 15, 1955	16.86	86,000
	May 8, 1944	15.70	69,600		Mar. 9, 1956	20.37	121,000
1945	Feb. 28, 1945	15.60	74,200		Apr. 5, 1956	14.22	63,000
	Mar. 4, 1945	17.99	97,000		May 14, 1956	13.75	60,000
	Mar. 7, 1945	17.72	94,000	1957	Nov. 3, 1956	14.79	67,700
	Mar. 18, 1945	14.90	68,500		Apr. 7, 1957	15.17	70,900
				1958	Apr. 7, 1958	15.68	75,100
					May 9, 1958	13.20	55,700

<sup>a</sup>Backwater from ice.

## 5520. Loyalsock Creek at Loyalsock, Pa.

Location. --Lat 41°19'25", long 76°54'40", on left bank just downstream from highway bridge at Loyalsock, Lycoming County, 2.5 miles downstream from Wallis Run and 7.3 miles upstream from mouth.

Drainage area. --443 sq mi.

Gage. --Nonrecording gage prior to Sept. 17, 1926; recording gage thereafter. Datum of gage is 585.63 ft above mean sea level (Pennsylvania State highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 10,000 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 6,400 cfs.

## SUSQUEHANNA RIVER BASIN

Loyalsock Creek at Loyalsock, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Nov. 13, 1925	6.80	7,300	1944	Mar. 17, 1944	7.38	9,600
1927	Oct. 6, 1926	7.75	11,300	Cont.	Mar. 24, 1944	7.02	8,000
	Nov. 16, 1926	12.3	51,200		May 7, 1944	9.49	21,300
	Nov. 19, 1926	7.42	9,550	1945	Mar. 3, 1945	7.67	10,800
	Mar. 14, 1927	7.43	9,550		Mar. 17, 1945	7.25	8,850
1928	Oct. 19, 1927	8.58	15,100		Mar. 22, 1945	6.77	6,800
	Dec. 8, 1927	8.50	14,600		May 5, 1945	6.83	7,200
	Feb. 15, 1928	6.68	7,000		May 29, 1945	7.00	7,800
	Apr. 30, 1928	8.20	13,100	1946	Nov. 22, 1945	7.31	91,000
	June 6, 1928	8.72	15,600		Mar. 9, 1946	9.08	19,800
	June 30, 1928	9.00	17,400		May 28, 1946	12.20	50,000
	July 6, 1928	6.48	6,400		Sept. 24, 1946	6.64	6,400
1929	Mar. 14, 1929	7.00	8,000	1947	Mar. 14, 1947	7.88	12,100
	May 3, 1929	10.50	29,600		Apr. 5, 1947	8.40	15,100
1930	Apr. 7, 1930	6.44	6,340		May 6, 1947	6.90	7,400
1931	Mar. 29, 1931	7.66	10,500		May 25, 1947	8.13	13,600
1932	Apr. 1, 1932	8.06	12,000		June 15, 1947	6.80	7,000
	Apr. 3, 1932	6.98	8,000	1948	Mar. 16, 1948	7.50	10,100
1933	Oct. 6, 1932	6.78	7,300		Mar. 20, 1948	7.08	8,200
	Nov. 19, 1932	6.57	6,550		Mar. 22, 1948	7.87	11,800
	Aug. 24, 1933	12.20	50,000		Apr. 2, 1948	7.13	8,400
	Sept. 4, 1933	6.56	6,550		Apr. 14, 1948	7.90	12,100
	Sept. 16, 1933	8.49	14,600	1949	Nov. 20, 1948	7.74	11,400
1934	Apr. 1, 1934	7.75	10,900		Dec. 30, 1948	8.71	17,000
	Sept. 17, 1934	7.62	10,400		Apr. 14, 1949	7.15	8,400
1935	Dec. 1, 1934	9.31	19,400	1950	Dec. 27, 1949	6.79	7,000
1936	Nov. 13, 1935	8.68	15,600		Jan. 7, 1950	6.67	6,400
	Mar. 12, 1936	10.80	32,700		Mar. 28, 1950	8.29	14,500
	Mar. 18, 1936	11.58	42,900		Apr. 5, 1950	8.03	13,000
	Mar. 21, 1936	7.25	8,320	1951	Nov. 26, 1950	12.32	51,200
1937	Feb. 22, 1937	6.92	6,900		Dec. 4, 1950	8.71	17,000
	Aug. 11, 1937	6.94	7,100		Dec. 8, 1950	7.80	11,600
1938	Oct. 23, 1937	9.25	18,600		Jan. 24, 1951	7.51	10,100
	Nov. 13, 1937	7.52	9,450		Feb. 7, 1951	7.19	8,600
	Jan. 25, 1938	7.05	7,500		Mar. 31, 1951	7.75	11,400
1939	Dec. 10, 1938	8.61	14,700	1952	Mar. 11, 1952	10.70	33,400
	Feb. 15, 1939	7.50	9,450		Apr. 5, 1952	6.79	7,000
	Feb. 20, 1939	6.93	7,100		May 12, 1952	7.16	8,400
1940	Mar. 31, 1940	9.51	21,300	1953	Nov. 22, 1952	7.78	11,600
	Apr. 4, 1940	8.47	15,200		Dec. 11, 1952	8.81	17,700
	Apr. 7, 1940	8.21	13,600		Jan. 24, 1953	8.20	13,900
	Apr. 20, 1940	7.73	11,400		Feb. 21, 1953	6.66	6,400
	Sept. 1, 1940	9.62	22,000		Mar. 24, 1953	7.04	8,000
1941	Apr. 5, 1941	8.32	14,100	1954	Dec. 7, 1953	6.71	6,600
1942	Dec. 24, 1941	9.87	24,100		Feb. 21, 1954	7.33	9,280
	Mar. 9, 1942	8.44	14,600		Mar. 2, 1954	7.38	9,500
	May 23, 1942	9.06	18,200		Apr. 17, 1954	6.84	7,200
	Sept. 27, 1942	8.66	16,400		May 4, 1954	8.01	12,200
1943	Dec. 30, 1942	9.22	19,400	1955	Dec. 30, 1954	7.18	8,700
	Feb. 24, 1943	6.70	6,600	1956	Oct. 14, 1955	8.82	16,200
	Mar. 20, 1943	6.74	6,800		Mar. 8, 1956	7.79	11,300
	Apr. 20, 1943	7.37	9,350	1957	Nov. 2, 1956	11.78	44,600
	May 26, 1943	6.75	6,800		Jan. 23, 1957	8.27	13,200
1944	Oct. 28, 1943	7.50	10,100		Apr. 6, 1957	9.35	20,100
	Nov. 9, 1943	9.05	18,200	1958	Dec. 21, 1957	9.98	24,900
					Dec. 26, 1957	7.46	9,420
					Apr. 6, 1958	7.82	11,000
					Apr. 22, 1958	7.70	10,500

## 5525. Muncy Creek near Sonestown, Pa.

Location. --Lat 41°21'25", long 76°32'05", on right bank 150 ft downstream from Slip Run, 185 ft downstream from bridge on State Highway 464, and 1.2 miles east of Sonestown, Sullivan County.

Drainage area. --23.8 sq mi.

Gage. --Nonrecording gage prior to Apr. 1, 1941; recording gage thereafter. Datum of gage is 1,025.01 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,000 cfs and extended above.

Remarks. --Base for partial-duration series, 1,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 1936	9.3	—	1949	May 24, 1949	4.58	1,240
1941	Apr. 5, 1941	5.16	1,830	Cont.	Aug. 29, 1949	5.19	1,250
1942	Dec. 24, 1941	7.35	5,240	1950	Aug. 20, 1950	5.54	1,530
	May 22, 1942	5.28	2,020	1951	Nov. 25, 1950	7.38	4,430
1943	Dec. 2, 1942	4.46	1,120		Dec. 4, 1950	6.29	2,420
	Dec. 30, 1942	4.88	1,560		Jan. 24, 1951	5.94	1,940
	May 26, 1943	4.63	1,300		Feb. 7, 1951	5.53	1,500
1944	Oct. 26, 1943	4.43	1,100		Mar. 30, 1951	5.61	1,550
	Nov. 8, 1943	4.87	1,500	1952	Mar. 11, 1952	8.61	7,310
	May 7, 1944	5.00	1,670	1953	Nov. 22, 1952	5.38	1,460
1945	Sept. 18, 1945	4.90	1,560		Dec. 11, 1952	4.99	1,160
1946	Nov. 22, 1945	4.75	1,400		Jan. 24, 1953	5.04	1,200
	Mar. 9, 1946	4.99	1,670	1954	Feb. 21, 1954	4.73	988
	May 21, 1946	4.68	1,360	1955	Aug. 13, 1955	4.30	705
	May 27, 1946	6.22	3,250	1956	Oct. 14, 1955	5.39	1,460
1947	May 29, 1947	5.13	1,840	1957	Nov. 2, 1956	5.77	1,760
1948	Mar. 19, 1948	4.19	882		Jan. 23, 1957	5.18	1,300
1949	Dec. 30, 1948	4.88	1,560		Apr. 6, 1957	5.13	1,140
	Apr. 14, 1949	4.74	1,410	1958	Dec. 20, 1957	5.50	1,510

## 5535. West Branch Susquehanna River at Lewisburg, Pa.

Location. --Lat 40°58'05", long 76°52'25", at Market Street Bridge at Lewisburg, Union County, 0.2 mile downstream from Buffalo Creek and 7.4 miles upstream from mouth.

Drainage area. --6,847 sq mi.

Gage. --Nonrecording gage prior to July 2, 1940; recording gage thereafter. Datum of gage is 428.20 ft above mean sea level, datum of 1929.

Bankful stage. --23 ft.

Stage-discharge relation. --Defined by current-meter and slope-area measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1865	Mar. 17, 1865	26.5	—	1946	May 29, 1946	28.43	262,000
1889	June 1, 1889	29.8	—	1947	Apr. 6, 1947	13.29	58,700
1894	May 21, 1894	28.5	—	1948	Apr. 15, 1948	20.07	132,000
1902	Mar. 1, 1902	22.3	—	1949	Dec. 31, 1948	13.66	70,000
1909	May 1, 1909	19.5	—	1950	Mar. 30, 1950	18.15	107,000
1936	Mar. 19, 1936	32.1	287,000	1951	Nov. 26, 1950	26.05	216,000
1940	Apr. 1, 1940	22.7	164,000	1952	Mar. 12, 1952	18.08	112,000
1941	Apr. 7, 1941	15.21	83,800	1953	Mar. 25, 1953	15.62	90,100
1942	May 23, 1942	18.57	117,000	1954	Mar. 3, 1954	18.51	118,000
1943	Dec. 31, 1942	22.47	151,000	1955	Mar. 6, 1955	13.27	68,100
1944	May 8, 1944	15.32	86,000	1956	Mar. 9, 1956	19.80	121,000
1945	Mar. 5, 1945	17.23	102,000	1957	Nov. 3, 1956	18.60	118,000
				1958	Apr. 8, 1958	16.13	85,800



## SUSQUEHANNA RIVER BASIN

5540. Susquehanna River at Sunbury, Pa.

Location. --Lat 40°51'10", long 76°48'10", on left bank 50 ft downstream from highway bridge at Sunbury, Northumberland County, 0.7 miles upstream from Shamokin Creek and 1 3/4 miles downstream from West Branch Susquehanna River.

Drainage area. --18,300 sq mi, approximately.

Gage. --Nonrecording gage prior to Sept. 3, 1919; recording gage Sept. 4, 1919 to January 1922; nonrecording gage February 1922 to Dec. 11, 1937; recording gage thereafter. Prior to Nov. 20, 1934 at site 3,700 ft upstream. Prior to Sept. 30, 1923 at datum 1 ft higher. Datum of present gage is 419.66 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 430,000 cfs and extended above.

Bankfull stage. --16 ft.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1865	Mar. 1865	22.5	—	1938	Dec. 20, 1937	10.25	140,000
1889	June 1889	20.0	—	1939	Feb. 22, 1939	12.63	183,000
1894	May 1894	19.8	—	1940	Apr. 1, 1940	20.14	368,000
1919	May 23, 1919	12.50	190,000	1941	Apr. 7, 1941	13.58	212,000
1920	Mar. 14, 1920	17.0	290,000	1942	May 23, 1942	14.06	223,000
1921	Mar. 10, 1921	10.33	146,000	1943	Jan. 1, 1943	19.32	348,000
1922	Nov. 30, 1921	13.17	204,000	1944	May 9, 1944	11.75	174,000
1923	Mar. 5, 1923	13.8	217,000	1945	Mar. 5, 1945	13.83	217,000
1924	Apr. 7, 1924	15.8	261,000	1946	May 29, 1946	22.98	446,000
1925	Feb. 12, 1925	17.2	295,000	1947	Apr. 7, 1947	13.19	204,000
1926	Mar. 26, 1926	11.2	164,000	1948	Apr. 15, 1948	15.14	245,000
1927	Nov. 17, 1926	14.8	239,000	1949	Dec. 31, 1948	11.18	164,000
1928	Oct. 21, 1927	12.8	196,000	1950	Mar. 30, 1950	16.02	266,000
	May 2, 1928	12.8	196,000	1951	Nov. 27, 1950	18.64	330,000
1929	Mar. 16, 1929	13.79	217,000	1952	Mar. 12, 1952	15.06	244,000
1930	Feb. 27, 1930	10.03	140,000	1953	Dec. 12, 1952	11.26	165,000
1931	Mar. 30, 1931	10.00	140,000	1954	Mar. 3, 1954	12.30	186,000
1932	Apr. 2, 1932	13.16	204,000	1955	Mar. 3, 1955	10.51	150,000
1933	Aug. 25, 1933	12.78	196,000	1956	Mar. 9, 1956	17.54	303,000
1934	Mar. 6, 1934	10.28	146,000	1957	Apr. 7, 1957	13.18	204,000
1935	July 11, 1935	11.7	174,000	1958	Apr. 8, 1958	15.38	252,000
1936	Mar. 19, 1936	26.85	556,000				
1937	Jan. 23, 1937	11.92	178,000				

## 5545. Shamokin Creek at Weigh Scale, Pa.

Location. --Lat 40°48'30", long 76°35'05", on right bank at Weigh Scale, Northumberland County, 1 mile downstream from Trout Run and 2 miles northwest of Shamokin.

Drainage area. --54.2 sq mi.

Gage. --Recording gage. Datum of gage is 608.28 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 600 cfs and extended above.

Remarks. --Base for partial-duration series, 700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 30, 1940	3.94	1,850	1948	May 13, 1948	2.67	634
	July 23, 1940	4.18	2,040	1949	Sept. 18, 1949	2.62	692
	Aug. 6, 1940	3.05	1,070				
1941	Aug. 26, 1941	2.75	865	1950	July 24, 1950	2.81	775
1942	May 22, 1942	3.92	1,720	1951	Nov. 25, 1950	4.26	2,110
	May 31, 1942	2.88	872		Dec. 4, 1950	3.79	1,660
	June 3, 1942	2.72	754		Dec. 8, 1950	2.69	722
	June 4, 1942	3.78	1,580		Feb. 7, 1951	2.70	729
1943	Dec. 30, 1942	2.80	795		Aug. 15, 1951	3.01	953
		2.81	760	1952	Mar. 11, 1952	2.90	870
	May 18, 1943	2.98	844		May 11, 1952	3.34	1,240
	May 19, 1943	3.64	1,350	1953	Nov. 22, 1952	2.76	770
	June 7, 1943	4.18	1,930				
	June 17, 1943	3.82	1,560		May 23, 1953	2.70	729
1944	Nov. 9, 1943	4.62	2,590		May 26, 1953	3.15	1,060
		2.96	893	1954	Feb. 17, 1954	2.71	736
	May 7, 1944	2.91	830		Mar. 1, 1954	2.66	703
	June 18, 1944	3.18	1,020		Apr. 17, 1954	2.77	777
	June 19, 1944	2.65	767		May 29, 1954	2.87	848
	Aug. 7, 1944				June 13, 1954	2.82	812
1945	May 15, 1945	2.83	809	1955	Aug. 18, 1955	3.84	1,710
	May 17, 1945	2.82	795				
	June 28, 1945	2.71	760	1956	Oct. 14, 1955	2.66	772
	June 29, 1945	2.61	700		June 10, 1956	2.66	772
	July 28, 1945	2.73	730		July 4, 1956	2.82	884
1946	May 21, 1946	3.13	977		July 26, 1956	3.71	1,570
	May 25, 1946	2.76	724		Aug. 31, 1956	2.78	856
	May 26, 1946	2.98	858		Sept. 23, 1956	3.45	1,360
	May 27, 1946	3.23	1,030	1957	June 12, 1957	2.99	912
	June 29, 1946	3.24	1,050				
	July 16, 1946	2.91	809		July 9, 1957	2.81	816
1947	July 10, 1947	3.67	1,390	1958	Dec. 20, 1957	2.95	936
	July 21, 1947	2.83	754		July 5, 1958	3.40	1,300
	July 22, 1947	2.76	712		July 15, 1958	2.83	851
	July 28, 1947	3.70	1,390		July 28, 1958	3.54	1,440
	Aug. 30, 1947	2.72	736				

## 5550. Penn Creek at Penns Creek, Pa.

Location. --Lat 40°52'00", long 77°02'55", on left bank 200 ft downstream from bridge on State Highway 104 and three-quarters of a mile northeast of Penns Creek, Snyder County.

Drainage area. --301 sq mi.

Gage. --Nonrecording gage prior to Feb. 1, 1930; recording gage thereafter. Datum of gage is 506.72 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 5,600 cfs and extended above by logarithmic plotting.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 3,100 cfs.

## SUSQUEHANNA RIVER BASIN

Penn Creek at Penns Creek, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Oct. 23, 1929	6.95	4,020	1946	Nov. 29, 1945	8.68	6,340
	Mar. 8, 1930	6.26	3,260		May 27, 1946	9.79	8,170
1931	May 23, 1931	7.80	4,900		June 2, 1946	6.35	3,370
1932	Apr. 1, 1932	7.19	4,240	1947	Mar. 14, 1947	4.84	1,980
1933	Apr. 18, 1933	6.36	3,360	1948	Feb. 21, 1948	<sup>a</sup> 6.75	—
	Aug. 24, 1933	11.00	10,400		Apr. 15, 1948	7.65	4,760
1934	Mar. 5, 1934	8.32	5,750	1949	Dec. 30, 1948	6.53	3,470
	Sept. 16, 1934	13.00	14,900		Apr. 14, 1949	6.20	3,170
1935	Dec. 1, 1934	8.52	6,010	1950	Mar. 29, 1950	8.53	6,340
1936	Mar. 11, 1936	10.90	10,200	1951	Nov. 25, 1950	11.62	11,700
	Mar. 18, 1936	12.12	12,800		Dec. 4, 1950	8.00	5,640
1937	Feb. 22, 1937	7.05	4,000		Dec. 8, 1950	8.17	5,920
	Apr. 28, 1937	6.95	4,000		Mar. 31, 1951	8.92	6,930
1938	Nov. 13, 1937	9.16	7,140	1952	Mar. 11, 1952	9.29	7,540
1939	Feb. 4, 1939	6.56	3,530		Apr. 6, 1952	6.06	3,290
1940	Mar. 31, 1940	11.61	11,700	1953	Nov. 22, 1952	5.98	3,180
	Apr. 21, 1940	6.41	3,310		Mar. 24, 1953	6.92	4,220
1941	Apr. 5, 1941	5.80	2,690		May 23, 1953	7.36	4,850
1942	Dec. 24, 1941	7.04	4,000		May 26, 1953	8.36	6,200
	Mar. 9, 1942	6.89	3,890		May 31, 1953	7.86	5,500
	May 23, 1942	10.14	8,710	1954	Mar. 2, 1954	9.02	7,080
1943	Dec. 30, 1942	9.26	7,310		May 4, 1954	7.72	5,240
	Apr. 21, 1943	6.71	3,670	1955	Aug. 13, 1955	6.39	3,620
1944	Nov. 9, 1943	7.25	4,240	1956	Oct. 15, 1955	9.30	7,540
	Jan. 4, 1944	6.70	3,670	1957	Nov. 2, 1956	9.88	8,510
	May 8, 1944	6.80	3,780		Apr. 6, 1957	7.50	4,980
					Apr. 9, 1957	6.64	3,860
1945	May 18, 1945	7.10	4,120	1958	Dec. 27, 1957	5.70	2,860

<sup>a</sup>Backwater from ice.

5555. East Mahantango Creek near Dalmatia, Pa.

Location. --Lat 40°36'40", long 76°54'45", on right bank at highway bridge 2 miles upstream from mouth and 3½ miles south of Dalmatia, Northumberland County.

Drainage area. --162 sq mi.

Gage. --Nonrecording gage prior to Feb. 11, 1930; recording gage thereafter. Datum of gage is 400.50 ft above mean sea level (Pennsylvania State highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 4,000 cfs and extended above.

Remarks. --Base for partial-duration series, 1,900 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Oct. 2, 1929	10.20	6,050	1933	Aug. 24, 1933	13.66	10,600
	Nov. 18, 1929	5.7	2,180	Cont.	Sept. 4, 1933	8.85	4,180
	Apr. 7, 1930	5.62	2,090				
	June 18, 1930	6.03	2,500	1934	Mar. 4, 1934	<sup>a</sup> 6.85	—
1931	May 8, 1931	3.97	900		Sept. 17, 1934	6.69	2,440
1932	Apr. 1, 1932	6.88	3,370	1935	Dec. 1, 1934	13.00	8,940
1933	Mar. 21, 1933	6.12	1,940		July 15, 1935	8.17	3,650

## East Mahantango Creek near Dalmatia, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 12, 1936	9.75	5,180	1947	July 17, 1947	5.57	2,000
	Mar. 19, 1936	8.72	4,100		July 22, 1947	6.70	2,880
1937	Dec. 20, 1936	5.62	1,950	1948	Apr. 15, 1948	5.88	2,210
	Feb. 22, 1937	8.49	4,730		May 14, 1948	5.53	1,930
	Aug. 27, 1937	7.05	3,140	1949	Nov. 7, 1948	5.66	2,070
1938	Oct. 23, 1937	9.35	5,200		Dec. 30, 1948	8.31	4,140
	Nov. 13, 1937	6.17	2,430		Jan. 6, 1949	6.12	2,350
	May 29, 1938	6.54	2,690	1950	Mar. 23, 1950	5.91	2,210
	July 22, 1938	7.28	3,440		Mar. 24, 1950	6.84	2,880
1939	Dec. 6, 1938	7.98	4,170	1951	Nov. 25, 1950	13.18	9,860
	Feb. 4, 1939	5.98	2,270		Dec. 4, 1950	12.15	8,480
1940	Mar. 15, 1940	6.33	2,450		Dec. 8, 1950	7.40	3,500
	Mar. 31, 1940	9.25	5,180		Jan. 24, 1951	6.41	2,760
	Apr. 20, 1940	8.32	4,250		Feb. 7, 1951	8.80	4,620
	Sept. 1, 1940	5.63	1,960	1952	Dec. 6, 1951	5.26	1,990
1941	Nov. 15, 1940	5.17	1,620		Mar. 12, 1952	11.20	7,210
1942	Dec. 24, 1941	8.05	3,950		May 12, 1952	7.71	3,720
	Feb. 7, 1942	5.76	2,020	1953	Nov. 22, 1952	7.90	3,880
	May 23, 1942	10.40	6,510		Dec. 11, 1952	6.78	3,050
	Sept. 28, 1942	5.64	1,960		Jan. 24, 1953	7.30	3,420
1943	Dec. 30, 1942	8.38	4,230		Mar. 24, 1953	5.36	2,060
					May 23, 1953	7.86	3,880
1944	Oct. 29, 1943	5.47	1,930		May 26, 1953	6.85	3,050
	Nov. 9, 1943	12.53	8,880	1954	Dec. 7, 1953	5.52	2,130
	Jan. 3, 1944	7.16	3,200		Mar. 1, 1954	8.51	4,350
	Apr. 25, 1944	5.84	2,140		Apr. 17, 1954	5.46	2,020
	May 7, 1944	7.84	3,690	1955	Aug. 19, 1955	11.87	8,090
	June 20, 1944	6.48	2,640				
1945	July 19, 1945	7.75	3,690	1956	Oct. 14, 1955	7.26	3,150
	July 27, 1945	6.01	2,280		June 24, 1956	6.06	2,480
	July 29, 1945	6.40	2,560	1957	Dec. 14, 1956	6.33	2,620
1946	Nov. 22, 1945	5.53	1,930		Apr. 5, 1957	6.67	2,920
	Jan. 7, 1946	6.21	2,420	1958	Dec. 20, 1957	8.83	4,620
	Feb. 28, 1946	5.57	2,000		Dec. 27, 1957	6.58	2,850
	May 21, 1946	5.88	2,210		Jan. 22, 1958	5.47	2,040
	May 27, 1946	7.12	3,120		Feb. 28, 1958	8.10	4,030
	June 2, 1946	5.65	2,000		Mar. 26, 1958	6.31	2,620
	June 29, 1946	10.19	6,050				
	Aug. 1, 1946	6.30	2,490				

<sup>a</sup>Backwater from ice.

5560. Frankstown Branch Juniata River at Williamsburg, Pa.

Location. --Lat 40°27'45", long 78°12'00", on left bank 10 ft downstream from highway bridge at Williamsburg, Blair County, and 2.5 miles upstream from Clover Creek.

Drainage area. --291 sq mi.

Gage. --Nonrecording gage prior to Aug. 14, 1928; recording gage thereafter. Datum of gage is 831.78 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 7,300 cfs and extended on basis of slope-area measurement of peak flow.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 4,200 cfs.



## SUSQUEHANNA RIVER BASIN

Frankstown Branch Juniata River at Williamsburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	19.1	35,500	1939	Feb. 3, 1939	9.07	5,060
1917	Mar. 12, 1917	10.0	5,950		Feb. 28, 1939	8.58	4,310
1918	Feb. 26, 1918	11.3	7,800		June 23, 1939	10.20	6,850
1919	May 22, 1919	11.8	8,550	1940	Mar. 31, 1940	12.94	12,900
1920	Mar. 13, 1920	10.25	6,700		Apr. 4, 1940	9.20	5,210
1921	May 5, 1921	10.7	7,400		Apr. 20, 1940	9.42	5,530
1922	Nov. 29, 1921	11.6	9,000	1941	June 5, 1941	10.60	7,560
	Apr. 15, 1922	8.8	4,710	1942	Dec. 24, 1941	9.90	6,340
1923	Mar. 4, 1923	7.2	2,960		Mar. 9, 1942	8.60	4,350
1924	Jan. 17, 1924	9.7	5,900		Apr. 9, 1942	10.10	6,680
	Mar. 30, 1924	9.9	6,180	1943	Dec. 30, 1942	11.60	9,540
	Apr. 6, 1924	9.2	5,230		Apr. 21, 1943	9.32	5,370
	May 12, 1924	12.8	11,000		May 12, 1943	9.08	5,060
	June 29, 1924	10.7	7,430	1944	Mar. 14, 1944	8.69	4,480
1925	Feb. 12, 1925	12.4	10,200		May 7, 1944	8.72	4,480
1926	Feb. 22, 1926	9.2	5,230	1945	Feb. 16, 1945	8.85	4,510
	Feb. 25, 1926	9.5	5,620		Mar. 4, 1945	8.56	4,270
	Sept. 5, 1926	8.4	4,230		Mar. 6, 1945	11.40	8,380
1927	Nov. 19, 1926	8.6	4,470		May 18, 1945	9.83	5,790
	Jan. 22, 1927	9.3	5,360		Sept. 18, 1945	10.20	6,350
	Mar. 8, 1927	8.4	4,230	1946	Feb. 28, 1946	8.78	4,510
1928	Oct. 20, 1927	9.2	5,230		June 2, 1946	10.12	6,210
	Nov. 3, 1927	8.4	4,230		June 12, 1946	10.22	6,350
	Mar. 30, 1928	9.1	5,100		June 13, 1946	10.07	6,210
	May 1, 1928	11.1	8,210	1947	Oct. 26, 1946	7.85	3,350
1929	Feb. 26, 1929	9.96	6,330	1948	Apr. 12, 1948	10.01	6,070
	Apr. 5, 1929	10.20	6,630		Apr. 14, 1948	11.88	9,680
	Apr. 16, 1929	9.53	5,620		June 19, 1948	9.30	4,740
1930	Oct. 3, 1929	8.48	4,350	1949	Jan. 26, 1949	8.76	4,190
	Oct. 23, 1929	13.90	13,000	1950	Feb. 14, 1950	8.92	4,300
	Feb. 25, 1930	10.78	7,590	1951	Oct. 10, 1950	9.75	5,330
1931	Apr. 4, 1931	8.35	4,230		Nov. 25, 1950	11.74	7,040
1932	Apr. 1, 1932	8.85	4,710		Dec. 4, 1950	9.88	4,810
1933	Mar. 15, 1933	9.06	4,810		Dec. 8, 1950	9.78	4,700
	Mar. 19, 1933	9.08	4,810		Feb. 21, 1951	9.35	4,280
	May 10, 1933	8.87	4,570		Mar. 31, 1951	9.45	4,280
1934	Sept. 17, 1934	8.63	4,320		June 14, 1951	10.57	5,620
1935	Mar. 2, 1935	7.76	3,430	1952	Jan. 27, 1952	9.63	4,480
1936	Mar. 12, 1936	11.36	8,180		Mar. 11, 1952	12.82	9,250
	Mar. 18, 1936	18.58	47,600	1953	Nov. 22, 1952	9.93	4,810
	Apr. 6, 1936	8.98	4,910		Mar. 24, 1953	11.36	6,630
1937	Oct. 17, 1936	8.95	4,910		May 31, 1953	10.03	4,920
	Nov. 5, 1936	9.15	5,210	1954	Mar. 1, 1954	13.98	13,600
1937	Jan. 10, 1937	8.67	4,460	1955	Oct. 16, 1954	12.27	8,000
	Jan. 22, 1937	9.73	6,010		Dec. 30, 1954	9.63	4,480
	Apr. 26, 1937	13.90	16,600		Apr. 22, 1955	11.57	6,900
	Apr. 28, 1937	12.43	11,400	1956	Mar. 8, 1956	10.67	5,740
1938	Oct. 28, 1937	9.60	5,850		July 16, 1956	10.13	5,030
	Jan. 25, 1938	8.55	4,310		Aug. 8, 1956	13.23	10,500
				1957	Apr. 6, 1957	8.23	3,170
				1958	Dec. 26, 1957	9.12	3,980
					Aug. 1, 1958	9.12	3,980

## 5565. Little Juniata River at Tipton, Pa.

Location. --Lat 40°37'40", long 78°17'38", on left bank at Tipton, Blair County, 100 ft downstream from bridge on U. S. Highway 220 and 150 ft downstream from Tipton Run.

Drainage area. --93.7 sq mi.

Gage. --Recording gage. Datum of gage is 946.76 ft above mean sea level (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 3,700 cfs and extended above by logarithmic plotting.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 1,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 27, 1946	4.61	1,160	1952	May 20, 1952	4.54	1,280
	May 27, 1946	6.12	2,210	Cont.	May 25, 1952	4.63	1,360
	June 2, 1946	5.70	1,740		Sept. 1, 1952	5.50	1,980
	June 12, 1946	6.03	2,130	1953	Nov. 22, 1952	5.73	2,140
	June 13, 1946	7.22	3,240		Dec. 11, 1952	5.4	1,840
	June 21, 1946	4.58	1,160		Mar. 24, 1953	6.90	3,260
1947	Oct. 25, 1946	4.68	1,210		May 26, 1953	4.72	1,300
	July 16, 1947	4.79	1,160		May 31, 1953	5.95	2,370
1948	Apr. 12, 1948	5.70	1,740		July 5, 1953	4.53	1,200
	Apr. 14, 1948	6.75	2,840	1954	Mar. 1, 1954	8.46	5,130
	May 3, 1948	4.90	1,320				
	June 19, 1948	4.72	1,220	1955	Oct. 15, 1954	8.20	4,740
1949	Jan. 26, 1949	4.42	1,080		Dec. 30, 1954	5.87	2,240
					Mar. 1, 1955	5.02	1,520
1950	Feb. 14, 1950	4.44	1,100		Mar. 4, 1955	5.47	1,880
	Mar. 26, 1950	4.71	1,210		Mar. 22, 1955	5.24	1,720
	Mar. 28, 1950	4.55	1,140		Apr. 21, 1955	5.60	2,010
1951	Oct. 9, 1950	5.25	1,580	1956	Feb. 18, 1956	4.49	1,160
	Nov. 25, 1950	9.06	5,700		Feb. 25, 1956	5.56	1,960
	Dec. 4, 1950	5.45	1,720		Mar. 7, 1956	6.12	2,460
	Dec. 7, 1950	5.44	1,720		Apr. 3, 1956	4.82	1,370
	Feb. 21, 1951	5.25	1,580		Apr. 7, 1956	4.99	1,520
	Mar. 30, 1951	5.90	2,050		May 13, 1956	5.77	2,140
	Apr. 12, 1951	4.48	1,130		July 2, 1956	7.87	4,380
	June 10, 1951	5.09	1,470		July 20, 1956	5.04	1,560
	June 13, 1951	7.87	4,040	1957	Apr. 9, 1957	4.79	1,370
					June 24, 1957	4.75	1,340
1952	Jan. 3, 1952	4.71	1,390	1958	Dec. 26, 1957	4.70	1,300
	Jan. 27, 1952	5.56	2,020		May 8, 1958	4.51	1,160
	Mar. 11, 1952	7.10	3,470				
	Apr. 5, 1952	4.39	1,190				

## 5570. Little Juniata River near Tyrone, Pa.

Location. --Lat 40°39'20", long 78°15'25", at Pennsylvania Railroad Bridge, 0.5 mile upstream from Hutchinson Run and 1½ miles southwest of Tyrone, Blair County.

Drainage area. --101 sq mi.

Gage. --Nonrecording gage. Datum of gage is 905.49 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 880 cfs and extended on basis of velocity area studies.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 30, 1940	8.0	4,240	1943	Dec. 30, 1942	5.58	2,310
1941	June 5, 1941	6.1	2,670	1944	Mar. 17, 1944	4.6	1,630
1942	Dec. 24, 1941	5.3	2,100	1945	May 17, 1945	6.0	2,840

## SUSQUEHANNA RIVER BASIN

## 5575. South Bald Eagle Creek at Tyrone, Pa.

Location. --Lat 40°41'00", long 78°14'05", on left bank 0.2 mile upstream from plant of West Virginia Pulp and Paper Co., at Tyrone, Blair County, 0.2 mile upstream from Laurel Run, and 1.3 miles upstream from mouth.

Drainage area. --44.1 sq mi.

Gage. --Recording gage prior to Nov. 15, 1950; nonrecording gage Nov. 16, 1950 to Nov. 30, 1952; recording gage thereafter. Prior to Nov. 30, 1952 at site half a mile downstream at datum 17.99 ft lower. Datum of gage is 921.80 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,100 cfs and extended on basis of contracted-opening measurement of peak flow.

Remarks. --Base for partial-duration series, 940 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 17, 1936	15	—	1951	Oct. 9, 1950	3.77	1,260
1940	Mar. 31, 1940	5.2	2,120		Nov. 25, 1950	7.5	5,140
	Apr. 20, 1940	3.93	1,070		Dec. 4, 1950	3.65	1,190
1941	June 5, 1941	3.28	720		Dec. 7, 1950	3.85	1,340
					Feb. 21, 1951	3.4	1,050
1942	Dec. 24, 1941	4.53	1,510		Mar. 30, 1951	4.35	1,860
	Mar. 9, 1942	4.04	1,140		June 13, 1951	5.3	2,750
1943	Apr. 21, 1943	3.66	950	1952	Jan. 3, 1952	3.4	1,050
1944	May 23, 1944	4.20	1,280		Jan. 27, 1952	3.8	1,340
					Mar. 11, 1952	5.0	2,450
1945	Mar. 3, 1945	3.72	1,220		Sept. 1, 1952	3.95	1,500
	Mar. 6, 1945	3.99	1,480	1953	Mar. 24, 1953	3.92	1,280
	Mar. 21, 1945	4.69	2,150		May 26, 1953	4.03	1,390
	May 17, 1945	4.80	2,250		May 31, 1953	3.49	1,000
	Sept. 18, 1945	3.53	1,100	1954	Mar. 1, 1954	4.98	2,170
1946	May 27, 1946	4.72	2,150	1955	Oct. 15, 1954	4.66	1,870
	June 12, 1946	3.48	1,060	1956	Oct. 14, 1955	3.63	1,100
1947	July 16, 1947	3.90	1,390		Mar. 8, 1956	3.76	1,180
	Aug. 26, 1947	4.27	1,700		May 7, 1956	3.38	940
1948	Apr. 12, 1948	4.11	1,570		May 13, 1956	4.36	1,630
	Apr. 14, 1948	4.27	1,900		July 2, 1956	4.32	1,590
1949	Dec. 30, 1948	3.34	945		Aug. 5, 1956	3.57	1,040
					Sept. 6, 1956	3.65	1,100
1950	Jan. 10, 1950	3.35	945	1957	Oct. 23, 1956	3.95	1,320
	Mar. 28, 1950	3.42	980	1958	Dec. 26, 1957	2.83	596
					Feb. 28, 1958	<sup>a</sup> 3.26	—

<sup>a</sup>Backwater from ice.

## 5580. Little Juniata River at Spruce Creek, Pa.

Location. --Lat 40°36'45", long 78°08'35", on right bank 150 ft downstream from Pennsylvania Railroad bridge, 0.5 mile northwest of village of Spruce Creek, Huntingdon County, and 0.5 mile upstream from Spruce Creek.

Drainage area. --220 sq mi.

Gage. --Recording gage. Datum of gage is 751.15 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurement below 5,600 cfs and extended on basis of slope-area measurement.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 3,000 cfs.

## Little Juniata River at Spruce Creek, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	19.1	39,800	1949	Dec. 30, 1948	6.80	2,800
1939	Feb. 28, 1939	7.10	2,970		Jan. 26, 1949	6.80	2,800
1940	Mar. 31, 1940	10.82	7,760	1950	Mar. 26, 1950	7.14	3,050
	Apr. 4, 1940	7.98	4,000		Mar. 28, 1950	7.09	3,050
	Apr. 20, 1940	7.70	3,680	1951	Oct. 9, 1950	7.51	3,470
	June 8, 1940	8.44	4,440		Nov. 25, 1950	15.77	23,100
1941	Apr. 5, 1941	7.00	3,000		Dec. 4, 1950	7.33	3,250
	June 5, 1941	8.22	4,220		Dec. 7, 1950	7.72	3,690
1942	Dec. 24, 1941	8.25	4,220		Feb. 21, 1951	7.15	3,150
	Mar. 9, 1942	7.60	3,580		Mar. 30, 1951	8.24	4,260
	Apr. 9, 1942	7.38	3,380		June 14, 1951	10.68	8,040
1943	Dec. 30, 1942	10.48	7,310	1952	Jan. 27, 1952	8.10	4,140
	Apr. 19, 1943	7.31	3,280		Mar. 11, 1952	10.24	7,150
	Apr. 21, 1943	7.56	3,580		May 25, 1952	7.20	3,150
1944	Mar. 17, 1944	7.34	3,300	1953	Nov. 22, 1952	8.19	4,260
	May 7, 1944	7.26	3,300		Dec. 11, 1952	7.60	3,580
	May 23, 1944	7.06	3,100		Mar. 24, 1953	9.32	5,700
1945	Mar. 3, 1945	7.98	4,050		May 26, 1953	7.63	3,580
	Mar. 7, 1945	8.84	4,980		May 31, 1953	8.20	4,260
	Mar. 21, 1945	7.47	3,500	1954	Mar. 1, 1954	11.53	9,600
	May 18, 1945	9.75	6,280		June 1, 1954	7.74	3,690
	Sept. 18, 1945	7.24	3,200	1955	Oct. 15, 1954	10.77	8,230
1946	May 27, 1946	9.02	5,230		Dec. 30, 1954	7.54	3,470
	June 2, 1946	7.63	3,610		Mar. 22, 1955	7.35	3,360
	June 12, 1946	7.34	3,300	1956	Feb. 25, 1956	7.61	3,580
	June 13, 1946	8.13	4,160		Mar. 8, 1956	8.76	5,000
1947	July 16, 1947	7.64	3,610		May 13, 1956	8.86	5,130
1948	Apr. 12, 1948	8.41	4,500		July 2, 1956	9.67	6,320
	Apr. 14, 1948	9.70	6,140	1957	Apr. 9, 1957	7.15	3,150
				1958	Dec. 26, 1957	6.48	2,470

## 5585. Shaver Creek near Petersburg, Pa.

Location. --Lat 40°36'40", long 78°00'25", at highway bridge 3½ miles northeast of Petersburg, Huntingdon County, and 4.5 miles upstream from mouth.

Drainage area. --46.4 sq mi.

Gage. --Nonrecording gage. Datum of gage is 691.38 ft above mean sea level (preliminary levels of 1912).

Stage-discharge relation. --Defined by current-meter measurements below 750 cfs and extended by logarithmic plotting.

Remarks. --Base for partial-duration series, 750 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Oct. 22, 1929	5.62	1,070	1933	Mar. 15, 1933	5.1	870
	Feb. 25, 1930	5.3	950	Cont.	Mar. 19, 1933	6.2	1,360
	Feb. 26, 1930	5.4	990		Apr. 7, 1933	7.0	1,800
1931	May 8, 1931	6.85	1,680		Apr. 12, 1933	5.4	990
	May 23, 1931	6.05	1,260		May 8, 1933	6.95	1,800
1932	Mar. 31, 1932	4.98	792		May 10, 1933	6.7	1,620
	May 11, 1932	4.82	738	1934	Apr. 11, 1934	4.88	737
1933	Nov. 19, 1932	6.3	1,410	1935	Dec. 1, 1934	6.6	1,510
	Mar. 14, 1933	5.2	910		May 7, 1935	5.0	831



## SUSQUEHANNA RIVER BASIN

Shaver Creek near Petersburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 11, 1936	6.87	1,680	1937	Apr. 26, 1937	7.4	2,040
	Mar. 18, 1936	9.32	3,420	Cont.	Apr. 28, 1937	7.51	2,100
	Apr. 6, 1936	6.55	1,560				
	May 13, 1936	5.00	831	1938	Oct. 23, 1937	5.2	910
	June 13, 1936	4.80	755		Oct. 28, 1937	5.0	831
1937	Jan. 10, 1937	4.75	755		Nov. 13, 1937	5.2	910
	Jan. 22, 1937	5.9	1,210		Dec. 18, 1937	6.6	1,560
					Jan. 25, 1938	6.7	1,620

## 5590. Juniata River at Huntingdon, Pa.

Location. --Lat 40°29'05", long 78°01'10", on right bank 450 ft downstream from Smithfield Bridge at Huntingdon, Huntingdon County, and 0.8 mile upstream from Standing Stone Creek.

Drainage area. --816 sq mi.

Gage. --Nonrecording gage prior to Sept. 10, 1941; recording gage thereafter. Prior to Sept. 10, 1941 gage at different sites and datum. Datum of gage is 599.69 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 20,000 cfs and extended on basis of computation of peak flow over dam.

Remarks. --Base for partial-duration series, 5,500 cfs. Only annual peaks are shown prior to 1942.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	Sept. 30, 1896	11.8	22,500	1916	June 17, 1916	14.8	44,800
1897	Feb. 23, 1897	9.6	13,400	1917	Mar. 12, 1917	9.0	11,600
1898	Mar. 23, 1898	10.7	17,400	1918	Feb. 26, 1918	11.5	21,000
1900	Jan. 21, 1900	8.5	10,200	1919	May 22, 1919	11.4	20,500
1901	Mar. 10, 1901	11.0	18,600	1920	Mar. 13, 1920	12.3	25,300
1902	Feb. 28, 1902	13.8	36,200	1921	May 5, 1921	10.7	17,400
1903	Feb. 4, 1903	11.0	18,600	1922	Nov. 29, 1921	12.4	25,900
1904	Apr. 1, 1904	9.3	12,500	1924	May 12, 1924	12.2	24,700
1905	Mar. 21, 1905	9.5	13,100	1925	Feb. 12, 1925	12.3	25,300
1906	Mar. 30, 1906	8.4	9,920	1926	Feb. 26, 1926	8.9	11,300
1907	Mar. 14, 1907	13.4	33,000	1927	Jan. 22, 1927	7.2	6,810
1908	Mar. 19, 1908	13.9	37,000	1928	Apr. 30, 1928	11.7	22,000
1909	Feb. 24, 1909	9.5	13,100	1929	Apr. 17, 1929	9.9	14,400
1910	Mar. 1, 1910	9.4	12,800	1931	May 23, 1931	8.9	12,000
1911	Sept. 15, 1911	9.7	13,700	1932	Apr. 1, 1932	9.2	12,800
1912	Mar. 15, 1912	10.8	17,800	1933	Mar. 16, 1933	9.2	12,800
1913	May 28, 1913	10.1	15,100	1934	Sept. 17, 1934	6.9	7,440
1914	Mar. 28, 1914	8.4	9,920	1935	Mar. 3, 1935	7.1	7,850
1915	Feb. 24, 1915	10.3	15,800	1936	Mar. 18, 1936	21.87	81,000

## Juniata River at Huntingdon, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Apr. 27, 1937	13.7	26,400	1950	Feb. 15, 1950	7.00	7,720
1938	Oct. 29, 1937	8.6	11,200		Mar. 27, 1950	6.22	6,190
					Mar. 29, 1950	6.65	6,930
1942	Dec. 24, 1941	8.51	11,000	1951	Oct. 10, 1950	6.90	7,520
	Mar. 8, 1942	7.33	8,270		Nov. 25, 1950	15.29	34,200
	Apr. 10, 1942	8.86	12,000		Dec. 4, 1950	8.04	9,830
	May 23, 1942	7.57	8,920		Dec. 8, 1950	7.60	8,960
1943	Dec. 30, 1942	11.80	19,500		Feb. 14, 1951	6.24	6,190
	Jan. 19, 1943	5.82	5,510		Feb. 22, 1951	7.37	8,540
	Mar. 12, 1943	6.35	6,550		Mar. 31, 1951	8.49	11,000
	Apr. 20, 1943	8.25	10,300		June 14, 1951	10.39	15,800
	Apr. 21, 1943	7.98	9,830	1952	Jan. 3, 1952	6.68	7,120
	May 12, 1943	7.14	7,920		Jan. 27, 1952	7.66	9,170
1944	Jan. 28, 1944	6.47	6,740		Mar. 11, 1952	10.95	17,200
	Mar. 14, 1944	7.05	7,720		Mar. 23, 1952	6.12	6,020
	Mar. 17, 1944	7.31	8,330		Apr. 5, 1952	6.42	6,550
	Mar. 25, 1944	6.01	5,850		May 25, 1952	6.47	6,740
	Apr. 25, 1944	6.22	6,190	1953	Nov. 22, 1952	8.33	10,500
	May 7, 1944	7.24	8,120		Dec. 11, 1952	6.93	7,520
1945	Feb. 27, 1945	6.72	7,120		Jan. 24, 1953	5.43	5,680
	Mar. 4, 1945	7.47	8,750		Mar. 24, 1953	10.00	14,800
	Mar. 7, 1945	10.41	15,800		May 26, 1953	6.82	7,320
	Mar. 22, 1945	8.39	10,800		May 31, 1953	7.59	8,960
	May 18, 1945	9.19	12,800	1954	Mar. 1, 1954	11.25	17,800
	Sept. 18, 1945	8.01	9,830	1955	Oct. 16, 1954	10.52	16,000
1946	Nov. 22, 1945	6.30	6,370		Dec. 30, 1954	7.40	8,540
	Nov. 29, 1945	6.94	7,520		Mar. 1, 1955	6.50	6,730
	Feb. 28, 1946	6.66	7,120		Mar. 4, 1955	6.43	6,540
	Mar. 9, 1946	5.90	5,680		Mar. 22, 1955	7.38	8,540
	May 27, 1946	8.54	11,000		Apr. 22, 1955	7.80	9,390
	June 2, 1946	8.22	10,300	1956	Feb. 18, 1956	6.08	5,980
	June 12, 1946	8.15	10,300		Feb. 25, 1956	6.65	6,920
	June 13, 1946	8.20	10,300		Mar. 8, 1956	8.67	11,500
1947	Oct. 26, 1946	5.75	5,510		Apr. 4, 1956	6.37	6,540
1948	Mar. 20, 1948	6.44	5,680		Apr. 8, 1956	6.48	6,730
	Apr. 14, 1948	11.21	17,000		May 13, 1956	7.68	9,170
	June 19, 1948	6.16	5,510		July 2, 1956	7.49	8,750
1949	Dec. 30, 1948	6.99	7,720		Aug. 8, 1956	8.01	9,830
	Jan. 6, 1949	6.28	6,370	1957	Apr. 6, 1957	6.80	7,320
	Jan. 27, 1949	6.52	6,740		Apr. 9, 1957	7.22	8,120
	Jan. 28, 1949	6.46	6,740	1958	Dec. 26, 1957	6.53	6,730
					May 8, 1958	6.32	6,350

## 5595. Standing Stone Creek near Huntingdon, Pa.

Location. --Lat 40°31'25", long 77°58'15", at bridge on State Highway 545, 3¼ miles northeast of Huntingdon, Huntingdon County, and 3.5 miles upstream from mouth.

Drainage area. --128 sq mi.

Gage. --Nonrecording gage prior to Feb. 4, 1930; recording gage thereafter. Datum of gage is 617.81 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 3,600 cfs and extended above.

Remarks. --Base for partial-duration series, 1,600 cfs.

## Standing Stone Creek near Huntingdon, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	9.38	6,770	1945	Mar. 7, 1945	6.45	2,080
					May 18, 1945	5.85	1,600
1930	Oct. 23, 1929	6.55	2,780				
	Feb. 26, 1930	5.35	1,630	1946	Nov. 29, 1945	7.42	2,870
					Mar. 9, 1946	5.97	1,680
1931	May 8, 1931	6.75	3,000		May 28, 1946	6.63	2,300
	May 21, 1931	6.14	2,320		June 2, 1946	6.75	2,410
	May 23, 1931	6.70	2,890		June 13, 1946	6.25	1,900
1932	Apr. 1, 1932	5.67	1,870	1947	June 9, 1947	6.55	2,180
					Aug. 20, 1947	6.14	1,820
1933	Apr. 7, 1933	5.46	1,710		Aug. 31, 1947	7.21	2,670
	May 30, 1933	5.33	1,630				
	Aug. 24, 1933	6.20	2,420	1948	Apr. 12, 1948	6.75	2,410
1934	Apr. 12, 1934	4.31	1,030		Apr. 15, 1948	7.02	2,490
1935	Dec. 1, 1934	5.41	1,680	1949	Dec. 30, 1948	6.46	2,080
1936	Mar. 12, 1936	6.95	3,230	1950	Feb. 14, 1950	5.35	1,340
	Mar. 18, 1936	9.14	6,250				
	Apr. 6, 1936	5.61	1,830	1951	Nov. 25, 1950	10.96	8,500
	June 14, 1936	7.16	3,470		Dec. 4, 1950	6.73	2,230
					Mar. 31, 1951	7.60	3,070
1937	Nov. 5, 1936	6.34	2,520		June 14, 1951	7.40	2,870
	Jan. 22, 1937	5.71	1,910				
	Feb. 22, 1937	5.50	1,750	1952	Jan. 27, 1952	5.92	1,650
	Apr. 28, 1937	7.24	3,240		Mar. 11, 1952	7.50	2,990
1938	Dec. 18, 1937	5.72	1,960	1953	Nov. 22, 1952	6.40	2,090
	Jan. 25, 1938	5.50	1,830		Dec. 11, 1952	6.54	2,160
					Jan. 25, 1953	5.76	1,710
1939	Feb. 4, 1939	5.83	2,000		Mar. 24, 1953	7.08	2,620
					May 26, 1953	8.14	3,630
1940	Mar. 31, 1940	7.48	3,560		May 31, 1953	6.37	2,090
1941	Apr. 5, 1941	5.35	1,620	1954	Mar. 2, 1954	7.51	2,990
1942	Dec. 24, 1941	6.63	2,780	1955	Oct. 16, 1954	8.23	3,750
	Apr. 4, 1942	6.37	2,570		Dec. 30, 1954	5.97	1,830
	May 23, 1942	7.15	3,470		Mar. 22, 1955	5.98	1,830
1943	Dec. 30, 1942	7.69	4,110	1956	Oct. 15, 1955	6.33	2,020
	Apr. 21, 1943	6.24	2,390		Mar. 8, 1956	6.60	2,230
					May 13, 1956	5.77	1,710
1944	Jan. 4, 1944	6.36	2,500	1957	Apr. 6, 1957	6.04	1,830
	Mar. 13, 1944	5.68	1,860				
	Mar. 17, 1944	5.83	2,000	1958	Dec. 27, 1957	6.12	1,890
	May 7, 1944	6.70	2,880				

## 5600. Dunning Creek at Belden, Pa.

Location. --Lat 40°04'20", long 78°29'35", on left bank 10 ft upstream from covered highway bridge, 0.8 mile southeast of Belden, Bedford County, 3.8 miles north of Bedford, and 4.3 miles upstream from mouth.

Drainage area. --172 sq mi.

Gage. --Recording gage. Datum of gage is 1,051.16 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 4,000 cfs and extended above.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 2,300 cfs.

## Dunning Creek at Belden, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 31, 1940	11.23	6,150	1949	Jan. 26, 1949	8.02	2,600
	Apr. 4, 1940	8.84	3,280		Feb. 14, 1950	7.68	2,390
	Apr. 20, 1940	8.72	3,190	1951	Dec. 4, 1950	8.09	2,640
1941	Apr. 5, 1941	8.47	3,010		Dec. 8, 1950	9.95	4,530
	June 5, 1941	9.30	3,790		Feb. 21, 1951	8.55	3,020
1942	Dec. 24, 1941	7.90	2,470		Mar. 30, 1951	8.15	2,710
	Mar. 9, 1942	7.83	2,420	1952	Jan. 27, 1952	8.80	3,200
	Apr. 10, 1942	8.72	2,950		Mar. 11, 1952	10.57	5,310
1943	Oct. 16, 1942	10.11	4,590	1953	Nov. 22, 1952	10.20	4,790
	Dec. 30, 1942	11.12	6,010		Mar. 24, 1953	9.66	4,170
	Jan. 19, 1943	8.24	2,760		May 31, 1953	9.84	4,290
	Apr. 20, 1943	9.46	4,010	1954	Mar. 1, 1954	11.43	6,430
	May 12, 1943	8.15	2,760		Oct. 16, 1954	10.96	5,870
1944	Jan. 28, 1944	8.03	2,600	1955	Dec. 30, 1954	8.94	3,300
	May 7, 1944	7.65	2,320		Mar. 1, 1955	7.56	2,330
1945	Feb. 17, 1945	8.12	2,680		Mar. 4, 1955	7.83	2,450
	Feb. 27, 1945	8.45	2,920		Mar. 22, 1955	7.93	2,510
	Mar. 4, 1945	8.65	3,100		Apr. 22, 1955	10.00	4,530
	Mar. 7, 1945	10.00	4,590	1956	Jan. 30, 1956	7.56	2,330
	Sept. 18, 1945	9.63	4,120		Mar. 8, 1956	9.60	4,050
1946	Jan. 7, 1946	8.62	3,100		Apr. 3, 1956	7.57	2,500
	Feb. 28, 1946	7.81	2,460		Apr. 7, 1956	7.70	2,550
	June 2, 1946	9.95	4,590	1957	Dec. 14, 1956	8.22	2,870
1947	Oct. 26, 1946	7.49	2,260		Dec. 26, 1957	7.91	2,670
1948	Apr. 13, 1948	9.76	4,350				
	May 29, 1948	9.69	4,230				
	June 20, 1948	8.34	2,840				

## 5605. Dunning Creek at Yount, Pa.

Location.--Lat 40°03'30", long 78°28'30", at highway bridge at Yount, Bedford County, 3 miles upstream from mouth and  $3\frac{1}{4}$  miles northeast of Bedford.

Drainage area.--36.8 sq. mi.

Gage.--Nonrecording gage prior to Feb. 7, 1930; recording gage thereafter. Datum of gage is 1,122.39 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,800 cfs and extended above.

Bankful stage.--5 ft.

Remarks.--Base for partial-duration series, 480 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Oct. 23, 1929	<sup>a</sup> —	—	1936	Feb. 28, 1936	8.40	4,000
	Feb. 25, 1930	7.20	2,700		Mar. 12, 1936	9.6	5,300
1931	Mar. 29, 1931	7.2	2,910		Mar. 18, 1936	18.08	17,900
	Apr. 4, 1931	8.1	3,700		Apr. 6, 1936	8.50	4,100
1932	Dec. 13, 1931	6.70	2,510	1937	Oct. 17, 1936	7.40	3,070
	Apr. 1, 1932	7.40	2,820		Nov. 5, 1936	8.20	3,800
1933	Mar. 15, 1933	8.8	4,400		Jan. 10, 1937	8.10	3,700
	Mar. 20, 1933	7.7	3,340		Jan. 22, 1937	9.00	4,620
	May 10, 1933	7.7	3,340		Apr. 26, 1937	13.38	11,000
	May 30, 1933	6.7	2,510	1938	Oct. 29, 1937	8.2	3,800
1934	Jan. 7, 1934	8.25	3,800		Dec. 18, 1937	6.7	2,510
	Sept. 16, 1934	7.20	2,910		Jan. 25, 1938	6.9	2,670
1935	Dec. 1, 1934	5.8	1,900		Mar. 15, 1938	6.5	2,370
				1939	Jan. 31, 1939	7.3	2,990
					Feb. 4, 1939	8.3	3,900
					Feb. 28, 1939	8.0	3,610
					June 22, 1939	6.5	2,370

<sup>a</sup>No record, probable peak of year.



## SUSQUEHANNA RIVER BASIN

5610. Brush Creek at Gapsville, Pa.

Location. --Lat 39°57'20", long 78°15'15", on left bank 50 ft upstream from covered bridge three-quarters of a mile northwest of Gapsville, Bedford County, 1½ miles downstream from Little Brush Creek, and 5½ miles upstream from Shaffer Run.

Drainage area. --36.8 sq mi.

Gage. --Nonrecording gage prior to Feb. 7, 1930; recording gage thereafter. Datum of gage is 1,122.39 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,800 cfs and extended above.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 480 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Mar. 29, 1931	3.63	630	1942	Dec. 24, 1941	5.21	750
	May 23, 1931	4.44	962		Mar. 9, 1942	4.73	556
	July 9, 1931	3.53	592		July 5, 1942	4.70	536
	July 10, 1931	4.30	895	1943	Oct. 15, 1942	6.13	1,260
	July 20, 1931	3.69	650		Dec. 30, 1942	5.72	1,010
1932	Mar. 31, 1932	3.84	710		Apr. 19, 1943	4.98	660
	May 13, 1932	3.30	500	1944	Mar. 13, 1944	4.53	471
1933	Nov. 10, 1932	3.60	610	1945	Sept. 18, 1945	5.01	665
	Nov. 19, 1932	3.50	570		June 2, 1946	4.79	580
	Mar. 14, 1933	3.64	630	1947	Mar. 14, 1947	3.82	253
	Apr. 17, 1933	3.99	790		May 29, 1948	4.16	353
	Apr. 20, 1933	3.56	630	1949	July 13, 1949	5.56	930
	May 10, 1933	3.17	482		July 18, 1949	—	755
	May 26, 1933	3.36	552	1950	May 18, 1950	4.34	409
1934	Jan. 7, 1934	3.32	500	1951	Nov. 25, 1950	7.98	2,930
	June 19, 1934	3.47	552		Dec. 8, 1950	5.55	932
	Sept. 16, 1934	4.64	1,020		Mar. 30, 1951	6.50	1,520
1935	Dec. 1, 1934	4.76	1,100		June 13, 1951	4.86	600
	Feb. 27, 1936	a—	—		Mar. 11, 1952	6.91	1,830
1936	Mar. 11, 1936	4.59	1,030	1953	Nov. 21, 1952	7.83	2,760
	Mar. 17, 1936	9.81	6,870*		Dec. 11, 1952	4.63	520
	Apr. 6, 1936	3.36	524		Mar. 24, 1953	7.03	1,960
	Aug. 26, 1936	4.18	860		Mar. 1, 1954	6.8	1,750
1937	Oct. 17, 1936	4.01	504	1955	Oct. 15, 1954	8.39	3,430
	Jan. 10, 1937	4.00	500		Nov. 21, 1954	5.97	1,160
	Feb. 22, 1937	4.85	930		Mar. 5, 1955	5.70	1,020
	Apr. 26, 1937	7.03	2,810		Mar. 22, 1955	4.90	620
	Apr. 28, 1937	6.30	2,100	1956	Aug. 18, 1955	5.02	665
1938	Oct. 28, 1937	4.74	912		Apr. 7, 1956	4.73	560
1939	Dec. 10, 1938	5.29	795	1957	Dec. 14, 1956	4.79	580
	Feb. 3, 1939	4.66	520		May 5, 1958	5.7	1,020
	Feb. 28, 1939	4.57	486	1958	June 1, 1958	4.97	642
1940	Oct. 2, 1939	4.82	584				
	Mar. 31, 1940	4.72	544				
	June 8, 1940	4.61	501				
1941	June 5, 1941	4.83	596				

\*Backwater from ice.

## 5620. Raystown Branch Juniata River at Saxton, Pa.

Location. --Lat 40°12'55", long 78°15'55", on left bank at former site of highway bridge, 500 ft downstream from present highway bridge on State Highway 913, 0.5 mile west of Saxton, Bedford County, and 1.5 miles upstream from Shoup Run.

Drainage area. --756 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1931; recording gage thereafter. Prior to Oct. 1, 1931, at site 0.8 mile downstream at datum 4.82 ft lower. Datum of gage is 795.77 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 17,000 cfs and extended above by slope-area measurement of peak flow.

Bankfull stage. --15 ft.

Remarks. --Base for partial-duration series, 7,700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Feb. 27, 1912	8.20	—	1926	Feb. 23, 1926	8.9	12,000
	Mar. 15, 1912	8.9	12,900	Cont.	Feb. 26, 1926	8.3	10,600
	Mar. 22, 1912	9.5	14,500				
	May 13, 1912	8.7	12,400	1927	Nov. 17, 1926	8.6	11,300
	May 17, 1912	8.9	12,900		Nov. 19, 1926	8.3	10,600
1913	Mar. 27, 1913	7.00	8,300		Jan. 22, 1927	8.76	11,800
	May 28, 1913	11.0	19,100		Mar. 8, 1927	7.2	8,000
1914	Nov. 10, 1913	7.88	10,400	1928	Oct. 19, 1927	9.3	13,000
	Feb. 1, 1914	7.8	10,100		May 1, 1928	11.14	18,400
	Mar. 18, 1914	8.4	11,600		June 19, 1928	7.1	7,800
1915	Feb. 2, 1915	8.80	12,600		July 14, 1928	10.4	16,200
	Feb. 16, 1915	8.80	12,600	1929	Feb. 27, 1929	7.2	8,000
	Feb. 25, 1915	7.80	10,100		Feb. 28, 1929	7.4	8,400
	June 3, 1915	11.6	21,200		Apr. 17, 1929	10.85	17,400
	Aug. 4, 1915	7.2	—	1930	Oct. 23, 1929	11.75	21,000
1916	Mar. 23, 1916	9.9	15,600	1931	May 23, 1931	7.42	8,400
	Mar. 28, 1916	11.5	20,900	1932	Apr. 1, 1932	8.26	9,830
	June 17, 1916	9.8	15,400	1933	Mar. 14, 1933	10.3	13,800
	July 26, 1916	7.6	9,650		Mar. 20, 1933	7.9	9,070
1917	Mar. 12, 1917	10.8	18,500	1934	Jan. 8, 1934	7.21	7,800
	June 7, 1917	7.9	10,400	1935	May 10, 1935	6.23	6,180
1918	Feb. 20, 1918	9.0	13,100	1936	Feb. 28, 1936	12.75	—
	Feb. 26, 1918	10.8	18,500		Mar. 12, 1936	10.78	15,600
	Apr. 15, 1918	8.5	11,800		Mar. 18, 1936	24.54	80,500
1919	May 11, 1919	7.9	—		Apr. 6, 1936	7.98	9,580
	May 22, 1919	10.56	17,800	1937	Oct. 18, 1936	7.36	8,380
1920	Mar. 5, 1920	12.0	22,700		Nov. 5, 1936	7.50	8,580
	Mar. 13, 1920	8.2	11,100		Jan. 11, 1937	8.77	11,200
1921	Mar. 4, 1921	6.8	7,860		Jan. 23, 1937	8.28	10,200
	May 5, 1921	8.23	10,200		Apr. 27, 1937	16.15	31,300
1922	Nov. 29, 1921	9.2	12,700	1938	Oct. 29, 1937	9.44	12,500
1923	Apr. 17, 1923	5.75	5,020	1939	Feb. 4, 1939	9.34	12,300
1924	Jan. 17, 1924	9.0	12,200		Mar. 1, 1939	9.00	11,700
	Mar. 30, 1924	12.2	22,600	1940	Mar. 31, 1940	11.07	14,600
	Apr. 7, 1924	8.2	10,200		Apr. 4, 1940	7.95	8,470
	May 10, 1924	9.0	12,200		Apr. 20, 1940	10.10	12,500
	May 12, 1924	13.6	29,000	1941	Apr. 6, 1941	7.87	8,300
	June 29, 1924	10.2	15,600		June 5, 1941	10.20	12,700
1925	Feb. 12, 1925	11.28	19,200				
1926	Nov. 13, 1925	7.8	9,300				

## SUSQUEHANNA RIVER BASIN

Raystown Branch Juniata River at Saxton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 9, 1942	8.42	9,520	1951	Nov. 25, 1950	10.21	13,300
	Apr. 10, 1942	8.84	10,300		Dec. 4, 1950	9.03	10,100
	May 23, 1942	7.55	8,080		Dec. 8, 1950	10.83	14,000
1943					Feb. 22, 1951	8.29	8,860
	Oct. 16, 1942	12.63	19,800		Mar. 31, 1951	9.63	11,300
	Dec. 30, 1942	12.75	20,400	June 14, 1951	7.71	7,840	
	Apr. 20, 1943	10.29	13,600	1952	Jan. 28, 1952	7.76	8,010
1944					Mar. 11, 1952	12.26	18,000
	Jan. 29, 1944	7.85	8,310	1953	Nov. 22, 1952	12.16	17,700
	Mar. 13, 1944	7.71	8,130		Mar. 24, 1953	11.19	15,000
	Apr. 25, 1944	8.46	9,640		June 1, 1953	10.37	13,000
	Apr. 28, 1944	7.58	7,950				
	May 7, 1944	8.31	9,260	1954	Mar. 2, 1954	12.20	17,700
1945					Oct. 16, 1954	13.78	22,800
	Feb. 27, 1945	8.8	10,200	Dec. 30, 1954	8.39	9,040	
	Mar. 7, 1945	9.07	10,800	Mar. 5, 1955	10.95	14,500	
	Sept. 19, 1945	8.85	10,200	Mar. 22, 1955	9.85	11,700	
1946				Apr. 22, 1955	8.36	9,040	
	June 3, 1946	9.88	12,600	1956	Mar. 9, 1956	8.36	9,040
1947					Apr. 8, 1956	8.53	9,220
	Oct. 26, 1946	5.64	4,720	1957	Dec. 15, 1956	9.53	11,100
1948					Dec. 27, 1957	7.67	7,840
	Apr. 14, 1948	9.48	11,700	May 5, 1958	9.97	12,200	
1949	Jan. 27, 1949	7.68	8,130				
1950							
	Feb. 15, 1950	7.32	7,410				

<sup>a</sup>Backwater from ice.

## 5625. Great Trough Creek near Marklesburg, Pa.

Location. --Lat 40°21'00", long 78°07'50", on left bank 40 ft downstream from highway bridge, 0.5 mile upstream from mouth and 3 miles southeast of Marklesburg, Huntingdon County.

Drainage area. --84.6 sq mi.

Gage. --Recording gage. Datum of gage is 714.48 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 2,600 cfs and extended above.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 950 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Oct. 23, 1929	—	—	1936	Feb. 16, 1936	<sup>a</sup> 4.15	—
	Feb. 25, 1930	4.14	1,340		Mar. 12, 1936	5.57	2,760
1931	Apr. 1, 1931	3.78	1,000		Mar. 17, 1936	8.46	8,400
	May 23, 1931	4.80	1,980	1937	Feb. 22, 1937	4.27	1,220
1932	Apr. 1, 1932	4.52	1,680		Apr. 26, 1937	6.10	3,440
1933	Nov. 10, 1932	4.00	1,220	1938	Oct. 29, 1937	3.72	996
	Mar. 15, 1933	4.68	2,040		May 24, 1938	3.77	1,040
	May 10, 1933	3.84	1,070	1939	Feb. 3, 1939	3.89	1,140
	May 29, 1933	3.73	986		1940	Mar. 31, 1940	5.47
	Aug. 24, 1933	4.52	1,780	Apr. 4, 1940		3.87	1,250
1934	Sept. 16, 1934	4.48	1,780	Apr. 21, 1940		4.01	1,370
1935	July 8, 1935	3.67	976	1941	Mar. 4, 1941	<sup>a</sup> 4.70	—
					June 5, 1941	3.86	1,250

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Dec. 24, 1941	3.50	1,060	1950	Feb. 14, 1950	3.24	842
	Mar. 9, 1942	3.42	970	1951	Nov. 25, 1950	6.63	4,180
	Apr. 4, 1942	3.57	1,110		Dec. 4, 1950	3.48	980
	Apr. 9, 1942	3.83	1,250		Dec. 7, 1950	4.61	1,870
	May 22, 1942	4.34	1,650		Mar. 30, 1951	4.97	2,180
	June 5, 1942	3.70	1,130	1952	Mar. 11, 1952	4.92	2,140
1943	Oct. 15, 1942	3.55	1,110		Nov. 22, 1952	5.58	2,830
	Dec. 30, 1942	5.58	2,830	1953	Dec. 11, 1952	3.53	1,010
	Apr. 19, 1943	4.53	1,820		Jan. 24, 1953	3.50	975
1944	Apr. 24, 1944	3.38	930		Mar. 24, 1953	4.82	2,050
1945	Jan. 28, 1945	<sup>a</sup> 5.05	—	1954	Mar. 1, 1954	4.89	2,140
	Feb. 16, 1945	<sup>a</sup> 4.98	—		Oct. 15, 1954	5.35	2,570
	July 26, 1945	3.88	1,320	1955	Mar. 23, 1955	3.47	1,010
	Sept. 18, 1945	4.06	1,440		Apr. 21, 1955	3.70	1,190
1946	Nov. 29, 1945	3.91	1,320	1956	Mar. 8, 1956	3.28	1,310
	May 27, 1946	5.24	2,470		Apr. 7, 1956	2.84	975
	June 2, 1946	5.06	2,280		Aug. 5, 1956	3.27	1,270
1947	Mar. 15, 1947	2.91	597		Aug. 7, 1956	2.90	1,010
1948	Apr. 14, 1948	3.93	1,360		Dec. 14, 1956	3.05	1,120
1949	Dec. 30, 1948	3.38	962				
	July 12, 1949	3.65	1,210				

<sup>a</sup>Backwater from ice.

## 5630. Raystown Branch Juniata River near Huntingdon, Pa.

Location. --Lat 40°25'35", long 78°01'50", 5 ft downstream from left abutment of highway bridge at village of Hawn Bridge, 6 miles south of Huntingdon, Huntingdon County, and 9 miles upstream from mouth.

Drainage area. --957 sq mi.

Gage. --Recording gage. Datum of gage is 620.08 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 16,000 cfs and extended on basis of computation of flow over dam.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 6,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 8, 1946	9.33	8,540	1952	Mar. 24, 1952	8.22	6,780
	Feb. 28, 1946	8.56	7,420	Cont.	Apr. 28, 1952	9.38	8,700
	May 18, 1946	8.22	6,800	1953	Nov. 22, 1952	14.94	19,600
	May 27, 1946	8.57	7,420		Dec. 12, 1952	9.05	8,060
	June 3, 1946	12.46	14,300		Jan. 25, 1953	9.06	8,220
1947	Mar. 15, 1947	6.74	4,650		Mar. 25, 1953	13.33	15,900
1948	Apr. 14, 1948	12.68	14,700		June 1, 1953	12.38	14,100
1949	Dec. 31, 1948	9.00	8,060	1954	Mar. 2, 1954	14.23	17,800
	Jan. 27, 1949	9.60	9,040	1955	Oct. 16, 1954	15.56	21,400
	July 18, 1949	8.74	7,580		Dec. 31, 1954	10.05	9,720
1950	Feb. 15, 1950	9.75	9,380		Mar. 5, 1955	12.71	14,700
	Mar. 25, 1950	8.86	7,900		Mar. 23, 1955	11.94	13,200
1951	Nov. 25, 1950	16.74	24,500		Apr. 23, 1955	10.29	10,200
	Dec. 5, 1950	11.18	11,800		Apr. 26, 1955	8.26	6,940
	Dec. 8, 1950	12.84	14,900	1956	Mar. 9, 1956	10.61	10,800
	Feb. 22, 1951	10.67	10,900		Apr. 4, 1956	8.86	7,900
	Apr. 1, 1951	11.66	12,800		Apr. 8, 1956	10.53	10,600
	June 14, 1951	9.56	9,040	1957	Dec. 15, 1956	11.60	12,600
1952	Jan. 3, 1952	9.54	8,870	1958	Dec. 27, 1957	9.18	8,380
	Jan. 28, 1952	10.09	9,890		Mar. 1, 1958	8.42	7,100
	Mar. 12, 1952	14.39	18,400		Mar. 28, 1958	8.33	6,940
					May 6, 1958	12.02	13,300



## SUSQUEHANNA RIVER BASIN

5635. Juniata River at Mapleton Depot, Pa.

Location. --Lat 40°23'30", long 77°56'10", on right bank a quarter of a mile downstream from Scrub Run and a third of a mile downstream from highway bridge on State Highway 376 at Mapleton Depot, Huntingdon County.

Drainage area. --2,030 sq mi.

Gage. --Recording gage. Datum of gage is 557.31 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 31,000 cfs and extended above.

Bankfull stage. --20 ft.

Remarks. --Base for partial-duration series, 12,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	35.9	209,000	1947	Aug. 31, 1947	9.89	11,400
1936	Mar. 18, 1936	38.2	145,000	1948	Apr. 15, 1948	18.05	37,700
1938	Dec. 18, 1937	10.82	13,700	1949	Dec. 31, 1948	11.63	15,900
1939	Feb. 4, 1939	12.87	19,800		Jan. 28, 1949	11.85	16,500
	Mar. 1, 1939	12.71	19,200	1950	Feb. 15, 1950	12.38	18,200
1940	Mar. 20, 1940	11.38	15,300		Mar. 26, 1950	10.47	12,900
	Mar. 31, 1940	18.73	40,500		Mar. 27, 1950	10.73	13,400
	Apr. 4, 1950	12.87	19,800		Mar. 29, 1950	11.13	14,500
	Apr. 9, 1940	10.73	13,400	1951	Oct. 10, 1950	11.09	14,500
	Apr. 21, 1940	16.40	32,000		Nov. 25, 1950	26.4	76,800
1941	Apr. 6, 1941	11.70	16,200		Dec. 5, 1950	13.50	21,500
	June 5, 1941	15.28	26,900		Dec. 9, 1950	14.31	23,900
1942	Dec. 24, 1941	11.87	16,800		Feb. 22, 1951	12.63	18,800
	Mar. 10, 1942	12.77	19,400		Mar. 31, 1951	14.41	24,200
	Apr. 3, 1942	11.08	14,500		June 14, 1951	14.58	24,800
	Apr. 10, 1942	13.77	22,400	1952	Jan. 3, 1952	12.46	18,500
	May 23, 1942	13.87	22,700		Jan. 28, 1952	12.49	18,500
1943	Oct. 16, 1942	13.90	22,700		Mar. 12, 1952	18.14	38,100
	Dec. 31, 1942	20.82	48,900		Mar. 24, 1952	10.58	13,200
	Jan. 19, 1943	10.78	13,700	1953	Nov. 22, 1952	16.47	31,700
	Mar. 13, 1943	10.42	12,700		Dec. 11, 1952	10.57	13,200
	Apr. 20, 1943	15.30	26,900		Jan. 25, 1953	10.70	13,400
	May 13, 1943	11.65	15,900		Mar. 25, 1953	16.14	30,100
1944	Jan. 29, 1944	10.43	12,700		June 1, 1953	13.94	22,700
	Mar. 14, 1944	12.80	19,400	1954	Mar. 2, 1954	17.14	34,100
	Mar. 17, 1944	11.92	16,800	1955	Oct. 16, 1954	16.84	32,900
	Mar. 25, 1944	11.38	15,300		Dec. 31, 1954	12.09	17,300
	Apr. 25, 1944	12.18	17,600		Mar. 5, 1955	13.83	22,400
	May 8, 1944	12.14	17,300		Mar. 23, 1955	13.72	22,100
1945	Feb. 27, 1945	13.28	20,900		Apr. 22, 1955	12.72	19,100
	Mar. 4, 1945	12.23	17,600	1956	Mar. 8, 1956	14.97	26,000
	Mar. 7, 1945	15.94	29,300		Apr. 4, 1956	10.74	13,400
	Mar. 22, 1945	11.57	15,900		Apr. 8, 1956	12.02	17,000
	May 18, 1945	12.22	17,600		May 13, 1956	11.27	15,000
	Sept. 19, 1945	13.13	20,300		Aug. 8, 1956	11.62	15,900
1946	Nov. 29, 1945	12.19	17,600	1957	Dec. 15, 1956	11.86	16,800
	Jan. 8, 1946	11.20	14,800		Apr. 6, 1957	11.77	16,500
	Mar. 1, 1946	10.47	12,900		Apr. 9, 1957	11.45	15,300
	May 28, 1946	13.90	22,700	1958	May 6, 1958	12.59	18,800
	June 3, 1946	14.54	24,500				
	June 13, 1946	12.45	18,200				

## 5640. Aughwick Creek near Orbisonia, Pa.

Location. --Lat 40°12'35", long 77°55'30", at highway bridge, 600 ft upstream from East Broad Top Railroad bridge, 650 feet upstream from Three Springs Creek, and 2¼ miles southwest of Orbisonia, Huntingdon County.

Drainage area. --174 sq mi.

Gage. --Nonrecording gage. Datum of gage is 619.51 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 11,500 cfs and extended above.

Remarks. --Base for partial-duration series, 3,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Mar. 8, 1930	7.7	3,810	1934	Sept. 17, 1934	11.6	6,840
1931	Apr. 1, 1931	8.7	3,690	1935	Dec. 1, 1934	12.01	7,350
	May 23, 1931	8.5	3,510		Feb. 28, 1935	<sup>a</sup> 9.2	—
	July 10, 1931	10.67	5,760		Mar. 12, 1935	11.1	6,240
1932	Mar. 31, 1932	7.99	3,060		Mar. 18, 1935	19.16	18,900
1933	Nov. 10, 1932	8.6	3,600	1937	Feb. 22, 1937	10.8	5,880
	Nov. 19, 1932	8.2	3,240		Apr. 26, 1937	14.45	10,700
	Mar. 14, 1933	8.1	3,150		Apr. 28, 1937	12.1	7,480
	Aug. 24, 1933	10.83	5,880	1938	Oct. 28, 1937	9.1	4,070

<sup>a</sup>Backwater from ice.

## 5645. Aughwick Creek near Three Springs, Pa.

Location. --Lat 40°12'45", long 77°55'30", on right bank 10 ft downstream from bridge on State Highway 377, 300 ft upstream from East Broad Top Railroad bridge, 350 ft upstream from Three Springs Creek, and 3½ miles northeast of village of Three Springs Huntingdon County. Records include flow of Three Springs Creek.

Drainage area. --205 sq mi, includes that of Three Springs Creek.

Gage. --Recording gage. Datum of gage is 618.65 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 2,900 cfs and extended above on basis of contracted-opening measurement of peak flow.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 2,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Dec. 10, 1938	10.63	6,030	1943	Mar. 12, 1943	7.10	2,150
	Feb. 4, 1939	9.72	4,890	Cont.	Apr. 20, 1943	9.03	4,030
	Feb. 28, 1939	8.91	3,970		May 11, 1943	8.34	3,270
1940	Jan. 15, 1940	7.49	2,580		May 12, 1943	7.73	2,680
	Mar. 31, 1940	10.00	5,250	1944	Jan. 28, 1944	7.39	2,410
	Apr. 4, 1940	8.92	3,970		Mar. 13, 1944	8.70	3,700
	Apr. 9, 1940	7.60	2,670		Apr. 25, 1944	9.53	4,620
	Apr. 21, 1940	8.89	3,970		Apr. 27, 1944	7.49	2,500
1941	Apr. 5, 1941	7.94	2,940		May 7, 1944	8.88	3,920
	June 5, 1941	9.08	4,190		May 27, 1944	8.09	3,070
1942	Dec. 24, 1941	8.58	3,640	1945	Feb. 27, 1945	8.39	3,370
	Mar. 9, 1942	8.42	3,440		Mar. 7, 1945	7.54	2,500
	Apr. 3, 1942	8.18	3,240		May 18, 1945	8.26	2,800
	Apr. 10, 1942	8.18	3,240		Sept. 18, 1945	10.23	5,020
	May 23, 1942	8.22	3,240	1946	Nov. 28, 1945	10.03	4,720
	Aug. 18, 1942	7.78	2,840		Mar. 9, 1946	7.37	2,290
1943	Oct. 16, 1942	9.36	4,500		May 27, 1946	9.60	4,150
	Dec. 30, 1942	12.32	8,680		June 2, 1946	12.47	8,770
					June 15, 1946	8.54	2,960

## SUSQUEHANNA RIVER BASIN

Aughwick Creek near Three Springs, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Mar. 14, 1947	7.29	2,080	1952	Apr. 5, 1952	8.12	2,550
1948	Apr. 15, 1948	7.50	2,280	Cont.	Apr. 27, 1952	9.22	3,480
	June 19, 1948	7.45	2,210	1953	Nov. 22, 1952	17.23	18,600
	June 27, 1948	7.35	2,210		Dec. 11, 1952	10.59	5,380
	June 30, 1948	7.31	2,140		Jan. 24, 1953	8.93	3,190
1949	Nov. 20, 1948	8.57	3,060		Mar. 24, 1953	12.30	8,290
	Dec. 30, 1948	10.17	5,020		May 31, 1953	8.31	2,690
	Jan. 27, 1949	7.44	2,150	1954	Mar. 1, 1954	14.25	12,000
	July 28, 1949	9.41	3,890		Apr. 28, 1954	8.33	2,690
1950	Feb. 15, 1950	7.84	2,430	1955	Oct. 16, 1954	16.28	16,500
	Mar. 25, 1950	8.17	2,720		Dec. 30, 1954	7.81	2,340
	May 19, 1950	9.13	3,540		Mar. 5, 1955	7.94	2,410
1951	Oct. 9, 1950	7.60	2,290		Mar. 22, 1955	11.10	6,190
	Nov. 5, 1950	7.78	2,430		Apr. 22, 1955	8.00	2,480
	Nov. 25, 1950	18.04	20,600		Aug. 13, 1955	7.60	2,200
	Dec. 4, 1950	9.51	3,820		Aug. 19, 1955	9.29	3,590
	Dec. 8, 1950	10.38	5,070	1956	Oct. 15, 1955	9.26	3,590
	Feb. 7, 1951	8.31	2,690		Apr. 3, 1956	8.44	2,770
	Feb. 21, 1951	9.05	3,280		Apr. 7, 1956	8.22	2,620
	Mar. 31, 1951	13.79	11,200		July 3, 1956	8.22	2,620
	Apr. 13, 1951	8.71	3,010	1957	Oct. 23, 1956	10.73	5,540
	June 13, 1951	10.05	4,480		Nov. 2, 1956	7.46	2,130
1952	Jan. 2, 1952	7.79	2,340		Dec. 14, 1956	11.55	7,040
	Jan. 27, 1952	7.57	2,200	1958	Dec. 26, 1957	9.47	3,820
	Feb. 4, 1952	7.63	2,200		Feb. 28, 1958	9.08	3,380
	Mar. 11, 1952	13.78	11,200		May 7, 1958	8.54	2,850

## 5650. Kishacoquillas Creek at Reedsville, Pa.

Location. --Lat 40°39'15", long 77°35'00", on left bank 150 ft downstream from bridge on U. S. Highway 322, 1 mile southeast of Reedsville, Mifflin County, and 1 mile downstream from Honey Creek.

Drainage area. --164 sq mi.

Gage. --Recording gage. Datum of gage is 551.23 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,400 cfs and extended on basis of slope-area measurement.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 1,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 31, 1940	9.58	4,870	1944	Mar. 17, 1944	6.53	1,580
	Apr. 8, 1940	6.27	1,400	Cont.	May 7, 1944	6.87	1,800
	Apr. 20, 1940	6.51	1,560	1945	Mar. 4, 1945	5.93	1,190
1941	Apr. 5, 1941	5.74	1,110		Mar. 7, 1945	6.62	1,610
1942	Dec. 24, 1941	6.71	1,680		Mar. 21, 1945	6.28	1,400
	Mar. 9, 1942	6.39	1,470		May 18, 1945	8.98	4,080
	Apr. 4, 1942	6.53	1,580		May 28, 1945	5.79	1,100
	Apr. 10, 1942	5.80	1,110	1946	Nov. 29, 1945	7.15	2,040
	May 22, 1942	11.19	7,200		Mar. 9, 1946	6.37	1,440
1943	Dec. 30, 1942	8.91	3,950		May 28, 1946	8.25	3,100
	Apr. 21, 1943	7.54	2,410		June 2, 1946	7.34	2,220
1944	Nov. 9, 1943	6.18	1,340	1947	June 8, 1947	6.01	1,220
	Jan. 4, 1944	6.87	1,800				

## Kishacoquillas Creek at Reedsville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 20, 1948	6.01	1,220	1953	Nov. 22, 1952	6.72	1,840
	Apr. 12, 1948	6.35	1,440		Dec. 11, 1952	—	—
	Apr. 14, 1948	7.87	2,720		Jan. 24, 1953	6.71	1,840
1949	Dec. 30, 1948	6.63	1,640		Mar. 24, 1953	7.80	2,810
	Apr. 14, 1949	6.50	1,540		May 26, 1953	9.38	4,540
1950	Mar. 24, 1950	6.26	1,370	1954	May 31, 1953	7.67	2,710
	Mar. 26, 1950	5.85	1,140		Mar. 1, 1954	8.48	3,520
	Mar. 29, 1950	6.38	1,470	1955	May 4, 1954	7.71	2,710
1951	Nov. 25, 1950	13.12	9,830		Oct. 16, 1954	7.59	2,620
	Dec. 4, 1950	7.88	2,910	1956	Dec. 30, 1954	5.67	1,100
	Dec. 8, 1950	8.23	3,210		Mar. 22, 1955	6.05	1,360
	Feb. 7, 1951	7.28	2,350		Aug. 13, 1955	6.34	1,560
	Feb. 21, 1951	5.84	1,220		Oct. 14, 1955	8.11	3,110
	Mar. 30, 1951	9.58	4,780		Feb. 11, 1956	5.83	1,220
	Apr. 12, 1951	6.42	1,600		Feb. 18, 1956	5.68	1,130
	Apr. 23, 1951	5.83	1,220		Feb. 25, 1956	6.36	1,560
	June 13, 1951	6.78	1,920		Mar. 8, 1956	6.57	1,720
1952	Jan. 3, 1952	5.90	1,250	1957	Nov. 2, 1956	8.48	3,520
	Jan. 27, 1952	5.79	1,190		Apr. 6, 1957	7.25	2,260
	Feb. 4, 1952	6.04	1,360		Apr. 9, 1957	6.79	1,920
	Mar. 11, 1952	8.16	3,210	1958	Dec. 26, 1957	6.32	1,530
	Apr. 5, 1952	6.03	1,360		Jan. 22, 1958	5.65	1,100
					Feb. 28, 1958	8.10	3,110
					May 7, 1958	5.88	1,250

## 5660. Tuscarora Creek near Port Royal, Pa.

Location. --Lat 40°30'55", long 77°25'10", on left bank 100 ft upstream from highway bridge, 2 miles southwest of Port Royal, Juniata County, and 3½ miles upstream from mouth.

Drainage area. --214 sq mi.

Gage. --Nonrecording gage prior to Aug. 5, 1931; recording gage thereafter. Prior to Aug. 5, 1931, at site 100 ft downstream. Datum of gage is 420.27 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 5,000 cfs and extended by logarithmic plotting.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 3,700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Mar. 15, 1912	10.7	6,890	1917	Mar. 12, 1917	8.8	4,340
	May 13, 1912	12.4	9,950				
1913	Mar. 27, 1913	10.8	7,030	1918	Feb. 26, 1918	11.4	8,080
					Apr. 16, 1918	9.6	5,350
1914	Jan. 31, 1914	8.9	4,460	1919	May 21, 1919	12.2	9,550
	Apr. 16, 1914	8.7	4,220				
1915	Jan. 7, 1915	8.55	4,110	1920	Mar. 6, 1920	<sup>a</sup> 12.6	—
	Jan. 13, 1915	8.8	4,340		Mar. 13, 1920	—	<sup>b</sup> 5,500
	Feb. 2, 1915	8.9	4,460	1921	May 5, 1921	11.68	8,600
	Feb. 24, 1915	9.4	5,080				
1916	Mar. 28, 1916	11.5	8,250	1922	Nov. 28, 1921	8.4	3,880
	June 17, 1916	11.8	8,790		July 2, 1922	8.4	3,880



## SUSQUEHANNA RIVER BASIN

Tuscarora Creek near Port Royal, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Mar. 3, 1923	8.3	3,780	1941	Apr. 6, 1941	8.23	2,690
1924	Jan. 17, 1924	11.0	7,320	1942	Apr. 4, 1942	9.39	3,800
	Apr. 6, 1924	12.3	9,780		Apr. 10, 1942	9.48	3,900
	May 9, 1924	9.5	5,220		May 22, 1942	14.44	10,100
	May 12, 1924	12.4	10,000	1943	Dec. 30, 1942	11.73	6,330
	June 29, 1924	9.0	4,580		Apr. 20, 1943	10.50	4,940
1925	Feb. 12, 1925	9.2	4,820	1944	Apr. 25, 1944	9.72	4,100
1926	Feb. 26, 1926	10.2	6,180	1945	May 18, 1945	9.67	4,100
1927	Nov. 16, 1926	12.8	10,800	1946	Nov. 29, 1945	11.44	5,970
	Nov. 19, 1926	9.0	4,580		May 28, 1946	10.93	5,380
	Mar. 8, 1927	8.6	4,110		June 3, 1946	10.88	5,380
	July 23, 1927	10.0	5,900	1947	July 16, 1947	12.16	6,960
1928	Oct. 13, 1927	8.6	4,110	1948	May 13, 1948	9.87	4,300
	Oct. 19, 1927	11.1	7,020	1949	Dec. 30, 1948	10.18	4,610
	Nov. 18, 1927	9.4	5,080	1950	Feb. 15, 1950	8.42	2,850
	Apr. 30, 1928	10.4	6,460		Mar. 25, 1950	8.42	2,850
1929	Feb. 27, 1929	9.6	4,920	1951	Nov. 25, 1950	19.73	19,400
	Apr. 16, 1929	10.4	5,850		Dec. 4, 1950	10.32	4,720
1930	Oct. 3, 1929	8.8	4,020		Dec. 8, 1950	11.68	6,330
	Oct. 23, 1929	16.21	13,000		Mar. 31, 1951	13.22	8,310
	Feb. 25, 1930	8.8	4,020		Apr. 13, 1951	9.54	3,890
	Mar. 8, 1930	9.8	5,150	1952	Mar. 11, 1952	13.37	8,590
1931	July 11, 1931	9.44	4,390		Sept. 1, 1952	9.90	4,290
1932	Apr. 1, 1932	8.71	3,510	1953	Nov. 22, 1952	16.79	14,100
1933	Aug. 24, 1933	13.41	8,900		Mar. 24, 1953	10.86	5,380
1934	Sept. 17, 1934	12.23	6,720	1954	Mar. 2, 1954	12.48	7,350
1935	Dec. 1, 1934	13.05	7,520	1955	Oct. 16, 1954	11.87	6,570
1936	Nov. 13, 1935	9.46	3,870		Mar. 22, 1955	9.76	4,190
	Mar. 12, 1936	15.46	11,800		Aug. 19, 1955	9.88	4,290
	Mar. 18, 1936	<sup>c</sup> 21.60	14,400	1956	Oct. 15, 1955	10.70	5,160
1937	Feb. 22, 1937	10.72	5,160	1957	Nov. 1, 1956	11.93	6,570
	Apr. 27, 1937	15.68	12,200		Dec. 15, 1956	9.52	3,890
1938	Nov. 13, 1937	10.06	4,500	1958	Feb. 28, 1958	10.40	4,830
1939	Feb. 3, 1939	8.83	3,230				
1940	Mar. 31, 1940	10.97	5,490				
	Apr. 20, 1940	9.41	3,800				

<sup>a</sup>Backwater from ice.<sup>b</sup>Maximum daily discharge.<sup>c</sup>Occurred following day.

5665. Cocolamus Creek near Millerstown, Pa.

Location. --Lat 40°33'55", long 77°07'05", on right bank 10 ft upstream from bridge on State Highway 17, 2.3 miles northeast of Millerstown, Perry County, and 3 miles upstream from mouth.

Drainage area. --57.2 sq mi.

Gage. --Recording gage. Datum of gage is 425.50 ft above mean sea level (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 1,000 cfs.

## Cocolamus Creek near Millerstown, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Mar. 8, 1930	4.95	1,280	1946	Nov. 22, 1945	4.70	1,070
1931	Apr. 1, 1931	5.15	1,400		Nov. 29, 1945	7.44	3,520
	May 23, 1931	4.90	1,250		May 27, 1946	6.85	2,860
	Aug. 10, 1931	4.71	1,140		June 2, 1946	5.39	1,480
1932	May 11, 1932	4.50	1,010	1947	Mar. 14, 1947	4.73	1,100
1933	Oct. 18, 1932	4.72	1,110	1948	Nov. 12, 1947	4.82	1,120
	Nov. 19, 1932	4.73	1,140		Apr. 14, 1948	5.18	1,350
	Apr. 17, 1933	4.59	1,060		May 5, 1948	4.65	1,040
	Aug. 24, 1933	8.20	4,560		May 13, 1948	4.65	1,040
	Sept. 4, 1933	5.58	1,710	1949	Dec. 30, 1948	5.83	1,820
					Apr. 14, 1949	6.02	1,960
1934	Jan. 7, 1934	5.08	1,340	1950	Jan. 7, 1950	4.71	1,070
	Aug. 11, 1934	5.16	1,380		Feb. 14, 1950	4.88	1,180
	Sept. 17, 1934	7.67	3,910		Feb. 15, 1950	5.47	1,520
1935	Dec. 1, 1934	7.59	3,780		Mar. 24, 1950	5.48	1,550
1936	Nov. 13, 1935	6.48	2,530		Aug. 19, 1950	4.86	1,150
	Mar. 11, 1936	7.18	3,300	1951	Nov. 25, 1950	8.18	4,560
	Mar. 18, 1936	6.48	2,530		Dec. 4, 1950	7.20	3,280
	Mar. 21, 1936	4.51	1,010		Dec. 8, 1950	5.24	1,380
	Apr. 6, 1936	6.06	2,100		Jan. 24, 1951	4.95	1,210
1937	Feb. 22, 1937	5.43	1,590		Feb. 7, 1951	5.78	1,780
	Apr. 26, 1937	5.17	1,380		Feb. 21, 1951	4.83	1,150
1938	Nov. 13, 1937	7.78	4,040		June 13, 1951	4.69	1,070
1939	Feb. 28, 1939	4.47	986	1952	Feb. 4, 1952	4.76	1,100
1940	Mar. 14, 1940	4.58	1,020		Mar. 11, 1952	7.94	4,170
	Mar. 31, 1940	7.07	3,180		Apr. 5, 1952	5.38	1,480
	Apr. 9, 1940	4.92	1,190		May 12, 1952	5.32	1,410
	Apr. 20, 1940	5.95	1,900	1953	Nov. 22, 1952	6.21	2,150
1941	Dec. 28, 1940	4.55	990		Dec. 11, 1952	5.00	1,240
					Jan. 24, 1953	5.43	1,520
1942	Dec. 24, 1941	7.04	3,060		Mar. 24, 1953	5.70	1,700
	May 22, 1942	7.21	3,300		May 26, 1953	5.30	1,410
					May 31, 1953	6.67	2,620
1943	Oct. 16, 1942	4.70	1,070		June 6, 1953	4.58	1,020
	Oct. 17, 1942	4.99	1,250	1954	Feb. 21, 1954	5.03	1,260
	Dec. 2, 1942	4.63	1,040		Mar. 1, 1954	7.49	3,650
	Dec. 30, 1942	6.91	2,940		May 4, 1954	4.58	1,020
	Apr. 20, 1943	5.83	1,820	1955	Dec. 30, 1954	4.67	1,040
	May 26, 1943	5.44	1,540		Mar. 22, 1955	4.92	1,180
1944	Oct. 27, 1943	5.17	1,320		Aug. 13, 1955	5.96	1,920
	Nov. 9, 1943	6.61	2,570		Aug. 18, 1955	6.01	1,960
	Jan. 4, 1944	6.45	2,400	1956	Oct. 14, 1955	7.40	3,520
	Mar. 13, 1944	4.97	1,200		Nov. 16, 1955	4.70	1,070
	Mar. 24, 1944	4.60	1,020	1957	Nov. 2, 1956	8.27	4,690
	Apr. 25, 1944	4.77	1,090		Dec. 14, 1956	4.94	1,210
	May 7, 1944	6.05	2,000		Apr. 6, 1957	6.04	2,000
	May 23, 1944	6.50	2,460	1958	Dec. 21, 1957	5.71	1,700
					Dec. 26, 1957	5.01	1,240
1945	May 18, 1945	5.37	1,440		Feb. 28, 1958	6.22	2,150
	May 28, 1945	5.66	1,660				
	Aug. 25, 1945	4.89	1,180				
	Sept. 18, 1945	6.25	2,200				

## SUSQUEHANNA RIVER BASIN

5670. Juniata River at Newport, Pa.

Location. --Lat 40°28'45", long 77°07'45", on right bank at downstream side of highway bridge at Newport, Perry County, 1,000 feet upstream from Little Buffalo Creek.

Drainage area. --3,354 sq mi.

Gage. --Nonrecording gage prior to July 16, 1929; recording gage thereafter. Datum of gage is 363.93 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 100,000 cfs and extended above.

Bankfull stage. --22 ft.

Remarks. --Base for partial-duration series, 29,000 cfs. Only annual peaks are shown prior to Oct. 1, 1913.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	35.9	209,000	1923	Mar. 3, 1923	15.1	46,000
1899	Mar. 29, 1899	11.0	31,400	1924	Jan. 17, 1924	13.7	39,400
1900	Mar. 2, 1900	14.4	48,200		Mar. 31, 1924	15.5	48,000
1901	Mar. 11, 1901	17.7	68,000		Apr. 7, 1924	16.0	50,500
1902	Mar. 1, 1902	25.3	118,000		May 10, 1924	13.6	38,900
1903	Mar. 1, 1903	16.0	57,800		May 13, 1924	18.97	66,600
1904	Mar. 8, 1904	14.7	50,000		June 30, 1924	14.7	44,000
1905	Mar. 22, 1905	16.0	54,500	1925	Feb. 12, 1925	16.0	50,500
1906	Mar. 30, 1906	11.8	32,200	1926	Feb. 26, 1926	13.2	37,100
1907	Mar. 15, 1907	23.0	98,400	1927	Nov. 16, 1926	14.2	41,700
1908	Mar. 20, 1908	21.3	87,100		Nov. 20, 1926	11.9	31,400
1909	Feb. 25, 1909	12.2	34,100		Mar. 9, 1927	12.5	34,000
1910	Jan. 22, 1910	17.4	62,800	1928	Oct. 20, 1927	15.9	50,000
1911	Jan. 15, 1911	11.1	29,000		May 1, 1928	17.6	58,800
1912	Mar. 16, 1912	13.8	42,200	1929	Apr. 17, 1929	15.4	47,500
1913	May 29, 1913	16.9	59,800	1930	Oct. 23, 1929	17.26	57,500
1914	Feb. 1, 1914	13.8	42,200		Feb. 26, 1930	11.68	30,500
	Mar. 18, 1914	13.1	38,500	1931	May 24, 1931	12.94	35,800
	Mar. 29, 1914	12.0	33,100	1932	Apr. 1, 1932	13.99	40,600
1915	Feb. 3, 1915	11.9	32,600	1933	Mar. 16, 1933	13.35	38,000
	Feb. 16, 1915	13.3	39,600		Mar. 21, 1933	12.64	34,500
	Feb. 25, 1915	14.5	46,000		May 11, 1933	12.28	33,100
	June 4, 1915	16.16	55,400		Aug. 24, 1933	12.35	33,600
1916	Mar. 29, 1916	20.0	72,300	1934	Sept. 17, 1934	12.84	35,300
	June 17, 1916	20.04	72,300	1935	Dec. 1, 1934	14.07	41,400
1917	Mar. 13, 1917	13.7	39,400	1936	Feb. 28, 1936	—	30,000
1918	Feb. 21, 1918	14.0	40,700		Mar. 12, 1936	20.40	77,400
	Feb. 27, 1918	16.7	54,100		Mar. 19, 1936	34.24	190,000
	Apr. 16, 1918	14.1	41,200	1937	Jan. 23, 1937	13.35	34,000
1919	May 11, 1919	11.5	29,700		Apr. 27, 1937	24.40	100,000
	May 23, 1919	17.4	57,800	1938	Oct. 30, 1937	12.57	30,500
1920	Mar. 6, 1920	20.9	—	1939	Feb. 4, 1939	12.08	28,400
	Mar. 13, 1920	19.1	67,200	1940	Apr. 1, 1940	18.03	58,000
1921	May 5, 1921	16.0	50,500		Apr. 5, 1940	12.42	29,600
1922	Nov. 30, 1921	14.4	42,600		Apr. 21, 1940	15.85	45,600
				1941	June 6, 1941	13.06	32,700
				1942	Apr. 10, 1942	13.18	33,100
					May 23, 1942	16.29	48,200

## Juniata River at Newport, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Oct. 17, 1942	13.25	33,100	1951	Nov. 26, 1950	25.36	108,000
	Dec. 31, 1942	19.97	70,000		Dec. 5, 1950	13.58	34,900
	Apr. 21, 1943	15.23	42,600		Dec. 9, 1950	13.59	34,900
1944	Mar. 14, 1944	11.77	27,100		Mar. 31, 1951	15.50	44,100
	Apr. 26, 1944	11.77	27,100		June 15, 1951	13.52	34,500
	May 8, 1944	11.77	27,100	1952	Jan. 4, 1952	12.30	29,200
1945	Feb. 18, 1945	12.25	—		Jan. 28, 1952	12.33	29,200
	Mar. 8, 1945	14.54	39,200		Mar. 12, 1952	17.53	55,000
	May 19, 1945	12.33	29,200	1953	Nov. 23, 1952	18.33	59,800
1946	Nov. 29, 1945	14.72	40,100		Mar. 25, 1953	15.47	44,100
	May 28, 1946	15.62	44,600		June 2, 1953	13.04	32,200
	June 3, 1946	14.95	41,600	1954	Mar. 2, 1954	16.77	51,000
1947	Aug. 31, 1947	8.15	14,300		Oct. 17, 1954	15.94	46,100
					Mar. 23, 1955	13.52	34,500
1948	Apr. 15, 1948	16.81	51,000	1956	Mar. 9, 1956	13.53	34,500
1949	Dec. 31, 1948	12.57	30,500	1957	Nov. 2, 1956	13.10	32,700
1950	Feb. 15, 1950	13.04	32,200		Apr. 6, 1957	12.48	30,000
				1958	May 7, 1958	12.78	31,100

<sup>a</sup>Daily discharge.

## 5680. Sherman Creek at Shermandale, Pa.

Location. --Lat 40°19'25", long 77°10'05", on left bank on downstream side of bridge on State Highway 34 at Shermandale, Perry County, 1½ miles upstream from Fishing Run.

Drainage area. --200 sq mi.

Gage. --Nonrecording gage prior to Jan. 29, 1930; recording gage thereafter. Datum of gage is 422.60 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 6,500 cfs and extended above by slope-area measurement.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 3,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	July 22, 1927	20.34	44,000	1936	Oct. 30, 1935	8.18	6,310
1930	Oct. 2, 1929	6.0	3,250		Nov. 13, 1935	7.83	5,620
	Oct. 23, 1929	8.6	7,050		Mar. 12, 1936	10.28	11,000
	Mar. 8, 1930	6.48	3,810		Mar. 18, 1936	8.99	7,840
1931	May 23, 1931	6.18	3,460		Mar. 21, 1936	6.05	3,250
				1937	Apr. 6, 1936	6.86	4,300
1932	Mar. 31, 1932	5.08	2,320		Feb. 22, 1937	7.15	4,780
					Apr. 27, 1937	9.87	9,330
1933	Oct. 18, 1932	8.05	5,960		Apr. 28, 1937	8.26	6,420
	Nov. 10, 1932	7.37	4,990	1938	Oct. 28, 1937	6.43	3,770
	Nov. 19, 1932	5.91	3,130		Nov. 13, 1937	9.43	8,360
	Apr. 17, 1933	6.87	4,300	1939	Feb. 28, 1939	5.71	2,980
	Apr. 19, 1933	6.95	4,430		Mar. 31, 1940	7.55	5,340
	Aug. 11, 1933	6.89	4,300	1940	Apr. 8, 1940	6.34	3,650
	Aug. 24, 1933	14.05	22,300		Apr. 20, 1940	7.87	5,790
1934	Sept. 4, 1933	6.53	3,810	1941	Apr. 5, 1941	5.82	3,080
	Sept. 17, 1934	9.06	8,060				
1935	Dec. 1, 1934	12.28	16,700				
	July 9, 1935	7.97	5,960				



## Sherman Creek at Shermandale, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Dec. 24, 1941	6.74	4,130	1951	Dec. 8, 1950	7.24	4,460
	Apr. 10, 1942	6.61	4,010	Cont.	Feb. 7, 1951	7.12	4,320
	May 22, 1942	11.14	11,800		Feb. 21, 1951	6.55	3,650
	Aug. 14, 1942	6.28	3,650		Apr. 13, 1951	7.05	4,180
	Aug. 18, 1942	6.08	3,410		Aug. 12, 1951	6.66	3,780
1943	Oct. 16, 1942	7.70	5,490	1952	Mar. 11, 1952	13.59	17,800
	Dec. 30, 1942	9.02	7,620		Apr. 5, 1952	8.29	6,170
	Apr. 20, 1943	6.86	4,380		Apr. 27, 1952	6.64	3,830
	May 20, 1943	8.04	5,940		Sept. 1, 1952	8.78	7,040
1944	Nov. 9, 1943	7.50	5,200	1953	Nov. 22, 1952	11.51	12,700
	Jan. 4, 1944	6.11	3,380		Dec. 11, 1952	7.05	4,320
	Apr. 25, 1944	6.80	4,250		Jan. 24, 1953	8.60	6,680
	May 7, 1944	8.06	6,100		Mar. 24, 1953	9.46	8,380
1945	Sept. 18, 1945	7.18	4,780		May 26, 1953	9.71	8,780
1946	Nov. 28, 1945	8.72	7,090	1954	Feb. 21, 1954	6.48	3,710
	May 25, 1946	6.13	3,380		Mar. 1, 1954	7.32	4,710
	May 27, 1946	10.22	9,930		May 4, 1954	6.96	4,320
	June 2, 1946	8.12	6,100	1955	Mar. 22, 1955	6.93	3,710
1947	May 25, 1947	7.24	4,780		Aug. 13, 1955	9.07	6,260
					Aug. 19, 1955	7.52	4,250
1948	May 13, 1948	6.93	4,380	1956	Oct. 14, 1955	10.90	10,000
1949	Dec. 30, 1948	7.94	5,490	1957	Nov. 2, 1956	12.75	18,300
	Apr. 14, 1949	6.36	3,400		Dec. 14, 1956	6.44	3,690
1950	Mar. 24, 1950	6.58	3,650		Apr. 6, 1957	5.75	3,040
	Aug. 20, 1950	7.87	5,520	1958	Dec. 20, 1957	7.19	4,700
1951	Nov. 25, 1950	11.48	12,700		Dec. 26, 1957	6.44	3,690
	Dec. 4, 1950	9.48	8,380		Feb. 28, 1958	7.08	4,560

## 5685. Clark Creek near Carsonville, Pa.

Location. --Lat 40°27'35", long 76°45'10", on right bank 0.3 mile downstream from DeHart Dam, 1 3/4 miles southeast of Carsonville, Dauphin County, and 15 miles upstream from mouth.

Drainage area. --22.5 sq mi.

Gage. --Nonrecording gage prior to July 27, 1940; recording gage thereafter. Prior to Jan. 6, 1939, at site about 1,700 ft upstream at datum 9.49 ft higher. Jan. 6, 1939 to July 27, 1940, at site about 100 ft downstream at different datum. Datum of present gage is 552.32 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 400 cfs and extended above.

Bankfull stage. --5 ft.

Remarks. --Flow regulated since 1941. Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Nov. 13, 1937	2.91	988	1949	Jan. 7, 1949	2.87	198
1939	Dec. 6, 1938	2.20	481	1950	June 1, 1950	2.98	222
1940	Apr. 25, 1940	2.91	161				
1941	Apr. 7, 1941	2.65	152	1951	Dec. 8, 1950	3.88	469
	May 23, 1942	4.48	665	1952	Mar. 11, 1952	4.77	752
1942	May 20, 1943	3.24	282	1953	Jan. 24, 1953	3.87	454
1943	Nov. 8, 1943	2.98	222	1954	May 11, 1954	2.81	185
1944	July 19, 1945	3.53	359	1955	Mar. 29, 1955	2.31	96
1946	May 27, 1946	4.81	769	1956	June 11, 1956	2.35	105
	July 22, 1947	3.90	469	1957	Apr. 6, 1957	3.28	293
1947	Apr. 1, 1948	3.46	340	1958	Apr. 7, 1958	3.59	376

## 5690. Stony Creek near Dauphin, Pa.

Location. --Lat 40°22'45", long 76°54'31", at site of Reading Co. railroad bridge (abandoned), 1½ miles northeast of Dauphin, Dauphin County.

Drainage area. --35 sq mi.

Gage. --Recording gage. Datum of gage is 353.7 ft above mean sea level, datum of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 1,200 cfs and extended above.

Remarks. --Base for partial-duration series, 400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Oct. 24, 1937	4.14	527	1943	Dec. 30, 1942	4.72	723
	Nov. 13, 1937	5.00	835				
1939	Dec. 6, 1938	4.32	599	1944	Nov. 9, 1943	7.97	2,360
					Jan. 4, 1944	3.97	476
1940	Mar. 31, 1940	4.77	773		Apr. 24, 1944	3.73	400
	Apr. 8, 1940	4.38	643		May 7, 1944	6.10	1,350
	Apr. 20, 1940	4.87	811	1945	Apr. 5, 1945	3.78	415
1941	Apr. 5, 1941	3.10	224		May 17, 1945	4.33	598
					May 27, 1945	4.32	580
1942	Dec. 24, 1941	4.41	615		May 29, 1945	4.82	760
	May 17, 1942	4.33	598		July 19, 1945	5.89	1,250
	May 22, 1942	5.79	1,200				
	Aug. 17, 1942	4.41	615				

## 5700. Conodoguinet Creek near Hogestown, Pa.

Location. --Lat 40°15'10", long 77°01'15", on left bank 1,000 ft upstream from highway bridge, three-eighths of a mile downstream from Hogestown Run, and 1 mile northeast of Hogestown, Cumberland County.

Drainage area. --470 sq mi.

Gage. --Nonrecording gage prior to Aug. 3, 1931; recording gage thereafter. Prior to September 1919 at site 2.5 miles downstream at different datum. October 1929 to Aug. 3, 1931, at site 1,000 ft downstream. Datum of gage is 351.00 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 11,400 cfs and extended.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 4,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Mar. 16, 1912	10.8	8,480	1931	May 23, 1931	5.7	4,040
	Sept. 26, 1912	10.4	7,820				
1913	Mar. 28, 1913	9.6	6,600	1932	Mar. 29, 1932	6.07	4,090
1914	Oct. 26, 1913	8.55	5,130	1933	Oct. 18, 1932	8.89	8,020
	Feb. 1, 1914	8.3	4,750		Nov. 10, 1932	6.78	4,740
1915	Jan. 13, 1915	11.48	9,710		Nov. 20, 1932	6.45	4,240
	June 4, 1915	10.20	7,500		Mar. 21, 1933	6.51	4,360
	Aug. 22, 1915	12.91	12,500		Apr. 18, 1933	7.61	5,860
1916	June 17, 1916	12.00	10,600		Apr. 20, 1933	6.84	4,740
					Aug. 11, 1933	8.26	6,970
1917	Jan. 15, 1917	9.8	6,900		Aug. 24, 1933	10.66	11,800
					Sept. 4, 1933	6.88	4,870
1930	Oct. 2, 1929	6.6	5,150	1934	Sept. 17, 1934	8.97	8,200
	Oct. 23, 1929	6.3	4,780	1935	Dec. 2, 1934	11.32	13,100

## SUSQUEHANNA RIVER BASIN

Conodoguinet Creek near Hogestown, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 13, 1936	10.37	11,100	1948	Nov. 12, 1947	6.58	4,430
	Mar. 19, 1936	9.00	8,200	1949	Dec. 31, 1948	7.93	6,270
	Apr. 7, 1936	7.50	5,710		Mar. 24, 1950	6.79	4,530
1937	Apr. 27, 1937	9.66	9,580	1950	Nov. 26, 1950	9.27	8,720
	June 11, 1937	6.54	4,360		Dec. 5, 1950	8.11	6,590
	Aug. 27, 1937	6.47	4,360		Feb. 8, 1951	6.57	4,370
1938	Oct. 29, 1937	7.39	5,560	1951	Feb. 22, 1951	7.19	5,190
	Nov. 14, 1937	7.27	5,420		June 15, 1951	7.55	5,790
1939	Feb. 4, 1939	6.80	4,690		Jan. 3, 1952	6.80	4,630
1940	Jan. 16, 1940	<sup>a</sup> 6.32	—	1952	Jan. 28, 1952	6.27	4,080
	Feb. 21, 1940	<sup>a</sup> 6.48	—		Mar. 12, 1952	12.16	15,700
	Mar. 31, 1940	6.29	4,060		Apr. 28, 1952	7.11	5,110
	Apr. 9, 1940	7.97	6,430		Sept. 2, 1952	8.23	6,750
	Apr. 21, 1940	8.51	7,260	1953	Nov. 23, 1952	10.90	12,200
1941	Dec. 29, 1940	5.50	3,150		Dec. 11, 1952	6.36	4,200
1942	Dec. 25, 1941	6.38	4,180		Jan. 25, 1953	8.11	6,590
	Apr. 4, 1942	6.36	4,180		Mar. 25, 1953	7.24	5,250
	May 23, 1942	9.39	8,910		May 26, 1953	7.61	5,820
	Aug. 18, 1942	8.51	7,260	1954	Mar. 2, 1954	6.08	3,840
1943	Oct. 17, 1942	8.00	6,430	1955	Mar. 23, 1955	8.11	6,590
	Dec. 31, 1942	9.15	8,530		Aug. 19, 1955	7.12	5,110
	Apr. 20, 1943	6.52	4,300	1956	Oct. 15, 1955	8.50	7,260
1944	Nov. 9, 1943	6.84	4,690		July 21, 1956	6.81	4,710
	Jan. 4, 1944	7.33	5,370	1957	Nov. 3, 1956	9.55	9,300
	Mar. 14, 1944	6.40	4,180		Dec. 15, 1956	7.65	5,820
	Mar. 25, 1944	6.28	4,060		Apr. 6, 1957	6.37	4,200
	Apr. 25, 1944	6.32	4,060	1958	Dec. 21, 1957	7.60	5,820
1945	Sept. 19, 1945	7.66	5,960		Dec. 27, 1957	7.29	5,390
1946	Nov. 29, 1945	8.46	7,260		Jan. 15, 1958	7.01	4,970
	May 28, 1946	9.43	8,910		Feb. 28, 1958	7.38	5,530
	June 3, 1946	8.07	6,590		Mar. 26, 1958	6.69	4,580
1947	May 26, 1947	9.30	8,720		May 8, 1958	6.52	4,320
	May 30, 1947	6.53	4,300				

<sup>a</sup>Backwater from ice.

## 5705. Susquehanna River at Harrisburg, Pa.

Location. --Lat 40°15'10", long 76°52'30", on left bank at Nagle Street, 500 ft upstream from sanitary dam, 3,700 ft downstream from Walnut Street Bridge in Harrisburg, Dauphin County, and 1.1 miles upstream from Paxton Creek.

Drainage area. --24,100 sq mi, approximately.

Gage. --Nonrecording gage prior to Oct. 1, 1928; recording gage thereafter. Prior to July 17, 1904 at Pumping Station 5,800 ft upstream. July 18, 1904 to Sept. 30, 1928 at Walnut Street Bridge 3,700 ft upstream. Datum of gage is 290.01 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --17 ft.

Remarks. --Base for partial-duration series, 180,000 cfs.

## Susquehanna River at Harrisburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1787	Oct. 5, 1787	22	482,000	1916	Mar. 29, 1916	18.8	379,000
1846	Mar. 15, 1846	22	482,000		Apr. 16, 1916	13.4	220,000
1865	Mar. 18, 1865	24.6	573,000		June 18, 1916	16.2	300,000
1868	Mar. 19, 1868	20.0	417,000	1917	Mar. 29, 1917	10.8	155,000
1886	Jan. 6, 1886	19.0	385,000	1918	Oct. 31, 1917	12.92	205,000
	Feb. 1886	<sup>a</sup> 20.8	<u>654</u>		Feb. 22, 1918	14.05	236,000
1889	June 2, 1889	26.8	<del>620</del> ,000		Feb. 28, 1918	13.5	222,000
1891	Feb. 19, 1891	19.7	408,000		Mar. 3, 1918	11.9	180,000
1892	Apr. 5, 1892	15.0	270,000		Mar. 16, 1918	15.8	288,000
1893	May 5, 1893	16.9	324,000		Apr. 17, 1918	13.0	208,000
1894	May 22, 1894	25.7	613,000	1919	May 12, 1919	12.1	185,000
1895	Apr. 11, 1895	13.5	230,000		May 23, 1919	16.0	294,000
1896	Apr. 1, 1896	14.8	265,000	1920	Mar. 13, 1920	20.2	423,000
1897	Mar. 26, 1897	11.5	180,000	1921	Mar. 11, 1921	11.8	178,000
1898	Mar. 24, 1898	16.6	315,000	1922	Nov. 30, 1921	15.47	278,000
1899	Mar. 6, 1899	13.4	228,000		Feb. 23, 1922	<sup>a</sup> 16.6	<u>278,000</u>
1900	Mar. 2, 1900	13.8	238,000		Mar. 9, 1922	12.40	192,000
1901	Nov. 28, 1900	14.2	249,000	1923	Mar. 6, 1923	14.9	261,000
1902	Mar. 3, 1902	<sup>a</sup> 22.94	<sup>b</sup> 449,000	1924	Apr. 8, 1924	17.0	324,000
1903	Mar. 2, 1903	16.7	276,000		May 14, 1924	14.4	247,000
1904	Mar. 8, 1904	<sup>a</sup> 20.84	<sup>b</sup> 298,000	1925	Oct. 1, 1924	14.25	241,000
1905	Mar. 21, 1905	16.3	306,000		Feb. 13, 1925	18.8	379,000
1906	Dec. 4, 1905	12.8	210,000	1926	Mar. 27, 1926	11.3	166,000
	Mar. 31, 1906	11.9	187,000	1927	Nov. 17, 1926	17.0	323,500
	Apr. 16, 1906	11.6	180,000		Jan. 22, 1927	<sup>a</sup> 13.9	<u>190,000</u>
1907	Mar. 15, 1907	14.2	247,000		Mar. 16, 1927	12.3	190,000
1908	Feb. 17, 1908	15.0	269,000		Mar. 23, 1927	13.0	208,000
	Mar. 16, 1908	15.1	272,000		May 27, 1927	12.53	195,000
	Mar. 20, 1908	16.0	297,000	1928	Oct. 21, 1927	14.54	249,500
1909	Feb. 26, 1909	13.0	215,000		May 2, 1928	14.65	252,400
	May 2, 1909	16.0	297,000	1929	Mar. 17, 1929	12.55	235,000
1910	Jan. 22, 1910	13.0	215,000		Apr. 18, 1929	11.23	201,000
	Mar. 3, 1910	17.2	332,000		Apr. 23, 1929	12.29	228,000
	Apr. 26, 1910	15.8	291,000	1930	Feb. 28, 1930	10.15	177,000
1911	Jan. 16, 1911	11.5	178,000	1931	Mar. 31, 1931	9.18	153,000
1912	Apr. 4, 1912	14.3	249,000	1932	Apr. 2, 1932	13.02	245,000
1913	Mar. 28, 1913	19.54	402,000	1933	Aug. 25, 1933	14.04	269,000
1914	Feb. 1, 1914	13.0	215,000	1934	Apr. 14, Sept. 17	8.71	141,000
	Mar. 30, 1914	18.1	358,000	1935	Dec. 2, 1934	13.06	242,000
	May 14, 1914	13.0	215,000		July 11, 1935	10.74	187,000
1915	Jan. 9, 1915	12.3	190,000	1936	Mar. 8, 1936	<sup>a</sup> 13.80	<u>252,000</u>
	Feb. 17, 1915	12.9	208,000		Mar. 13, 1936	13.47	252,000
	Feb. 26, 1915	15.7	286,000		Mar. 19, 1936	29.23	740,000
				1937	Jan. 24, 1937	12.62	231,000
					Apr. 28, 1937	12.08	219,000
				1938	Dec. 20, 1937	10.28	178,000
				1939	Feb. 23, 1939	11.72	210,000
				1940	Apr. 2, 1940	19.75	418,000
					Apr. 10, 1940	14.46	280,000
					Apr. 22, 1940	12.72	237,000

433,000



## SUSQUEHANNA RIVER BASIN

Susquehanna River at Harrisburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Apr. 7, 1941	13.03	244,000	1950	Mar. 30, 1950	15.20	300,000
1942	Mar. 11, 1942	12.72	216,000		Apr. 6, 1950	12.31	219,000
	May 24, 1942	15.05	290,000	1951	Nov. 27, 1950	19.34	416,000
1943	Jan. 1, 1943	19.40	412,000		Dec. 5, 1950	15.07	293,000
	Apr. 22, 1943	13.38	252,000		Dec. 9, 1950	11.89	209,000
1944	Mar. 19, 1944	10.68	184,000		Apr. 1, 1951	14.08	266,000
	May 9, 1944	11.78	212,000	1952	Jan. 29, 1952	11.79	206,000
1945	Feb. 24, 1945	<sup>a</sup> 10.55	—		Mar. 13, 1952	16.23	324,000
	Mar. 1, 1945	11.18	197,000		Apr. 17, 1952	11.03	187,000
	Mar. 5, 1945	13.41	252,000	1953	Dec. 13, 1952	11.39	196,000
	Mar. 8, 1945	13.30	250,000		Mar. 26, 1953	12.21	216,000
	Mar. 19, 1945	10.91	190,000	1954	Mar. 3, 1954	13.15	242,000
	Mar. 24, 1945	12.10	220,000	1955	Mar. 6, 1955	10.65	177,000
1946	Mar. 10, 1946	11.83	212,000	1956	Oct. 17, 1955	13.97	263,000
	May 29, 1946	21.80	494,000		Mar. 10, 1956	16.66	338,000
1947	Apr. 7, 1947	11.94	214,000		Apr. 9, 1956	12.00	211,000
1948	Mar. 19, 1948	11.05	192,000	1957	Nov. 3, 1956	10.75	182,000
	Mar. 24, 1948	13.60	258,000		Apr. 7, 1957	13.46	250,000
	Apr. 16, 1948	15.53	308,000	1958	Apr. 9, 1958	14.72	281,000
1949	Jan. 1, 1949	12.10	220,000		May 9, 1958	10.98	182,000

<sup>a</sup>Backwater from ice.<sup>b</sup>Maximum daily discharge.

## 5710. Paxton Creek near Penbrook, Pa.

Location. --Lat 40°18'30", long 70°51'00", at bridge on State Highway 543, 2 miles north of Penbrook, Dauphin County, and 7 3/4 miles upstream from mouth.

Drainage area. --11.2 sq mi.

Gage. --Recording gage. Altitude of gage is 350 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Base for partial-duration series, 400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 4, 1940	3.30	405	1944	Mar. 13, 1944	3.50	409
	Mar. 14, 1940	3.75	580	Cont.	Apr. 24, 1944	3.69	470
	Mar. 30, 1940	3.87	622		May 7, 1944	6.57	1,490
	Apr. 8, 1940	3.36	427		June 18, 1944	5.00	910
	Apr. 20, 1940	3.87	622	1945	Apr. 5, 1945	3.55	424
	Sept. 16, 1940	3.36	427		May 17, 1945	5.11	928
1941	Nov. 2, 1940	2.98	307		July 19, 1945	6.38	1,540
1942	May 22, 1942	6.31	1,440		July 21, 1945	5.91	1,300
	July 23, 1942	3.99	567		July 22, 1945	3.53	424
	July 29, 1942	5.43	1,060	1946	Feb. 27, 1946	3.68	584
	Aug. 16, 1942	6.40	1,490		May 18, 1946	3.51	518
	Aug. 17, 1942	4.20	633		May 21, 1946	5.18	1,140
1943	Dec. 30, 1942	4.16	616		May 26, 1946	3.66	567
	May 19, 1943	4.25	650		May 27, 1946	4.04	700
	May 20, 1943	5.26	1,020		June 2, 1946	4.51	874
1944	Oct. 26, 1943	3.55	424	1947	May 25, 1947	6.20	1,520
	Nov. 8, 1943	6.56	1,590		June 7, 1947	3.39	480
	Jan. 4, 1944	4.61	768		June 11, 1947	3.36	464
					July 16, 1947	4.60	898
					July 21, 1947	4.91	1,010

## Paxton Creek near Penbrook, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Apr. 1, 1948	3.31	447	1949	Aug. 27, 1949	6.97	1,900
	Apr. 14, 1948	3.66	563		Aug. 29, 1949	3.77	597
	June 12, 1948	3.16	402	1950	Mar. 23, 1950	4.40	825
	July 23, 1948	5.60	1,280		May 23, 1950	4.12	718
1949	Nov. 6, 1948	3.40	480		May 31, 1950	3.37	470
	Dec. 30, 1948	3.77	597		June 1, 1950	3.22	423
	Jan. 5, 1949	3.39	480				

## 5715. Yellow Breeches Creek near Camp Hill, Pa.

Location.--Lat 40°13'30", long 76°53'50", on left bank 50 ft downstream from single span highway bridge, 150 ft downstream from Olmsted's Mill dam, 1 mile southeast of Camp Hill, Cumberland County, and 3.1 miles upstream from mouth.

Drainage area.--216 sq mi.

Gage.--Nonrecording gage prior to Dec. 30, 1919; recording gage thereafter. Prior to December 30, 1919, at site 50 ft upstream. Datum of gage is 301.19 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs and extended above.

Bankfull stage.--4 ft.

Remarks.--Base for partial-duration series, 1,250 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Jan. 22, 1910	7.5	4,270	1918	Feb. 20, 1918	6.7	3,450
1911	Aug. 4, 1911	5.6	2,480		Feb. 26, 1918	6.8	3,540
	Aug. 31, 1911	5.37	2,320	1919	July 23, 1919	6.82	3,540
1912	Feb. 22, 1912	5.69	2,550		Mar. 22, 1955	4.95	1,470
	Feb. 27, 1912	5.6	2,480	1955	Aug. 13, 1955	4.55	1,320
	Mar. 15, 1912	6.8	3,560	1956	Oct. 14, 1955	7.07	2,390
1913	Jan. 3, 1913	3.7	1,300		Feb. 6, 1956	4.69	1,360
	Mar. 27, 1913	7.86	4,680	1957	Dec. 14, 1956	4.72	1,320
1914	Jan. 4, 1914	3.65	1,280		Apr. 5, 1957	4.67	1,320
	Jan. 31, 1914	3.93	1,430	1958	Dec. 21, 1957	6.36	2,050
1915	Jan. 13, 1915	8.5	5,500		Dec. 26, 1957	5.28	1,560
	Feb. 2, 1915	5.43	2,360		Jan. 15, 1958	6.09	1,920
	Aug. 22, 1915	8.61	5,550		Jan. 22, 1958	5.24	1,520
1916	Sept. 15, 1916	8.35	5,150		Feb. 28, 1958	7.22	2,440
					Mar. 27, 1958	5.28	1,620
1917	Feb. 19, 1917	3.4	1,160		Apr. 7, 1958	4.57	1,340
					May 7, 1958	4.64	1,340
					July 6, 1958	4.89	1,460
					Aug. 14, 1958	6.07	1,740

## SUSQUEHANNA RIVER BASIN

## 5720. Lower Little Swatara Creek at Pine Grove, Pa.

(Published as Little Swatara Creek near Pine Grove 1919-28,  
and as Upper Little Swatara Creek at Pine Grove 1929-32)

Location. --Lat 40°32'15", long 76°22'40", at highway bridge, 0.6 mile upstream from mouth, and three-quarters of a mile southeast of Pine Grove, Schuylkill County.

Drainage area. --34.3 sq mi.

Gage. --Nonrecording gage prior to Aug. 18, 1931; recording gage thereafter. Altitude of gage is 500 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 600 cfs and extended above by logarithmic plotting.

Remarks. --Base for partial-duration series, 920 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Mar. 6, 1920	<sup>a</sup> 8.9	<sup>b</sup> 1,000	1927	Nov. 16, 1926	7.3	1,330
	Mar. 11, 1920	6.0	1,020		Jan. 21, 1927	6.7	1,180
1921	May 5, 1921	5.7	920	1928	June 30, 1928	6.3	1,070
1922	Mar. 7, 1922	5.0	777	1929	Feb. 26, 1929	6.05	1,000
1923	Mar. 3, 1923	7.0	1,260	1930	Oct. 2, 1929	6.7	1,220
1924	Sept. 30, 1924	8.0	1,500	1931	Mar. 29, 1931	3.9	424
1925	Feb. 11, 1925	7.2	1,310	1932	Mar. 28, 1932	5.74	920
	Feb. 19, 1926	5.6	925				
	Feb. 25, 1926	6.6	1,160				

<sup>a</sup>Backwater from ice.

<sup>b</sup>Maximum daily discharge.

## 5730. Swatara Creek at Harper Tavern, Pa.

Location. --Lat 40°24'10", long 76°34'40", on left bank 10 ft downstream from bridge on State Highway 934, at Harper Tavern, Lebanon County, 6 miles northwest of Annville, and 8½ miles downstream from Little Swatara Creek.

Drainage area. --333 sq mi.

Gage. --Nonrecording gage prior to July 16, 1931; recording gage thereafter. Datum of gage is 356.68 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 25,000 cfs and extended above by logarithmic plotting.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 4,800 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 1, 1889	25.6	53,000	1924	Jan. 17, 1924	12.0	11,400
1919	July 21, 1919	9.4	6,750		Apr. 7, 1924	8.8	6,030
					May 12, 1924	7.8	5,020
1920	Mar. 5, 1920	<sup>a</sup> 13.6	—	1925	Oct. 1, 1924	13.2	14,200
	Mar. 8, 1920	9.6	7,030		Feb. 12, 1925	14.4	17,200
	Mar. 13, 1920	11.3	10,000		July 17, 1925	7.6	4,820
	Mar. 17, 1920	8.9	6,140	1926	Nov. 13, 1925	9.4	6,750
1921	Dec. 14, 1920	7.9	5,120		Jan. 19, 1926	9.4	6,750
	May 5, 1921	10.16	7,640		Feb. 19, 1926	8.2	5,420
1922	Dec. 3, 1921	8.6	5,820		Feb. 26, 1926	11.1	9,600
	Mar. 8, 1922	10.4	7,880		Mar. 8, 1926	8.9	6,140
1923	Jan. 1, 1923	6.7	3,930		July 30, 1926	12.4	12,500
					Aug. 13, 1926	8.0	5,220

## Swatara Creek at Harper Tavern, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Nov. 16, 1926	14.6	17,800	1944	Oct. 27, 1943	8.09	6,500
	Nov. 19, 1926	10.2	7,960		Nov. 9, 1943	13.25	14,600
1928	Oct. 13, 1927	9.1	6,370		Jan. 4, 1944	6.95	5,020
	Oct. 19, 1927	9.2	6,490		Mar. 13, 1944	7.89	5,980
	Nov. 18, 1927	8.4	5,620		Mar. 24, 1944	6.93	4,800
	Dec. 8, 1927	8.2	5,420		Apr. 25, 1944	7.78	5,860
	Feb. 15, 1928	10.6	8,650	1945	July 19, 1945	11.35	10,400
	Apr. 28, 1928	8.8	6,030	1946	May 28, 1946	9.47	7,620
	June 26, 1928	8.0	5,220		June 2, 1946	8.82	6,710
	June 30, 1928	11.0	9,400	1947	May 22, 1947	11.72	11,000
1929	Feb. 27, 1929	10.4	7,880		May 26, 1947	9.98	8,310
	Mar. 6, 1929	10.5	8,000		July 8, 1947	10.57	9,190
	Apr. 17, 1929	7.7	4,920	1948	Nov. 8, 1947	7.25	4,870
1930	Oct. 3, 1929	11.7	9,800		Apr. 1, 1948	7.68	5,420
	Apr. 7, 1930	9.3	6,620	1949	Dec. 31, 1948	11.21	10,400
1931	May 8, 1931	5.60	2,950		Jan. 6, 1949	10.13	8,810
1932	Mar. 28, 1932	9.50	7,020	1950	Mar. 23, 1950	7.59	5,630
1933	Nov. 1, 1932	9.36	6,650	1951	Nov. 26, 1950	13.09	14,000
	Nov. 19, 1932	8.53	5,520		Dec. 5, 1950	13.34	14,400
	Apr. 17, 1933	10.42	8,260		Dec. 8, 1950	8.50	6,700
	Aug. 24, 1933	17.53	25,300		Jan. 24, 1951	8.20	6,340
1934	Sept. 30, 1934	7.35	4,820		Feb. 7, 1951	11.16	10,500
1935	Dec. 2, 1934	11.54	10,400		Feb. 21, 1951	7.38	5,410
1936	Mar. 12, 1936	13.75	15,800		Sept. 2, 1951	7.1	5,080
	Mar. 18, 1936	9.92	7,710	1952	Nov. 3, 1951	7.46	5,520
	Apr. 6, 1936	10.47	8,620		Dec. 5, 1951	9.16	7,590
1937	Feb. 22, 1937	7.75	5,200		Dec. 21, 1951	8.50	6,700
1938	Oct. 23, 1937	11.8	11,000		Mar. 12, 1952	11.72	11,500
	July 12, 1938	7.61	5,000		Apr. 29, 1952	9.44	8,150
1939	Dec. 6, 1938	10.30	8,350		May 12, 1952	10.78	10,100
1940	Mar. 4, 1940	7.30	5,380		May 25, 1952	7.53	5,790
	Mar. 15, 1940	10.42	9,660		Sept. 1, 1952	11.39	11,000
	Mar. 31, 1940	10.35	9,660	1953	Nov. 22, 1952	11.79	11,700
	Apr. 9, 1940	9.59	8,440		Dec. 6, 1952	7.46	5,790
	Apr. 20, 1940	9.22	7,860		Dec. 11, 1952	7.73	6,030
	May 26, 1940	7.31	5,380		Jan. 24, 1953	9.76	8,690
	Sept. 1, 1940	11.51	11,500		Mar. 26, 1953	—	6,150
1941	July 8, 1941	5.50	3,440		May 23, 1953	8.01	6,390
1942	May 17, 1942	7.68	5,740		May 26, 1953	8.54	6,990
	May 23, 1942	12.88	14,000	1954	Dec. 7, 1953	8.38	6,870
	Aug. 14, 1942	7.82	5,980		Mar. 2, 1954	7.42	5,670
	Aug. 17, 1942	11.04	10,300		May 10, 1954	7.89	6,270
	Sept. 28, 1942	9.91	8,440	1955	Mar. 22, 1955	7.49	5,790
1943	Oct. 27, 1942	7.87	5,740		Aug. 19, 1955	12.35	12,700
	Dec. 30, 1942	11.07	10,300	1956	Oct. 14, 1955	8.83	7,370
	May 19, 1943	6.98	4,800	1957	Dec. 16, 1956	7.03	5,190
	May 20, 1943	7.11	5,020		Apr. 6, 1957	10.30	9,390
				1958	Dec. 21, 1957	10.47	9,680
					Dec. 26, 1957	8.99	7,630
					Jan. 22, 1958	8.78	7,370
					Feb. 28, 1958	9.40	8,150
					Apr. 6, 1958	8.05	6,390

<sup>a</sup>Backwater from ice.



## SUSQUEHANNA RIVER BASIN

## 5735. Manada Creek at Manada Gap, Pa.

Location. --Lat 40°23'50", long 76°42'35", on left bank just upstream from highway bridge at Manada Gap, Dauphin County, 3 miles northwest of Shellsville and 9 miles upstream from mouth.

Drainage area. --14.1 sq mi.

Gage. --Recording gage. Datum of gage is 516.07 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 790 cfs and extended above by logarithmic plotting.

Remarks. --Base for partial-duration series, 180 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	Oct. 23, 1937	3.92	361	1950	Feb. 15, 1950	3.53	199	
	Nov. 13, 1937	4.00	388		Mar. 23, 1950	4.10	361	
1939	Dec. 6, 1938	3.50	238		May 23, 1950	4.55	492	
					May 31, 1950	3.80	279	
1940	June 1, 1950	4.38	447	1951	Nov. 25, 1950	5.66	860	
	Mar. 4, 1940	3.47	245		Dec. 4, 1950	4.44	462	
	Mar. 15, 1940	3.41	227		Dec. 8, 1950	4.11	361	
	Mar. 31, 1940	3.76	343		Jan. 24, 1951	3.85	292	
	Apr. 8, 1940	3.60	286		Feb. 7, 1951	3.94	317	
Apr. 20, 1940	3.83	370	Feb. 21, 1951		3.54	215		
1941	Apr. 5, 1941	2.94	119		Sept. 2, 1951	4.71	538	
1942	Dec. 24, 1941	4.07	351	1952	Dec. 5, 1951	3.90	213	
	May 17, 1942	3.80	278		Dec. 21, 1951	3.90	213	
	May 22, 1942	4.30	418		Jan. 3, 1952	3.77	185	
	Aug. 16, 1942	8.60	2,650		Mar. 11, 1952	5.69	725	
1943	Dec. 30, 1942	4.67	531		Apr. 28, 1952	3.87	294	
	May 19, 1943	3.61	231		May 12, 1952	8.44	2,510	
1944	Oct. 26, 1943 Nov. 8, 1943 Jan. 4, 1944 Mar. 13, 1944 Apr. 24, 1944 June 23, 1944 Aug. 7, 1944	3.44	193		May 25, 1952	3.56	222	
		7.55	1,970		Sept. 1, 1952	4.31	417	
		5.25	—	1953	Nov. 22, 1952	5.11	664	
		3.42	188		Dec. 5, 1952	3.57	227	
		3.73	260		Dec. 11, 1952	3.34	181	
		4.76	566		Jan. 24, 1953	4.15	374	
		3.80	278		Feb. 21, 1953	3.62	239	
		1945	Apr. 5, 1945		3.61	243	Mar. 26, 1953	3.35
May 17, 1945	3.98		337		May 26, 1953	3.41	194	
May 29, 1945	4.20		403	May 31, 1953	3.94	316		
July 19, 1945	7.96		2,230	July 23, 1953	3.35	182		
July 22, 1945	4.90		570	1954	Mar. 1, 1954	4.46	462	
1946	Nov. 22, 1945	3.57	222		Apr. 17, 1954	3.77	274	
	Nov. 28, 1945	3.50	206		May 4, 1954	3.41	194	
	May 18, 1946	3.44	193	1955	Mar. 22, 1955	3.62	239	
	May 21, 1946	3.93	314		Aug. 18, 1955	4.47	462	
	May 27, 1946	6.17	1,070		Aug. 30, 1955	3.94	316	
	1947	June 2, 1946	4.30	418	1956	Oct. 14, 1955	4.52	477
		July 22, 1946	5.20	697		July 2, 1956	3.48	208
1948		May 22, 1947	3.49	204	1957	Dec. 15, 1956	3.67	250
		May 25, 1947	5.29	730		Apr. 5, 1957	3.68	252
		July 16, 1947	3.57	222	1958	Dec. 20, 1957	4.36	432
	July 22, 1947	4.13	375	Dec. 26, 1957		3.81	279	
1949	Apr. 1, 1948	4.03	341	Jan. 22, 1958		3.70	250	
	Apr. 14, 1948	3.75	266	Feb. 27, 1958		4.45	462	
	May 5, 1948	3.64	239	Mar. 26, 1958		3.54	213	
	May 7, 1948	3.48	202	Apr. 6, 1958	3.62	231		
	May 12, 1948	4.39	447	July 5, 1958	3.64	236		
1949	Nov. 6, 1948	3.39	182					
	Dec. 30, 1948	4.85	584					
	Jan. 5, 1949	3.94	317					

<sup>a</sup>Backwater from ice.

5740. West Conewago Creek near Manchester, Pa.

Location. --Lat 40°04'55", long 76°43'10", 500 ft upstream from bridge on State Highway 24, 0.7 mile downstream from Little Conewago Creek and 1.5 miles north of Manchester, York County.

Drainage area. --510 sq mi.

Gage. --Recording gage. Datum of gage is 263.68 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements to 47,600 cfs.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 10,800 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Mar. 6, 1929	11.70	11,800	1944	Nov. 9, 1943	17.33	25,500
	Apr. 17, 1929	15.31	20,300		Mar. 13, 1944	11.36	10,800
	May 3, 1929	13.79	16,500		Mar. 24, 1944	11.39	10,800
1930	Oct. 2, 1929	12.58	13,700		May 7, 1944	11.37	10,800
	Mar. 8, 1930	11.16	10,800	1945	July 19, 1945	11.39	11,100
1931	Apr. 2, 1931	9.14	6,850	1946	Nov. 29, 1945	15.86	21,600
1932	Mar. 28, 1932	12.12	11,900		June 2, 1946	15.74	21,000
1933	Oct. 19, 1932	13.37	14,200	1947	May 22, 1947	13.66	16,000
	Nov. 1, 1932	12.62	12,800	1948	Jan. 2, 1948	10.82	9,980
	Apr. 20, 1933	13.26	14,100	1949	Dec. 30, 1948	13.74	16,000
	Aug. 24, 1933	24.14	47,600		Jan. 6, 1949	12.96	14,400
1934	Sept. 15, 1934	13.71	15,300	1950	Mar. 23, 1950	12.51	13,300
	Sept. 17, 1934	17.41	24,900		May 19, 1950	12.18	12,700
	Sept. 30, 1934	17.20	24,400	1951	Nov. 26, 1950	12.53	13,300
1935	Dec. 1, 1934	15.86	20,700		Dec. 4, 1950	13.91	16,400
1936	Mar. 12, 1936	13.02	13,700		Feb. 7, 1951	11.67	11,700
	Mar. 19, 1936	<sup>a</sup> 17.08	—		Feb. 21, 1951	11.64	11,500
	Apr. 6, 1936	12.93	13,500	1952	Feb. 4, 1952	11.93	12,100
	June 13, 1936	11.93	11,400		Mar. 11, 1952	13.88	16,400
1937	Feb. 22, 1937	11.73	12,100		Apr. 28, 1952	11.72	11,700
	Apr. 27, 1937	12.08	12,900	1953	Nov. 22, 1952	13.96	16,700
1938	Oct. 23, 1937	11.27	11,200		Jan. 24, 1953	12.66	13,700
	Nov. 13, 1937	13.82	16,800	1954	Mar. 2, 1954	8.30	5,740
1939	Feb. 4, 1939	13.70	16,500	1955	Mar. 22, 1955	14.10	16,900
	Mar. 1, 1939	11.18	11,000		Aug. 13, 1955	11.29	10,900
1940	Apr. 9, 1940	12.18	12,500	1956	Oct. 14, 1955	12.92	14,200
	Apr. 20, 1940	15.85	21,300	1957	Dec. 15, 1956	11.37	11,100
	Sept. 1, 1940	11.63	11,200		Apr. 6, 1957	11.34	10,900
1941	Apr. 6, 1941	11.16	10,400	1958	Dec. 21, 1957	13.77	16,200
1942	May 22, 1942	12.79	13,800		Dec. 27, 1957	13.14	14,600
	June 5, 1942	12.58	13,400		Feb. 28, 1958	12.97	14,400
	Aug. 18, 1942	14.28	17,400		Mar. 26, 1958	12.03	12,300
1943	Dec. 30, 1942	14.09	16,900		May 6, 1958	11.74	11,700

<sup>a</sup>Backwater from ice.

## SUSQUEHANNA RIVER BASIN

5745. Codorus Creek at Spring Grove, Pa.

Location. --Lat 39°52'15", long 76°51'50", on left bank 500 ft downstream from bridge on State Highway 116, at Spring Grove, York County, and 0.5 mile downstream from Bunch Creek.

Drainage area. --74.3 sq mi.

Gage. --Nonrecording gage prior to Jan. 18, 1930; recording gage thereafter. Prior to Sept. 9, 1941, at site 500 ft upstream. Datum of gage is 436.50 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 2,400 cfs and extended on basis of computation of flow over dam.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 1,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1930	Oct. 2, 1929	6.48	1,710	1942 Cont.	June 14, 1942	5.98	1,570	
	Mar. 8, 1930	5.40	1,030		July 4, 1942	5.65	1,300	
	Apr. 7, 1930	5.61	1,110		Aug. 17, 1942	5.42	1,180	
1931	Apr. 1, 1931	4.27	685		1943	Sept. 28, 1942	5.43	1,180
	1932	Mar. 28, 1932	6.23	1,490		Dec. 30, 1942	6.00	1,570
June 16, 1932		6.38	1,620	May 21, 1943		8.32	5,510	
1933	Apr. 19, 1933 June 13, 1933 July 3, 1933 Aug. 23, 1933	6.55	1,760	1944		June 12, 1943	7.93	4,730
		6.86	2,210		July 13, 1943	5.89	1,500	
		6.34	1,580		Oct. 26, 1943	5.97	1,570	
		11.84	11,200		Nov. 8, 1943	6.89	2,650	
1934	Oct. 2, 1933 Mar. 3, 1934 July 8, 1934 Sept. 4, 1934 Sept. 16, 1934 Sept. 30, 1934	5.48	1,070	1945	Jan. 4, 1944	6.86	2,650	
		5.59	1,110		Jan. 6, 1944	5.54	1,240	
		5.80	1,200		Mar. 13, 1944	5.64	1,300	
		5.41	1,030		Mar. 23, 1944	5.30	1,130	
		8.70	6,070	May 7, 1944	6.05	1,570		
		7.78	4,100	1946	July 15, 1945	6.96	2,820	
		1935	Dec. 1, 1934		5.36	1,010	July 19, 1945	5.53
1936	Jan. 9, 1936 Feb. 27, 1936 Feb. 29, 1936 Mar. 12, 1936 Mar. 21, 1936 Apr. 6, 1936		5.44		1,050	July 23, 1945	5.09	1,030
		6.11	1,380	1947	Nov. 28, 1945	6.24	1,730	
		6.09	1,380		May 18, 1946	5.09	1,030	
		5.52	1,070		June 2, 1946	7.52	3,850	
		5.79	1,200	June 28, 1946	5.40	1,180		
		5.92	1,250	1948	Jan. 31, 1947	5.83	1,430	
1937	Feb. 22, 1937 Apr. 26, 1937 Aug. 21, 1937	6.92	2,210		May 20, 1947	5.37	1,180	
		5.90	1,250		May 22, 1947	5.63	1,300	
		5.80	1,200	1949	Jan. 2, 1948	6.30	1,810	
1938	Oct. 23, 1937 Nov. 13, 1937 June 27, 1938	7.08	2,550		Feb. 14, 1948	5.08	1,030	
		7.39	3,180		1950	Dec. 30, 1948	5.98	1,570
		5.92	1,250			Jan. 6, 1949	6.15	1,730
1939	Jan. 30, 1939 Feb. 3, 1939 Feb. 28, 1939 Sept. 30, 1939	5.87	1,250	Jan. 28, 1949		5.16	1,080	
		6.44	1,620	Apr. 14, 1949		5.11	1,030	
		6.08	1,380	1951	Mar. 23, 1950	6.01	1,610	
		5.87	1,250		May 19, 1950	5.60	1,360	
1940	Mar. 4, 1940 Mar. 15, 1940 Apr. 8, 1940 Apr. 20, 1940 July 17, 1940 Aug. 7, 1940 Sept. 1, 1940 Sept. 25, 1940	6.20	1,410		1952	Nov. 25, 1950	5.99	1,610
		5.98	1,270			Dec. 4, 1950	7.55	4,080
		5.89	1,210	Feb. 7, 1951		6.22	1,750	
		7.27	2,590	June 10, 1951		4.81	1,020	
		5.50	1,010	1953	Mar. 11, 1952	5.80	1,480	
		7.20	2,510		Apr. 14, 1952	5.31	1,220	
		5.88	1,210		Apr. 28, 1952	6.18	1,750	
		8.85	6,190		May 12, 1952	5.54	1,310	
1941	Nov. 2, 1940	5.13	870	Sept. 1, 1952	6.08	1,680		
1942	Feb. 7, 1942 May 22, 1942 June 4, 1942	5.29	1,130	Sept. 3, 1952	5.39	1,260		
		6.03	1,570	1953	Nov. 22, 1952	6.67	2,180	
		7.24	3,190		Dec. 11, 1952	5.48	1,310	
1942	Jan. 24, 1953 Mar. 26, 1953	4.82	1,020					
		5.26	1,220					



## Codorus Creek at Spring Grove, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Dec. 7, 1953	6.42	1,910	1957	Apr. 6, 1957	5.02	1,100
	Mar. 1, 1954	4.94	1,060				
1955	Mar. 5, 1955	4.94	1,060	1958	Dec. 26, 1957	5.17	1,180
	Mar. 22, 1955	5.90	1,540		Jan. 15, 1958	4.91	1,060
	Aug. 13, 1955	7.21	3,180		Jan. 22, 1958	5.47	1,310
					Jan. 25, 1958	5.76	1,480
1956	Oct. 14, 1955	6.35	1,910		Feb. 28, 1958	6.56	2,180
	Feb. 6, 1956	6.00	1,610		Apr. 6, 1958	5.00	1,100
	Mar. 14, 1956	5.15	1,180		May 5, 1958	6.02	1,610

## 5750. South Branch Codorus Creek near York, Pa.

Location. --Lat 39°55'10", long 76°45'00", on right bank 100 ft downstream from dam of pumping station of York Water Co., 200 ft upstream from Pennsylvania Railroad Bridge, half a mile upstream from mouth, and 3 miles southwest of York, York County.

Drainage area. --117 sq mi.

Gage. --Nonrecording gage prior to Aug. 21, 1928; recording gage thereafter. Prior to Aug. 21, 1928, at site 180 ft upstream at datum 5.00 ft higher. Datum of gage is 373.03 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 2,230 cfs and extended by contracted-opening measurement.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 1,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	Feb. 8, 1928	2.8	1,260	1935	Dec. 1, 1934	4.73	780
	Feb. 15, 1928	3.4	1,910				
	Apr. 28, 1928	3.2	1,680	1936	Jan. 3, 1936	6.20	1,650
	June 22, 1928	3.0	1,460		Jan. 9, 1936	6.01	1,510
	July 13, 1928	4.35	3,260		Feb. 28, 1936	6.52	1,880
	Aug. 17, 1928	3.2	1,680		Mar. 1, 1936	6.36	1,760
1929	Feb. 7, 1929	5.70	1,300		Mar. 4, 1936	5.48	1,180
	Feb. 26, 1929	8.12	3,320		Mar. 11, 1936	5.86	1,400
	Mar. 5, 1929	6.61	1,950		Mar. 21, 1936	5.57	1,210
	Apr. 16, 1929	7.20	2,440		Apr. 6, 1936	5.47	1,140
1930	Oct. 2, 1929	9.16	—	1937	Feb. 22, 1937	7.67	2,890
	Oct. 22, 1929	6.94	2,230		Apr. 26, 1937	5.43	1,140
	Mar. 8, 1930	5.40	1,110	1938	Oct. 23, 1937	6.79	2,110
	Apr. 7, 1930	6.17	1,620		Nov. 13, 1937	7.45	2,610
1931	Dec. 27, 1930	5.06	910		June 27, 1938	8.50	3,790
					July 23, 1938	4.77	998
1932	Mar. 28, 1932	6.35	1,760		Aug. 18, 1938	5.74	1,440
1933	Oct. 6, 1932	5.23	1,020	1939	Dec. 6, 1938	4.95	1,040
	Oct. 19, 1932	5.27	1,020		Jan. 30, 1939	5.45	1,280
	Apr. 20, 1933	6.44	1,840		Feb. 3, 1939	6.15	1,710
	June 13, 1933	6.04	1,540		Feb. 28, 1939	5.48	1,310
	July 3, 1933	6.76	2,070	1940	Oct. 2, 1939	4.88	1,020
	Aug. 4, 1933	5.82	1,370		Feb. 19, 1940	5.28	1,210
	Aug. 23, 1933	17.97	19,300		Mar. 4, 1940	5.98	1,590
1934	Mar. 3, 1934	6.56	1,910		Mar. 15, 1940	5.80	1,470
	Aug. 13, 1934	5.80	1,370		Apr. 9, 1940	5.74	1,380
	Sept. 4, 1934	9.02	4,410		Apr. 20, 1940	7.52	2,610
	Sept. 16, 1934	10.09	5,920		Sept. 1, 1940	5.10	1,030
	Sept. 30, 1934	7.25	2,440		Sept. 25, 1940	9.02	4,410



## SUSQUEHANNA RIVER BASIN

South Branch Codorus Creek near York, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Feb. 14, 1941	5.22	1,230	1950	Mar. 23, 1950	5.12	1,410
	Mar. 15, 1941	4.95	1,100		May 19, 1950	4.61	1,180
	Mar. 16, 1941	5.37	1,300	1951	Nov. 25, 1950	7.41	2,920
1942	Feb. 7, 1942	5.83	1,470		Dec. 4, 1950	9.44	4,960
	May 22, 1942	6.32	1,760		Feb. 7, 1951	6.43	2,150
	June 5, 1942	6.35	1,830		July 5, 1951	4.47	1,110
	June 13, 1942	7.05	2,290	1952	Mar. 11, 1952	6.12	1,960
	Aug. 9, 1942	7.87	3,130		Apr. 14, 1952	4.63	1,180
	Aug. 13, 1942	5.48	1,280		Apr. 28, 1952	6.93	2,520
	Aug. 17, 1942	5.00	1,050		May 12, 1952	4.66	1,180
	Sept. 28, 1942	6.80	2,130		Sept. 1, 1952	5.91	1,840
1943	Oct. 26, 1942	5.68	1,380	1953	Nov. 22, 1952	6.74	2,360
	Dec. 30, 1942	6.01	1,560		Mar. 26, 1953	4.77	1,240
	May 21, 1943	5.88	1,500	1954	Dec. 7, 1953	6.77	2,440
	July 13, 1943	9.12	4,540		Mar. 1, 1954	4.36	1,050
1944	Oct. 27, 1943	5.36	1,210	1955	Feb. 7, 1955	5.44	1,560
	Nov. 9, 1943	9.56	5,210		Mar. 22, 1955	4.32	1,020
	Dec. 27, 1943	5.33	1,210		Aug. 13, 1955	8.43	3,840
	Jan. 4, 1944	7.65	2,830		Aug. 19, 1955	4.67	1,180
	Jan. 6, 1944	5.62	1,330	1956	Oct. 14, 1955	4.87	1,310
	Mar. 13, 1944	5.51	1,280		Feb. 7, 1956	5.66	1,720
1945	July 15, 1945	5.88	1,500		Mar. 14, 1956	4.58	1,160
	July 18, 1945	5.69	1,380	1957	Apr. 6, 1957	4.90	1,310
1946	June 2, 1946	6.20	1,690	1958	Dec. 21, 1957	4.31	1,020
1947	May 22, 1947	4.44	1,020		Dec. 26, 1957	4.53	1,140
	Jan. 2, 1948	5.78	1,750		Jan. 15, 1958	4.84	1,260
	Feb. 14, 1948	—	1,300		Jan. 22, 1958	5.40	1,560
1948	May 30, 1948	5.22	1,390		Jan. 25, 1958	6.67	2,360
	Dec. 30, 1948	4.76	1,160		Feb. 28, 1958	7.25	2,760
1949	Jan. 6, 1949	5.59	1,630		Mar. 26, 1958	4.25	1,000
	Jan. 28, 1949	4.52	1,040		Mar. 29, 1958	4.41	1,070
	July 13, 1949	4.71	1,140		Apr. 6, 1958	4.64	1,180
					May 6, 1958	5.34	1,510

<sup>a</sup>Backwater from Codorus Creek, probably maximum discharge for year occurred on this day.

## 5755. Codorus Creek near York, Pa.

Location. --Lat 39°56'45", long 76°45'20", on left bank 0.5 mile upstream from Richland Avenue Bridge, 2.0 miles downstream from South Branch Codorus Creek, and 2 miles southwest of York, York County.

Drainage. --222 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1932; recording gage thereafter. Prior to Sept. 30, 1932, at site 1.6 miles downstream at different datum. Datum of gage is 356.39 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 3,300 cfs and extended above.

Bankfull stage. --12 ft.

Remarks. --Flow regulated. Only annual peaks are shown.

## Codorus Creek near York, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 23, 1933	24.0	32,000	1948	Jan. 2, 1948	8.12	3,210
1940	Sept. 25, 1940	11.82	7,060	1949	Jan. 6, 1949	8.20	3,300
				1950	Mar. 23, 1950	7.79	2,940
1941	Mar. 16, 1941	6.77	1,950	1951	Dec. 4, 1950	12.03	7,770
1942	June 5, 1942	8.56	3,550	1952	Apr. 28, 1952	9.65	4,720
1943	July 13, 1943	10.08	5,280	1953	Nov. 22, 1952	9.37	4,500
1944	Nov. 9, 1943	11.66	7,340	1954	Dec. 7, 1953	8.76	3,880
1945	July 15, 18, 1945	8.02	3,120	1955	Aug. 13, 1955	11.08	6,520
1946	June 3, 1946	8.17	3,300	1956	Feb. 7, 1956	8.25	3,300
1947	May 22, 1947	7.07	2,370	1957	Apr. 6, 1957	7.58	2,790
				1958	Feb. 28, 1958	10.10	5,280

## 5760. Susquehanna River at Marietta, Pa.

Location. --Lat 40°03'15", long 76°31'50", on left bank 420 ft upstream from Chickies Creek and 1 mile downstream from Marietta, Lancaster County.

Drainage area. --25,990 sq mi (includes that of Chickies Creek).

Gage. --Recording gage. Datum of gage is 200.56 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 460,000 cfs and extended above.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

2 57.70

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	June 2, 1889	58.3	630,000	1945	Mar. 5, 1945	47.79	254,000
1932	Apr. 2, 1932	47.66	256,000	1946	May 29, 1946	54.90	492,000
1933	Aug. 25, 1933	49.44	296,000	1947	Apr. 7, 1947	46.28	214,000
1934	Sept. 17, 1934	44.04	152,000	1948	Apr. 16, 1948	49.67	310,000
	Jan. 3, 1934	<sup>a</sup> 46.52		1949	Jan. 1, 1949	46.82	227,000
1935	Dec. 2, 1934	48.27	263,000	1950	Mar. 30, 1950	49.29	298,000
1936	Mar. 19, 1936	60.73	787,000	1951	Nov. 27, 1950	52.96	420,000
1937	Jan. 24, 1937	47.4	241,000	1952	Mar. 13, 1952	50.33	329,000
1938	Dec. 20, 1937	44.81	176,000	1953	Mar. 27, 1953	46.76	227,000
1939	Feb. 23, 1939	46.30	213,000	1954	Mar. 3, 1954	47.50	246,000
1940	Apr. 2, 1940	53.33	432,000	1955	Mar. 7, 1955	45.12	183,000
1941	Apr. 8, 1941	47.59	249,000	1956	Mar. 10, 1956	50.25	325,000
1942	May 24, 1942	49.63	307,000	1957	Apr. 7, 1957	47.63	249,000
1943	Jan. 1, 1943	53.20	428,000	1958	Apr. 9, 1958	48.53	274,000
1944	May 9, 1944	46.23	211,000				

<sup>a</sup>Backwater from ice.

## SUSQUEHANNA RIVER BASIN

5765. Conestoga Creek at Lancaster, Pa.

Location. --Lat 40°03'00", long 76°16'40", on left bank at Pennsylvania Railroad bridge, 50 ft downstream from small tributary 500 ft downstream from diversion dam of city waterworks, and 0.75 mile east of Lancaster, Lancaster County.

Drainage area. --324 sq mi.

Gage. --Nonrecording gage prior to May 1, 1933; recording gage thereafter. Prior to May 1, 1933, at site 600 ft upstream at different datum. Datum of gage is 245.63 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 4,000-cfs and extended by indirect measurements.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 2,800 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 27, 1929	6.57	9,400	1941	Dec. 17, 1940	6.96	3,200
	Mar. 6, 1929	4.92	5,860		Feb. 7, 1941	6.74	2,900
	Apr. 17, 1929	3.92	4,060	1942	May 23, 1942	15.12	17,300
1930	Oct. 2, 1929	3.00	2,680		June 8, 1942	7.05	3,260
					July 27, 1942	10.95	9,200
1931	July 11, 1931	5.20	4,220		Aug. 9, 1942	9.83	7,210
					Aug. 14, 1942	8.08	4,720
1932	Mar. 28, 1932	5.96	5,480		Aug. 18, 1942	11.60	10,300
					Sept. 28, 1942	8.29	5,000
1933	May 30, 1933	7.18	3,720	1943	Oct. 27, 1942	7.47	3,910
	July 17, 1933	7.46	4,050		Dec. 30, 1942	8.85	5,700
	July 26, 1933	7.23	3,720		Feb. 11, 1943	7.33	3,650
	Aug. 4, 1933	8.85	5,720	1944	Nov. 9, 1943	9.57	6,900
	Aug. 20, 1933	6.68	3,200		Jan. 4, 1944	8.77	5,700
	Aug. 22, 1933	9.28	6,450		Jan. 6, 1944	6.74	2,840
	Aug. 24, 1933	17.52	22,800		Mar. 13, 1944	7.36	3,780
1934	Mar. 3, 1934	6.57	3,100		Mar. 24, 1944	7.31	3,650
	Apr. 1, 1934	7.59	4,170		Apr. 25, 1944	7.98	4,580
	July 8, 1934	12.80	12,600	1945	Jan. 2, 1945	7.32	3,650
	July 13, 1934	6.52	3,000		Feb. 23, 1945	6.80	3,020
	Sept. 22, 1934	6.77	3,300		Feb. 27, 1945	7.93	4,440
	Sept. 30, 1934	14.04	15,000		June 28, 1945	6.68	2,900
1935	Dec. 1, 1934	6.41	2,900		July 15, 1945	7.52	3,910
	Apr. 8, 1935	6.34	2,800		July 19, 1945	7.47	3,910
1936	Nov. 18, 1935	8.21	4,910		July 22, 1945	7.38	3,780
	Jan. 3, 1936	8.99	5,990		July 23, 1945	7.20	3,520
	Jan. 10, 1936	7.17	3,620		July 27, 1945	6.75	2,960
	Mar. 12, 1936	9.58	6,890		Sept. 11, 1945	9.86	7,370
	Mar. 18, 1936	7.97	4,620		Sept. 19, 1945	8.66	5,560
	Mar. 21, 1936	6.55	2,930	1946	Nov. 29, 1945	7.08	3,390
	Apr. 6, 1936	7.84	4,490		Feb. 28, 1946	6.73	2,960
					June 2, 1946	12.69	12,400
1937	Feb. 22, 1937	6.85	3,060	1947	July 18, 1947	6.00	2,130
	June 19, 1937	6.95	3,240	1948	Nov. 4, 1947	7.03	3,260
1938	Oct. 23, 1937	9.00	6,280		Feb. 17, 1948	6.71	2,900
	June 12, 1938	8.92	6,110		May 5, 1948	6.98	3,260
	June 27, 1937	8.20	5,010		May 7, 1948	6.84	3,020
	July 12, 1938	8.44	5,310	1949	Dec. 31, 1948	6.80	3,020
	July 21, 1938	7.67	4,280		Jan. 6, 1949	10.95	9,200
1939	Dec. 6, 1938	6.64	2,910		Jan. 28, 1949	6.72	2,900
	Jan. 31, 1939	6.96	3,280	1950	Mar. 23, 1950	8.95	6,000
	Feb. 4, 1939	9.16	6,620				
	Feb. 16, 1939	6.72	2,970	1951	Nov. 26, 1950	10.42	8,180
	Mar. 1, 1939	7.69	4,280		Dec. 4, 1950	8.13	4,720
	Apr. 7, 1939	6.71	2,970		Jan. 15, 1951	8.06	4,720
1940	Mar. 4, 1940	7.65	4,140		Feb. 7, 1951	9.48	6,750
	Mar. 15, 1940	8.49	5,470		Feb. 21, 1951	6.71	2,900
	Apr. 9, 1940	9.35	6,960		Apr. 13, 1951	6.70	2,900
	Apr. 20, 1940	8.25	5,010				
	Sept. 26, 1940	7.84	4,420				



## Conestoga Creek at Lancaster, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Dec. 21, 1951	7.79	4,300	1955	Mar. 23, 1955	7.78	4,300
	Jan. 26, 1952	7.15	3,520		Aug. 13, 1955	9.34	6,450
	Feb. 4, 1952	6.94	3,150		Aug. 19, 1955	12.11	11,200
	Mar. 11, 1952	8.30	5,000		Aug. 22, 1955	7.67	4,170
	Apr. 29, 1952	9.04	6,000	1956	Feb. 7, 1956	7.30	3,650
	May 26, 1952	7.26	3,650		July 3, 1956	8.03	4,580
	Sept. 1, 1952	8.47	5,280	1957	Dec. 15, 1956	6.77	2,970
1953	Nov. 22, 1952	10.04	7,530		Apr. 5, 1957	7.59	4,040
	Dec. 11, 1952	8.38	5,140	1958	Dec. 21, 1957	6.72	2,910
	Jan. 9, 1953	7.12	3,390		Jan. 22, 1958	6.73	2,970
	Jan. 24, 1953	7.88	4,440		Jan. 25, 1958	6.87	3,150
	Mar. 16, 1953	7.14	3,390		Feb. 28, 1958	9.36	6,600
	Mar. 26, 1953	7.24	3,520		Apr. 7, 1958	8.05	4,580
	May 26, 1953	6.89	3,150		July 8, 1958	8.74	5,560
	June 1, 1953	6.64	2,850				
1954	Dec. 7, 1953	9.45	6,600				
	Mar. 2, 1954	7.52	3,910				

## 5770. Susquehanna River near McCall Ferry, Pa.

(Published as "at McCall Ferry" prior to January 1906)

Location. --Lat 39°48'50", long 76°18'35", 0.4 mile upstream from Muddy Run, 1.4 miles southeast of Holtwood, Lancaster County, and 2 miles southeast of McCall Ferry.

Drainage area. --26,800 sq mi.

Gage. --Nonrecording gage. Prior to Jan. 1, 1906, at site 1¼ miles upstream. Datum of gage is mean sea level.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	Mar. 2, 1903	136.4	320,000	1907	Mar. 16, 1907	122.9	267,000
1904	Mar. 8, 1904	146.6	631,000	1908	Mar. 20, 1908	125.2	308,000
1905	Mar. 22, 1904	138.4	373,000	1909	May 3, 1909	125.4	311,000
1906	Apr. 16, 1906	119.2	206,000	1910	Mar. 3, 1910	127.1	342,000

## 5775. Muddy Creek at Castle Fin, Pa.

Location. --Lat 39°46'25", long 76°19'00", 0.6 mile northeast of Castle Fin, York County, and 2.8 miles upstream from mouth.

Drainage area. --133 sq mi.

Gage. --Recording gage. Datum of gage is 175.42 ft above mean sea level (preliminary levels of 1910).

Stage-discharge relation. --Defined by current-meter measurements below 7,600 cfs and extended above on basis of computation of peak flow over dam.

Remarks. --Base for partial-duration series, 3,200 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 7, 1929	7.68	3,860	1934	Sept. 17, 1934	12.92	8,500
	Feb. 26, 1929	8.81	4,740				
	Mar. 5, 1929	7.07	3,380	1935	July 8, 1935	7.38	3,620
	Apr. 16, 1929	7.31	3,540				
1930	Oct. 2, 1929	7.95	4,100	1936	Jan. 3, 1936	<sup>a</sup> 7.88	—
					Jan. 9, 1936	7.46	3,700
1931	Jan. 19, 1931	6.81	3,140	1937	Feb. 22, 1937	8.02	4,100
1932	Mar. 28, 1932	7.31	3,540		July 5, 1937	8.28	4,340
1933	Aug. 23, 1933	21.11	16,600	1938	Oct. 23, 1937	7.31	3,540
					Nov. 13, 1937	8.49	4,500
					June 27, 1938	9.65	5,440

<sup>a</sup>Backwater from ice.



## POTOMAC RIVER BASIN

6010. Wills Creek below Hyndman, Pa.

Location. --Lat 39°48'43", long 78°43'00", on left bank 150 ft upstream from county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mile downstream from Little Wills Creek and half a mile south of Hyndman, Bedford County.

Drainage area. --146 sq mi.

Gage. --Recording gage. Datum of gage is 891.37 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 6,000 cfs and extended above by logarithmic plotting.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 2,100 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Jan. 2, 1952	5.78	2,800	1955	Mar. 4, 1955	7.02	4,510
	Mar. 11, 1952	8.05	6,080		Mar. 22, 1955	6.08	3,290
1953	Nov. 21, 1952	5.50	2,460		June 8, 1955	5.30	2,390
	Jan. 24, 1953	5.31	2,240		Aug. 18, 1955	5.38	2,480
	Mar. 24, 1953	6.65	3,930	1956	Apr. 7, 1956	5.56	2,680
	May 31, 1953	8.98	7,680		Dec. 14, 1956	6.50	3,810
1954	Mar. 1, 1954	8.42	6,680	1958	Dec. 26, 1957	5.37	2,470
1955	Oct. 15, 1954	11.02	11,600		Apr. 7, 1958	5.20	2,280
	Dec. 30, 1954	6.42	3,710		May 5, 1958	7.47	5,160

6035. Evitts Creek near Centerville, Pa.

Location. --Lat 39°47'23", long 78°38'48", on left bank 2 miles upstream from Thomas W. Koon Dam, 3 miles south of Centerville, Bedford County, and 7 miles upstream from Rock Gully Creek.

Drainage area. --30.2 sq mi.

Gage. --Recording gage. Datum of gage is 1,027.59 ft above mean sea level (city of Cumberland benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 520 cfs and extended above on basis of slope-area measurements.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 400 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Jan. 26, 1933	2.85	414	1939	Feb. 3, 1939	3.14	615
	Mar. 14, 1933	3.55	905		Feb. 28, 1939	3.17	695
	Mar. 19, 1933	2.83	402		July 29, 1939	5.18	2,600
	May 10, 1933	3.07	537	1940	Mar. 31, 1940	3.12	631
1934	Jan. 7, 1934	2.90	441		Apr. 20, 1940	3.10	615
1935	Feb. 15, 1935	2.79	381	1941	June 4, 1941	3.32	797
1936	Feb. 27, 1936	4.08	912	1942	Mar. 9, 1942	3.53	982
	Mar. 11, 1936	3.71	856		Apr. 9, 1942	2.91	475
	Mar. 17, 1936	7.13	5,240		May 22, 1942	2.84	428
	Apr. 6, 1936	3.08	592	1943	Oct. 15, 1942	4.26	1,660
1937	Oct. 17, 1936	2.97	518		Dec. 30, 1942	3.58	1,030
	Jan. 10, 1937	2.96	511		Apr. 19, 1943	3.15	655
	Apr. 26, 1937	4.64	2,040		Apr. 21, 1943	2.88	455
1938	Oct. 28, 1937	3.58	1,030	1944	Jan. 28, 1944	2.92	482
	Jan. 25, 1938	3.05	577		Mar. 13, 1944	2.92	482

## Evitts Creek near Centerville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Apr. 24, 1944	2.90	455	1952	Mar. 11, 1952	3.95	1,300
Cont.	Apr. 27, 1944	3.01	540				
	May 7, 1944	3.58	1,030	1953	Nov. 21, 1952	3.64	993
1945	Feb. 27, 1945	2.92	470		Mar. 24, 1953	3.32	717
	May 17, 1945	3.05	572		May 31, 1953	4.39	1,740
	July 31, 1945	3.77	1,200	1954	Mar. 1, 1954	4.35	1,700
	Sept. 18, 1945	2.91	463		June 11, 1954	3.46	836
1946	Feb. 27, 1946	2.85	420	1955	Oct. 15, 1954	4.98	2,650
	June 2, 1946	2.84	412		Mar. 4, 1955	3.15	660
1947	Oct. 26, 1946	2.56	249		Mar. 22, 1955	3.22	718
1948	Apr. 13, 1948	2.90	455		June 8, 1955	3.10	620
1949	June 28, 1949	3.12	630		Aug. 18, 1955	2.86	442
1950	Mar. 24, 1950	2.51	226	1956	Apr. 7, 1956	2.99	533
1951	Dec. 4, 1950	3.21	707		July 19, 1956	3.56	1,030
	Dec. 7, 1950	3.85	1,270		Aug. 28, 1956	3.02	556
	Feb. 21, 1951	2.94	403	1957	Dec. 14, 1956	3.12	636
	Mar. 30, 1951	3.18	571		Apr. 25, 1957	3.32	808
	June 13, 1951	3.37	737	1958	Dec. 26, 1957	3.08	449
	Aug. 12, 1951	3.17	564		May 5, 1958	3.73	1,050

## 6135. Licking Creek near Sylvan, Pa.

Location. --Lat 39°43'20", long 78°03'35", at highway bridge, 200 ft upstream from Pennsylvania-Maryland State line, 3 miles southwest of Sylvan, Franklin County, and 10 miles upstream from mouth.

Drainage area. --158 sq mi.

Gage. --Nonrecording gage. Datum of gage is 434.16 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 5,500 cfs and extended on basis of contracted-opening measurement.

Remarks. --Base for partial-duration series, 2,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Mar. 28, 1931	7.6	2,570	1937	Jan. 11, 1937	6.75	2,010
	Apr. 2, 1931	7.5	2,500		Feb. 22, 1937	10.1	4,920
	July 18, 1931	8.1	2,970		Apr. 26, 1937	15.2	14,500
1932	May 13, 1932	8.6	3,390	1938	Oct. 28, 1937	10.0	4,800
1933	Aug. 23, 1933	9.2	3,950	1939	Dec. 10, 1938	9.7	4,470
1934	Sept. 17, 1934	9.4	4,150		Feb. 3, 1939	10.3	5,160
1935	Dec. 1, 1934	10.2	5,040		Mar. 1, 1939	7.2	2,290
1936	Feb. 28, 1936	7.7	2,650	1940	Oct. 3, 1939	7.2	2,290
	Mar. 12, 1936	9.0	4,070		Jan. 15, 1940	<sup>a</sup> 8.6	—
	Mar. 18, 1936	17.4	20,700		Apr. 9, 1940	7.0	2,150
	Apr. 6, 1936	8.5	3,300		Apr. 20, 1940	8.5	3,300
				1941	Apr. 5, 1941	6.8	2,010

<sup>a</sup>Backwater from ice.

## OHIO RIVER MAIN STEM

## 105. Allegheny River at Eldred, Pa.

(Published as "at or near Larabee" prior to Oct. 1, 1939)

Location. --Lat 41°57'50", long 78°23'10", on right bank at site of former highway bridge, 600 ft upstream from bridge on State Highway 346, 1,000 ft upstream from Knapp Creek and half a mile north of Eldred, McDean County.

Drainage area. --550 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1939; recording gage thereafter. Prior to Oct. 1, 1939, at site 6 miles upstream at datum 1,423.39 ft above mean sea level, adjustment of 1912. Datum of present gage is 1,416.20 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 15,000 cfs.

Bankfull stage. --20 ft.

Remarks. --Base for partial-duration series, 5,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Mar. 28, 1916	15.4	<sup>a</sup> 9,160	1942	Mar. 10, 1942	14.47	6,350
1917	Aug. 16, 1917	12.8	<sup>a</sup> 5,320		Mar. 19, 1942	14.97	6,950
1918	Mar. 15, 1918	14.6	<sup>a</sup> 7,640		July 19, 1942	27.6	55,000
1919	May 23, 1919	13.58	<sup>a</sup> 6,200	1943	Dec. 31, 1942	17.42	10,800
1920	Mar. 14, 1920	15.0	<sup>a</sup> 8,360		Feb. 26, 1943	13.37	5,260
1921	Mar. 10, 1921	11.25	3,400		Mar. 18, 1943	14.88	6,820
1922	Apr. 1, 1922	11.4	4,160		Apr. 22, 1943	16.13	8,500
1923	Mar. 5, 1923	13.6	6,200		May 27, 1943	16.41	8,980
1924	Apr. 7, 1924	12.9	5,420	1944	Mar. 19, 1944	13.36	5,260
1925	Feb. 12, 1925	15.4	9,160	1945	Mar. 5, 1945	15.15	7,480
1926	Mar. 25, 1926	11.94	3,850		Mar. 19, 1945	15.64	8,040
1927	Jan. 24, 1927	<sup>b</sup> 12.52	—		Mar. 23, 1945	16.48	9,380
	Mar. 15, 1927	12.5	4,580	1946	Oct. 4, 1945	13.22	5,710
1928	Nov. 18, 1927	17.60	13,700		May 29, 1946	21.16	20,800
1929	Jan. 19, 1929	<sup>b</sup> 13.1	—	1947	Apr. 6, 1947	19.41	15,200
	Mar. 16, 1929	13.0	4,900	1948	Mar. 23, 1948	20.04	17,000
1930	Jan. 14, 1930	12.4	4,560		Apr. 15, 1948	14.56	6,710
1931	June 9, 1931	12.80	4,800	1949	May 24, 1949	11.33	3,730
1932	Apr. 2, 1932	12.15	4,440	1950	Mar. 30, 1950	16.39	9,230
1933	Mar. 16, 1933	11.24	3,840		Apr. 6, 1950	18.42	12,900
1934	Jan. 2, 1934	11.60	4,080	1951	Nov. 6, 1950	13.35	5,370
1935	Jan. 11, 1935	12.0	4,310		Nov. 26, 1950	20.94	19,700
1936	Mar. 18, 1936	15.46	9,360		Apr. 1, 1951	15.52	7,900
1937	Jan. 16, 1937	12.6	5,120	1952	Jan. 19, 1952	16.22	8,930
	Jan. 26, 1937	13.5	6,080		Jan. 28, 1952	15.14	7,350
	Apr. 29, 1937	12.5	5,030		Mar. 12, 1952	14.61	6,710
1938	Mar. 6, 1938	12.8	4,990		Apr. 17, 1952	13.52	5,470
1939	Feb. 21, 1939	12.7	4,930	1953	Mar. 26, 1953	14.28	6,350
1940	Apr. 5, 1940	18.48	12,900		June 1, 1953	14.21	6,230
1941	Apr. 7, 1941	14.34	6,130	1954	Mar. 3, 1954	14.48	6,590
				1955	Mar. 6, 1955	15.32	7,620
				1956	Oct. 16, 1955	12.96	5,000
					Mar. 9, 1956	20.92	19,700
					Apr. 6, 1956	15.30	7,620
					May 15, 1956	13.91	5,900
				1957	Jan. 24, 1957	13.17	5,180
				1958	Apr. 8, 1958	15.72	8,180
					May 9, 1958	13.13	5,090

<sup>a</sup>Annual peaks only.

<sup>b</sup>Backwater from ice.

## 115. Allegheny River at Red House, N. Y.

Location. --Lat 42°06'50", long 78°48'15", at Red House, Cattaraugus County, 0.7 mile upstream from Meeting-house River at mile 227.7.

Drainage area. --1,690 sq mi.

Gage. --Nonrecording prior to Sept. 3, 1917, recording thereafter. Datum of gage is 1,327.68 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 26, 1904	11.4	28,400	1931	Apr. 11, 1931	8.64	15,000
1905	Mar. 20, 1905	11.8	30,600	1932	May 9, 1932	9.17	17,400
				1933	Mar. 15, 1933	8.83	15,500
1906	Jan. 24, 1906	8.6	14,800	1934	Jan. 2, 1934	<sup>a</sup> 13.78	18,800
1907	Dec. 15, 1906	9.1	17,000	1935	Jan. 10, 1935	9.62	19,300
1908	Mar. 16, 1908	11.5	29,000				
1909	May 2, 1909	13.0	37,800	1936	Mar. 27, 1936	<sup>b</sup> 12.89	30,700
1910	Mar. 2, 1910	13.6	41,000	1937	Jan. 25, 26, 1937	10.87	24,400
				1938	Feb. 14, 1938	10.05	20,400
1911	Jan. 27, 1911	9.7	19,700	1939	Feb. 20, 1939	11.02	25,200
1912	Apr. 2, 1912	11.2	27,300	1940	Apr. 5, 1940	11.99	30,400
1913	Mar. 26, 1913	13.0	37,800				
1914	Mar. 28, 1914	12.0	31,800	1941	Apr. 6, 1941	10.03	20,200
1915	Feb. 25, 1915	10.1	21,300	1942	July 20, 1942	14.55	45,300
				1943	Dec. 30, 1942	11.98	29,900
1916	Mar. 29, 1916	12.8	36,600	1944	Mar. 17, 1944	9.81	18,700
1917	Mar. 12, 1917	9.6	18,800	1945	Mar. 22, 1945	<sup>c</sup> 15.09	23,800
1918	Mar. 15, 1918	11.70	30,000				
1919	May 23, 1919	10.12	21,400	1946	May 28, 1946	12.53	34,900
1920	Mar. 15, 1920	11.95	31,500	1947	Apr. 6, 1947	12.84	37,000
				1948	Mar. 22, 1948	13.27	38,500
1921	Mar. 7, 1921	8.45	13,500	1949	Jan. 6, 1949	7.86	10,300
1922	June 12, 1922	9.00	16,200	1950	Mar. 29, 1950	11.93	30,100
1923	Mar. 5, 1923	10.32	22,900				
1924	Sept. 30, 1924	9.85	20,400	1951	Nov. 26, 1950	12.29	32,200
1925	Feb. 12, 1925	—	24,000	1952	Mar. 12, 1952	10.72	23,300
				1953	May 31, 1953	9.89	19,200
1926	Apr. 9, 1926	9.2	17,200	1954	Mar. 2, 1954	9.35	16,600
1927	Mar. 22, 1927	9.3	18,500	1955	Mar. 2, 1955	11.31	25,200
1928	Dec. 1, 1927	12.6	36,600				
1929	Jan. 19, 1929	10.9	26,500	1956	Mar. 8, 1956	15.11	49,100
1930	Feb. 26, 1930	9.6	19,500	1957	Jan. 24, 1957	11.39	25,600
				1958	Apr. 7, 1958	10.79	22,400

<sup>a</sup>Occurred on Mar. 4, 1934; backwater from ice jam.

<sup>b</sup>Occurred Feb. 27, 1936; backwater from ice jam.

<sup>c</sup>Occurred Feb. 23, 1945; backwater from ice jam.

## KINZUA CREEK BASIN

## 120. Kinzua Creek at Dewdrop, Pa.

Location. --Lat 41°49'50", long 78°57'10", at single span, steel, through truss highway bridge at Dewdrop, Warren County, 3 miles upstream from mouth.

Drainage area. --171 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,243.13 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 1,900 cfs.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 7, 1910	6.6	3,520	1914	Mar. 28, 1914	8.5	5,420
1911	Jan. 28, 1911	6.5	3,440	1915	Feb. 1, 1915	7.3	4,100
1913	Jan. 8, 1913	9.0	6,020	1916	Mar. 28, 1916	7.0	3,820



## OHIO RIVER MAIN STEM

## 125. Allegheny River near Kinzua, Pa.

Location. --Lat 41°50'50", long 78°59'30", on left bank at Pennsylvania Railroad Bridge, half a mile upstream from Best Run, 2 miles southwest of Kinzua, Warren County, and 2.3 miles downstream from Kinzua Creek.

Drainage area. --2,179 sq mi.

Gage. --Recording gage. Datum of gage is 1,200.00 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --18 ft.

Remarks. --Base for partial-duration series, 25,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Feb. 27, 1936	15.93	37,000	1947	Apr. 5, 1947	18.08	48,800
	Mar. 12, 1936	15.13	33,200				
	Mar. 28, 1936	16.69	41,000	1948	Feb. 18, 1948	<sup>a</sup> 14.86	—
1937	Jan. 15, 1937	13.40	25,200		Feb. 20, 1948	13.20	25,400
	Jan. 25, 1937	14.85	31,700		Mar. 22, 1948	18.52	50,800
1938	Feb. 14, 1938	13.48	26,800		Apr. 15, 1948	13.32	25,900
1939	Feb. 20, 1939	15.02	33,500	1949	Jan. 6, 1949	10.47	13,700
				1950	Mar. 29, 1950	15.92	38,100
1940	Mar. 20, 1940	13.61			Apr. 5, 1950	16.02	38,600
	Apr. 5, 1940	16.46	41,900	1951	Nov. 26, 1950	15.82	37,600
1941	Mar. 4, 1941	<sup>a</sup> 13.14	—		Dec. 4, 1950	14.14	29,600
	Apr. 6, 1941	12.94	24,100		Jan. 4, 1951	13.65	27,300
1942	Mar. 9, 1942	15.51			Feb. 14, 1951	13.43	26,400
	Mar. 17, 1942	15.95	38,600	1952	Jan. 18, 1952	14.37	31,000
	July 20, 1942	17.70	46,800		Jan. 27, 1952	13.09	25,000
1943	Dec. 30, 1942	16.63	41,500		Mar. 12, 1952	13.45	26,400
	Mar. 17, 1943	13.98	29,100	1953	May 31, 1953	12.82	23,600
1944	Jan. 28, 1944	13.97		1954	Jan. 21, 1954	<sup>a</sup> 12.44	—
	Mar. 17, 1944	13.16	25,400		Mar. 2, 1954	11.81	19,200
1945	Feb. 24, 1945	16.22		1955	Mar. 2, 1955	14.26	30,500
	Mar. 7, 1945	14.12	29,600				
	Mar. 18, 1945	14.06	29,600	1956	Mar. 8, 1956	19.95	60,500
	Mar. 22, 1945	14.64	31,900		Apr. 5, 1956	14.72	32,500
1946	Jan. 6, 1946	14.14		1957	May 13, 1956	14.14	29,500
	May 28, 1946	16.45	40,500		Jan. 23, 1957	14.55	32,000
				1958	Apr. 7, 1958	13.96	29,000

<sup>a</sup>Backwater from ice.

## CONEWANGO CREEK BASIN

## 130. Conewango Creek at Waterboro, N. Y.

Location. --Lat 42°10'15", long 79°04'10", 300 ft downstream from concrete viaduct at Waterboro, Chataqua County, 900 ft downstream from Davis Brook, and 2½ miles upstream from Kennedy.

Drainage area. --290 sq mi.

Gage. --Nonrecording prior to May 29, 1948; recording thereafter. At site 1, 300 ft upstream at various datums prior to Nov. 7, 1939. At site 1, 100 ft upstream at datum 0.79 ft higher Nov. 7, 1939, to Nov. 4, 1940. At site 700 ft downstream at present datum Nov. 5, 1940, to May 28, 1948. Datum of gage is 1,255.30 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

Conewango Creek at Waterboro, N. Y.--Continued

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 20, 1939	9.8	3,620	1951	Dec. 5, 1950	9.73	4,500
1940	Apr. 5, 1940	9.75	4,160	1952	Mar. 13, 1952	8.81	3,500
				1953	June 1, 1953	7.11	2,310
1941	Apr. 7, 1941	7.76	2,540	1954	Feb. 18, 1954	8.13	3,000
1942	Mar. 18, 1942	11.05	7,620	1955	Mar. 3, 1955	8.82	3,420
1943	Dec. 31, 1942	10.05	5,050				
1944	Apr. 13, 1944	8.75	3,280	1956	Mar. 8, 1956	11.58	6,750
1945	Mar. 7, 1945	9.65	4,280	1957	Jan. 24, 1957	9.98	4,520
				1958	Apr. 8, 1958	7.40	2,390
1946	Oct. 4, 1945	8.55	3,180				
1947	Apr. 7, 1947	11.35	8,600				
1948	Mar. 23, 1948	10.0	4,960				
1949	Mar. 24, 1949	7.04	2,140				
1950	Mar. 29, 1950	10.42	5,930				

150. Conewango Creek at Russell, Pa.

Location. --Lat 41°56'20", long 79°07'55", on left bank at highway bridge in Russell, Warren County, 0.4 mile upstream from Ackley Run and 8.0 miles upstream from mouth.

Drainage area. --816 sq mi.

Gage. --Nonrecording gage prior to Apr. 10, 1941; recording gage thereafter. Datum of gage is 1,222.18 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --6 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 1936	10.9	14,600	1948	Mar. 23, 1948	9.30	10,700
				1949	Mar. 25, 1949	6.22	4,570
1940	Apr. 4, 1940	9.44	10,700	1950	Mar. 30, 1950	8.92	9,770
1941	Dec. 17, 1940	6.9	5,380	1951	Dec. 6, 1950	8.91	9,770
1942	Mar. 19, 1942	10.68	13,700	1952	Mar. 13, 1952	7.39	6,620
1943	Dec. 31, 1942	9.32	10,600	1953	May 31, 1953	6.20	4,570
1944	Apr. 14, 1944	7.88	7,720	1954	Feb. 19, 1954	7.02	5,890
1945	Mar. 8, 1945	8.92	9,670	1955	Mar. 4, 5, 1955	7.72	7,190
1946	Oct. 5, 1945	7.24	6,250	1956	Mar. 9, 1956	10.55	14,100
1947	Apr. 7, 1947	10.69	14,400	1957	Apr. 2, 1957	6.28	4,600
				1958	Jan. 25, 1958	8.45	8,640

## BROKENSTRAW RIVER BASIN

## 155. Brokenstraw Creek at Youngsville, Pa.

Location. --Lat 41°51'10", long 79°19'05", on right bank 150 ft downstream from bridge on U. S. Highway 6 at Youngsville, Warren County, 500 ft upstream from Mathews Run, and 3.7 miles upstream from mouth.  
Records include flow of Mathews Run.

Drainage area. --321 sq mi, including that of Mathews Run.

Gage. --Nonrecording gage prior to June 15, 1939; recording gage thereafter. Prior to Oct. 1, 1933, at site 150 ft upstream at datum 1.00 ft higher. Oct. 1, 1933, to June 15, 1939 at site 150 ft upstream at present datum. Datum of present gage is 1,187.92 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 4,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 2, 1910	8.0	7,240	1927	Oct. 26, 1926	7.9	7,150
	Mar. 7, 1910	8.1	7,420		Nov. 16, 1926	7.4	6,380
1911	Nov. 11, 1910	6.4	4,510	1928	Nov. 17, 1927	8.0	7,400
	Jan. 2, 1911	6.5	4,660		Dec. 1, 1927	7.8	7,060
	Jan. 14, 1911	7.3	6,020		Dec. 14, 1927	7.4	6,380
	Jan. 28, 1911	8.4	7,940		Jan. 1, 1928	7.3	6,210
	Aug. 28, 1911	7.0	5,490		Mar. 14, 1928	6.8	5,400
	Sept. 15, 1911	6.2	4,640		June 6, 1928	7.52	6,550
1912	Mar. 20, 1912	7.6	6,500	1929	June 24, 1928	10.75	13,800
	Apr. 2, 1912	8.2	7,440		Jan. 19, 1929	8.95	9,300
	Sept. 2, 1912	6.3	4,370	1930	Jan. 9, 1930	6.4	4,580
1913	Jan. 8, 1913	9.2	7,590		Mar. 28, 1931	4.3	3,120
	Mar. 25, 1913	12.2	18,000	1932	May 8, 1932	7.6	6,280
1914	Jan. 30, 1914	7.0	5,890		Mar. 15, 1933	5.1	3,840
	Mar. 28, 1914	8.8	8,500	1934	Jan. 1, 1934	7.4	4,730
1915	Feb. 1, 1915	6.2	4,820		Jan. 9, 1935	6.7	4,530
1916	Jan. 2, 1916	6.0	4,560	1936	Dec. 16, 1935	6.9	4,750
	Mar. 28, 1916	8.8	8,500		Feb. 26, 1936	7.0	5,250
	Apr. 14, 1916	6.85	5,610		Mar. 12, 1936	7.8	6,490
1917	Mar. 12, 1917	6.4	5,080		Mar. 27, 1936	10.8	13,000
	June 27, 1917	7.7	5,870	1937	Jan. 15, 1937	8.4	7,050
	July 11, 1917	6.2	4,820		Apr. 27, 1937	8.8	7,580
1918	Oct. 30, 1917	6.0	4,560	1938	Feb. 14, 1938	8.2	6,740
	Feb. 20, 1918	7.4	6,450		Feb. 20, 1939	8.3	6,890
	Mar. 15, 1918	8.0	7,300	1940	Apr. 1, 1940	8.55	8,390
1919	May 11, 1919	7.8	7,010		Apr. 4, 1940	8.34	7,860
1920	Mar. 12, 1920	9.81	10,000	1941	Dec. 13, 1940	7.55	6,710
1921	Mar. 7, 1921	5.55	4,080		Dec. 17, 1940	6.24	4,670
1922	Nov. 2, 1921	5.60	4,080	1942	Mar. 9, 1942	8.03	7,350
	Mar. 4, 1923	7.2	6,170		Mar. 17, 1942	7.94	7,150
1923	May 16, 1923	6.5	5,210	1943	Dec. 30, 1942	9.65	10,200
	Jan. 11, 1924	8.6	8,200		Mar. 17, 1943	6.78	5,350
	May 10, 1924	6.4	5,080		May 21, 1943	6.84	5,350
1924	Sept. 30, 1924	6.8	5,610	1944	Mar. 17, 1944	6.76	5,350
	Dec. 19, 1924	6.2	4,820		Apr. 12, 1944	7.18	5,990
1925	Feb. 9, 1925	7.8	7,010	1945	Mar. 3, 1945	7.07	5,830
	Mar. 25, 1926	6.4	5,080		Mar. 6, 1945	7.63	6,640
1926	Apr. 9, 1926	6.3	4,950				
	Sept. 24, 1926	6.55	5,340				

## Brokenstraw Creek at Youngsville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Mar. 17, 1945	6.29	4,590	1952	Jan. 1, 1952	7.20	5,520
Cont.	Mar. 21, 1945	7.79	6,980		Jan. 18, 1952	8.69	8,100
	Apr. 5, 1945	6.77	5,350		Jan. 27, 1952	8.72	8,100
					Mar. 11, 1952	8.30	7,320
1946	Oct. 3, 1945	7.22	5,990	1953	May 23, 1953	8.50	7,700
	May 27, 1946	7.89	7,150	1954	Feb. 17, 1954	7.10	5,380
1947	Mar. 25, 1947	7.46	6,470	1955	Oct. 15, 1954	9.24	9,140
	Apr. 5, 1947	11.85	15,300		Dec. 30, 1954	7.28	5,660
	June 3, 1947	6.77	5,370		Mar. 1, 1955	7.91	6,600
1948	Feb. 14, 1948	6.32	4,650	1956	Feb. 25, 1956	6.88	5,100
	Mar. 22, 1948	11.66	15,000		Mar. 8, 1956	10.30	11,700
	Apr. 14, 1948	6.16	4,520		Apr. 3, 1956	7.82	6,440
1949	Mar. 24, 1949	5.50	3,650		May 13, 1956	7.26	5,660
1950	Jan. 17, 1950	6.65	4,720		Aug. 5, 1956	7.70	6,280
	Feb. 15, 1950	7.30	5,660	1957	Jan. 23, 1957	9.23	9,140
	Mar. 28, 1950	9.00	8,700		Apr. 5, 1957	7.00	5,240
	Apr. 5, 1950	7.30	5,660		Apr. 26, 1957	8.77	8,300
1951	Nov. 20, 1950	6.56	4,720		June 29, 1957	7.77	6,440
	Dec. 4, 1950	8.70	8,100	1958	Dec. 21, 1957	5.73	3,740
	Jan. 4, 1951	9.19	9,140				
	Feb. 21, 1951	7.06	5,380				

## OHIO RIVER MAIN STEM

## 160. Allegheny River at West Hickory, Pa.

Location. --Lat 41°34'15", long 79°24'30", on right bank at downstream side of bridge on State Highway 127 at West Hickory, Forest County, 0.6 mile upstream from Siggins Run and 0.8 mile downstream from East Hickory Creek.

Drainage area. --3,660 sq mi.

Gage. --Recording gage. Datum of gage is 1,050.15 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --30 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 18, 1942	13.44	58,000	1951	Dec. 4, 1950	12.43	51,900
1943	Dec. 30, 1942	14.51	66,400	1952	Jan. 18, 1952	12.06	48,900
1944	Apr. 13, 1944	10.88	40,000	1953	May 31, 1953	10.05	33,100
1945	Mar. 22, 1945	12.47	51,200	1954	Feb. 17, 1954	9.68	31,000
				1955	Mar. 2, 1955	11.9	47,000
1946	May 28, 1946	12.72	52,800	1956	Mar. 8, 1956	17.20	101,000
1947	Apr. 6, 1947	15.97	84,300	1957	Jan. 23, 1957	12.92	55,300
1948	Mar. 22, 1948	15.93	83,300	1958	Apr. 7, 1958	10.54	36,600
1949	Jan. 6, 1949	8.29	23,800				
1950	Mar. 29, 1950	13.13	57,700				



## TIONESTA CREEK BASIN

## 165. Tionesta Creek at Sheffield, Pa.

Location. --Lat 41°42'05", long 79°02'00", at abandoned bridge on Tionesta Valley Railway in Sheffield, Warren County, 20 ft downstream from Twomile Run, 1.3 miles downstream from Dunham Run, and 1.4 miles upstream from Dodge Run.

Drainage area. --128 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,317.01 ft above mean sea level, (Pennsylvania Department of Highways benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 3,500 cfs and extended by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 17, 1942	6.4	2,320	1945	Mar. 22, 1945	7.2	2,960
1943	Dec. 30, 1942	8.8	4,400				
1944	Apr. 12, 1944	6.0	2,130	1946	May 28, 1946	9.7	5,310

## 170. South Branch Tionesta Creek at Barnes, Pa.

Location. --Lat 41°40'20", long 79°01'45", at bridge on State Highway 666 at Barnes, Warren County, 0.7 mile upstream from mouth, 1.3 miles downstream from East Branch Tionesta Creek, and 2 miles south of Sheffield.

Drainage area. --85.3 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,306.77 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 9, 1942	5.20	1,630	1945	Apr. 5, 1945	5.78	2,230
1943	Dec. 30, 1942	10.6	3,000				
1944	Mar. 17, 1944	4.6	1,310	1946	May 28, 1946	7.50	3,300

## 175. Tionesta Creek at Lynch, Pa.

Location. --Lat 41°36'05", long 79°03'00", on left bank at downstream side of highway bridge at Lynch, Forest County, 500 ft upstream from Bluejay Creek at 7 miles south of Sheffield.

Drainage area. --233 sq mi.

Gage. --Recording gage. Datum of gage is 1,252.43 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 4,600 cfs and extended above on basis of slope-area measurement at gage height 11.25 ft (from floodmark in well) for flood of Jan. 22, 1959.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 3,500 cfs.

## Tionesta Creek at Lynch, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Mar. 6, 1938	—	<sup>a</sup> 5,200	1950	Feb. 14, 1950	6.15	3,730
1939	Feb. 20, 1939	5.75	3,500		Mar. 29, 1950	7.18	4,870
1940	Apr. 4, 1940	8.30	6,250		Apr. 5, 1950	6.26	3,840
1941	Dec. 13, 1940	7.10	4,750	1951	Nov. 26, 1950	7.70	5,470
1942	Mar. 9, 1942	6.42	3,950		Dec. 4, 1950	6.74	4,280
	Mar. 17, 1942	6.53	4,060		Jan. 4, 1951	6.61	4,170
1943	Dec. 30, 1942	9.64	9,900		Feb. 21, 1951	6.68	4,280
	Mar. 17, 1943	6.14	3,620		Mar. 4, 1951	6.64	4,170
1944	Mar. 17, 1944	5.78	3,300		June 10, 1951	6.04	3,510
1945	Feb. 22, 1945	<sup>c</sup> 6.53	—	1952	Jan. 18, 1952	9.44	9,400
	Mar. 4, 1945	6.53	4,060		Jan. 20, 1952	6.64	4,170
	Mar. 7, 1945	6.68	4,280		Jan. 27, 1952	9.29	9,150
	Mar. 22, 1945	7.19	4,870		Mar. 11, 1952	6.77	4,390
	Apr. 5, 1945	6.82	4,390	1953	May 23, 1953	9.20	8,900
1946	Oct. 2, 1945	6.40	3,950		May 26, 1953	—	—
	Jan. 6, 1946	<sup>c</sup> 6.23	—		May 31, 1953	—	—
	May 28, 1946	10.26	12,000	1954	Mar. 1, 1954	7.37	5,110
1947	Apr. 5, 1947	9.67	10,200	1955	Oct. 16, 1954	10.06	11,400
	June 3, 1947	6.80	4,390		Mar. 1, 1955	7.36	5,110
1948	Feb. 14, 1948	<sup>c</sup> 7.60	—		Mar. 4, 1955	6.76	4,390
	Mar. 22, 1948	9.89	10,800	1956	Feb. 25, 1956	5.98	3,510
	Apr. 12, 1948	—	—		Mar. 8, 1956	10.0	11,100
	Apr. 14, 1948	—	—		Apr. 4, 1956	6.45	3,950
1949	Jan. 6, 1949	4.39	1,960		May 13, 1956	7.01	4,630
	Jan. 28, 1949	4.38	1,960		Sept. 6, 1956	7.69	5,470
				1957	Jan. 23, 1957	7.33	4,990
				1958	July 15, 1958	6.08	3,620

<sup>a</sup>Estimated maximum discharge.<sup>b</sup>Annual peak only.<sup>c</sup>Backwater from ice.

## 180. Tionesta Creek at Mayburg, Pa.

Location. --Lat 41°35'35", long 79°12'55", at combination highway and railroad bridge in Mayburg, Forest County, 300 ft upstream from unnamed run, 0.8 mile downstream from Kingsley Run, and 2.2 miles upstream from Panther Run.

Drainage area. --307 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,180.25 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 5,100 cfs and extended by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Mar. 17, 1942	6.4	5,940	1945	Mar. 22, 1945	6.6	6,380
1943	Dec. 30, 1942	8.19	10,400				
1944	Mar. 17, 1944	5.8	4,760	1946	May 28, 1946	8.55	11,600

## TIONESTA CREEK BASIN

## 190. Tionesta Creek at Nebraska, Pa.

Location. --Lat 41°28'25", long 79°23'05", on right bank 500 ft downstream from highway bridge at Nebraska, Forest County, and a third of a mile downstream from mouth of Coon Creek.

Drainage area. --469 sq mi.

Gage. --Nonrecording gage. Prior to Sept. 30, 1912, at site 1,300 ft downstream at datum 1.22 ft lower.

Aug. 5, 1923 to July 6, 1933, at site 500 ft upstream (Aug. 5, 1923 to Sept. 30, 1925 at datum 3.14 ft lower).

Datum of gage 1,079.00 ft above mean sea level (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 7, 1910	7.0	7,975	1931	Mar. 29, 1931	7.10	5,140
1911	Jan. 14, 1911	7.68	8,880	1932	May 8, 1932	10.5	11,400
				1933	Mar. 21, 1933	7.10	5,140
1924	Sept. 30, 1924	12.70	9,500	1934	Mar. 4, 1934	11.4	10,600
1925	Feb. 12, 1925	12.6	9,300	1935	Feb. 26, 1935	9.5	8,010
1926	Apr. 9, 1926	7.5	5,730	1936	Mar. 17, 1936	9.3	14,400
1927	May 25, 1927	8.9	8,110	1937	Jan. 25, 1937	9.87	16,400
1928	Nov. 17, 1927	11.60	14,300	1938	Mar. 6, 1938	7.8	10,000
1929	Feb. 27, 1929	9.90	10,100	1939	Feb. 20, 1939	6.2	6,260
1930	Nov. 18, 1929	9.0	8,300	1940	Apr. 4, 1940	8.5	12,000

## 200. Tionesta Creek at Tionesta Creek Dam, Pa.

Location. --Lat 41°28'45", long 79°26'45", on left bank 100 ft downstream from outlet tunnel at Tionesta Creek Dam, Forest County, 0.3 mile southeast of Tionesta, and 0.9 mile upstream from mouth.

Drainage area. --479 sq mi.

Gage. --Nonrecording gage prior to Aug. 9, 1940; recording gage Aug. 10, 1940, to Mar. 17, 1945; nonrecording gage Mar. 18, 1945, to June 30, 1954; recording gage thereafter. Prior to Mar. 17, 1945, at site 200 ft downstream at datum 1.00 ft higher. Datum of present gage is 1,044.93 ft above mean sea level, unadjusted.

Bankfull stage. --22 ft.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Dec. 13, 1940	8.80	7,310	1951	Feb. 24, 1951	7.40	6,720
1942	Apr. 13, 1942	6.37	5,240	1952	Jan. 29, 1952	8.90	9,550
1943	Jan. 5, 1943	4.43	7,180	1953	May 27, 1953	7.55	6,800
1944	Apr. 16, 1944	3.48	4,370	1954	Apr. 28, 1954	8.20	7,940
1945	Mar. 9, 1945	8.55	7,980	1955	Mar. 7, 1955	8.61	7,660
1946	June 6, 1946	8.89	10,300	1956	Mar. 12, 1956	8.80	9,960
1947	Apr. 12, 1947	7.29	6,670	1957	Apr. 10, 1957	7.48	6,310
1948	Mar. 25, 1948	8.95	7,930	1958	May 9-10, 1958	7.44	6,060
1949	Jan. 31, 1949	6.63	5,630				
1950	Mar. 31, 1950	8.63	6,750				

## 205. Oil Creek at Rouseville, Pa.

(Published as "near Rouseville" October 1916 to September 1932)

Location. --Lat 41°28'55", long 79°41'40", on right bank 200 ft downstream from bridge on State Highway 8, 200 ft upstream from Cherrytree Run, and 1 mile upstream from Rouseville, Venango County. Records include flow of Cherrytree Run.

Drainage area. --300 sq mi, including that of Cherrytree Run.

Gage. --Nonrecording gage prior to June 9, 1941; recording gage thereafter. Prior to June 1, 1932, at site 1½ miles downstream at different datum. Datum of present gage is 1,028.33 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --10 ft.

Remarks. --Base for partial-duration series, 5,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 1, 1910	5.8	8,240	1929	Dec. 1, 1928	4.8	5,540
1911	Jan. 14, 1911	5.2	6,580		Jan. 19, 1929	6.2	9,500
	Jan. 28, 1911	6.0	8,900		May 3, 1929	5.0	6,050
	Aug. 29, 1911	5.0	6,120		May 15, 1929	5.0	6,050
1912	Mar. 30, 1912	4.95	6,060	1930	Nov. 18, 1929	4.9	5,790
1913	Jan. 8, 1913	5.6	7,640	1931	Apr. 4, 1931	—	—
	Mar. 25, 1913	7.0	11,900	1932	Jan. 18, 1932	4.8	5,530
1914	Jan. 30, 1914	5.2	6,600		May 8, 1932	5.9	8,600
	Mar. 28, 1914	5.4	7,150	1933	Mar. 14, 1933	7.2	5,430
	May 13, 1914	4.7	5,290		June 8, 1933	7.1	5,250
1915	Feb. 2, 1915	5.0	6,060	1934	Jan. 1, 1934	8.2	7,320
1916	Jan. 6, 1916	4.6	5,040	1935	Jan. 9, 1935	6.9	4,370
	Mar. 28, 1916	6.6	10,800	1936	Feb. 27, 1936	7.7	6,060
1917	Mar. 12, 1917	5.5	7,360		Mar. 12, 1936	7.8	6,270
	June 7, 1917	4.6	5,040		Mar. 27, 1936	9.6	9,720
1918	Oct. 30, 1917	4.8	5,540	1937	Jan. 15, 1937	9.0	8,380
	Feb. 20, 1918	6.1	9,320		Jan. 18, 1937	7.9	6,480
	Mar. 14, 1918	6.1	9,320		Jan. 21, 1937	8.4	7,600
1919	May 11, 1919	5.63	7,930		Jan. 25, 1937	9.85	10,200
1920	Mar. 13, 1920	7.1	12,000		Apr. 26, 1937	9.4	9,240
1921	Apr. 30, 1921	4.6	5,040		June 14, 1937	7.4	5,450
1922	Nov. 2, 1921	4.6	5,040	1938	Dec. 18, 1937	7.4	5,450
1923	Mar. 5, 1923	4.6	5,040		Feb. 10, 1938	7.6	5,850
1924	Jan. 11, 1924	6.1	9,180		Feb. 14, 1938	7.6	5,850
	Sept. 29, 1924	5.0	6,060		Mar. 6, 1938	7.7	6,060
1925	Feb. 10, 1925	4.91	5,800	1939	Feb. 20, 1939	8.3	7,370
1926	Sept. 25, 1926	5.00	6,060		Apr. 15, 1939	7.5	5,650
1927	Oct. 25, 1926	5.2	6,590	1940	Mar. 31, 1940	8.0	6,600
	Nov. 16, 1926	5.47	7,680		Apr. 4, 1940	8.20	7,020
	May 24, 1927	4.8	5,530	1941	Dec. 13, 1940	8.8	8,460
1928	Nov. 17, 1927	5.1	6,320	1942	Mar. 9, 1942	8.45	7,560
	Dec. 1, 1927	5.70	8,000		Mar. 17, 1942	7.73	6,060
	Dec. 14, 1927	5.20	6,590	1943	Dec. 29, 1942	9.67	10,200
	Mar. 14, 1928	4.6	5,030	1944	Jan. 28, 1944	<sup>a</sup> 7.53	—
	June 6, 1928	4.8	5,530		Apr. 12, 1944	7.30	5,310
	June 24, 1928	5.4	7,140	1945	Feb. 22, 1945	<sup>a</sup> 8.04	—
					Mar. 4, 1945	7.39	5,130
					Mar. 6, 1945	7.70	5,690
					Mar. 21, 1945	7.86	6,480
					Apr. 5, 1945	7.50	5,690



## OIL CREEK BASIN

Oil Creek near Rouseville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Oct. 2, 1945	7.28	5,310	1952	Jan. 27, 1952	9.85	10,500
	May 28, 1946	11.20	16,300	Cont.	Mar. 11, 1952	9.24	9,020
	June 13, 1946	7.52	5,690	1953	May 23, 1953	8.92	8,360
1947	Mar. 25, 1947	7.54	5,670		May 26, 1953	9.05	8,580
	Apr. 6, 1947	9.03	8,580		May 31, 1953	8.00	6,500
1948	Feb. 14, 1948	<sup>b</sup> 10.43	5,490	1954	Mar. 1, 1954	7.47	5,670
	Mar. 22, 1948	11.29	16,800		Apr. 17, 1954	7.64	5,860
1949	Jan. 6, 1949	6.43	3,860	1955	Oct. 16, 1954	11.55	18,600
1950	Feb. 14, 1950	8.62	7,780	1956	Feb. 25, 1956	8.25	7,000
	Mar. 28, 1950	7.92	6,430		Mar. 8, 1956	8.70	7,980
	Apr. 5, 1950	7.29	5,310		May 13, 1956	9.18	9,020
1951	Dec. 4, 1950	8.70	7,980		Aug. 19, 1956	7.26	5,310
	Jan. 4, 1951	9.31	9,240	1957	Jan. 23, 1957	9.53	9,720
	Feb. 21, 1951	8.03	6,620		Apr. 6, 1957	7.85	6,240
	Mar. 4, 1951	7.64	5,860		Apr. 25, 1957	8.36	7,380
1952	Jan. 1, 1952	7.47	5,670		June 29, 1957	9.15	9,020
	Jan. 18, 1952	9.16	9,020	1958	June 13, 1958	6.62	4,100

<sup>a</sup>Backwater from ice.<sup>b</sup>Occurred at different time than peak discharge.

## FRENCH CREEK BASIN

215. French Creek at Carters Corners, Pa.

Location. --Lat 41°57'20", long 79°52'40", on left bank 400 ft upstream from highway bridge at Carters Corners, Erie County, 4 miles northwest of Union City, and 5 miles upstream from South Branch.

Drainage area. --208 sq mi.

Gage. --Nonrecording gage prior to Dec. 22, 1948; recording gage thereafter. Prior to Dec. 22, 1948 at site 400 ft downstream. Datum of gage is 1,253.7 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements and extended to 20,000 cfs by slope-area measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 4,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Jan. 28, 1911	11.40	12,000	1916	Mar. 27, 1916	12.4	15,400
1912	Mar. 20, 1912	8.5	5,400		Apr. 14, 1916	8.1	4,950
	Apr. 1, 1912	9.3	6,620	1917	Mar. 12, 1917	10.7	9,940
1913	Oct. 23, 1912	7.8	4,620		July 11, 1917	8.2	5,070
	Jan. 8, 1913	9.3	6,620	1918	Oct. 30, 1917	8.6	5,560
	Jan. 18, 1913	9.65	7,180		Feb. 20, 1918	<sup>a</sup> 17.0	—
	Mar. 25, 1913	12.66	16,600		Mar. 14, 1918	10.5	9,380
1914	Nov. 14, 1913	8.3	5,170	1919	May 11, 1919	8.9	5,960
	Jan. 30, 1914	8.2	5,060	1920	Mar. 12, 1920	<sup>a</sup> 15.2	—
	Mar. 28, 1914	10.8	10,200		Mar. 17, 1920	6.96	3,600
	May 13, 1914	7.8	4,620	1921	Feb. 17, 1921	7.20	3,920
1915	Aug. 4, 1915	9.0	6,120				

## French Creek at Carters Corners, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 18, 1921	6.5	3,230	1940	Apr. 1, 1940	8.4	5,400
1923	Mar. 4, 1923	8.5	5,430		Apr. 4, 1940	9.2	6,420
1924	Dec. 7, 1923	8.0	4,830	1941	Dec. 13, 1940	8.2	5,160
	Jan. 11, 1924	8.52	5,430		Mar. 4, 1941	<sup>a</sup> 8.23	—
1925	Feb. 10, 1925	9.9	7,260	1942	Mar. 17, 1942	11.2	11,400
1926	Jan. 22, 1926	<sup>a</sup> 9.26	—	1943	Dec. 30, 1942	9.3	6,550
	Mar. 25, 1926	8.3	5,190		June 3, 1943	7.9	4,800
	Sept. 25, 1926	8.2	5,070	1944	Jan. 27, 1944	8.0	4,920
1927	Oct. 25, 1926	8.5	5,430		Mar. 17, 1944	8.1	5,040
	Jan. 22, 1927	<sup>a</sup> 11.0	—		Apr. 12, 1944	9.2	6,420
1928	Dec. 1, 1927	10.1	8,300	1945	Mar. 6, 1945	9.1	6,290
	Dec. 14, 1927	9.8	7,600	1946	Oct. 2, 1945	8.88	6,030
	Dec. 31, 1947	10.28	8,820		June 1, 1946	8.00	4,920
	Mar. 14, 1928	9.3	6,620	1947	Mar. 15, 1947	7.9	4,800
1929	Jan. 19, 1929	10.10	8,300		Mar. 25, 1947	8.6	5,640
	May 3, 1929	9.4	6,800		Apr. 5, 1947	13.50	20,000
1930	Dec. 18, 1929	7.7	4,470		June 3, 1947	7.8	4,580
	Feb. 20, 1930	<sup>a</sup> 8.0	—	1948	Mar. 22, 1948	10.95	10,800
1931	Mar. 29, 1931	7.4	4,160	1949	Mar. 23, 1949	7.95	4,170
1932	Mar. 27, 1932	7.6	4,360	1950	Feb. 15, 1950	9.07	5,550
1933	Dec. 31, 1932	7.7	4,470		Mar. 28, 1950	10.42	7,480
1934	Jan. 1, 1934	8.7	5,570		Apr. 5, 1950	8.43	4,650
	Mar. 4, 1934	7.9	4,690	1951	Nov. 21, 1950	8.92	5,290
1935	Jan. 9, 1935	7.7	4,470		Dec. 4, 1950	11.85	10,900
1936	Feb. 26, 1936	8.8	5,820		Jan. 4, 1951	11.47	10,000
	Mar. 12, 1936	8.7	5,680	1952	Jan. 2, 1952	8.85	5,160
	Mar. 25, 1936	10.6	9,660		Jan. 27, 1952	8.39	4,650
	Mar. 28, 1936	9.8	7,600		Mar. 11, 1952	9.95	6,820
1937	Jan. 15, 1937	8.8	5,990	1953	May 26, 1953	7.10	3,260
	Jan. 25, 1937	10.5	9,380	1954	Jan. 27, 1954	8.33	4,530
	Apr. 26, 1937	11.5	12,300	1955	Oct. 16, 1954	10.70	8,060
1938	Feb. 9, 1938	8.6	5,730	1956	Mar. 6, 1956	10.59	7,860
	Feb. 13, 1938	9.8	7,360	1957	Dec. 7, 1956	10.25	7,140
	Mar. 6, 1938	8.5	5,600		Jan. 23, 1957	12.69	14,300
	Sept. 15, 1938	8.6	5,730	1958	Mar. 2, 1958	<sup>a</sup> 10.54	3,200
	Sept. 23, 1938	7.8	4,730				
1939	Feb. 20, 1939	10.90	10,500				

<sup>a</sup>Backwater from ice.

## FRENCH CREEK BASIN

## 220. French Creek at Venango, Pa.

Location. --Lat 41°46'35", long 80°06'30", at highway bridge at Venango, Crawford County, 1.5 miles upstream from Gravel Run, and 2.0 miles downstream from Boles Run.

Drainage area. --597 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,117.18 ft above mean sea level (Corps of Engineers, U. S. Army benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 7,600 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 21, 1939	11.70	12,500	1944	Feb. 28, 1944	9.0	7,600
1940	Apr. 1, 1940	11.1	11,300		Mar. 18, 1944	9.1	7,760
					Apr. 13, 1944	11.4	11,900
1941	Dec. 14, 1940	9.7	8,780	1945	Feb. 25, 1945	10.1	9,480
1942	Mar. 10, 1942	9.8	8,610		Mar. 7, 1945	11.4	11,900
	Mar. 18, 1942	12.4	13,900	1946	Oct. 3, 1945	10.6	10,400
1943	Dec. 30, 1942	13.0	15,200				
	Mar. 18, 1943	9.6	8,610				

## 225. French Creek at Saegerstown, Pa.

Location. --Lat 41°42'50", long 80°08'50", on upstream side of highway bridge at Saegerstown, Crawford County, half a mile upstream from Woodcock Creek.

Drainage area. --629 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,093.74 ft above mean sea level (Pennsylvania Department of Highways benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 14,000 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 8,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 2, 1921	9.54	6,910	1929	Jan. 20, 1929	15.90	20,800
1923	Mar. 5, 1923	11.38	10,900		Feb. 28, 1929	10.0	8,120
1924	Jan. 12, 1924	11.30	10,600		May 4, 1929	11.8	11,400
1925	Oct. 1, 1924	10.26	8,400	1930	Jan. 10, 1930	10.8	9,000
	Feb. 10, 1925	12.0	12,000		Jan. 14, 1930	10.4	8,400
1926	Feb. 26, 1926	<sup>a</sup> 11.4	—	1931	Apr. 3, 1931	8.49	5,710
	Mar. 26, 1926	10.80	9,460	1932	May 9, 1932	9.52	7,220
	Sept. 26, 1926	10.74	9,240	1933	Mar. 15, 1933	9.36	7,070
1927	Oct. 26, 1926	11.64	11,300	1934	Jan. 3, 1934	12.0	11,800
	Nov. 17, 1926	10.47	8,800		Mar. 5, 1934	11.7	11,200
1928	Dec. 2, 1927	12.5	12,800	1935	Jan. 10, 1935	9.60	7,370
	Dec. 15, 1927	11.2	9,600				
	Jan. 1, 1928	12.80	13,400				
	Mar. 15, 1928	10.46	8,550				

## French Creek at Saegerstown, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Feb. 28, 1936	12.20	12,200	1938	Feb. 11, 1938	10.7	9,340
	Mar. 13, 1936	11.15	10,300		Feb. 14, 1938	12.2	12,000
	Mar. 26, 1936	13.80	15,400		Mar. 7, 1938	10.3	8,630
1937	Jan. 16, 1937	12.20	12,200	1939	Feb. 21, 1939	12.40	12,600
	Jan. 26, 1937	13.24	14,300				
	Apr. 27, 1937	13.20	14,300				
	June 21, 1937	13.0	13,900				

<sup>a</sup>Backwater from ice.

## 230. Cussewago Creek near Meadville, Pa.

Location.--Lat 41°40'20", long 80°12'55", at highway bridge 4 miles northwest of Meadville, Crawford County, and 4½ miles upstream from mouth.

Drainage area.--90.2 sq mi.

Gage.--Nonrecording gage. Datum of gage is 1,071.77 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 970 ft and extended above by logarithmic plotting on basis of velocity-area study.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 1,150 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Dec. 31, 1910	10.4	1,180	1918	Oct. 25, 1917	10.8	1,340
	Jan. 4, 1911	10.8	1,340		Oct. 31, 1917	10.4	1,180
	Jan. 13, 1911	10.5	1,220		Feb. 15, 1918	11.1	1,480
1912	Nov. 19, 1911	10.4	1,180		Mar. 15, 1918	11.0	1,430
	Mar. 18, 1912	<sup>a</sup> 10.5	—	1919	May 11, 1919	10.72	1,210
	Mar. 30, 1912	10.7	1,300		Mar. 12, 1920	<sup>a</sup> 13.59	1,700
1913	Oct. 24, 1912	10.8	1,340	1920	Nov. 23, 1920	10.1	1,060
	Jan. 7, 1913	11.1	1,480		Nov. 2, 1921	11.36	1,630
	Jan. 19, 1913	11.4	1,630	1922	Nov. 19, 1921	10.64	1,260
	Mar. 25, 1913	16.0	5,250		Mar. 4, 1923	10.63	1,260
1914	Nov. 14, 1913	11.1	1,480	1924	Jan. 12, 1924	11.15	1,530
	Jan. 30, 1914	<sup>a</sup> 10.8	—		May 10, 1924	10.6	1,260
	Mar. 28, 1914	10.6	1,260		Sept. 30, 1924	10.6	1,260
	May 13, 1914	10.9	1,380	1925	Feb. 9, 1925	11.3	1,580
1915	Feb. 2, 1915	11.50	1,680		Mar. 21, 1926	<sup>a</sup> 10.5	—
	Aug. 5, 1915	12.5	2,230	1926	Sept. 25, 1926	12.0	1,930
1916	Dec. 19, 1915	10.40	1,180		Oct. 26, 1926	11.2	1,530
	Jan. 3, 1916	11.70	1,780	1927	Nov. 17, 1926	10.7	1,300
	Mar. 28, 1916	13.3	2,760		Jan. 23, 1927	10.8	1,340
1917	Mar. 12, 1917	11.1	1,480				



## FRENCH CREEK BASIN

Cussewago Creek near Meadville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	Dec. 1, 1927	11.72	1,780	1934	Nov. 23, 1933	10.8	1,340
	Dec. 14, 1927	10.9	1,380		Jan. 2, 1934	10.5	1,220
	Jan. 1, 1928	10.7	1,300		Mar. 5, 1934	10.84	1,340
	Feb. 9, 1928	10.4	1,180	1935	Jan. 22, 1935	10.4	1,180
1929	Jan. 19, 1929	12.69	2,350		Feb. 16, 1935	10.9	1,380
	Feb. 27, 1929	11.7	1,780	1936	Feb. 27, 1936	11.5	1,680
	May 3, 1929	11.4	1,630		Mar. 25, 1936	13.30	2,760
1930	Jan. 3, 1930	10.30	1,140	1937	Jan. 15, 1937	12.0	1,930
1931	Dec. 8, 1930	9.60	890		Jan. 25, 1937	13.0	2,550
					Apr. 27, 1937	11.7	1,780
1932	May 9, 1932	10.7	1,300		June 22, 1937	12.4	2,170
1933	Jan. 1, 1933	10.5	1,220	1938	Dec. 19, 1937	10.6	1,260
					Feb. 10, 1938	11.3	1,580
					Feb. 18, 1938	10.8	1,340

<sup>a</sup>Backwater from ice.

## 235. French Creek at Carlton, Pa.

Location. --Lat 41°28'15", long 80°01'05", on downstream side of highway bridge at Carlton, Mercer County, half a mile downstream from Powdermill Run.

Drainage area. --998 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,033.60 ft above mean sea level, datum of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 21,000 cfs and extended on basis of logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	May 2, 1909	11.60	20,000	1917	Mar. 13, 1917	9.6	11,700
1910	Mar. 3, 1910	12.00	21,200	1918	Mar. 16, 1918	11.2	16,000
1911	Jan. 15, 1911	10.6	17,000	1919	May 12, 1919	10.8	15,000
	Mar. 21, 1912	10.7	17,300	1920	Mar. 14, 1920	13.50	25,000
1913	Mar. 27, 1913	16.5	38,000	1921	Mar. 8, 1921	8.0	8,550
1914	Mar. 30, 1914	10.9	17,800	1922	Nov. 3, 1921	8.70	9,840
1915	Aug. 6, 1915	9.98	12,700	1923	Mar. 6, 1923	9.85	12,200
1916	Mar. 29, 1916	13.3	24,100	1924	Jan. 13, 1924	10.0	12,700
				1925	Feb. 11, 1925	10.75	14,800

## 240. French Creek at Utica, Pa.

Location. --Lat 41°26'15", long 79°57'20", on right bank at upstream side of bridge on State Highway 964 at Utica, Venango County, a third of a mile upstream from Mill Creek.

Drainage area. --1,028 sq mi.

Gage. --Nonrecording gage prior to Nov. 27, 1933; recording gage thereafter. Datum of gage is 1,019.54 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 21,000 cfs and extended above.

Bankfull stage. --10 ft.

Remarks. --Only annual peaks are shown.

## French Creek at Utica, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 1913	15.7	35,600	1946	May 28, 1946	10.15	14,100
1933	Mar. 16, 1933	8.6	9,790	1947	Apr. 7, 1947	12.25	20,400
1934	Mar. 6, 1934	9.46	11,700	1948	Mar. 23-24, 1948	12.32	20,700
1935	Jan. 11, 1935	8.16	8,830	1949	Mar. 25, 1949	8.13	8,660
				1950	Mar. 30, 1950	10.24	14,100
1936	Mar. 27, 1936	11.57	16,800	1951	Dec. 5, 1950	11.81	19,000
1937	Jan. 26, 1937	10.88	16,800	1952	Jan. 28, 1952	10.21	14,100
1938	Feb. 15, 1938	9.69	13,000	1953	June 1, 1953	8.71	10,100
1939	Feb. 22, 1939	9.58	12,700	1954	Mar. 3, 1954	8.87	10,600
1940	Apr. 2, 1940	10.00	13,900	1955	Oct. 17, 1954	11.05	16,400
1941	Dec. 14, 1940	8.85	9,390	1956	Mar. 9, 1956	11.48	17,900
1942	Mar. 19, 1942	10.14	14,100	1957	Jan. 24, 1957	10.80	15,800
1943	Dec. 31, 1942	11.49	17,400	1958	July 15, 1958	9.24	11,300
1944	Apr. 14, 1944	10.15	14,100				
1945	Mar. 8, 1945	10.35	14,600				

## 245. Sugar Creek at Wyattville, Pa.

Location. --Lat 41°26'55", long 79°53'55", at steel bridge on present U. S. Highway 322 at Wyattville, Venango County, 3 miles upstream from mouth.

Drainage area. --153 sq mi.

Gage. --Nonrecording gage. Datum of gage is 1,050.96 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements and extended above 1,400 cfs by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Sept. 15, 1911	6.6	4,240	1916	Mar. 28, 1916	7.95	6,800
1912	Mar. 29, 1912	5.8	3,030				
1913	Mar. 25, 1913	9.4	10,000				
1914	Mar. 28, 1914	6.69	4,400				
1915	July 17, 1915	7.04	4,900				

## 250. Sugar Creek at Sugarcreek, Pa.

Location. --Lat 41°25'45", long 79°52'45", on right bank at downstream side of highway bridge three-quarters of a mile north of Sugarcreek, Venango County, three-quarters of a mile upstream from mouth, and 3 miles northwest of Franklin.

Drainage area. --166 sq mi.

Gage. --Nonrecording gage prior to Dec. 8, 1939; recording gage thereafter. Prior to Sept. 1, 1948 at datum 2.00 ft higher. Sept. 1, 1948 to Nov. 11, 1952 at datum 1.20 ft higher. Datum of present gage is 1,014.03 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 3,000 cfs.

## FRENCH CREEK BASIN

Sugar Creek at Sugarcreek, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Mar. 14, 1933	5.96	3,630	1946	May 28, 1946	8.49	10,000
1934	Jan. 1, 1934	6.03	3,630	1947	Apr. 5, 1947	6.53	4,320
1935	Jan. 21, 1935	5.12	2,060	1948	Feb. 14, 1948	6.34	3,930
1936	Feb. 27, 1936	7.3	6,080		Mar. 20, 1948	6.20	3,660
	Mar. 25, 1936	6.8	5,090		Mar. 22, 1948	7.73	7,450
1937	Jan. 8, 1937	5.7	3,130	1949	Jan. 6, 1949	5.19	2,610
	Jan. 15, 1937	7.5	6,500	1950	Jan. 16, 1950	5.80	3,330
	Jan. 18, 1937	5.9	3,460		Feb. 14, 1950	7.02	5,020
	Jan. 21, 1937	6.8	5,090		Mar. 26, 1950	7.56	5,960
	Jan. 25, 1937	8.5	8,690		Apr. 5, 1950	5.86	3,470
	Apr. 26, 1937	7.8	7,130	1951	Dec. 4, 1950	6.68	4,570
	June 14, 1937	6.7	4,900		Dec. 8, 1950	5.83	3,340
	July 16, 1937	6.0	3,630		Jan. 4, 1951	6.66	4,680
1938	Dec. 18, 1937	6.7	4,900		Feb. 21, 1951	5.43	3,040
	Feb. 9, 1938	6.1	3,800		Mar. 4, 1951	6.29	4,140
	Feb. 13, 1938	6.3	4,160	1952	Jan. 1, 1952	5.54	3,150
	Mar. 5, 1938	6.2	3,980		Jan. 18, 1952	7.41	6,050
	Apr. 9, 1938	6.6	4,390		Jan. 20, 1952	5.49	3,530
1939	Feb. 20, 1939	6.2	3,570		Jan. 27, 1952	7.95	7,010
1940	Mar. 30, 1940	6.47	4,070		Feb. 4, 1952	5.17	3,230
	Apr. 4, 1940	6.32	3,770		Mar. 11, 1952	5.92	4,010
	Apr. 9, 1940	6.19	3,570	1953	May 26, 1953	7.27	4,250
1941	Dec. 13, 1940	6.14	3,210		May 31, 1953	9.01	7,050
1942	Feb. 17, 1942	6.16	3,480	1954	Mar. 1, 1954	6.51	3,510
	Mar. 9, 1942	7.10	5,490		Apr. 17, 1954	6.58	3,640
	Mar. 14, 1942	5.95	3,160	1955	Oct. 16, 1954	9.20	9,480
	Mar. 17, 1942	7.15	5,600		Dec. 30, 1954	5.89	3,580
	Apr. 10, 1942	6.10	3,410		Mar. 4, 1955	5.94	3,580
1943	Dec. 29, 1942	7.55	6,680	1956	Nov. 16, 1955	7.12	5,360
	Feb. 11, 1943	6.10	3,530		Feb. 25, 1956	8.37	7,700
1944	Apr. 11, 1944	5.73	3,020		Mar. 8, 1956	6.66	4,650
1945	Feb. 22, 1945	6.37	3,980		May 13, 1956	8.76	8,560
	Feb. 27, 1945	6.26	3,790		Aug. 19, 1956	6.51	4,350
	Mar. 3, 1945	6.23	3,790	1957	Jan. 23, 1957	7.30	5,620
	Mar. 6, 1945	5.94	3,300		Apr. 6, 1957	5.83	3,390
	Mar. 21, 1945	6.63	4,570		June 29, 1957	6.83	4,800
	Apr. 5, 1945	6.17	3,620	1958	July 15, 1958	8.35	7,700

## OHIO RIVER MAIN STEM

## 255. Allegheny River at Franklin, Pa.

Location. --Lat 41°23'25", long 79°49'10", on right bank at downstream side of Eighth Street Bridge on U. S. Highway 62 at Franklin, Venango County, 1,000 ft downstream from French Creek.

Drainage area. --5,982 sq mi.

Gage. --Nonrecording gage prior to Sept. 16, 1932; recording gage thereafter. Prior to Sept. 16, 1932 datum 2.00 ft higher. Datum of present gage is 955.92 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 120,000 cfs and extended.

Bankfull stage. --17 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Allegheny River at Franklin, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1865	Mar. 17, 1865	25.0	196,000	1936	Mar. 28, 1936	19.02	118,000
1915	Feb. 2, 1915	10.4	54,900	1937	Jan. 25, 1937	17.93	106,000
1916	Mar. 29, 1916	17.2	121,000	1938	Feb. 14, 1938	13.86	67,600
1917	Mar. 12, 1917	11.0	59,900	1939	Feb. 21, 1939	15.24	77,900
1918	Mar. 15, 1918	16.1	108,000	1940	Apr. 4, 1940	16.98	99,000
1919	May 11, 1919	12.7	70,100	1941	Dec. 13, 1940	13.78	67,200
1920	Mar. 13, 1920	18.65	138,000	1942	Mar. 18, 1942	16.16	88,000
1921	Mar. 7, 1921	9.9	49,600	1943	Dec. 31, 1942	18.17	110,000
1922	Apr. 1, 1922	9.05	43,300	1944	Apr. 13, 1944	13.61	63,100
1923	Mar. 5, 1923	12.59	69,300	1945	Mar. 7, 1945	15.81	83,900
1924	Jan. 11-12, 1924	12.55	69,300	1946	May 28, 1946	17.98	107,000
1925	Feb. 12, 1925	12.8	70,900	1947	Apr. 6, 1947	19.05	115,000
1926	Mar. 24, 1926	11.7	65,800	1948	Mar. 22, 1948	20.36	132,000
1927	Nov. 17, 1926	11.4	60,100	1949	Jan. 6, 1949	10.49	38,400
1928	Dec. 1, 1927	17.22	121,000	1950	Mar. 29, 1950	15.93	83,800
1929	Jan. 19, 1929	15.00	96,400	1951	Dec. 4, 1950	16.09	84,400
1930	Feb. 26, 1930	11.60	61,500	1952	Jan. 27, 1952	15.45	77,700
1931	Mar. 29, 1931	9.00	43,300	1953	May 31, 1953	13.77	63,400
1932	May 9, 1932	12.00	64,500	1954	Feb. 17, 1954	12.04	48,700
1933	Mar. 16, 1933	12.14	50,700	1955	Oct. 16, 1954	15.51	78,600
1934	Jan. 2, 1934	13.54	60,500	1956	Mar. 8-9, 1956	20.55	134,000
1935	Jan. 10, 1935	12.98	57,000	1957	Jan. 23, 1957	15.96	83,400
				1958	July 15, 1958	11.37	44,200

## CLARION RIVER BASIN

265. Sevenmile Run near Rasselas, Pa.

Location. --Lat 41°37'52", long 78°34'37", on right bank 300 ft upstream from highway bridge, 600 ft upstream from Fivemile Run, and 3.2 miles northeast of Rasselas, Elk County.

Drainage area. --7.84 sq mi.

Gage. --Recording gage. Datum of gage is 1,690.73 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 200 cfs and extended on basis of slope-area measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 200 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Jan. 18, 1952	3.96	290	1955	Oct. 15, 1954	3.86	279
	Jan. 27, 1952	3.83	256		Mar. 1, 1955	3.73	232
	Mar. 11, 1952	3.59	197		Mar. 4, 1955	3.81	259
1953	May 22, 1953	4.60	1,100	1956	Mar. 8, 1956	4.32	624
	May 26, 1953	4.21	506		Apr. 4, 1956	3.67	213
	Aug. 9, 1953	4.78	1,590		May 13, 1956	4.07	390
1954	Mar. 1, 1954	3.82	263		Aug. 6, 1956	4.12	427
				1957	Jan. 23, 1957	3.70	222
				1958	Apr. 6, 1958	3.84	271



## CLARION RIVER BASIN

## 275. East Branch Clarion River at East Branch Clarion River Dam, Pa.

Location. --Lat 41°33'10", long 78°35'50", on left bank 700 ft upstream from Middle Fork, 0.5 mile downstream from East Branch Clarion River Dam, Elk County and 1¼ miles northeast of Glen Hazel.

Drainage area. --73.2 sq mi.

Gage. --Recording gage. Datum of gage is 1,517.58 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --4 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 22, 1949	4.50	870	1956	May 15, 1956	4.45	839
1950	Mar. 28, 1950	6.71	2,140	1957	May 10, 1957	7.25	2,590
				1958	Sept. 2-5, 1958	2.98	295
1951	Nov. 25, 1950	7.04	2,350				
1952	Jan. 18, 1952	6.48	2,020				
1953	June 3, 1953	5.55	1,410				
1954	Apr. 29, 1954	3.64	488				
1955	Mar. 9, 10, 1955	4.72	960				

## 280. West Branch Clarion River at Wilcox, Pa.

Location. --Lat 41°34'30", long 78°41'35", on right bank 20 ft downstream from highway bridge at Wilcox, Elk County, 100 ft downstream from Wilson Run, and 0.1 mile upstream from Pennsylvania Railroad bridge.

Drainage area. --63.0 sq mi.

Gage. --Nonrecording gage prior to Dec. 8, 1953; recording gage thereafter. Prior to Nov. 18, 1953, gage at site 20 ft upstream. Datum of gage is 1,502.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1943.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 1,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Mar. 1, 1954	6.30	<sup>a</sup> 1,000	1956	Mar. 8, 1956	8.59	4,050
					May 13, 1956	6.00	2,230
1955	Oct. 16, 1954	6.43	2,510		Aug. 6, 1956	5.17	1,640
	Mar. 4, 1955	5.43	1,810	1957	Jan. 23, 1957	4.66	1,220
	Mar. 11, 1955	5.27	1,700	1958	July 15, 1958	6.01	2,040

<sup>a</sup>Maximum daily discharge.

## 285. Clarion River at Johnsonburg, Pa.

Location. --Lat 41°29'10", long 78°40'43", on right bank at downstream side of highway bridge in Johnsonburg, Elk County, 0.1 mile downstream from Johnson Run and 0.4 mile downstream from confluence of East and West Branches.

Drainage area. --204 sq mi.

Gage. --Nonrecording gage prior to Nov. 8, 1951; recording gage thereafter. Datum of gage is 1,422.98 ft above mean sea level, datum of 1929, supplementary adjustment of 1943.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --5 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	July 1942	<sup>a</sup> 16.7	—	1951	Nov. 25, 1950	9.25	10,500
1946	May 28, 1946	9.2	11,700	1952	Jan. 18, 1952	7.65	6,910
1947	Apr. 5, 1947	7.0	5,880	1953	May 23, 1953	7.54	6,690
1948	Mar. 22, 1948	7.3	6,540	1954	Mar. 1, 1954	6.48	4,750
1949	May 22, 1949	5.3	3,040	1955	Oct. 16, 1954	5.85	3,320
1950	Mar. 29, 1950	6.7	4,770	1956	Mar. 8, 1956	7.95	6,870
				1957	May 11, 1957	5.65	3,080
				1958	July 15, 1958	5.74	3,220

<sup>a</sup>From floodmark.

## 290. Clarion River at Ridgeway, Pa.

Location. --Lat 41°25'15", long 78°44'10", on right bank at downstream side of bridge on State Highway 948 in Ridgeway, Elk County, 50 ft downstream from Elk Creek.

Drainage area. --303 sq mi.

Gage. --Nonrecording gage prior to Sept. 16, 1948; recording gage thereafter. Datum of gage is 1,361.62 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 13,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --10 ft.

Remarks. --Only annual peaks are shown. Flow regulated after 1952.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Dec. 13, 1940	7.4	5,660	1946	May 28, 1946	10.79	13,100
1942	July 19, 1942	16.4	34,000	1947	Apr. 5, 1947	8.66	8,280
1943	May 26, 1943	10.91	13,400	1948	Apr. 12, 1948	8.86	8,680
1944	Mar. 17, 1944	8.2	7,300	1949	May 22, 1949	5.57	3,710
1945	Mar. 3, 1945	9.5	10,000	1950	Mar. 29, 1950	8.74	8,280
				1951	Nov. 25, 1950	12.27	17,500
				1952	Jan. 18, 1952	9.93	10,900
				1953	May 23, 1953	8.96	8,900

## CLARION RIVER BASIN

## 295. Clarion River at Cooksburg, Pa.

Location. --Lat 41°19'50", long 79°12'35", on left bank at downstream side of bridge on State Highway 36 at Cooksburg, Forest County, 300 ft downstream from Toms Run and 5 miles upstream from Canter Run.

Drainage area. --807 sq mi.

Gage. --Nonrecording gage prior to May 17, 1939; recording gage thereafter. Datum of gage is 1,146.48 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --10 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 17, 1936	19	56,000	1948	Apr. 12, 1948	10.92	16,400
1939	Feb. 21, 1939	8.8	9,780	1949	May 23, 1949	9.11	10,800
1940	Apr. 1, 1940	11.34	17,800	1950	Mar. 29, 1950	10.84	15,700
1941	Dec. 13, 1940	9.74	12,500	1951	Nov. 26, 1950	14.52	34,000
1942	July 19, 1942	14.96	32,700	1952	Jan. 27, 1952	12.90	23,400
1943	Dec. 30, 1942	14.23	29,100	1953	May 26, 1953	11.67	18,800
1944	Mar. 17, 1944	9.79	12,800	1954	Mar. 2, 1954	12.27	21,000
1945	Mar. 4, 1945	11.71	19,200	1955	Oct. 16, 1954	11.53	18,000
1946	May 28, 1946	12.58	22,600	1956	Mar. 8, 1956	13.19	24,600
1947	Apr. 6, 1947	10.04	13,400	1957	Jan. 23, 1957	9.75	12,800
				1958	July 15, 1958	9.76	12,800

## 305. Clarion River near Piney, Pa.

Location. --Lat 41°11'33", long 79°26'25", on left bank a quarter of a mile downstream from hydroelectric plant of Pennsylvania Electric Co., 2¼ miles northeast of Piney, Clarion County, 2.4 miles upstream from Piney Creek, and 3 miles southwest of Clarion.

Drainage area. --951 sq mi.

Gage. --Recording gage. Datum of gage is 1,002.06 ft above mean sea level (Pennsylvania Electric Co. benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	—	50,000	1953	May 26, 1953	14.59	22,400
1948	Apr. 12, 1948	13.01	18,300	1954	Mar. 2, 1954	15.05	23,600
1949	May 23, 1949	11.22	14,300	1955	Oct. 16, 1954	14.23	21,300
1950	Mar. 28, 1950	12.78	17,900	1956	Mar. 8, 1956	15.96	26,600
1951	Nov. 26, 1950	17.66	32,000	1957	Jan. 23, 1957	11.27	14,500
1952	Jan. 27, 1952	16.39	27,800	1958	July 15, 1958	11.90	15,800

## 310. Clarion River at St. Petersburg, Pa.

Location. --Lat 41°08'55", long 79°39'40", on left bank at downstream side of highway bridge, 1 mile south of St. Petersburg, Clarion County, 1.6 miles downstream from Turkey Run, and 4.5 miles upstream from mouth.

Drainage area. --1,246 sq mi.

Gage. --Nonrecording gage prior to Oct. 23, 1941; recording gage thereafter. Datum of gage is 876.13 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	July 19, 1942	14.82	34,000	1948	Apr. 14, 1948	12.82	23,500
1943	Dec. 30, 1942	16.45	44,400	1949	May 23, 1949	11.04	16,300
1944	Mar. 18, 1944	11.10	16,600	1950	Mar. 28, 1950	12.15	20,800
1945	Mar. 7, 1945	13.89	28,900				
				1951	Nov. 26, 1950	15.10	35,800
1946	May 28, 1946	13.91	28,900	1952	Jan. 27, 1952	15.23	36,400
1947	Apr. 6, 1947	10.58	14,900	1953	May 31, 1953	14.78	34,000

## OHIO RIVER MAIN STEM

## 315. Allegheny River at Parkers Landing, Pa.

Location. --Lat 41°06'05", long 79°40'45", on right bank 500 ft downstream from bridge on State Highway 368 at Parkers Landing, Armstrong County, and 1.1 miles downstream from Clarion River.

Drainage area. --7,671 sq mi.

Gage. --Nonrecording gage prior to Oct. 28, 1932; recording gage thereafter. Datum of present gage is 845.14 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 125,000 cfs and extended.

Bankfull stage. --20 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1865	Mar. 17, 1865	29.4	250,000	1946	May 28, 1946	20.28	139,000
1933	Mar. 16, 1933	13.02	68,900	1947	Apr. 6, 1947	19.44	129,000
1934	Jan. 2, 1934	12.78	67,300	1948	Mar. 23, 1948	20.53	142,000
1935	Jan. 10, 1935	13.10	69,700	1949	Jan. 7, 1949	10.45	48,100
				1950	Mar. 29, 1950	16.53	100,000
1936	Mar. 28, 1936	19.30	128,000	1951	Dec. 4, 1950	17.20	107,000
1937	Jan. 25, 1937	21.20	149,000	1952	Jan. 27, 1952	18.61	121,000
1938	Dec. 18, 1937	14.89	85,700	1953	May 31, 1953	17.05	105,000
1939	Feb. 21, 1939	15.07	86,800	1954	Mar. 2, 1954	12.88	67,400
1940	Apr. 4, 1940	18.00	115,000	1955	Oct. 16, 1954	17.78	107,000
1941	Dec. 14, 1940	14.03	76,800	1956	Mar. 9, 1956	22.69	152,000
1942	Mar. 18, 1942	16.23	97,200	1957	Jan. 23, 1957	16.87	99,300
1943	Dec. 30, 1942	21.80	157,000	1958	July 15, 1958	15.03	83,900
1944	Apr. 13, 1944	13.53	72,600				
1945	Mar. 7, 1945	18.31	118,000				



## REDBANK CREEK BASIN

325. Redbank Creek at St. Charles, Pa.

Location. --Lat 40°59'40", long 79°23'40", on left bank 500 ft downstream from industrial railroad bridge at St. Charles, Clarion County, 0.3 mile downstream from Leatherwood Creek, and 3 miles west of New Bethlehem.

Drainage area. --528 sq mi.

Gage. --Nonrecording gage prior to July 10, 1940; recording gage thereafter. Prior to July 10, 1940 gage at site 500 ft upstream at datum 3.10 ft higher. Datum of present gage is 973.14 ft above mean sea level adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements and extended by slope-area measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 7,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Feb. 28, 1910	10.46	<sup>a</sup> 14,900	1930	Nov. 17, 1929	7.6	8,850
1911	Sept. 15, 1911	9.81	<sup>a</sup> 13,300		Feb. 26, 1930	7.2	7,970
1912	Oct. 2, 1911	14.7	<sup>a</sup> 25,200	1931	Apr. 4, 1931	6.25	5,850
1913	Mar. 26, 1913	12.16	<sup>a</sup> 19,000	1932	Dec. 14, 1931	7.1	7,760
1914	May 13, 1914	8.40	<sup>a</sup> 10,100		Jan. 18, 1932	8.5	11,000
1915	Feb. 1, 1915	11.5	<sup>a</sup> 17,300	1933	Mar. 15, 1933	9.30	13,000
1916	Mar. 28, 1916	12.0	<sup>a</sup> 18,500	1934	Dec. 21, 1933	5.85	5,060
1917	Mar. 12, 1917	7.7	<sup>a</sup> 8,550	1935	Jan. 22, 1935	7.5	8,660
1918	Feb. 20, 1918	12.2	<sup>a</sup> 19,000		May 7, 1935	8.55	11,200
1919	Jan. 2, 1919	7.1	7,750		July 25, 1935	6.9	7,320
	May 10, 1919	8.20	10,200	1936	Feb. 27, 1936	6.8	7,100
	May 21, 1919	8.0	9,770		Mar. 12, 1936	8.4	10,700
1920	Mar. 12, 1920	<sup>b</sup> 14.0	—		Mar. 18, 1936	18.60	35,200
	Mar. 12, 13, 1920	10.3	15,500	1937	Nov. 5, 1936	7.4	8,220
	June 18, 1920	8.6	11,200		Jan. 15, 1937	7.8	9,090
1921	Mar. 7, 1921	7.0	<sup>a</sup> 7,530		Jan. 18, 1937	7.3	8,010
1922	Nov. 2, 1921	8.50	10,900		Jan. 22, 1937	10.3	14,700
	Nov. 28, 1921	7.1	7,750		Jan. 25, 1937	11.7	18,000
1923	Mar. 4, 1923	7.0	7,530		Apr. 26, 1937	11.5	17,300
	May 12, 1923	10.8	15,600	1938	Dec. 18, 1937	11.6	17,600
1924	Dec. 7, 1923	6.8	7,110		Mar. 6, 1938	8.3	9,870
	Jan. 3, 1924	<sup>b</sup> 8.4	—		Mar. 14, 1938	7.2	7,460
	June 29, 1924	11.56	18,500		June 27, 1938	7.2	7,460
	Sept. 30, 1924	7.5	8,630	1939	Mar. 13, 1939	7.1	7,250
1925	Feb. 10, 1925	9.50	13,500	1940	Mar. 31, 1940	9.4	12,400
1926	Jan. 19, 1926	7.2	7,970		Apr. 20, 1940	8.0	9,210
	Feb. 26, 1926	9.0	11,500	1941	Aug. 15, 1941	8.81	5,410
	June 15, 1926	6.9	7,320	1942	Mar. 9, 1942	10.35	7,750
	Sept. 5, 1926	11.2	16,600	1943	Dec. 30, 1942	14.88	14,800
1927	Jan. 22, 1927	10.1	15,000		Apr. 20, 1943	10.46	8,050
	Mar. 8, 1927	8.2	10,200		May 26, 1943	11.13	8,950
	Mar. 21, 1927	8.1	10,000	1944	Mar. 17, 1944	9.64	6,700
1928	Dec. 14, 1927	12.8	21,000	1945	Feb. 22, 1945	<sup>b</sup> 13.61	—
	Mar. 30, 1928	7.3	8,190		Feb. 23, 1945	11.78	10,000
	June 6, 1928	7.5	8,630		Feb. 27, 1945	11.55	9,700
1929	Jan. 19, 1929	7.6	8,850		Mar. 3, 1945	12.13	10,400
	Feb. 27, 1929	7.0	7,530		Mar. 7, 1945	12.07	10,400
	Apr. 5, 1929	6.8	7,110		Mar. 22, 1945	11.15	9,100
				1946	Feb. 27, 1946	11.12	8,950
					May 27, 1946	11.23	9,100

## Redbank Creek at St. Charles, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 8, 1947	8.56	5,300	1952	Feb. 5, 1952	10.18	7,920
1948	Feb. 14, 1948	11.32	9,250	Cont.	Mar. 11, 1952	10.63	8,560
	Apr. 12, 1948	10.50	8,050		May 25, 1952	10.27	8,080
	Apr. 14, 1948	11.55	9,700	1953	May 26, 1953	11.63	10,200
					May 31, 1953	13.18	12,700
1949	Dec. 16, 1948	10.24	7,600	1954	Mar. 1, 1954	12.36	11,400
1950	Jan. 7, 1950	9.92	7,150	1955	Oct. 16, 1954	13.82	13,700
	Jan. 10, 1950	11.11	8,950				
	Feb. 15, 1950	9.82	7,000	1956	Feb. 25, 1956	13.87	13,900
	Mar. 28, 1950	10.62	8,200		Mar. 8, 1956	11.45	9,740
1951	Nov. 5, 1950	10.01	7,300		May 13, 1956	14.07	14,300
	Dec. 4, 1950	10.94	9,080		Aug. 5, 1956	10.11	7,660
	Jan. 4, 1951	10.38	8,240	1957	Jan. 23, 1957	10.97	9,100
	Mar. 4, 1951	9.72	7,120		Apr. 6, 1957	11.33	9,580
1952	Jan. 18, 1952	9.90	7,440	1958	July 15, 1958	13.31	12,900
	Jan. 27, 1952	13.98	14,000				

<sup>a</sup>Annual peak only.<sup>b</sup>Backwater from ice.

## OHIO RIVER MAIN STEM

330. Allegheny River near Rimer, Pa.

Location. --Lat 40°57'30", long 79°32'50", 800 ft upstream from dam at lock 9, 1.7 miles downstream from Redbank Creek, 2.0 miles upstream from Rimer, Armstrong County, and 6.8 miles upstream from Mahoning Creek.

Drainage area. --8,389 sq mi.

Gage. --Recording gage. Datum of gage is 810.75 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 21, 1939	18.94	88,700	1943	Dec. 30, 1942	22.54	160,000
1940	Apr. 4, 1940	20.30	116,000	1944	Apr. 13, 1944	18.37	79,700
1941	Dec. 14, 1940	18.44	79,700	1945	Mar. 7, 1945	20.97	130,000
1942	Mar. 18, 1942	19.64	102,000				

## MAHONING CREEK BASIN

## 340. Mahoning Creek at Punxsutawney, Pa.

Location. --Lat 40°56'21", long 79°00'31", on right bank 75 ft downstream from Williams Run, a quarter of a mile west of Punxsutawney, Jefferson County, and 1.9 miles downstream from Sawmill Run.

Drainage area. --158 sq mi.

Gage. --Recording gage. Prior to Oct. 1, 1946 at site 2.9 miles upstream at datum 13.30 ft higher. Datum of gage is 1,206.14 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 4,300 cfs and extended by logarithmic plotting.

Bankfull stage. --6 ft.

Remarks. --Base for partial-duration series, 2,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 15, 1939	4.93	2,140	1949	Dec. 16, 1948	5.76	2,480
1940	Mar. 19, 1940	6.50	3,170	1950	Jan. 10, 1950	7.26	3,740
	Mar. 31, 1940	8.86	5,030		Mar. 27, 1950	6.04	2,640
	Apr. 20, 1940	5.49	2,500	1951	Nov. 5, 1950	6.77	3,300
1941	Aug. 15, 1941	7.42	3,830		Dec. 4, 1950	6.83	3,300
	Aug. 26, 1941	5.48	2,500		Jan. 4, 1951	7.11	3,560
1942	Mar. 9, 1942	6.40	2,830		Mar. 30, 1951	6.18	2,800
1943	Dec. 30, 1942	10.86	6,460	1952	Jan. 1, 1952	5.91	2,560
	Apr. 19, 1943	6.46	2,890		Jan. 27, 1952	10.12	6,490
	May 12, 1943	6.85	3,070		Mar. 11, 1952	6.74	3,220
1944	Mar. 17, 1944	5.73	2,440		May 25, 1952	6.03	2,640
1945	Feb. 23, 1945	7.14	3,260	1953	May 26, 1953	7.57	4,020
	Feb. 27, 1945	8.12	3,990		May 31, 1953	9.38	5,790
	Mar. 3, 1945	8.71	4,470	1954	Mar. 1, 1954	8.85	5,190
	Mar. 7, 1945	8.63	4,390	1955	Oct. 16, 1954	7.36	3,830
	Mar. 22, 1945	7.16	3,330		Dec. 30, 1954	6.83	3,300
1946	Feb. 27, 1946	6.69	3,010	1956	Feb. 18, 1956	5.98	2,640
	May 27, 1946	6.96	3,200		Feb. 25, 1956	—	3,600
	June 21, 1946	5.72	2,440		Mar. 8, 1956	7.22	3,650
1947	May 18, 1947	6.15	2,800		May 13, 1956	9.87	6,290
	June 8, 1947	7.01	3,470		Aug. 10, 1956	6.50	3,040
1948	Feb. 14, 1948	7.9	4,300		Aug. 12, 1956	8.03	4,400
	Apr. 12, 1948	7.41	3,830	1957	Jan. 23, 1957	6.56	3,130
	Apr. 14, 1948	7.96	4,400		Apr. 6, 1957	7.11	3,560
				1958	July 15, 1958	10.89	7,370

## 345. Little Mahoning Creek at McCormick, Pa.

Location. --Lat 40°50'10", long 79°06'35", on left bank 200 ft downstream from highway bridge at McCormick, Indiana County, 1 mile west of Georgeville, 1.7 miles upstream from Ross Run, and 4 miles southeast of Smicksburg.

Drainage area. --87.4 sq mi.

Gage. --Nonrecording gage prior to May 10, 1940; recording gage thereafter. Prior to May 10, 1940 at site 200 ft upstream. Datum of gage is 1,164.88 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 2,000 cfs.

## Little Mahoning Creek at McCormick, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Feb. 14, 1940	8.40	2,180	1949	Jan. 6, 1949	7.64	1,720
	Mar. 19, 1940	9.6	3,070	1950	Jan. 10, 1950	8.86	2,650
	Mar. 31, 1940	10.1	3,480				
1941	Mar. 4, 1941	<sup>a</sup> 11.94	—	1951	Nov. 5, 1950	9.80	3,530
	Aug. 15, 1941	6.31	1,320		Dec. 4, 1950	8.61	2,410
1942	Jan. 20, 1942	<sup>a</sup> 8.03	—		Jan. 4, 1951	8.74	2,610
	Mar. 9, 1942	7.56	2,100		Jan. 15, 1951	8.47	2,450
	Apr. 10, 1942	7.61	2,100		Mar. 30, 1951	7.8	2,030
1943	Dec. 30, 1942	10.77	4,670		Apr. 30, 1951	7.92	2,030
	Feb. 21, 1943	<sup>a</sup> 8.45	—	1952	Jan. 27, 1952	11.42	5,300
	Apr. 20, 1943	7.85	2,160		Mar. 11, 1952	7.98	2,100
	May 12, 1943	8.65	2,740	1953	May 31, 1953	10.47	4,260
1944	Jan. 4, 1944	9.58	3,560		June 7, 1953	8.33	2,310
	Feb. 23, 1944	<sup>a</sup> 8.20	—	1954	Mar. 1, 1954	9.84	3,550
	June 24, 1944	7.85	2,160				
1945	Dec. 25, 1944	<sup>a</sup> 10.46	—	1955	Oct. 16, 1954	11.30	5,180
	Feb. 17, 1945	<sup>a</sup> 10.82	—				
	Feb. 23, 1945	8.68	2,740	1956	Feb. 7, 1956	8.07	2,170
	Feb. 27, 1945	9.14	3,060		Feb. 25, 1956	10.16	3,950
	Mar. 3, 1945	8.65	2,740		Mar. 8, 1956	8.74	2,610
	Mar. 7, 1945	9.28	3,300		May 7, 1956	8.00	2,100
	Mar. 22, 1945	8.60	2,740		May 13, 1956	8.03	2,100
					July 2, 1956	8.75	2,690
					July 20, 1956	9.58	3,370
1946	Jan. 6, 1946	<sup>a</sup> 9.03	—	1957	Jan. 23, 1957	9.10	2,930
	Feb. 27, 1946	<sup>a</sup> 8.86	—		Apr. 5, 1957	8.64	2,530
	June 21, 1946	9.23	3,190	1958	Jan. 15, 1958	<sup>a</sup> 10.00	—
1947	Mar. 14, 1947	<sup>a</sup> 9.00	—		Aug. 3, 1958	7.80	1,960
	Aug. 22, 1947	7.67	2,000				
1948	Feb. 14, 1948	9.56	3,370				
	Apr. 12, 1948	9.44	3,190				
	Apr. 14, 1948	9.70	3,460				

<sup>a</sup>Backwater from ice.

## 350. Mahoning Creek near Dayton, Pa.

Location. --Lat 40°54'05", long 79°13'35", at Independence Bridge, three-quarters of a mile upstream from Foundry Run and 1 3/4 miles northeast of Dayton, Armstrong County.

Drainage area. --321 sq mi.

Gage. --Nonrecording. Datum of gage is 1,095.24 ft above mean sea level (general adjustment of 1907).

Stage-discharge relation. --Defined by current-meter measurements below 8,100 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 5,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	Jan. 22, 1917	<sup>a</sup> 7.3	—	1919	Jan. 2, 1919	6.9	5,780
	Mar. 12, 1917	6.8	5,610		May 10, 1919	7.4	6,670
1918	Oct. 20, 1917	6.8	5,610	1920	Nov. 27, 1919	7.0	5,950
	Feb. 15, 1918	7.1	6,130		Mar. 5, 1920	8.0	7,790
	Feb. 20, 1918	9.6	11,000		Mar. 12, 1920	8.0	7,790
	Feb. 26, 1918	7.5	6,850		Mar. 17, 1920	6.8	5,610
					June 18, 1920	7.8	7,410



## MAHONING CREEK BASIN

Mahoning Creek near Dayton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	Sept. 22, 1921	7.0	5,950	1929	Feb. 27, 1929	8.1	7,980
1922	Nov. 2, 1921	7.6	7,030		Apr. 6, 1929	7.65	7,030
	Nov. 29, 1921	7.3	6,490		Apr. 25, 1929	7.2	6,310
	Feb. 3, 1922	<sup>a</sup> 7.7	—	1930	Nov. 18, 1929	7.4	6,660
	Apr. 15, 1922	7.9	7,600		Feb. 26, 1930	8.0	7,680
1923	May 13, 1923	8.84	9,370	1931	Apr. 4, 1931	6.66	5,470
	July 30, 1923	8.6	8,970	1932	Dec. 14, 1931	6.24	4,620
1924	Jan. 4, 1924	<sup>b</sup> 7.12	5,460		Jan. 19, 1932	7.1	6,150
	June 29, 1924	—	<sup>c</sup> 11,000	1933	Mar. 15, 1933	7.30	6,490
1925	Feb. 12, 1925	8.1	7,980	1934	Dec. 19, 1933	5.90	4,140
	May 11, 1925	6.6	5,270	1935	May 7, 1935	6.39	4,960
1926	Jan. 20, 1926	7.7	7,220	1936	Feb. 27, 1936	6.55	5,270
	Feb. 26, 1926	8.2	8,170		Mar. 12, 1936	6.5	5,100
	June 14, 1926	7.7	7,220		Mar. 18, 1936	14.53	22,800
	Sept. 6, 1926	8.53	8,770	1937	Nov. 5, 1936	7.2	6,310
1927	Jan. 18, 1927	<sup>a</sup> 9.6	—		Jan. 22, 1937	7.9	7,600
	Jan. 23, 1927	7.0	5,950		Jan. 25, 1937	8.1	7,980
	Mar. 8, 1927	7.3	6,490		Apr. 26, 1937	8.3	8,370
	Mar. 21, 1927	8.2	8,170	1938	Dec. 18, 1937	8.6	8,970
	May 19, 1927	6.8	5,610	1939	Feb. 11, 1939	6.3	4,770
1928	Nov. 28, 1927	6.5	5,100	1940	Mar. 19, 1940	7.3	6,490
	Dec. 14, 1927	—	<sup>c</sup> 10,000		Mar. 31, 1940	8.4	8,570
	Mar. 30, 1928	8.8	9,370		Apr. 20, 1940	7.0	5,950
	June 6, 1928	8.0	7,790				
	July 6, 1928	7.2	6,310				

<sup>a</sup>Backwater from ice.<sup>b</sup>Mean daily.<sup>c</sup>Estimate based on adjacent stations.

## 360. Mahoning Creek at Mahoning Creek Dam, Pa.

Location. --Lat 40°55'40", long 79°17'30", on left bank at downstream side of highway bridge at McCrea Furnace, three-quarters of a mile downstream from Mahoning Creek Dam, Armstrong County, 1 mile southwest of Eddyville, and 2 miles upstream from Pine Run.

Drainage area. --344 sq mi.

Gage. --Nonrecording gage prior to Feb. 1, 1940; recording gage thereafter. Datum of gage is 1,003.39 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --8 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 3, 1939	6.5	5,420	1949	Jan. 30, 1949	6.51	5,420
1940	Mar. 31, 1940	7.83	9,300	1950	Feb. 18, 1950	6.61	5,680
1941	Apr. 5, 1941	5.64	3,640	1951	Jan. 6, 1951	7.30	7,690
1942	Mar. 8, 1942	8.10	10,400	1952	Jan. 30, 1952	7.52	8,280
1943	Jan. 2, 1943	7.25	7,540	1953	June 2, 1953	7.39	7,200
1944	May 25, 1944	5.63	3,630	1954	Mar. 3, 1954	6.64	5,360
1945	Mar. 8-9, 1945	7.32	7,690	1955	Feb. 25, 1955	6.07	4,060
1946	Mar. 1, 1946	5.78	3,910	1956	Apr. 11, 1956	5.96	3,860
1947	May 19, 1947	5.62	3,540	1957	Apr. 10, 1957	6.85	5,840
1948	Apr. 17, 1948	7.44	8,000	1958	May 9, 1958	6.54	5,130

## 365. Allegheny River at Kittanning, Pa.

Location. --Lat 40°49'15", long 79°31'55", on right bank 600 ft upstream from dam at lock 7 at Kittanning, Armstrong County, 5½ miles upstream from Crooked Creek, 10 miles downstream Mahoning Creek, and at mile 45.7.

Drainage area. --8,973 sq mi.

Gage. --Nonrecording gage prior to Apr. 19, 1939; recording gage thereafter. Prior to Sept. 30, 1928, at site 4,000 ft downstream at different datum. Datum of present gage is 771.32 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --23 ft.

Remarks. --Only annual peaks are shown. Flow regulated. Prior to 1904 records from U. S. Weather Bureau.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1806	Apr. 10, 1806	30	259,000	1916	Mar. 29, 1916	24.3	181,000
1832	Feb. 9, 1832	<sup>a</sup> 29	—	1917	Mar. 12, 1917	16.4	90,800
1865	Mar. 18, 1865	29.5	252,000	1918	Feb. 20, 1918	24.0	177,000
1874	Dec. 13, 1873	27	217,000	1919	May 11, 1919	17.9	106,000
1881	June 10, 1881	28	231,000	1920	Mar. 13, 1920	26.4	209,000
1883	Feb. 5, 1883	29	245,000	1921	Mar. 8, 1921	15.2	79,700
1884	Feb. 6, 1884	28	231,000	1922	Apr. 1, 1922	13.5	65,000
1885	Apr. 9, 1885	15.4	81,500	1923	Mar. 5, 1923	17.4	101,000
1886	Jan. 6, 1886	17.6	103,000	1924	Jan. 12, 1924	17.65	103,000
1887	Feb. 12, 1887	23.8	174,000	1925	Feb. 12, 1925	20.02	129,000
1888	Apr. 7, 1888	17.5	102,000	1926	Mar. 24, 1926	18.3	110,000
1889	June 2, 1889	16.2	88,900	1927	Jan. 23, 1927	18.0	107,000
1890	May 24, 1890	24.2	179,000	1928	Dec. 1, 1927	22.0	152,000
1891	Feb. 18, 1891	26.6	211,000	1935	Jan. 10, 1935	18.5	75,700
1892	June 6, 1892	19.3	121,000	1936	Mar. 18, 1936	26.0	192,000
1893	May 18, 1893	21.4	145,000	1937	Jan. 25, 1937	24.7	174,000
1894	May 21, 1894	23.2	167,000	1938	Dec. 18, 1937	20.7	110,000
1895	Apr. 10, 1895	18.2	109,000	1939	Feb. 21, 1939	19.5	91,500
1896	Mar. 31, 1896	18.2	109,000	1940	Apr. 5, 1940	21.05	119,000
1897	Mar. 7, 1897	17.8	105,000	1941	Dec. 14, 1940	18.64	80,200
1898	Mar. 24, 1898	20.6	136,000	1942	Mar. 18, 1942	20.06	106,000
1899	Nov. 12, 1898	15.0	77,900	1943	Dec. 30, 1942	25.29	182,000
1900	Jan. 22, 1900	16.0	87,000	1944	Mar. 18, Apr. 13	18.55	79,600
1901	Mar. 28, 1901	18.2	109,000	1945	Mar. 7, 1945	22.56	144,000
1902	Mar. 1-2, 1902	25.1	191,000	1946	May 28, 1946	23.15	152,000
1903	Mar. 1, 1903	20.4	133,000	1947	Apr. 6, 1947	22.11	136,000
1904	Jan. 23, 1904	24.2	179,000	1948	Mar. 23, 1948	22.72	145,000
1905	Mar. 20, 1905	28.8	241,000	1949	Jan. 28, 1949	17.18	58,300
1906	Mar. 29, 1906	15.0	70,400	1950	Mar. 29, 1950	20.15	105,000
1907	Mar. 15, 1907	16.5	83,900	1951	Jan. 4, 1951	21.53	126,000
1908	Feb. 16, 1908	24.8	183,000	1952	Jan. 27, 1952	22.61	144,000
1909	Apr. 30, 1909	23.9	176,000	1953	May 31, 1953	21.33	123,000
1910	Mar. 7, 1910	21.6	147,000	1954	Jan. 28, 1954	18.53	78,000
1911	Jan. 15, 1911	19.7	125,000	1955	Oct. 16, 1954	21.63	128,000
1912	Apr. 3, 1912	23.4	169,000	1956	Mar. 9, 1956	24.18	167,000
1913	Mar. 26, 1913	30.7	269,000	1957	Jan. 24, 1957	20.17	105,000
1914	Mar. 29, 1914	23.1	165,000	1958	July 15, 1958	19.50	94,000
1915	Feb. 2, 1915	19.2	120,000				

<sup>a</sup>Ice gorge.

## CROOKED CREEK BASIN

## 375. South Branch Plum Creek at Willet, Pa.

Location. --Lat 40°43'15", long 79°13'25", at highway bridge, 0.2 mile upstream from Mudlick Run, 0.6 mile southwest of Willet, Indiana County, 0.6 mile downstream from Sugarcamp Run, and 8 miles northwest of Indiana.

Drainage area. --30.0 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 1,050 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Feb. 7, 1942	6.8	751	1945	Feb. 22, Mar. 6	7.7	955
1943	Dec. 30, 1942	8.7	1,250				
1944	Mar. 23, 1944	6.1	611	1946	June 13, 1946	6.94	772

## 380. Crooked Creek at Idaho, Pa.

Location. --Lat 40°39'15", long 79°21'00", on right bank at downstream side of highway bridge at Idaho, Armstrong County, 1½ miles downstream from Plum Creek and 2½ miles west of Shelocta.

Drainage area. --191 sq mi.

Gage. --Recording gage. Datum of gage is 961.04 ft above mean sea level (Buffalo, Rochester and Pittsburgh Railway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 5,100 cfs and extended on basis of slope-area measurement.

Bankfull stage. --8 ft.

Remarks. --Base for partial-duration series, 2,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 1936	18.6	19,400	1945	Jan. 1, 1945	—	—
1937	Dec. 18, 1936	—	6,900		Feb. 16, 1945	7.25	3,230
					Feb. 23, 1945	8.70	4,430
1938	Mar. 15, 1938	6.51	2,800		Feb. 27, 1945	7.48	3,460
	Apr. 9, 1938	7.33	3,440		Mar. 3, 1945	7.05	3,090
					Mar. 7, 1945	9.92	5,510
1939	Jan. 30, 1939	8.07	4,060		Mar. 22, 1945	7.51	3,460
	Feb. 3, 1939	7.59	3,690		Apr. 5, 1945	6.31	2,600
	Feb. 10, 1939	6.88	3,140		Sept. 18, 1945	7.64	3,540
	June 22, 1939	11.40	7,170	1946	Oct. 2, 1945	6.61	2,810
1940	Mar. 4, 1940	6.80	2,950		Feb. 27, 1946	6.39	2,670
	Mar. 19, 1940	7.67	3,620		June 13, 1946	10.00	5,600
	Mar. 31, 1940	8.84	4,520		June 21, 1946	7.71	3,620
	Apr. 20, 1940	9.61	5,240		June 28, 1946	7.18	3,230
1941	Mar. 4, 1941	5.90	2,320	1947	Apr. 26, 1947	6.24	2,530
					May 18, 1947	6.38	2,670
1942	Feb. 7, 1942	7.46	3,460	1948	Feb. 14, 1948	10.70	6,230
	Mar. 9, 1942	—	—		Apr. 13, 1948	10.44	5,960
	Apr. 9, 1942	8.30	4,100		June 19, 1948	6.36	2,670
1943	Dec. 30, 1942	12.35	7,760	1949	Dec. 16, 1948	6.29	2,600
	Mar. 12, 1943	6.70	2,880		Jan. 5, 1949	6.46	2,740
	Apr. 20, 1943	8.40	4,180		Jan. 24, 1949	6.30	2,600
	May 12, 1943	7.10	3,160				
1944	Mar. 13, 1944	7.17	3,230	1950	Jan. 7, 1950	6.73	2,880
	Mar. 24, 1944	6.63	2,810		Jan. 10, 1950	7.65	3,540
	June 1, 1944	6.17	2,530		Mar. 27, 1950	6.32	2,600
					July 5, 1950	8.16	4,020

## Crooked Creek at Idaho, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Nov. 5, 1950	8.32	4,100	1955	Oct. 5, 1954	7.87	3,780
	Nov. 20, 1950	6.47	2,745		Oct. 16, 1954	15.12	12,400
	Dec. 4, 1950	10.60	6,140		Dec. 18, 1954	7.27	3,300
	Dec. 8, 1950	6.99	3,090		Dec. 30, 1954	7.28	3,300
	Jan. 4, 1951	8.78	4,520		Feb. 23, 1955	6.23	2,530
	Jan. 15, 1951	9.48	5,120		Mar. 4, 1955	6.78	2,950
	Mar. 30, 1951	7.73	3,620	1956	July 16, 1956	10.58	6,200
1952	July 23, 1951	6.37	2,670		July 20, 1956	8.76	4,520
	Dec. 21, 1951	7.13	3,160		Aug. 5, 1956	8.57	4,340
	Jan. 27, 1952	12.66	8,030	1957	Jan. 23, 1957	7.53	3,460
	Apr. 15, 1952	6.50	2,740		Apr. 5, 1957	10.67	6,300
	May 21, 1952	6.41	2,670	1958	Dec. 26, 1957	6.35	2,670
1953	May 26, 1952	6.99	3,090		May 7, 1958	7.32	3,300
	May 31, 1953	8.89	4,610		July 23, 1958	7.64	3,540
1954	June 7, 1953	7.71	3,620				
	Mar. 1, 1954	8.87	4,610				
	Aug. 3, 1954	6.15	2,530				

## 390. Crooked Creek at Crooked Creek Dam, Pa.

Location. --Lat 40°43'10", long 79°30'45", on right bank a quarter of a mile downstream from Crooked Creek Dam, Armstrong County, 3½ miles south of Ford City, and 6½ miles upstream from mouth.

Drainage area. --278 sq mi.

Gage. --Nonrecording gage prior to Dec. 5, 1939; recording gage thereafter. Prior to July 31, 1933 at site 2 miles downstream at different datum. July 31, 1933, to Dec. 5, 1939, at site 1½ miles downstream at different datum. Datum of present gage is 799.51 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 8,000 cfs and extended above on basis on contracted-opening measurement.

Bankfull stage. --9 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Feb. 28, 1910	9.3	9,500	1931	Apr. 4, 1931	10.10	10,700
1911	Sept. 14, 1911	10.6	12,100	1932	Jan. 24, 1932	6.2	3,900
1912	Sept. 3, 1912	9.6	10,100	1933	Mar. 15, 1933	10.64	11,700
1913	Mar. 26, 1913	11.01	12,900	1934	Aug. 24, 1934	7.85	3,960
1914	Mar. 16, 1914	6.7	4,620	1935	Mar. 12, May 7	8.5	4,680
1915	Feb. 2, 1915	10.2	11,300	1936	Mar. 18, 1936	17.86	21,000
1916	Mar. 22, 1916	10.0	10,900	1937	Apr. 26, 1937	13.2	11,400
1917	Jan. 22, 1917	10.7	12,300	1938	Dec. 18, 1937	11.3	8,350
1918	Feb. 20, 1918	8.0	6,580	1939	June 23, 1939	11.2	8,200
1919	May 10, 1919	7.5	6,040	1940	Apr. 21, 1940	8.47	6,160
1920	June 17, 1920	10.0	10,000	1941	Jan. 3, 1941	5.62	2,920
1921	Sept. 21, 1921	9.5	9,400	1942	Apr. 13, 1942	6.99	4,360
1922	Apr. 15, 1922	9.28	9,000	1943	Jan. 5, 1943	7.53	4,960
1923	May 13, 1923	9.6	9,540	1944	July 22, 1944	5.04	2,340
1924	June 29, 1924	13.1	16,500	1945	Mar. 9, 1945	7.83	5,320
1925	Feb. 10, 1925	7.2	5,400	1946	June 22, 1946	6.81	4,010
1926	Sept. 24, 1926	10.07	10,200	1947	Dec. 30, 1946	4.97	2,180
1927	Mar. 21, 1927	8.75	8,100	1948	Apr. 17, 1948	8.07	5,660
1928	Dec. 14, 1927	10.6	11,700	1949	Jan. 31, 1949	7.10	4,370
1929	Feb. 26, 1929	12.20	15,000	1950	Mar. 30, 1950	7.17	4,240
1930	Feb. 26, 1930	9.80	10,100				



## CROOKED CREEK BASIN

Crooked Creek at Crooked Creek Dam, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Dec. 9, 1950	8.90	5,760	1956	Feb. 8, Apr. 10	7.68	4,270
1952	Jan. 30, 1952	8.77	5,640	1957	Apr. 8, 1957	8.05	4,540
1953	June 2, 1953	7.10	3,820	1958	May 9, 1958	7.49	4,090
1954	Mar. 3, 1954	7.24	3,820				
1955	Oct. 18, 1954	8.35	4,900				

## KISKIMINETAS RIVER BASIN

400. Stony Creek at Ferndale, Pa.

Location. --Lat 40°17'10", long 78°55'10", on right bank 50 ft upstream from highway bridge at Ferndale, Cambria County, 0.4 mile downstream from Bens Creek, 1.2 miles upstream from Johnstown city limits, and 5.2 miles upstream from confluence with Little Conemaugh River.

Drainage area. --451 sq mi.

Gage. --Nonrecording gage prior to Jan. 30, 1940; recording gage thereafter. Prior to Mar. 19, 1936, at site  $3\frac{1}{2}$  miles downstream at different datum. Dec. 8, 1938 to Jan. 30, 1940, at site 50 ft downstream. Datum of present gage is 1,183.84 ft above mean sea level, city of Johnstown datum.

Stage-discharge relation. --Defined by current-meter measurements below 8,000 cfs and extended on basis of slope-area and contracted-opening measurement.

Bankfull stage. --18 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 30, 1914	7.85	5,840	1939	Feb. 3, 1939	8.8	9,280
1915	Jan. 7, 1915	10.7	10,600	1940	Mar. 31, 1940	13.3	23,900
1916	Mar. 28, 1916	11.3	11,700	1941	June 5, 1941	12.27	19,100
1917	Mar. 12, 1917	14.0	17,200	1942	Apr. 9, 1942	8.72	9,000
1918	Feb. 26, 1918	12.7	14,500	1943	Dec. 30, 1942	11.07	15,300
1919	May 10, 1919	8.15	6,380	1944	Mar. 17, 1944	7.90	7,140
1920	Mar. 12, 1920	11.2	11,600	1945	Mar. 6, 1945	11.97	18,100
1921	Mar. 3, 1921	8.98	7,670	1946	June 2, 1946	10.95	15,000
1922	Nov. 28, 1921	13.7	16,400	1947	June 8, 1947	6.85	4,980
1923	Feb. 2, 1923	7.1	4,850	1948	Apr. 14, 1948	9.78	12,100
1924	Mar. 29, 1924	16.9	23,000	1949	Jan. 26, 1949	8.15	7,800
1925	Feb. 11-12, 1925	10.0	9,450	1950	Mar. 28, 1950	9.90	12,400
1926	Feb. 22, 1926	9.2	8,080	1951	June 28, 1951	9.43	10,900
1927	Jan. 22, 1927	10.96	11,700	1952	Mar. 11, 1952	10.20	13,400
1928	May 1, 1928	13.23	16,000	1953	May 31, 1953	10.50	14,600
1929	Feb. 26, 1929	9.15	8,080	1954	Mar. 1, 1954	10.14	13,100
1930	Feb. 25, 1930	9.90	9,460	1955	Oct. 15, 1954	16.23	34,800
1931	Apr. 4, 1931	9.02	7,760	1956	Mar. 8, 1956	8.38	8,480
1932	Apr. 1, 1932	9.1	7,940	1957	Apr. 25, 1957	7.03	5,600
1933	Mar. 15, 1933	11.72	13,100	1958	Apr. 6, 1958	7.98	7,600
1934	Jan. 7, 1934	8.9	7,580				
1935	Aug. 2, 1935	9.26	7,280				
1936	Mar. 18, 1936	30.26	59,000				

## 410. Little Conemaugh River at East Conemaugh, Pa.

Location. --Lat 40°20'35", long 78°53'05", on right bank 100 ft downstream from highway bridge at East Conemaugh, Cambria County, 0.3 mile downstream from Clapboard Run, and 2.5 miles upstream from confluence with Stony Creek.

Drainage area. --183 sq mi.

Gage. --Nonrecording gage prior to Feb. 1, 1940; recording thereafter. Datum of gage is 1,207.92 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 4,100 cfs and extended on basis of slope-area measurement.

Bankfull stage. --16 ft.

Remarks. --Base for partial-duration series, 4,000 cfs. Flow regulated partly by reservoirs and diversion above station.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 17, 18, 1936	—	28,800	1950	Dec. 13, 1949 Mar. 28, 1950	5.72 6.22	4,420 5,420
1940	Mar. 30, 1940 Apr. 4, 1940	8.80 6.37	11,800 5,580	1951	Dec. 4, 1950 Dec. 8, 1950 Mar. 30, 1951 June 14, 1951	5.55 6.38 5.58 6.03	4,120 5,820 4,220 5,020
1941	Apr. 5, 1941 June 5, 1941	5.58 7.19	4,050 7,530	1952	Jan. 27, 1952 Mar. 11, 1952	6.38 5.86	5,820 4,720
1942	Mar. 9, 1942 Apr. 9, 1942	5.90 6.77	4,640 6,590	1953	Nov. 22, 1952 May 31, 1953	5.62 5.82	4,050 4,490
1943	Dec. 30, 1942	7.29	7,410	1954	Mar. 1, 1954	7.94	9,730
1944	Mar. 17, 1944	6.06	4,550	1955	Oct. 16, 1954 Dec. 30, 1954 Mar. 1, 1955 Mar. 4, 1955	8.86 6.05 6.16 5.64	12,300 5,090 5,330 4,160
1945	Mar. 3, 1945 Mar. 6, 1945	6.27 8.03	4,960 9,350	1956	Feb. 25, 1956	6.36	5,810
1946	June 2, 1946 June 12, 1946	6.29 6.28	5,800 5,800	1957	Jan. 23, 1957	4.97	2,870
1947	June 8, 1947	4.83	2,950	1958	Aug. 1, 1958	5.41	3,630
1948	Apr. 12, 1948 Apr. 14, 1948 June 19, 1948	6.44 6.47 6.17	6,010 6,220 5,590				
1949	July 12, 1949	5.36	3,860				

## 415. Conemaugh River at Seward, Pa.

Location. --Lat 40°25'10", long 79°01'40", on left bank at highway bridge on State Highway 56 at Seward, Westmoreland County, 2 miles downstream from Findley Run, and 9 miles northwest of Johnstown.

Drainage area. --715 sq mi.

Gage. --Recording gage. Datum of gage is 1,075.64 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements. Discharge of Mar. 18, 1936 determined by contracted-opening measurements.

Bankfull stage. --12 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## KISKIMINETAS RIVER BASIN

Conemaugh River at Seward, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	26.4	90,000	1948	Apr. 14, 1948	11.04	21,000
1939	Feb. 3, 1939	9.00	15,100	1949	Jan. 26, 1949	8.37	13,200
1940	Mar. 31, 1940	15.22	35,000	1950	Mar. 28, 1950	10.80	20,400
1941	June 5, 1941	13.15	28,200	1951	June 14, 1951	9.16	15,500
1942	Apr. 9, 1942	10.07	18,200	1952	Jan. 27, 1952	11.35	22,300
1943	Dec. 30, 1942	12.70	26,500	1953	May 31, 1953	11.38	22,300
1944	Mar. 17, 1944	8.39	13,200	1954	Mar. 1, 1954	13.33	28,500
1945	Mar. 6, 1945	13.76	30,200	1955	Oct. 16, 1954	19.20	54,000
1946	June 2, 1946	11.27	22,000	1956	Mar. 8, 1956	8.83	14,300
1947	June 8, 1947	6.75	8,650	1957	Jan. 23, 1957	7.19	9,720
				1958	Apr. 7, 1958	7.86	11,700

## 420. Blacklick Creek at Josephine, Pa.

Location. --Lat 40°28'25", long 79°11'00", on right bank on upstream side of old concrete dam at Josephine, Indiana County, and 0.9 mile upstream from Two Lick Creek.

Drainage area. --192 sq mi.

Gage. --Nonrecording gage prior to Aug. 25, 1953; recording gage thereafter. Datum of gage is 975.82 ft above mean sea level, datum of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 5,500 cfs and extended on basis of flow-over-dam measurement.

Bankfull stage. --17 ft.

Remarks. --Base for partial-duration series, 2,700 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Jan. 27, 1952	11.3	<sup>a</sup> 8,720	1956	Feb. 2, 1956	8.30	3,700
1953	Mar. 24, 1953	8.2	3,020		Feb. 25, 1956	9.00	4,740
	Apr. 2, 1953	7.9	2,750		Mar. 7, 1956	8.80	4,430
	May 31, 1953	11.3	8,720		Apr. 3, 1956	9.46	5,570
					July 16, 1956	10.69	9,250
1954	Mar. 1, 1954	10.15	<sup>b</sup> 3,100	1957	Jan. 23, 1957	7.74	2,970
	June 23, 1954	8.90	4,580		Apr. 4, 1957	8.46	3,980
1955	Oct. 15, 1954	11.35	11,900	1958	May 4, 1958	7.84	3,100
	Dec. 30, 1954	9.78	6,230		May 7, 1958	7.65	2,850
	Feb. 23, 1955	7.68	2,910		July 22, 1958	8.84	4,430
	Mar. 1, 1955	7.81	3,030		Aug. 1, 1958	8.96	4,740
	Mar. 4, 1955	8.70	4,280		Aug. 3, 1958	8.69	4,280
	June 8, 1955	7.61	2,790				

<sup>a</sup>Annual peak only.

<sup>b</sup>Maximum daily discharge.

## 425. Two Lick Creek at Graceton, Pa.

Location. --Lat 40°31'05", long 79°10'15", on right bank three-quarters of a mile upstream from highway bridge on road leading west from Graceton, Indiana County, 1 mile downstream from Tearing Run, and 1¼ miles upstream from Cherry Run.

Drainage area. --171 sq mi.

Gage. --Recording gage. Datum of gage is 983 ft (by barometer).

Stage-discharge relation. --Defined by current-meter measurement below 4,500 cfs and extended on basis of contracted-opening measurement.

Bankfull stage. --10 ft.

Remarks. --Base for partial-duration series, 2,300 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Dec. 21, 1951	6.83	2,670	1956	Feb. 3, 1956	7.30	3,200
	Jan. 27, 1952	10.42	6,600		Feb. 7, 1956	7.81	3,700
	Apr. 15, 1952	6.62	2,480		Feb. 18, 1956	6.46	2,480
	May 21, 1952	6.49	2,390		Feb. 25, 1956	8.27	4,200
1953	May 31, 1953	9.69	5,760		Mar. 8, 1956	8.42	4,300
					Apr. 3, 1956	7.20	3,110
1954	Mar. 1, 1954	9.26	5,290		July 2, 1956	7.10	3,110
	June 23, 1954	6.84	2,750		July 16, 1956	10.82	7,900
1955	Oct. 6, 1954 Oct. 16, 1954 Dec. 30, 1954 Feb. 23, 1955 Mar. 4, 1955	— 12.71 8.76 6.36 6.92	— 12,900 4,740 2,400 2,840		Aug. 5, 1956	7.61	3,500
					Sept. 6, 1956	7.04	2,930
				1957	Jan. 23, 1957	7.52	3,400
					Feb. 4, 1957	6.30	2,320
					Apr. 4, 1957	8.81	4,740
1958	May 7, 1958 July 22, 1958	6.93 6.40	2,840 2,400				

## 430. Blacklick Creek at Blacklick, Pa.

Location. --Lat 40°28'25", long 79°12'15", near left bank on downstream side of bridge at Gratton, a quarter of a mile northwest of Blacklick, Indiana County, and three-quarters of a mile downstream from Two Lick Creek.

Drainage area. --390 sq mi.

Gage. --Nonrecording gage. Datum of gage is 945.94 ft above mean sea level (Pennsylvania State Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 18,000 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 7,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Mar. 21, 1905	—	8,920	1911	Jan. 14, 1911	10.2	13,400
1906	Dec. 3, 1905	11.2	16,900		Sept. 15, 1911	9.6	11,000
1907	Mar. 14, 1907	15.4	45,400	1912	Oct. 2, 1911	8.2	7,730
1908	Feb. 15, 1908	11.6	18,500		Feb. 27, 1912	9.6	11,200
	Mar. 7, 1908	9.9	11,700		Mar. 21, 1912	11.1	16,500
	Mar. 19, 1908	11.3	17,300		June 16, 1912	9.6	11,200
					Sept. 3, 1912	12.9	25,500
1909	Feb. 24, 1909	8.8	9,110	1913	Jan. 8, 1913	10.5	13,500
1910	Jan. 28, 1910 Feb. 28, 1910	13.4 10.2	16,100 13,400		Jan. 12, 1913	9.0	9,760
					Mar. 27, 1913	8.7	9,100
					May 27, 1913	10.4	13,300



## Blacklick Creek at Blacklick, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 17, 1914	8.4	8,440	1931	Apr. 4, 1931	9.30	10,500
	May 6, 1914	8.0	7,580	1932	Apr. 1, 1932	7.5	6,540
1915	Jan. 7, 1915	10.72	14,100	1933	Mar. 15, 1933	9.28	11,100
	Feb. 2, 1915	9.47	10,900		May 10, 1933	8.4	8,940
1916	Oct. 19, 1915	10.7	14,100	1934	Mar. 3, 1934	8.57	9,400
	Dec. 18, 1915	10.5	13,500		Sept. 29, 1934	7.9	7,800
	Jan. 2, 1916	9.0	9,760	1935	May 10, 1935	8.3	8,400
	Mar. 28, 1916	8.8	9,320	1936	Feb. 27, 1936	8.5	8,910
1917	Jan. 22, 1917	11.3	15,800		Mar. 18, 1936	15.88	51,700
	June 7, 1917	8.0	7,580	1937	Jan. 25, 1937	8.8	9,100
	Aug. 14, 1917	8.4	8,440		Apr. 26, 1937	9.0	10,700
1918	Feb. 13, 1918	9.0	9,760	1938	Oct. 28, 1937	8.0	7,670
	Feb. 20, 1918	10.8	14,400		Dec. 18, 1937	10.3	13,700
	Feb. 26, 1918	8.6	8,880	1939	Jan. 31, 1939	7.8	7,130
1919	Oct. 31, 1918	7.9	7,370	1940	Mar. 19, 1940	8.65	9,400
1920	Mar. 5, 1920	8.6	8,880		Mar. 31, 1940	11.5	18,100
	Mar. 12, 1920	8.3	8,220		Apr. 20, 1940	8.7	9,360
	June 17, 1920	10.5	13,700	1941	June 5, 1941	8.0	7,280
1921	May 5, 1921	7.3	6,110	1942	Apr. 9, 1942	9.01	10,300
1922	Nov. 29, 1921	9.85	11,700	1943	Dec. 30, 1942	11.76	19,500
	Apr. 15, 1922	9.4	10,700	1944	Mar. 17, 1944	8.1	7,650
1923	May 13, 1923	9.5	11,000	1945	Feb. 27, 1945	9.2	10,500
1924	Jan. 3, 1924	<sup>b</sup> 9.7	—		Mar. 3, 1945	9.3	10,800
	Mar. 29, 1924	8.6	8,880		Mar. 6, 1945	10.4	14,000
	May 9, 1924	8.2	8,000	1946	June 13, 1946	11.65	18,500
	May 12, 1924	8.2	8,000	1947	June 8, 1947	7.10	5,490
	June 29, 1924	12.2	21,500	1948	Feb. 14, 1948	8.3	8,150
1925	Feb. 11, 1925	7.2	5,900		Apr. 12, 1948	10.7	14,900
1926	Sept. 5, 1926	8.9	9,540		June 19, 1948	9.1	10,300
1927	Jan. 22, 1927	9.40	10,700	1949	Jan. 24, 1949	7.65	6,520
	Mar. 21, 1927	9.1	9,990	1950	July 5, 1950	7.68	6,740
	May 19, 1927	8.0	7,580	1951	Dec. 4, 1950	9.3	10,800
1928	Oct. 20, 1927	9.80	11,700		Jan. 4, 1951	8.6	8,920
	Dec. 14, 1927	8.1	7,790		Apr. 30, 1951	9.7	11,900
	Feb. 5, 1928	8.0	7,580		June 13, 1951	8.6	8,920
	Mar. 30, 1928	8.6	8,880		July 23, 1951	9.8	12,200
1929	Feb. 26, 1929	8.10	7,790				
1930	Feb. 25, 1930	9.70	11,500				

<sup>a</sup>Backwater from ice; maximum discharge occurred before ice-gorge formed.<sup>b</sup>Backwater from ice.

## 440. Conemaugh River at Tunnelton, Pa.

Location. --Lat 40°27'15", long 79°23'30", on right bank at downstream side of highway bridge at Tunnelton, Indiana County, 0.9 mile downstream from Boatyard Run, 2 miles downstream from Conemaugh River Dam, 2 3/4 miles southeast of Saltsburg, and 5.5 miles upstream from confluence with Loyalhanna Creek.

Drainage area. --1,358 sq mi.

Gage. --Nonrecording gage prior to Oct. 1, 1952; recording gage thereafter. Datum of gage is 844.64 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 31, 1940	20.18	55,600	1949	Jan. 27, 1949	10.6	19,500
1941	June 5, 1941	16.9	42,300	1950	Mar. 28, 1950	12.9	27,300
1942	Apr. 10, 1942	15.3	36,200	1951	Dec. 4, 1950	13.1	28,100
1943	Dec. 30, 1942	19.6	53,100	1952	Jan. 27, 1952	14.8	34,300
1944	Mar. 17, 1944	11.6	22,800	1953	June 1, 1953	11.26	21,300
1945	Mar. 7, 1945	21.0	59,200	1954	Mar. 3, 1954	10.60	19,000
1946	June 13, 1946	14.6	33,600	1955	Oct. 19, 1954	13.27	28,400
1947	June 8, 1947	10.1	17,900	1956	Mar. 11, 1956	11.23	20,900
1948	Apr. 14, 1948	16.5	40,800	1957	Apr. 10, 1957	9.82	16,500
				1958	May 9, 1958	10.07	17,400

## 450. Loyalhanna Creek at Kingston, Pa.

Location. --Lat 40°17'35", long 79°20'25", on right bank 60 ft downstream from bridge on State Highway 680, at Kingston, Westmoreland County, 100 ft downstream from Millers Run, 1.9 miles upstream from Ninemile Run, and 3 miles southeast of Latrobe.

Drainage area. --172 sq mi.

Gage. --Recording gage. Datum of gage is 1,014.16 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 4,000 cfs and extended on basis of contracted-opening measurement.

Historical data. --Flood of March 17 or 18, 1936, reached a stage of about 14.5 ft, from information by local residents (discharge, 21,000 cfs from rating curve extended above 8,200 cfs by logarithmic plotting).

Bankfull stage. --15 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 30, 1940	9.83	9,170	1949	Jan. 26, 1949	7.74	4,900
1941	June 5, 1941	10.06	9,830	1950	Jan. 7, 1950	7.30	4,270
1942	Apr. 9, 1942	8.72	6,590	1951	June 28, 1951	10.73	10,500
1943	Dec. 30, 1942	9.17	7,500	1952	Jan. 27, 1952	8.46	6,280
1944	May 7, 1944	7.61	4,760	1953	May 31, 1953	7.74	4,780
1945	Mar. 6, 1945	10.00	9,100	1954	Mar. 1, 1954	6.39	3,350
1946	June 2, 1946	9.46	8,140	1955	Oct. 15, 1954	14.8	29,700
1947	June 8, 1947	7.57	4,760	1956	Feb. 25, Aug. 6	6.26	4,350
1948	Apr. 14, 1948	9.22	7,570	1957	June 13, 1957	5.68	3,510
				1958	Aug. 3, 1958	5.41	3,130

## KISKIMINETAS RIVER BASIN

## 455. Loyalhanna Creek at New Alexandria, Pa.

Location. --Lat 40°23'40", long 79°25'55", at highway bridge at New Alexandria, Westmoreland County, 1 3/4 miles downstream from Crabtree Creek.

Drainage area. --265.sq mi.

Gage. --Nonrecording gage. Datum of gage is 917.26 ft above mean sea level, general adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements. Discharge of Mar. 18, 1936, determined by slope-area and contracted-opening measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Sept. 15, 1911	12.0	11,400	1931	Apr. 4, 1931	10.3	7,480
1920	June 17, 1920	8.70	5,520	1932	Jan. 30, 1932	7.2	3,840
1921	Jan. 8, 1921	7.2	3,850	1933	Mar. 15, 1933	12.3	10,000
1922	Nov. 28, 1921	10.60	7,500	1934	Aug. 16, 1934	6.78	3,430
1923	May 13, 1923	7.6	3,910	1935	Aug. 3, 1935	16.0	17,900
1926	Sept. 30, 1926	9.8	6,500	1936	Mar. 18, 1936	20.96	31,000
1927	Jan. 21, 1927	8.95	5,880	1937	Apr. 26, 1937	15.09	15,900
1928	Oct. 20, 1927	12.65	10,400	1938	Oct. 28, 1937	9.8	6,500
1929	Feb. 26, 1929	9.3	5,850	1939	Feb. 3, 1939	8.7	5,120
1930	June 10, 1930	10.1	7,240	1940	Mar. 31, 1940	12.9	11,400

## 470. Loyalhanna Creek at Loyalhanna Creek Dam, Pa.

Location. --Lat 40°27'50", long 79°27'05", on left bank at downstream side of highway bridge, 0.7 mile downstream from Loyalhanna Creek Dam, Westmoreland County, 1½ miles south of Saltsburg, and 4.0 miles upstream from confluence with Conemaugh River.

Drainage area. --292 sq mi.

Gage. --Recording gage. Datum of gage is 861.15 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --9 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 31, 1940	9.90	10,700	1949	Jan. 30, 1949	6.44	4,520
1941	June 5, 1941	10.30	11,700	1950	Jan. 8, 1950	6.31	4,380
1942	Apr. 10, 1942	6.75	4,560	1951	June 16, 1951	6.40	4,520
1943	Jan. 2, 1943	6.35	4,020	1952	Jan. 30, 1952	6.41	4,520
1944	May 7, 1944	6.99	4,840	1953	June 2, 1953	6.15	3,920
1945	Mar. 9, 1945	7.96	6,980	1954	Mar. 3, 1954	6.19	3,920
1946	June 3, 1946	6.46	4,480	1955	Oct. 18, 1954	6.90	4,780
1947	June 9, 1947	6.22	4,060	1956	Mar. 10, 1956	6.58	4,310
1948	Apr. 17, 1948	6.76	4,920	1957	Apr. 10, 1957	5.33	2,950
				1958	May 9, 1958	5.96	3,650



## 475. Kiskiminetas River at Avonmore, Pa.

Location. --Lat 40°32'05", long 79°27'55", at highway bridge at Avonmore, Westmoreland County, 1 mile above mouth at Long Run.

Drainage area. --1,723 sq mi.

Gage. --Nonrecording gage. Datum of gage is 805.64 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements. Discharge for Mar. 18, 1936, determined by slope-area measurement.

Remarks. --Only annual peaks are shown. Flow regulated. Prior to 1906 records from Weather Bureau.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1884	Feb. 6, 1884	24.1	54,200	1916	Mar. 22, 1916	20.0	36,600
1885	Jan. 17, 1885	16.4	27,300	1917	Jan. 22, 1917	24.0	51,800
				1918	Feb. 20, 1918	22.0	43,900
1886	Jan. 5, 1886	19.1	36,200	1919	Jan. 2, 1919	16.2	24,300
1887	Dec. 14, 1886	13.8	19,600	1920	Nov. 27, 1919	20.3	37,700
1888	Aug. 21, 1888	31.8	84,500				
1889	June 1, 1889	29.8	76,500	1921	Jan. 23, 1921	15.6	22,500
1890	Mar. 23, Apr. 10	17.8	31,800	1922	Nov. 29, 1921	24.65	54,200
				1923	May 13, 1923	18.0	29,800
1891	Feb. 17, 1891	30.4	78,900	1924	Mar. 30, 1924	24.0	51,800
1892	Jan. 14, 1892	15.1	23,300	1925	Feb. 12, 1925	17.8	29,200
1893	Feb. 11, 1893	15.2	23,600				
1894	May 20, 1894	19.5	37,500	1926	Sept. 6, 1926	18.5	31,400
1895	Jan. 8, 1895	19.8	38,600	1927	Jan. 22, 1927	21.3	41,300
				1928	Oct. 20, 1927	25.1	56,300
1902	Mar. 1, 1902	26.4	63,200	1929	Feb. 26, 1929	16.96	26,700
1903	Mar. 1, 1903	16.4	27,300	1930	Feb. 25, 1930	23.3	48,800
1904	Jan. 23, 1904	21.8	45,600				
1905	Mar. 8, 1905	20.4	40,700	1931	Apr. 4, 1931	20.2	37,300
				1932	Apr. 1, 1932	18.3	30,600
1906	June 7, 1906	19.1	36,200	1933	Mar. 15, 1933	23.0	47,600
1907	Mar. 14, 1907	33.8	98,900	1934	Sept. 30, 1934	14.90	20,300
1908	Mar. 19, 1908	30.8	80,500	1935	Aug. 4, 1935	18.6	33,800
1909	Feb. 24, 1909	17.2	29,800				
1910	Feb. 28, 1910	19.2	36,500	1936	Mar. 18, 1936	47.2	185,000
				1937	Apr. 26, 1937	28.8	80,400
1911	Sept. 15, 1911	21.5	44,600				
1912	Mar. 21, 1912	28.0	69,400				
1913	Jan. 8, 1913	22.21	44,700				
1914	Mar. 17, 1914	17.20	27,300				
1915	Feb. 2, 1915	21.4	41,700				

## 485. Kiskiminetas River at Vandergrift, Pa.

Location. --Lat 40°36'20", long 79°33'15", on left bank a third of a mile upstream from bridge on State Highway 56 at Vandergrift, Westmoreland County, and 2 miles upstream from Pine Run.

Drainage area. --1,825 sq mi.

Gage. --Recording gage. Datum of gage is 769.40 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements. Maximum discharge of Mar. 18, 1936, by slope-area measurement.

Bankfull stage. --25 ft.

Remarks. --Only annual peaks are shown. Flow regulated.



## KISKIMINETAS RIVER BASIN

Kiskiminetas River at Vandergrift, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	41.64	185,000	1948	Apr. 14, 1948	20.91	44,300
1938	Dec. 18, 1937	19.37	40,300	1949	Jan. 27, 1949	14.25	21,800
1939	Feb. 4, 1939	16.71	30,800	1950	Mar. 28, 1950	16.00	27,200
1940	Mar. 31, 1940	25.70	71,900				
1941	June 5, 1941	22.68	56,100	1951	Dec. 4, 1950	16.91	29,900
1942	Apr. 10, 1942	20.32	44,800	1952	Jan. 27, 1952	18.46	34,700
1943	Dec. 30, 1942	24.79	67,000	1953	June 2, 1953	14.99	24,200
1944	May 7, 1944	15.58	26,900	1954	Mar. 4, 1954	14.74	23,300
1945	Mar. 7, 1945	25.34	64,700	1955	Oct. 19, 1954	17.56	32,000
1946	June 3, 1946	17.57	32,000	1956	Mar. 11, 1956	15.79	26,600
1947	June 9, 1947	14.97	24,200	1957	Apr. 10, 1957	13.76	20,600
				1958	May 10, 1958	14.20	21,800

## BUFFALO CREEK BASIN

490. Buffalo Creek near Freeport, Pa.

Location. --Lat 40°43'00", long 79°42'00", on right bank 0.5 mile upstream from Little Buffalo Creek and 3 miles north of Freeport, Armstrong County.

Drainage area. --137 sq mi.

Gage. --Nonrecording gage and crest-stage indicator. Altitude of gage is 792 ft (by barometer):

Stage-discharge relation. --Defined by current-meter measurements below 4,300 cfs and extended on basis of slope-area measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 2,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Aug. 15, 1941	4.7	1,880	1952	Jan. 1, 1952	5.0	2,180
1942	Feb. 7, 1942	<sup>a</sup> 5.5	2,650		Jan. 27, 1952	9.3	7,170
	Mar. 9, 1942	<sup>a</sup> 6.2	3,390		Feb. 4, 1952	4.8	2,000
1943	Dec. 30, 1942	7.9	5,610		Apr. 15, 1952	5.1	2,270
	Mar. 12, 1943	4.9	2,060		May 20, 1952	5.3	2,460
	Apr. 20, 1943	5.6	2,750		May 26, 1952	5.6	2,760
	June 17, 1943	5.2	2,350	1953	Mar. 24, 1953	5.63	2,790
1944	Mar. 17, 1944	4.9	2,060		May 31, 1953	6.67	3,920
1945	Feb. 22, 1945	8.1	5,910		June 7, 1953	5.21	2,400
	Feb. 27, 1945	5.9	3,070	1954	Mar. 1, 1954	5.73	2,890
	Mar. 3, 1945	5.5	2,660		Apr. 17, 1954	6.58	3,810
	Mar. 7, 1945	6.7	3,990	1955	Oct. 4, 1954	4.9	2,130
	Mar. 21, 1945	8.3	6,210		Oct. 15, 1954	13.60	14,000
	May 17, 1945	4.8	2,000		Dec. 18, 1954	5.2	2,400
1946	Feb. 27, 1946	6.4	3,630		Dec. 30, 1954	4.8	2,040
1947	June 7, 1947	5.0	2,180		Feb. 22, 1955	5.26	2,490
1948	Feb. 14, 1948	6.83	4,110		Mar. 4, 1955	4.79	2,040
	Apr. 14, 1948	6.70	4,110	1956	Feb. 2, 1956	4.9	2,130
1949	Dec. 16, 1948	5.78	2,960		Feb. 7, 1956	6.60	3,810
1950	Jan. 6, 1950	5.0	2,180		Feb. 18, 1956	5.5	2,690
	Jan. 10, 1950	6.48	3,750		Feb. 25, 1956	7.54	4,830
	Feb. 14, 1950	5.0	2,180		Mar. 8, 1956	5.7	2,890
	Mar. 27, 1950	5.0	2,180		Apr. 3, 1956	6.06	3,290
1951	Dec. 4, 1950	7.3	4,760		Apr. 7, 1956	5.09	2,310
	Dec. 8, 1950	6.1	3,290		May 12, 1956	5.7	2,890
	Jan. 4, 1951	5.1	2,270		June 24, 1956	9.20	7,020
	Jan. 15, 1951	6.6	3,870		July 16, 1956	5.5	2,690
	Feb. 1, 1951	4.9	2,090		Aug. 5, 1956	5.3	2,490
				1957	Jan. 23, 1957	5.99	3,190
					Apr. 4, 1957	9.15	7,020
				1958	Dec. 21, 1957	6.00	3,190
					May 7, 1958	5.67	2,890
					July 31, 1958	5.72	2,890

<sup>a</sup>Maximum observed.

## 495. Allegheny River at Natrona, Pa.

Location. --Lat 40°36'55", long 79°43'10", on right bank 550 ft upstream from dam at lock 4 at Natrona, Allegheny County, 6 miles downstream from Kiskiminetas River, and at mile 24.2.

Drainage area. --11,410 sq mi, approximately.

Gage. --Nonrecording gage prior to Apr. 14, 1940; recording gage thereafter. Datum of gage is 736.74 ft above mean sea level, adjustment of 1912 (Corps of Engineer benchmark).

Stage-discharge relation. --Defined by current-meter measurement.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	32.06	365,000	1948	Mar. 23, 1948	21.05	152,000
1939	Feb. 21, 1939	17.6	103,000	1949	Jan. 28, 1949	16.01	77,400
1940	Mar. 31, 1940	23.6	187,000	1950	Mar. 29, 1950	19.54	130,000
1941	Dec. 14, 1940	16.67	89,000	1951	Dec. 4, 1950	21.02	152,000
1942	Mar. 17, 1942	19.30	128,000	1952	Jan. 27, 1952	23.28	183,000
1943	Dec. 30, 1942	27.46	238,000	1953	May 31, 1953	20.06	139,000
1944	Mar. 18, 1944	17.91	108,000	1954	Mar. 4, 1954	17.44	100,000
1945	Mar. 7, 1945	24.77	203,000	1955	Oct. 16, 1954	20.38	143,000
1946	May 28, 1946	21.63	160,000	1956	Mar. 9, 1956	22.97	178,000
1947	Apr. 6, 1947	20.29	142,000	1957	Jan. 24, 1957	18.58	118,000
				1958	July 15, 1958	17.27	98,500

## MONONGAHELA RIVER BASIN

## 615. Buffalo Creek at Barrackville, W. Va.

Location. --Lat 39°30'15", long 80°10'20", at highway bridge at Barrackville, Marion County, 1,700 ft upstream from Finchs Run.

Drainage area. --115 sq mi.

Gage. --Nonrecording prior to Dec. 6, 1940; recording thereafter. At datum 1.98 ft higher prior to June 4, 1943. Datum of gage is 882.42 ft above mean sea level, adjustment of 1921.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	May 5, 1908	8.2	3,280	1941	June 4, 1941	10.3	5,150
1912	July 1912	18	11,600	1942	Apr. 9, 1942	10.80	5,650
1916	Dec. 17, 1915	10.5	5,350	1943	Dec. 30, 1942	11.20	6,070
1917	Jan. 22, 1917	14.22	9,490	1944	Mar. 17, 1944	11.70	4,510
1918	Feb. 26, 1918	11.02	5,850	1945	Feb. 27, 1945	13.50	6,000
1919	Jan. 2, 1919	11.46	6,400	1946	June 2, 1946	15.30	7,620
1920	Nov. 1, 1919	10.64	5,450	1947	Jan. 15, 1947	10.71	3,710
1921	Mar. 3, 1921	8.47	3,250	1948	Apr. 12, 1948	16.00	9,300
1922	Sept. 2, 1922	13.5	8,650	1949	Dec. 15, 1948	13.94	6,690
1923	Feb. 13, 1923	8.20	3,100	1950	Jan. 31, 1950	11.8	4,590
1924	Mar. 29, 1924	11.88	6,840	1951	June 13, 1951	15.36	8,520
1933	Mar. 14, 1933	12.22	7,170	1952	Jan. 27, 1952	11.25	4,100
1934	Mar. 27, 1934	8.13	3,100	1953	Jan. 8, 1953	11.48	4,350
1935	May 2, 1935	9.10	4,040	1954	Aug. 21, 1954	12.95	5,700
1936	Mar. 17, 1936	11.08	5,960	1955	Oct. 16, 1954	13.15	5,920
1937	Jan. 18, 1937	11.2	6,070	1956	May 28, 1956	15.90	9,170
1938	Feb. 20, 1938	9.39	4,310	1957	Dec. 14, 1956	13.00	5,950
1939	Feb. 3, 1939	11.56	6,510	1958	July 16, 1958	11.35	4,470
1940	Apr. 19, 1940	8.4	3,440				

## MONONGAHELA RIVER BASIN

625. Deckers Creek at Morgantown, W. Va.

Location. --Lat 39°37'45", long 79°57'10", at Kingwood Street in Morgantown, Monongahela County, 0.6 mile upstream from mouth.

Drainage area. --63.2 sq mi.

Gage. --Nonrecording prior to May 8, 1946; recording thereafter. Altitude of gage is 820 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 800 cfs and extended above on basis of slope-area measurement at 5,680 cfs.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 2, 1946	4.14	1,490	1953	Jan. 8, 1953	3.51	1,150
1947	June 8, 1947	3.60	1,080	1954	Aug. 21, 1954	3.99	1,730
1948	Apr. 13, 1948	5.79	3,080	1955	Oct. 15, 1954	4.87	2,570
1949	Dec. 16, 1948	4.45	1,740				
1950	Jan. 31, 1950	4.79	1,920	1956	Aug. 5, 1956	10.12	5,680
				1957	Dec. 14, 1956	5.41	2,180
1951	Feb. 1, 1951	4.64	1,900				
1952	Jan. 27, 1952	3.97	1,330				

630. Monongahela River at lock 8, at Point Marion, Pa.

Location. --Lat 39°43'55", long 79°54'40", 700 ft upstream from dam at lock 8, 1 mile upstream from Point Marion, Fayette County, and 1.5 miles upstream from Cheat River.

Drainage area. --2,720 sq mi.

Gage. --Recording. Datum of gage is 782.50 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 27, 1929	18.77	53,300	1941	June 4, 1941	18.42	49,400
1930	Oct. 3, 1929	20.39	69,700	1942	Aug. 24, 1942	15.97	27,200
				1943	Dec. 30, 1942	17.92	44,600
1931	Apr. 4, 1931	15.80	25,500	1944	Feb. 23, 1944	16.21	29,000
1932	Feb. 5, 1932	21.34	68,600	1945	Feb. 27, 1945	18.5	50,300
1933	Mar. 14, 1933	19.78	53,900				
1934	Mar. 4, 1934	18.92	53,300	1946	June 2, 1946	17.37	39,800
1935	Mar. 12, 1935	20.04	65,500	1947	Jan. 16, 1947	14.30	14,400
				1948	Feb. 14, 1948	20.60	71,800
1936	Mar. 18, 1936	22.33	90,400	1949	Dec. 16, 1948	18.59	51,300
1937	Apr. 26, 1937	19.13	56,300	1950	Jan. 31, 1950	17.40	39,800
1938	Oct. 29, 1937	20.75	73,900				
1939	Feb. 4, 1939	19.24	57,300	1951	Feb. 2, 1951	18.71	49,300
1940	Apr. 20, 1940	17.98	42,600	1952	Jan. 27, 1952	17.49	29,000
				1953	Jan. 9, 1953	17.22	27,200
				1954	Aug. 26, 1954	15.82	17,100
				1955	Oct. 16, 1954	21.39	70,800



## 705. Big Sandy Creek at Rockville, W. Va.

Location. --Lat 39°37'15", long 79°42'20", on right bank just downstream from highway bridge at Rockville, Preston County, 5 miles upstream from mouth.

Drainage area. --200 sq mi.

Gage. --Nonrecording prior to Oct. 4, 1924; recording thereafter. Altitude of gage is 1,310 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 10,000 cfs and extended above by velocity-area studies.

Historical data. --Maximum stage known, 20.0 to 20.5 ft July 10, 1888 (discharge, 28,000 to 30,000 cfs).

Remarks. --Records Oct. 1, 1921, to Apr. 9, 1942, furnished by West Virginia Power & Transmission Co. Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	June 19, 1910	11.5	<sup>a</sup> 6,550	1936	Mar. 17, 1936	13.17	9,900
1911	Jan. 13, 1911	15.6	<sup>a</sup> 15,700	1937	Apr. 26, 1937	10.87	5,570
1912	July 24, 1912	18.0	21,300	1938	Oct. 28, 1937	11.74	6,910
1913	Jan. 12, 1913	11.2	<sup>a</sup> 6,040	1939	Feb. 3, 1939	12.85	9,050
1914	Nov. 16, 1913	11.9	<sup>a</sup> 7,270	1940	July 1, 1940	12.11	7,650
1915	Feb. 1, 1915	11.2	6,040	1941	June 4, 1941	14.77	13,600
1916	Mar. 22, 1916	14.85	13,600	1942	Apr. 9, 1942	11.66	6,910
1917	Jan. 22, 1947	14.98	14,100	1943	Dec. 30, Apr. 19	11.05	5,700
1918	Feb. 26, 1918	12.8	9,050	1944	Mar. 24, 1944	10.92	5,520
				1945	Feb. 27, 1945	12.26	7,480
1922	Dec. 24, 1921	12.41	8,250	1946	June 2, 1946	12.22	7,340
1923	Apr. 14, 1923	10.20	4,770	1947	July 19, 1947	10.28	4,680
1924	Mar. 29, 1924	12.9	9,250	1948	Apr. 13, 1948	13.32	10,100
1925	July 22, 1925	10.26	4,570	1949	Dec. 15, 1948	13.83	11,200
1926	Oct. 25, 1925	11.95	7,090	1950	Jan. 31, 1950	12.39	8,250
1927	June 4, 1927	10.93	5,440	1951	June 13, 1951	11.60	6,730
1928	Oct. 20, 1927	11.39	6,380	1952	Jan. 27, 1952	10.94	5,550
1929	Feb. 26, 1929	9.93	4,590	1953	Mar. 24, 1953	9.98	4,260
1930	Oct. 3, 1929	12.10	7,650	1954	Aug. 21, 1954	11.34	6,210
				1955	Oct. 15, 1954	15.68	15,800
1931	Apr. 4, 1931	11.39	6,380	1956	Aug. 6, 1956	16.97	19,400
1932	Dec. 12, 1931	10.86	5,570	1957	Dec. 14, 1956	13.20	9,900
1933	Mar. 14, 1933	14.20	12,200	1958	May 5, 1958	11.30	6,210
1934	Jan. 7, 1934	10.72	5,310				
1935	May 2, 1935	11.23	6,040				

<sup>a</sup>Daily mean discharge.

## 710. Cheat River near Pisgah, W. Va.

Location. --Lat 39°36'25", long 79°46'40", on right bank three-quarters of a mile upstream from Scott Run, 2 miles downstream from Big Sandy Creek, 2½ miles southwest of Pisgah, Preston County, and 10 miles east of Morgantown.

Drainage area. --1,354 sq mi.

Gage. --Nonrecording prior to Nov. 14, 1927; recording thereafter. Datum of gage is 875.68 ft above mean sea level, adjustment of 1912 (levels by West Virginia Power & Transmission Co.).

Stage-discharge relation. --Defined by current-meter measurements below 25,000 cfs and extended above.

Remarks. --Records furnished by West Virginia Power & Transmission Co. prior to 1934 and for 1940. Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	May 1, 1928	—	50,000	1931	Apr. 5, 1931	13.92	17,300
1929	Dec. 1, 1928	17.68	32,500	1932	Feb. 4, 1932	23.90	66,800
1930	Oct. 3, 1929	—	<sup>a</sup> 44,000	1933	May 12, 1933	16.72	28,100
				1934	Mar. 5, 1934	17.22	30,200
				1935	Jan. 21, 1935	17.67	33,100



## MONONGAHELA RIVER BASIN

Cheat River near Pisgah, W. Va.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 17, 1936	<sup>b</sup> 24.65	72,000	1946	Jan. 8, 1946	17.15	30,600
1937	Apr. 26, 1937	18.38	36,900	1947	Mar. 25, 1947	16.22	26,100
1938	Oct. 28, 1937	24.28	74,700	1948	Feb. 14, 1948	23.27	67,600
1939	Feb. 3, 1939	24.28	74,700	1949	Dec. 16, 1948	23.08	66,200
1940	May 31, 1940	18.28	36,100	1950	Jan. 31, 1950	18.70	38,200
1941	June 4, 1941	19.97	45,500	1951	Feb. 1, 1951	20.54	48,500
1942	Aug. 24, 1942	16.28	26,500	1952	Jan. 27, 1952	17.81	33,500
1943	Dec. 29, 1942	17.89	34,000	1953	Feb. 22, 1953	<sup>c</sup> 15.65	23,600
1944	Feb. 23, 1944	20.61	49,200	1954	Mar. 2, 1954	15.32	22,400
1945	Dec. 26, 1944	20.43	47,900	1955	Oct. 16, 1954	31.5	127,000
				1956	Aug. 5, 1956	26.10	89,300
				1957	Feb. 10, 1957	23.99	72,800
				1958	Dec. 8, 1957	17.64	32,500

<sup>a</sup>Daily mean discharge.<sup>b</sup>Occurred Feb. 15, 1936 (ice jam).<sup>c</sup>Occurred Dec. 11, 1952.

## 720. Dunkard Creek at Shannopin, Pa.

Location. --Lat 30°45'30", long 79°58'20", on left bank at Shannopin, Greene County, 1.4 miles north of Dunkard, 3.5 miles upstream from mouth, and 4 miles southwest of Greensboro.

Drainage area. --229 sq mi.

Gage. --Recording gage. Altitude of gage is 806 ft (by barometer).

Stage-discharge relation. --Defined by current-meter measurements below 10,000 cfs and extended above on basis on slope-area measurement.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 5,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 4, 1941	14.02	16,800	1950	Jan. 7, 1950	9.05	5,390
1942	Apr. 10, 1942	9.29	5,890	1951	Nov. 5, 1950	9.65	5,840
1943	Dec. 30, 1942	11.25	9,740		Dec. 4, 1950	10.54	7,870
	Mar. 7, 1943	8.98	5,380		Dec. 8, 1950	9.91	6,500
	Apr. 20, 1943	9.76	6,810		Jan. 15, 1951	9.85	6,280
	July 26, 1943	9.43	6,070		Feb. 1, 1951	11.42	10,100
1944	Mar. 5, 1944	8.10	4,020		June 13, 1951	11.00	9,100
1945	Dec. 26, 1944	10.14	7,400	1952	Jan. 27, 1952	10.40	7,640
	Jan. 1, 1945	8.96	5,380	1953	Jan. 9, 1953	9.37	5,420
	Feb. 27, 1945	9.98	7,200		May 7, 1953	10.65	7,700
	Mar. 3, 1945	9.38	6,070	1954	Apr. 17, 1954	7.56	2,880
	Mar. 7, 1945	10.55	8,440	1955	Oct. 16, 1954	11.15	9,570
	Sept. 19, 1945	9.03	5,380		Dec. 30, 1954	10.08	6,490
1946	June 2, 1946	11.26	9,960		Feb. 7, 1955	10.13	6,740
1947	June 9, 1947	8.19	4,160		Mar. 5, 1955	10.70	8,180
1948	Jan. 2, 1948	9.24	5,740	1956	Jan. 30, 1956	9.60	6,120
	Feb. 14, 1948	11.04	9,630		Mar. 8, 1956	9.23	5,400
	Apr. 12, 1948	11.00	9,630		May 28, 1956	11.60	10,400
	Apr. 14, 1948	10.73	8,910		Aug. 6, 1956	9.33	5,580
1949	Dec. 16, 1948	10.33	8,000	1957	Dec. 14, 1956	9.85	6,520
				1958	Apr. 30, 1958	9.06	5,220

## 725. Monongahela River at Greensboro, Pa.

Location. --Lat 39°47'15", long 79°55'15", on left bank on land guide wall 750 ft upstream from dam at lock 7, at Greensboro, Greene County, 0.2 mile upstream from Georges Creek, 2.2 miles downstream from Dunkard Creek, 4.3 miles downstream from Cheat River, and at mile 84.8.

Drainage area. --4,407 sq mi.

Gage. --Recording gage. Datum of gage is 767.55 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --23 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1888	July 1888	36	—	1946	June 2, 1946	19.05	64,100
1936	Mar. 18, 1936	28.4	137,000	1947	Mar. 15, 1947	16.93	39,800
1939	Feb. 4, 1939	25.72	118,000	1948	Feb. 14, 1948	26.60	124,000
1940	May 31, 1940	20.30	79,400	1949	Dec. 16, 1948	25.3	115,000
				1950	Jan. 31, 1950	20.37	77,600
1941	June 4, 1941	24.28	108,000	1951	Feb. 1, 1951	23.02	99,000
1942	Aug. 24, 1942	18.19	55,100	1952	Jan. 27, 1952	19.5	69,200
1943	Dec. 30, 1942	20.86	85,400	1953	May 7, 1953	17.31	44,300
1944	Feb. 23, 1944	19.8	74,400	1954	Mar. 2, 1954	16.42	34,500
1945	Dec. 26, 1944	22.74	100,000	1955	Oct. 16, 1954	28.93	140,000
				1956	Aug. 6, 1956	24.54	110,000
				1957	Feb. 10, 1957	23.58	103,000
				1958	May 6, 1958	18.94	63,000

## 730. South Fork Tenmile Creek at Jefferson, Pa.

Location. --Lat 39°55'25", long 80°04'25", on right bank at downstream side of highway bridge, 1 mile southwest of Jefferson, Greene County, and 3¼ miles downstream from Ruff Creek.

Drainage area. --180 sq mi.

Gage. --Nonrecording gage prior to Oct. 21, 1938; recording gage thereafter. Datum of gage is 852.54 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 8,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --11 ft.

Remarks. --Base for partial-duration series, 4,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Jan. 30, 1932	7.70	3,220	1936	Feb. 25, 1936	9.0	4,010
1933	Jan. 26, 1933	9.3	4,550		Mar. 17, 1936	13.54	7,830
	Mar. 14, 1933	11.58	6,620		Apr. 6, 1936	10.7	5,370
	Mar. 19, 1933	9.3	4,550	1937	Nov. 4, 1936	13.8	8,100
	Mar. 21, 1933	10.0	5,180		Jan. 15, 1937	10.0	4,810
	Apr. 12, 1933	10.7	5,810		Jan. 18, 1937	9.4	4,330
1934	Mar. 3, 1934	9.7	4,910		Jan. 22, 1937	12.0	6,480
	Apr. 4, 1934	12.4	7,400		Jan. 25, 1937	9.7	4,570
1935	Feb. 23, 1935	10.12	5,270		Apr. 26, 1937	9.4	4,330
	Mar. 12, 1935	9.6	4,820	1938	Dec. 18, 1937	9.0	4,010
					Jan. 25, 1938	9.4	4,330
					Feb. 20, 1938	10.8	5,450

## MONONGAHELA RIVER BASIN

South Fork Tenmile Creek at Jefferson, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	10.40	4,660	1950	Jan. 7, 1950	10.48	5,570
	June 29, 1939	12.25	5,950				
1940	Mar. 4, 1940	10.36	4,660	1951	Nov. 4, 1950	11.00	6,020
	Mar. 30, 1940	9.52	4,080		Dec. 4, 1950	11.57	6,560
	Apr. 20, 1940	10.28	5,450		Dec. 7, 1950	9.63	4,780
	July 1, 1940	9.90	5,130		Jan. 15, 1951	10.01	5,120
	Aug. 29, 1940	9.93	5,130		Feb. 1, 1951	11.93	6,830
1941	Nov. 27, 1940	9.18	4,570		Mar. 4, 1951	8.73	4,060
	June 4, 1941	18.45	13,800		Apr. 30, 1951	11.72	6,650
1942	Mar. 9, 1942	10.33	4,900	1952	Jan. 27, 1952	12.24	7,100
	Apr. 9, 1942	10.72	5,200	1953	May 7, 1953	10.88	5,930
1943	Dec. 30, 1942	16.15	10,600	1954	Apr. 17, 1954	6.70	2,510
	Apr. 19, 1943	10.85	5,280	1955	Oct. 15, 1954	14.39	9,180
	July 28, 1943	10.93	5,360		Dec. 30, 1954	10.70	5,750
1944	Mar. 5, 1944	9.84	4,530		Feb. 6, 1955	10.19	5,300
1945	Jan. 1, 1945	10.28	4,900		Mar. 1, 1955	8.78	4,140
	Feb. 27, 1945	9.40	4,240		Mar. 5, 1955	12.00	6,920
	Mar. 3, 1945	9.41	4,240		May 28, 1955	9.07	4,380
	Mar. 6, 1945	13.27	8,090	1956	Jan. 30, 1956	9.35	4,620
1946	June 2, 1946	13.45	8,180		Feb. 7, 1956	9.15	4,460
1947	Jan. 15, 1947	7.92	3,440		Feb. 18, 1956	8.76	4,140
1948	Feb. 14, 1948	11.61	6,560		Mar. 8, 1956	9.51	4,700
	Apr. 14, 1948	11.10	6,110		Mar. 29, 1956	9.25	4,460
1949	Dec. 16, 1948	10.23	5,340		May 28, 1956	9.33	4,540
	Jan. 26, 1949	8.75	4,160		July 27, 1956	16.03	10,900
					Aug. 6, 1956	12.30	7,190
				1957	Apr. 18, 1957	7.74	3,260
				1958	May 4, 1958	8.08	3,580

## 740. Dunlap Creek at Allison, Pa.

Location. --Lat 39°59'20", long 79°52'30", at highway bridge at Allison, Fayette County, 1 3/4 miles north of Republic, 2.6 miles upstream from Cox Run and 3.7 miles downstream from Lilly Run.

Drainage area. --33.1 sq mi.

Gage. --Nonrecording gage. Altitude of gage is 900 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurement below 200 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 310 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Dec. 30, 1942	3.6	725	1945	Mar. 3, 1945	3.1	500
	Apr. 19, 1943	3.40	635	Cont.	Mar. 6, 1945	4.3	970
	May 20, 1943	2.75	374		Mar. 22, 1945	3.25	490
	May 26, 1943	2.95	446		Sept. 18, 1945	2.80	325
	May 31, 1943	3.00	465		Sept. 23, 1945	3.0	395
1944	Mar. 7, 1944	2.60	317	1946	June 2, 1946	4.73	965
	Mar. 23, 1944	3.2	540		June 19, 1946	4.32	805
1945	Oct. 21, 1944	2.6	317	1947	June 6, 1947	4.08	660
	Dec. 26, 1944	3.71	775				
	Jan. 1, 1945	—	*500	1948	Jan. 2, 1948	4.25	765
	Feb. 22, 1945	2.80	385		Feb. 14, 1948	4.54	885
	Feb. 27, 1945	3.0	460		Apr. 14, 1948	5.06	945

## Dunlap Creek at Allison, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Dec. 16, 1948	3.3	341	1951	Nov. 4, 1950	4.51	570
	Jan. 26, 1949	3.90	535		Dec. 4, 1950	5.43	960
1950	Jan. 7, 1950	4.30	642		Jan. 15, 1951	4.0	405
	Jan. 31, 1950	4.0	544		Feb. 1, 1951	4.6	610
	July 13, 1950	3.5	386		June 13, 1951	5.0	780
	Sept. 14, 1950	3.35	355				
	Sept. 22, 1950	6.17	1,300				

<sup>a</sup>Estimated daily discharge.

## 745. Redstone Creek at Waltersburg, Pa.

Location.--Lat 39°58'45", long 79°45'50", near center of span on downstream side of highway bridge at Waltersburg, Fayette County, 500 ft upstream from Bolden Run and 1 mile upstream from Allen Run.

Drainage area.--73.7 sq mi.

Gage.--Nonrecording gage and crest-stage indicator. Datum of gage is 883.28 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,600 cfs and extended on basis of contracted-opening measurement of peak flow.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Dec. 30, 1942	6.38	2,050	1950	Sept. 21, 1950	7.29	2,310
1944	May 26, 1944	5.75	1,750	1951	Dec. 3, 1950	6.98	2,180
1945	Dec. 25, 1944	7.0	2,350		June 13, 1951	7.56	2,440
	Mar. 6, 1945	7.21	2,450	1952	Jan. 27, 1952	6.00	1,720
	Sept. 23, 1945	6.35	2,050	1953	May 7, 1953	5.13	1,380
1946	June 2, 1946	7.84	2,750	1954	Apr. 17, 1954	3.80	735
	June 19, 1946	6.5	2,100	1955	Oct. 15, 1954	11.83	4,400
1947	Aug. 3, 1947	7.59	2,440		Mar. 5, 1955	7.65	2,440
1948	Apr. 12, 1948	6.64	2,000	1956	Aug. 6, 1956	8.95	3,080
	Apr. 14, 1948	7.10	2,220	1957	Dec. 14, 1956	4.40	1,000
1949	Jan. 26, 1949	6.03	1,720	1958	May 4, 1956	5.75	1,640

## 750. Monongahela River at Charleroi, Pa.

Location.--Lat 40°08'30", long 79°53'35", on right bank on land guide wall 1,100 ft upstream from dam at lock 4, at Charleroi, Washington County, half a mile downstream from Maple Creek, and at mile 41.5.

Drainage area.--5,213 sq mi.

Gage.--Recording gage. Datum of gage is 735.33 ft above mean sea level (Corps of Engineers benchmark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--24 ft.

Remarks.--Only annual peaks are shown. Flow regulated.



## Monongahela River at Charleroi, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1888	July 11, 1888	26.1	156,000	1946	June 2, 1946	13.80	79,600
1934	Mar. 4, 1934	14.35	85,500	1947	Mar. 15, 1947	8.91	39,600
1935	Mar. 13, 1935	17.0	108,000	1948	Feb. 14, 1948	19.0	118,000
1936	Mar. 18, 1936	22.47	138,000	1949	Dec. 16, 1948	17.85	109,000
1937	Apr. 27, 1937	16.84	107,000	1950	Feb. 1, 1950	14.84	88,400
1938	Oct. 29, 1937	20.17	127,000	1951	Feb. 2, 1951	17.32	106,000
1939	Feb. 4, 1939	19.05	120,000	1952	Jan. 27, 1952	14.04	82,300
1940	Apr. 20, 1940	15.06	93,600	1953	May 7, 1953	10.70	55,800
1941	June 5, 1941	20.85	133,000	1954	Mar. 2, 1954	8.25	33,300
1942	Apr. 10, 1942	10.92	58,100	1955	Oct. 16, 1954	21.07	140,000
1943	Dec. 30, 1942	17.65	112,000	1956	Aug. 6, 1956	20.10	130,000
1944	Feb. 23, 1944	12.12	66,000	1957	Feb. 10, 1957	16.82	102,000
1945	Feb. 27, 1945	16.52	100,000	1958	May 6, 1958	12.49	70,300

## 765. Youghiogheny River at Friendsville, Md.

Location. --Lat 39°39'17", long 79°24'27", 0.6 mile upstream from bridge on State Highway 42 at Friendsville, Garrett County, and 1¼ miles upstream from Bear Creek.

Drainage area. --295 sq mi.

Gage. --Nonrecording at site 0.6 mile downstream prior to October 1940; recording at present site thereafter. At datum 16.24 ft lower prior to Sept. 1, 1922. At datum 16.29 ft lower Sept. 1, 1922, to Sept. 30, 1926. Datum of gage is 1,487.33 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 5,800 cfs and extended above on basis of slope-area measurement at 13,000 cfs.

Remarks. --Peaks occasionally affected by regulation from Deep Creek Reservoir (usable capacity, 92,975 acre-ft). Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1899	May 19, 1899	10.3	8,380	1946	Jan. 7, 1946	5.22	3,720
1902	Mar. 1, 1902	11.5	10,800	1947	Mar. 15, 1947	<sup>c</sup> 6.03	4,260
1924	Mar. 29, 1924	<sup>a</sup> 14.2	15,600	1948	Apr. 13, 1948	6.80	7,420
1941	June 4, 1941	6.97	7,780	1949	Dec. 16, 1948	7.97	10,400
1942	Apr. 10, 1942	5.48	4,480	1950	Jan. 31, 1950	6.11	6,280
1943	Dec. 30, 1942	6.18	6,620	1951	Feb. 1, 1951	6.55	6,820
1944	Mar. 24, 1944	<sup>b</sup> 5.97	5,360	1952	Jan. 27, 1952	5.89	<sup>d</sup> 5,630
1945	Feb. 27, 1945	7.21	8,380	1953	Jan. 24, 1953	5.25	<sup>d</sup> 3,880
				1954	Jan. 21, Mar. 1	4.60	<sup>e</sup> 2,430
				1955	Oct. 16, 1954	8.99	13,000
				1956	Aug. 6, 1956	8.54	11,800
				1957	Feb. 10, 1957	6.98	7,850
				1958	Dec. 26, 1957	6.08	5,730

<sup>a</sup>Maximum stage known; equivalent to 10.2 ft, present site and datum.

<sup>b</sup>Occurred Jan. 28, 1944; ice jam.

<sup>c</sup>Occurred Mar. 14, 1947; ice jam.

<sup>d</sup>Result of regulation.

<sup>e</sup>Peak of Mar. 1 is result of regulation.

## 775. Youghiogheny River at Youghiogheny River Dam, Pa.

Location. --Lat 39°48'20", long 79°21'50", on right bank 800 ft upstream from bridge on State Highway 281, a quarter of a mile downstream from Youghiogheny River Dam, Somerset County, a quarter of a mile south of Confluence, and 0.7 mile upstream from Casselman River.

Drainage area. --436 sq mi.

Gage. --Recording gage. Datum of gage is 1,310.17 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --33 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 20, 1940	11.70	8,660	1951	Feb. 3, 1951	7.70	5,100
1941	June 4, 1941	15.94	11,100	1952	Jan. 31, 1952	8.10	5,860
1942	Apr. 10, 1942	9.82	7,530	1953	Feb. 4, 1953	7.02	4,200
1943	Dec. 30, 1942		<sup>a</sup> 8,380	1954	June 18, 1954	5.35	1,880
1944	Feb. 24, 1944		<sup>a</sup> 6,400	1955	Oct. 25, 1954	8.05	5,700
1945	Mar. 9, 1945	10.37	10,200	1956	June 3, 1956	7.62	5,100
1946	Jan. 7, 1946	<sup>b</sup> 8.88	<sup>c</sup> 5,060	1957	Feb. 13, 1957	6.72	3,810
1947	Mar. 15, 1947	8.08	5,650	1958	May 9, 1958	7.80	5,400
1948	Mar. 5, 1948	11.28	13,700				
1949	Jan. 30, 1949	8.42	6,340				
1950	Feb. 4, 1950	8.53	6,500				

<sup>a</sup>Daily discharge.

<sup>b</sup>Backwater from Casselman River.

<sup>c</sup>Daily discharge, occurred Jan. 8, 1946.

## 780. Casselman River at Grantsville, Md.

Location. --Lat 39°42'08", long 79°08'12", at highway bridge 0.3 mile upstream from Slaubough Run, 0.7 mile downstream from U. S. Highway 40, and 1.0 mile northeast of Grantsville, Garrett County.

Drainage area. --62.5 sq mi.

Gage. --Recording and concrete control. Altitude of gage is 2,090 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 1,600 cfs and extended above on basis on contracted-opening measurement at gage height 8.13 ft and logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	July 4, 1948	8.13	5,110	1953	Mar. 24, 1953	3.82	1,110
1949	Dec. 15, 1948	4.60	1,690	1954	Mar. 1, 1954	4.50	1,610
1950	Sept. 21, 1950	6.68	3,620	1955	Oct. 15, 1954	10.70	8,400
1951	June 13, 1951	4.80	1,870	1956	Aug. 6, 1956	6.25	3,180
1952	Mar. 11, 1952	5.14	2,180	1957	Feb. 10, 1957	4.80	1,870
				1958	Apr. 6, 1958	4.73	1,810

## 785. Big Piney Run near Salisbury, Pa.

Location. --Lat 39°43'32", long 79°02'57", on left bank an eighth of a mile upstream from Little Piney Run, a quarter of a mile north of Maryland-Pennsylvania state line and 2½ miles southeast of Salisbury, Somerset County.

Drainage area. --24.5 sq mi.

Gage. --Recording gage. Altitude of gage is 2,240 cfs (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 500 cfs and extended on basis of slope-area measurements.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 450 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Mar. 14, 1933	6.10	1,910	1945	Mar. 6, 1945	4.25	807
	Apr. 19, 1933	4.03	512	Cont.	Sept. 18, 1945	3.96	682
	May 9, 1933	4.03	512		Sept. 23, 1945	4.19	774
1934	Jan. 7, 1934	5.1	968	1946	May 27, 1946	3.72	532
1935	Jan. 22, 1935	3.97	463		June 2, 1946	3.68	508
	Feb. 15, 1935	4.05	494		June 19, 1946	4.26	813
1936	Feb. 27, 1936	6.96	850	1947	Mar. 14, 1947	3.89	634
	Mar. 11, 1936	5.59	1,420	1948	Jan. 1, 1948	3.97	689
	Mar. 17, 1936	7.50	4,100		Feb. 14, 1948	3.82	592
	Mar. 25, 1936	4.17	543		Apr. 13, 1948	4.26	813
1937	Oct. 17, 1936	4.29	600	1949	Jan. 26, 1949	3.61	466
	Jan. 10, 1937	4.88	915	1950	Mar. 27, 1950	4.12	796
	Jan. 23, 1937	4.26	578		Sept. 21, 1950	—	1,300
	Apr. 26, 1937	7.63	4,300	1951	Dec. 7, 1950	4.58	998
1938	Oct. 28, 1937	6.04	1,860		Mar. 30, 1951	3.64	484
1939	Feb. 3, 1939	4.23	578		June 13, 1951	4.10	780
1940	Mar. 30, 1940	4.30	600	1952	Dec. 22, 1951	<sup>b</sup> —	600
	Aug. 27, 1940	5.69	1,510		Jan. 2, 1952	4.30	835
1941	Apr. 5, 1941	4.58	745		Mar. 11, 1952	5.13	1,360
	June 4, 1941	5.38	1,260	1953	Nov. 21, 1952	3.95	675
1942	Mar. 9, 1942	4.60	560		Jan. 24, 1953	3.78	568
	Apr. 9, 1942	4.05	494		Mar. 24, 1953	3.76	556
	May 16, 1942	4.67	1,050	1954	Mar. 1, 1954	5.58	1,690
	June 5, 1942	4.03	731		July 15, 1954	4.12	735
	June 11, 1942	3.86	616	1955	Oct. 15, 1954	8.56	6,850
	July 1, 1942	4.38	881		Dec. 30, 1954	4.40	892
1943	Oct. 15, 1942	6.21	2,250		Mar. 5, 1955	4.46	927
	Dec. 30, 1942	4.46	927		Mar. 22, 1955	3.79	564
	Jan. 18, 1943	3.60	467		May 24, 1955	4.28	824
	Apr. 19, 1943	4.10	780		June 8, 1955	5.64	1,740
	May 21, 1943	5.08	1,330		Aug. 18, 1955	4.38	881
1944	Jan. 28, 1944	<sup>b</sup> 7.20	<sup>a</sup> 500	1956	Aug. 6, 1956	4.30	835
	Feb. 22, 1944	<sup>b</sup> 8.87	<sup>a</sup> 600	1957	Feb. 10, 1957	3.47	443
	May 7, 1944	3.88	628	1958	Dec. 26, 1957	3.62	509
1945	Feb. 16, 1945	3.88	628		Apr. 6, 1958	4.15	765
	Feb. 27, 1945	4.42	904		May 5, 1958	3.93	655
	Mar. 3, 1945	4.37	875				

<sup>a</sup> Discharge estimated, occurred during ice jam.

<sup>b</sup> Backwater from ice.

## 790. Casselman River at Markleton, Pa.

Location. --Lat 39°51'35", long 79°13'40", on right bank at downstream side of highway bridge at Markleton, Somerset County, 2 miles southwest of Casselman, and 7 miles downstream from Coxes Creek.

Drainage area. --382 sq mi.

Gage. --Nonrecording gage prior to Nov. 19, 1940; recording gage thereafter. Datum of gage is 1,655.29 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter and slope-area measurements, and summation of flows at nearby stations.

Bankfull stage. --21 ft.

Remarks. --Base for partial-duration series, 8,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Jan. 7, 1915	8.2	11,800	1933	Mar. 14, 1933	9.8	18,000
	Jan. 19, 1915	7.3	8,820		May 10, 1933	8.5	12,900
	Feb. 2, 1915	8.2	11,800	1934	Jan. 7, 1934	8.1	11,500
	Feb. 15, 1915	8.1	11,500		Aug. 16, 1934	8.7	13,600
	June 2, 1915	7.4	9,140	1935	Jan. 22, 1935	7.6	9,800
1916	Dec. 18, 1915	7.3	8,820		Feb. 26, 1936	8.2	11,800
	Jan. 2, 1916	8.6	13,200	1936	Mar. 12, 1936	7.8	10,500
	Mar. 22, 1916	8.9	14,300		Mar. 17, 1936	16.4	35,800
	Mar. 27, 1916	7.5	9,460	1937	Jan. 10, 1937	8.3	12,200
1917	Dec. 28, 1916	7.5	9,460		Jan. 25, 1937	7.3	8,820
	Jan. 22, 1917	10.0	19,000		Apr. 26, 1937	9.8	18,000
	Mar. 12, 1917	8.5	12,900	1938	Oct. 28, 1937	10.0	19,000
1918	Feb. 13, 1918	8.4	12,500		Mar. 15, 1938	7.3	8,820
	Feb. 20, 1918	9.2	15,400	1939	Feb. 3, 1939	8.7	12,500
	Feb. 26, 1918	9.70	17,600	1940	Mar. 31, 1940	7.8	9,950
1919	Jan. 2, 1919	7.8	10,500		Apr. 20, 1940	7.4	8,880
1920	Nov. 26, 1919	7.8	10,500	1941	Apr. 5, 1941	6.96	8,370
	Mar. 5, 1920	7.1	8,180		June 5, 1941	10.24	18,700
	Mar. 12, 1920	8.4	12,500	1942	Mar. 9, 1942	7.35	9,520
	Mar. 17, 1920	7.3	8,820		Apr. 10, 1942	7.09	8,650
	June 17, 1920	8.0	11,200	1943	Oct. 15, 1942	8.18	12,000
1921	Mar. 3, 1921	7.5	9,460		Dec. 30, 1942	8.42	12,600
1922	Nov. 28, 1921	7.55	9,110	1944	May 7, 1944	6.77	7,830
1923	Feb. 2, 1923	6.6	6,620		Feb. 16, 1945	7.03	8,380
1924	Jan. 3, 1924	8.2	11,800	1945	Feb. 27, 1945	8.63	13,300
	Mar. 29, 1924	12.17	33,300		Mar. 3, 1945	7.88	11,000
	Apr. 6, 1924	7.7	10,100		Mar. 6, 1945	8.05	11,400
	May 12, 1924	8.9	14,310		June 2, 1946	7.24	8,940
	June 29, 1924	8.8	13,900	1947	June 31, 1947	6.98	8,380
1925	Feb. 12, May 11	6.5	6,320		Jan. 2, 1948	7.24	8,740
	Nov. 13, 1925	7.4	9,140	1948	Apr. 13, 1948	8.16	11,800
	Jan. 19, 1926	7.5	9,460		July 4, 1948	7.01	8,170
1926	Feb. 22, 1926	7.4	9,140	1949	Dec. 16, 1948	7.18	8,740
	Jan. 21, 1927	7.2	8,500		Jan. 26, 1949	7.23	8,740
1927	June 5, 1927	7.4	9,140	1950	Mar. 28, 1950	7.55	9,570
	Oct. 20, 1927	7.7	10,100	1951	Dec. 8, 1950	7.46	9,270
1928	Apr. 30, 1928	10.0	19,000		June 13, 1951	7.69	10,200
1929	Feb. 26, May 29	7.0	7,860	1952	Jan. 26, 1952	7.05	8,170
	Oct. 3, 1929	7.6	9,800		Mar. 11, 1952	8.54	12,800
1930	Apr. 4, 1931	7.4	9,140				
1931	Apr. 1, 1932	7.2	8,500				
1932							



## MONONGAHELA RIVER BASIN

Casselman River at Markleton, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 31, 1953	7.61	9,940	1956	Feb. 2, 1956	7.24	8,740
1954	Mar. 1, 1954	8.36	12,500	1957	Dec. 14, 1956	7.78	10,600
1955	Oct. 15, 1954	14.06	50,000	1958	Dec. 26, 1957	6.89	8,180
	Dec. 30, 1954	8.05	11,200		May 5, 1958	7.51	9,630
	Mar. 4, 1955	8.45	12,500				
	June 8, 1955	7.30	9,030				

## 800. Laurel Hill Creek at Ursina, Pa.

Location.--Lat 39°49'15", long 79°19'15", on right bank 500 ft downstream from bridge on State Highway 53, at Ursina, Somerset County, and 2.7 miles upstream from mouth.

Drainage area.--121 sq mi.

Gage.--Nonrecording gage prior to July 18, 1939; recording gage thereafter. Prior to July 18, 1939, at bridge half a mile downstream at datum 6.20 ft lower. Datum of present gage is 1,335.26 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 6,100 cfs and extended on basis of slope-area measurement.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	June 28, 1914	6.2	3,250	1925	Jan. 31, 1925	<sup>a</sup> 6.0	—
1915	Jan. 7, 1915	6.99	4,140		Feb. 9, 1925	<sup>a</sup> 7.9	4,300
					July 22, 1925	6.2	3,220
1916	Dec. 18, 1915	6.1	3,150	1926	Oct. 25, 1925	6.66	3,780
	Jan. 2, 1916	6.6	3,680	1927	Jan. 21, 1927	8.0	5,630
	Mar. 22, 1916	8.0	5,630				
1917	Jan. 22, 1917	8.2	5,970	1928	Oct. 19, 1927	8.2	4,970
	Mar. 12, 1917	6.0	3,050		Dec. 14, 1927	6.4	3,440
	June 7, 1917	7.1	4,270	1929	June 28, 1929	5.15	2,170
1918	Feb. 12, 1918	<sup>a</sup> 6.3	—	1930	Oct. 3, 1929	7.1	4,270
	Feb. 20, 1918	8.0	5,630				
	Feb. 26, 1918	6.0	3,000	1931	Apr. 4, 1931	5.76	2,780
1919	Jan. 2, 1919	6.1	3,110	1932	Mar. 31, 1932	5.95	3,000
1920	Nov. 26, 1919	6.2	3,220	1933	Mar. 14, 1933	7.5	4,860
	Mar. 13, 1920	6.8	3,900				
	June 17, 1920	7.2	4,410		May 10, 1933	7.0	4,140
1921	Jan. 23, 1921	6.1	3,110	1934	Aug. 16, 1934	6.6	3,660
1922	Nov. 28, 1921	6.3	3,330	1935	May 2, 1935	6.7	3,910
	Dec. 24, 1921	6.31	3,330		Aug. 2, 1935	6.86	4,190
1923	July 11, 1923	5.1	2,070	1936	Feb. 27, 1936	8.4	6,570
1924	Jan. 3, 1924	<sup>a</sup> 7.3	—		Mar. 12, 1936	6.1	3,150
	Feb. 22, 1924	<sup>a</sup> 6.6	—		Mar. 17, 1936	10.28	10,300
	Mar. 5, 1924	<sup>a</sup> 6.8	—		Aug. 30, 1936	6.6	3,780
	Mar. 29, 1924	9.30	8,090	1937	Jan. 10, 1937	6.5	3,650
	May 12, 1924	6.1	3,110		Jan. 18, 1937	6.0	3,030
	June 29, 1924	6.2	3,220		Jan. 22, 1937	6.7	3,910
					Jan. 25, 1937	6.3	3,390
					Apr. 26, 1937	7.5	5,070

## Laurel Hill Creek at Ursina, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Oct. 28, 1937 Dec. 16, 1937	7.6 6.3	5,230 3,390	1948	Jan. 2, 1948 Feb. 14, 1948 Apr. 13, 1948 July 4, 1948	4.58 <sup>a</sup> 4.97 5.48 4.63	3,620 — 5,150 3,700
1939	Feb. 3, 1939	7.58	4,910	1949	Dec. 15, 1948 Jan. 26, 1949 Aug. 18, 1949	4.64 4.80 5.20	3,700 3,680 4,360
1940	Feb. 11, 1940 Mar. 30, 1940 Apr. 20, 1940	<sup>a</sup> 4.96 6.28 4.37	— 6,510 3,340	1950	Apr. 24, 1950	4.31	2,900
1941	Mar. 4, 1941 Apr. 5, 1941 June 4, 1941	<sup>a</sup> 4.85 4.34 7.98	— 3,260 9,400	1951	June 13, 1951	5.53	4,900
1942	Jan. 19, 1942 Apr. 9, 1942	<sup>a</sup> 5.69 4.57	— 3,580	1952	Jan. 27, 1952 Mar. 11, 1952	5.54 4.91	4,900 3,850
1943	Dec. 30, 1942 Aug. 13, 1943	5.81 5.20	5,660 4,640	1953	Mar. 24, 1953	3.78	2,180
1944	Jan. 28, 1944 Apr. 23, 1944	<sup>a</sup> 5.62 4.24	— 3,100	1954	Mar. 1, 1954 Sept. 15, 1954	3.58 3.62	1,920 1,920
1945	Feb. 11, 1945 Feb. 27, 1945 Mar. 3, 1945 Mar. 6, 1945	<sup>a</sup> 6.13 5.60 5.43 5.96	— 5,320 4,980 6,000	1955	Oct. 15, 1954 Dec. 30, 1954 Mar. 1, 1955 Mar. 4, 1955	10.63 5.80 5.31 6.31	10,900 4,690 4,040 5,340
1946	Jan. 7, 1946 Feb. 15, 1946 June 2, 1946 June 19, 1946	4.78 <sup>a</sup> 5.53 5.12 4.53	3,960 — 4,470 3,540	1956	Feb. 3, 1956 Aug. 6, 1956	4.60 7.04	3,130 6,250
1947	Mar. 14, 1947 June 8, 1947 July 31, 1947	<sup>a</sup> 5.55 4.97 5.87	— 4,220 5,830	1957	Dec. 14, 1956	4.24	2,700
				1958	May 4, 1958	4.43	2,940

<sup>a</sup> Backwater from ice.

## 810. Youghiogheny River below Confluence, Pa.

Location. --Lat 39°49'40", long 79°22'25", on left bank 1.0 mile downstream from Casselman River and 1½ miles downstream from Confluence, Somerset County.

Drainage area. --1,029 sq mi.

Gage. --Recording gage. Datum of gage is 1,302.77 ft above mean sea level, unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 25,000 cfs and extended on basis of slope-area measurement.

Bankfull stage. --25 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 4, 1941	16.42	43,800	1951	June 13, 1951	9.94	16,200
1942	Apr. 10, 1942	10.45	17,800	1952	Mar. 11, 1952	10.69	18,900
1943	Dec. 30, 1942	12.17	24,500	1953	May 31, 1953	8.22	11,400
1944	Mar. 25, 1944	9.18	14,100	1954	Mar. 1, 1954	9.30	14,400
1945	Feb. 27, 1945	11.50	21,700	1955	Oct. 15, 1954	19.92	69,500
1946	Jan. 7, 1946	9.67	15,600	1956	Aug. 6, 1956	9.82	15,900
1947	July 31, 1947	8.98	13,600	1957	Dec. 14, 1956	9.49	15,000
1948	Apr. 13, 1948	10.50	18,200	1958	May 5, 1958	9.53	15,000
1949	Jan. 26, 1949	9.00	13,600				
1950	Mar. 28, 1950	8.99	13,600				

## 815. Youghiogheny River at Ohiopyle, Pa.

Location. --Lat 39°52'15", long 79°29'51", at steel highway bridge in Ohiopyle, Fayette County, 0.6 mile upstream from Beaver Creek.

Drainage area. --1,062 sq mi.

Gage. --Recording gage. Datum of gage is 1,198.91 ft above mean sea level, unadjusted (furnished by West Penn Power Co.).

Stage-discharge relation. --Defined by current-meter measurements below 15,100 cfs and extended by velocity-area studies.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	May 1, 1928	8.23	32,300	1941	June 5, 1941	9.34	40,400
1929	Feb. 27, 1929	6.28	18,100	1942	Apr. 10, 1942	6.69	19,400
1930	Oct. 3, 1929	7.33	25,200	1943	Dec. 30, 1942	7.72	26,600
				1944	Mar. 25, 1944	6.02	15,200
1931	Apr. 4, 1931	6.27	16,700	1945	Feb. 27, 1945	—	24,400
1932	Apr. 1, 1932	7.11	22,200				
1933	Mar. 14, 1933	8.94	36,800	1946	Jan. 7, 1946	6.34	17,300
1934	Jan. 7, 1934	7.03	21,800	1947	July 31, 1947	5.71	13,400
1935	Jan. 22, 1935	7.18	22,900	1948	Apr. 13, 1948	6.70	19,400
				1949	Jan. 26, 1949	5.92	14,600
1936	Mar. 18, 1936	13.30	82,100	1950	Mar. 28, 1950	5.86	14,300
1937	Apr. 26, 1937	10.74	54,200				
1938	Oct. 28, 1937	8.88	36,300				
1939	Feb. 3, 1939	8.15	30,100				
1940	Mar. 31, 1940	7.79	27,400				

## 825. Youghiogheny River at Connellsville, Pa.

Location. --Lat 40°01'05", long 79°35'40", on left bank at downstream side of Crawford Avenue Bridge in Connellsville, Fayette County, three-quarters of a mile upstream from Mounts Creek.

Drainage area. --1,326 sq mi.

Gage. --Nonrecording gage prior to Aug. 15, 1928; recording gage thereafter. Datum of gage is 860.13 ft above mean sea level (Baltimore and Ohio RR benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 55,000 cfs and extended by logarithmic plotting.

Bankfull stage. --16 ft.

Remarks. --Only annual peaks are shown. Flow regulated. Prior to 1907 records from Weather Bureau.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1860	Apr. 12, 1860	16.5	47,000	1901	Nov. 26, 1900	11.7	28,200
				1902	Feb. 28, 1902	15.8	44,200
1888	Aug. 21-22, 1888	17.8	52,000	1903	Feb. 28, 1903	12.7	32,100
				1904	Mar. 1, 1904	13.7	36,000
1891	Feb. 17, 1891	14.7	39,900	1905	Mar. 21, 1905	12.0	29,400
1892	Jan. 15, 1892	10.2	22,400				
1893	Feb. 11, 1893	9.8	20,800	1906	Jan. 23, 1906	10.9	25,100
1894	Feb. 10, 1894	8.9	17,400	1907	Mar. 14, 1907	18.4	54,400
1895	Jan. 8, 1895	12.0	29,400	1908	Feb. 15, 1908	14.4	44,600
				1909	Feb. 24, 1909	9.36	19,100
1896	July 25, 1896	15.0	41,100	1910	June 19, 1910	13.09	36,300
1897	Feb. 23, 1897	16.7	47,700				
1898	Aug. 11, 1898	11.2	26,300	1911	Jan. 14, 1911	12.68	33,900
1899	May 18, 1899	13.0	33,300	1912	Mar. 21, 1912	17.28	66,000
				1913	Jan. 8, 1913	13.50	38,800
				1914	Nov. 16, 1913	11.50	27,400
				1915	Jan. 7, 1915	12.13	31,100

Youghiogheny River at Connellsville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Mar. 22, 1916	15.0	48,700	1936	Mar. 18, 1936	20.28	92,500
1917	Jan. 22, 1917	15.2	50,000	1937	Apr. 26, 1937	15.87	55,100
1918	Feb. 20, 1918	14.0	42,000	1938	Oct. 28, 1937	14.35	44,600
1919	Jan. 1, 1919	11.51	27,700	1939	Feb. 3, 1939	13.37	38,200
1920	Mar. 13, 1920	12.13	30,000	1940	Mar. 31, 1940	13.16	37,000
1921	Mar. 3, 1921	10.1	22,400	1941	June 5, 1941	17.02	63,600
1922	Dec. 24, 1921	11.5	27,700	1942	Mar. 9, 1942	10.62	23,700
1923	Feb. 2, 1923	8.9	18,000	1943	Dec. 30, 1942	12.80	34,800
1924	Mar. 29, 1924	20.5	84,000	1944	Mar. 25, 1944	9.20	17,900
1925	May 10, 1925	9.70	20,900	1945	Feb. 27, 1945	12.42	32,600
1926	Feb. 23, 1926	10.4	23,000	1946	June 2, 1946	10.7	24,200
1927	Jan. 22, 1927	11.8	29,100	1947	July 31, 1947	8.75	16,400
1928	May 1, 1928	13.7	39,000	1948	Apr. 13, 1948	11.40	27,900
1929	Feb. 27, 1929	10.17	19,200	1949	Jan. 26, 1949	9.81	20,300
1930	Oct. 3, 1929	12.0	30,700	1950	Mar. 28, 1950	8.94	16,700
1931	Apr. 4, 1931	9.95	21,400	1951	June 13, 1951	10.62	23,700
1932	Apr. 1, 1932	11.00	25,900	1952	Jan. 27, Mar. 11	10.64	23,700
1933	Mar. 14, 1933	14.9	46,900	1953	Mar. 24, 1953	7.94	12,800
1934	Mar. 4, 1934	10.77	25,000	1954	Mar. 1, 1954	9.21	17,900
1935	Jan. 22, 1935	10.83	25,000	1955	Oct. 16, 1954	21.96	103,000
				1956	Aug. 6, 1956	13.98	42,400
				1957	Dec. 14, 1956	10.18	21,900
				1958	May 6, 1958	9.72	19,900

## 830. Green Lick Run at Green Lick Reservoir, Pa.

Location. --Lat 40°06'20", long 79°30'05", on left bank at upstream end of Green Lick Reservoir, Fayette County, 1.3 miles upstream from Latter Run and 2½ miles southeast of Mount Pleasant.

Drainage area. --3.07 sq mi.

Gage. --Recording gage. Datum of gage is 1,254.7 ft above mean sea level (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements. Maximum discharge of record determined by slope-area measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 130 cfs. Only annual peaks are shown for 1929-41.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 26, 1929	2.21	126	1939	Feb. 3, 1939	2.40	174
1930	Oct. 2, 1929	2.69	266	1940	Mar. 30, 1940	2.73	282
1931	May 7, 1931	2.77	298	1941	June 4, 1941	3.20	520
1932	Mar. 31, 1932	2.32	153	1942	Mar. 9, 1942	2.72	278
1933	Mar. 13, 1933	2.67	260		Aug. 28, 1942	2.24	134
1934	Mar. 3, 1934	2.44	186	1943	Dec. 29, 1942	2.48	197
1935	Aug. 2, 1935	2.85	332		Aug. 13, 1943	<sup>a</sup> 5.1	1,400
1936	Mar. 17, 1936	3.18	508	1944	May 24, 1944	<sup>a</sup> 5.42	590
1937	Apr. 25, 1937	2.46	191	1945	Dec. 25, 1944	2.53	213
1938	July 18, 1938	3.21	526		Feb. 27, 1945	2.28	143
					Mar. 6, 1945	2.54	216



## MONONGAHELA RIVER BASIN

Green Lick Run at Green Lick Reservoir, Pa.--Continued

## Peak stages and discharges

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)		
1946	June 2, 1946		2.40	174	1953	May 6, 1953		2.32	153		
	July 1, 1946		3.24	546							
1947	June 7, 1947		2.70	270	1954	Aug. 16, 1954		3.11	466		
	July 31, 1947		2.68	263							
1948	Feb. 14, 1948		2.36	164	1955	Oct. 15, 1954		5.06	860		
	Apr. 12, 1948		2.40	174		Dec. 29, 1954		2.52	209		
	July 4, 1948		2.33	156		Mar. 1, 1955		2.31	151		
						June 8, 1955		2.58	229		
1949	Aug. 18, 1949		2.66	256	1956	Jan. 30, 1956		2.26	138		
1950	Dec. 12, 1949	2.34	158	Feb. 2, 1956			2.25	136			
				Mar. 7, 1956			2.54	216			
				Apr. 3, 1956			2.40	174			
				Aug. 5, 1956			2.83	324			
1951	Dec. 3, 1950	2.30	148	Sept. 6, 1956			2.73	282			
				1957	Apr. 18, 1957	1.93	74				
								1958	May 3, 1958	2.10	103
1952	Jan. 27, 1952		2.50	203							
	May 25, 1952		2.61	238							
	June 22, 1952		2.28	143							

<sup>a</sup>Backwater from debris.

## 835. Youghiogheny River at Sutersville, Pa.

Location. --Lat 40°14'25", long 79°48'25", on left bank 500 ft upstream from highway bridge at Sutersville, Westmoreland County, and 2.1 miles downstream from Sewickley Creek.

Drainage area. --1,715 sq mi.

Gage. --Nonrecording gage prior to May 31, 1939; recording gage thereafter. Prior to May 31, 1939, at site 500 ft downstream. Datum of gage is 733.36 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --20 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	Mar. 3, 1921	12.8	22,000	1941	June 5, 1941	27.34	78,000
1922	Nov. 29, 1921	19.1	47,200	1942	Apr. 10, 1942	14.46	29,400
1923	Feb. 14, 1923	11.4	17,600	1943	Dec. 30, 1942	19.86	49,500
1924	Mar. 30, 1924	28.0	80,800	1944	Mar. 24, 1944	12.15	21,800
1925	Feb. 8, 1925	12.26	20,400	1945	Mar. 7, 1945	18.84	45,300
1926	Feb. 23, 1926	12.5	21,100	1946	June 2, 1946	14.61	29,900
1927	Jan. 22, 1927	14.50	28,500	1947	June 8, 1947	11.59	20,000
1928	Oct. 20, 1927	18.50	45,000	1948	Apr. 14, 1948	17.13	36,800
1929	Feb. 27, 1929	12.17	20,500	1949	Jan. 27, 1949	13.38	24,300
1930	Oct. 3, 1929	16.9	36,200	1950	Jan. 7, 1950	11.43	18,100
1931	Apr. 4, 1931	14.0	26,700	1951	June 14, 1951	14.99	29,500
1932	Apr. 1, 1932	15.3	31,500	1952	Jan. 27, 1952	16.07	33,200
1933	Mar. 14, 1933	21.06	56,900	1953	Mar. 24, 1953	10.44	15,300
1934	Mar. 4, 1934	23.0	31,000	1954	Mar. 2, 1954	12.02	19,900
1935	Jan. 22, 1935	15.3	30,800	1955	Oct. 16, 1954	32.5	108,000
1936	Mar. 18, 1936	30.65	100,000	1956	Aug. 6, 1956	21.30	52,800
1937	Apr. 26, 1937	22.8	59,000	1957	Dec. 15, 1956	13.18	23,400
1938	Oct. 29, 1937	20.3	49,000	1958	May 6, 1958	12.66	21,900
1939	Feb. 4, 1939	18.5	42,000				
1940	Mar. 31, 1940	18.40	41,600				

## 840. Abers Creek near Murrys ville, Pa.

Location. --Lat 40°27'01", long 79°42'50", on right bank at downstream side of highway bridge, 30 ft upstream from small tributary, 2 miles northwest of Murrys ville, Westmoreland County, and 5½ miles northwest of Export.

Drainage area. --4.39 sq mi.

Gage. --Recording gage. Prior to October 1, 1950 at site 800 ft upstream at different datum. Datum of present gage is 936.73 ft above mean sea level (Pennsylvania Department of Highway benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 200 cfs and extended above by contracted-opening determination of peak flow.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 200 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 5, 1949	2.41	135	1953	July 5, 1953	4.67	308
1950	June 3, 1950	3.19	272	1954	Apr. 16, 1954	4.29	226
	June 25, 1950	3.24	283	1955	Oct. 15, 1954	6.68	950
	July 5, 1950	6.09	1,600				
1951	Dec. 3, 1950	4.51	274	1956	Feb. 25, 1956	5.40	500
	Jan. 15, 1951	5.32	490		July 21, 1956	4.70	310
	May 17, 1951	4.88	372		Aug. 5, 1956	4.27	224
	June 13, 1951	5.14	445	1957	Apr. 4, 1957	4.28	226
	July 22, 1951	4.28	231		Apr. 5, 1957	4.74	322
1952	Jan. 26, 1952	4.94	386	1958	July 22, 1958	4.72	320
	Mar. 11, 1952	4.22	221		Aug. 1, 1958	4.40	260
	June 22, 1952	6.59	1,000				

## 845. Turtle Creek at Trafford, Pa.

Location. --Lat 40°23'15", long 79°45'55", at Trafford, Westmoreland County, 500 ft upstream from Brush Creek and 5.8 miles upstream from mouth.

Drainage area. --55.9 sq mi.

Gage. --Nonrecording gage prior to Nov. 12, 1938; recording gage Nov. 13, 1938 to Sept. 2, 1946; nonrecording gage Sept. 3, 1946 to Nov. 12, 1947; recording gage thereafter. Prior to Oct. 1, 1938 gage at site 1 mile upstream at different datum; Oct. 1, 1938 to Sept. 2, 1946 gage at present site and datum; Sept. 3, 1946 to Nov. 12, 1947 gage at site 50 ft downstream at datum 4.0 ft lower. Datum of gage is 765.08 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 3,000 cfs and extended on basis of slope-area measurement.

Remarks. --Base for partial-duration series, 1,200 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	Jan. 22, 1917	4.5	1,530	1923	May 12, 1923	5.2	1,950
1918	Oct. 19, 1917	4.6	1,590	1924	Jan. 3, 1924	4.4	1,470
	Feb. 11, 1918	4.2	1,350		May 12, 1924	4.2	1,350
1919	July 15, 1919	7.10	3,280		June 29, 1924	6.2	2,650
1920	Nov. 26, 1919	6.6	2,930	1925	Feb. 7, 1925	—	<sup>a</sup> 800
	June 17, 1920	4.9	1,770	1926	Jan. 18, 1926	4.2	1,350
1921	Mar. 6, 1921	3.3	860		Feb. 14, 1926	4.0	1,230
					Feb. 25, 1926	4.0	1,230
1922	Nov. 28, 1921	4.8	1,710		Sept. 5, 1926	5.4	2,090

## MONONGAHELA RIVER BASIN

Turtle Creek at Trafford, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Feb. 25, 1927	5.0	1,830	1940	Apr. 20, 1940	6.65	2,380
	Mar. 20, 1927	4.0	1,230	Cont.	May 31, 1940	5.46	1,420
1928					Aug. 6, 1940	5.33	1,360
	Oct. 19, 1927	—	<sup>b</sup> 2,200	1941	June 5, 1941	5.31	1,320
	Nov. 28, 1927	—	<sup>b</sup> 1,400		Aug. 15, 1941	5.62	1,540
	Dec. 14, 1927	—	<sup>b</sup> 1,400		Aug. 26, 1941	6.31	2,110
	Mar. 30, 1928	5.4	2,090	1942	Mar. 9, 1942	5.40	1,390
	July 5, 1928	6.4	2,790		Apr. 9, 1942	6.85	2,570
	July 13, 1928	5.6	2,230	1943	Oct. 15, 1942	5.70	1,610
1929	Feb. 26, 1929	6.8	3,070		Nov. 1, 1942	5.45	1,420
	Apr. 16, 1929	4.4	1,470		Dec. 30, 1942	8.20	4,040
1930	Feb. 26, 1930	5.00	1,830		May 25, 1943	5.68	1,610
1931	Apr. 3, 1931	5.4	2,090		July 22, 1943	5.67	1,570
	June 23, 1931	4.2	1,330		July 28, 1943	6.25	2,080
1932	Dec. 24, 1931	3.8	1,090	1944	Mar. 12, 1944	5.19	1,260
1933	Jan. 26, 1933	4.3	1,390	1945	Jan. 1, 1945	5.15	1,220
	Mar. 15, 1933	8.5	4,420		Mar. 6, 1945	6.73	2,480
	Apr. 12, 1933	5.0	1,810	1946	Mar. 15, 1946	5.42	1,390
	May 10, 1933	7.2	3,380		May 27, 1946	10.05	5,200
	May 14, 1933	4.7	1,630		June 2, 1946	6.73	1,630
	July 24, 1933	5.8	2,370	1947	June 8, 1947	6.40	1,520
	Aug. 10, 1933	4.7	1,630	1948	Feb. 14, 1948	6.62	2,200
1934	Mar. 4, 1934	4.4	1,450		Apr. 12, 1948	6.84	2,430
	Apr. 4, 1934	4.1	1,270		Apr. 14, 1948	6.98	2,580
	Aug. 9, 1934	6.0	2,510		June 13, 1948	5.77	1,450
	Aug. 11, 1934	4.9	1,750		June 26, 1948	6.72	2,280
	Sept. 29, 1934	4.8	1,690	1949	Dec. 15, 1948	5.23	1,040
1935	Feb. 26, 1935	4.1	1,270	1950	Jan. 6, 1950	5.52	1,230
	Mar. 12, 1935	4.1	1,270		June 3, 1950	6.13	1,770
	Aug. 3, 1935	6.98	3,220		June 25, 1950	7.33	2,860
1936	Jan. 9, 1936	4.0	1,210		July 5, 1950	9.21	4,430
	Feb. 25, 1936	7.0	3,220	1951	Dec. 3, 1950	6.99	2,580
	Mar. 17, 1936	7.65	3,700		Dec. 8, 1950	5.70	1,390
1937	Oct. 10, 1936	5.0	1,830		Jan. 15, 1951	7.56	3,140
	Nov. 4, 1936	5.2	1,950		Feb. 1, 1951	6.30	1,900
	Jan. 15, 1937	6.0	2,150		Feb. 7, 1951	5.65	1,350
	Jan. 18, 1937	4.5	1,530		Mar. 7, 1951	5.53	1,270
	Jan. 22, 1937	5.8	2,370		June 10, 1951	5.88	1,560
	Jan. 24, 1937	5.4	2,090		June 13, 1951	6.64	2,230
	Apr. 25, 1937	5.9	2,440		June 28, 1951	6.43	2,040
	July 16, 1937	4.8	1,710		July 23, 1951	5.60	1,310
1938	Dec. 17, 1937	4.5	1,530	1952	Dec. 21, 1951	6.44	1,230
1939	Jan. 30, 1939	5.37	1,360		Jan. 26, 1952	8.29	2,670
1940	Mar. 4, 1940	5.19	1,245		Feb. 4, 1952	6.79	1,470
	Mar. 30, 1940	5.40	1,385		Apr. 13, 1952	6.46	1,230
	Apr. 3, 1940	5.23	1,290		June 22, 1952	7.33	1,880

<sup>a</sup>Estimated maximum discharge.<sup>b</sup>Mean daily discharge.

## 850. Monongahela River at Braddock, Pa.

Location. --Lat 40°23'30", long 79°51'30", near right bank on river guide wall 380 ft upstream from dam at lock 2, at Braddock, Allegheny County, 1,700 ft downstream from Turtle Creek and 11.2 miles upstream from confluence with Allegheny River.

Drainage area. --7,337 sq mi.

Gage. --Recording gage. Prior to Aug. 13, 1951, at site 700 ft upstream. Datum of gage is 707.16 ft above mean sea level, adjustment of 1929.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --26 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Mar. 18, 1936	38.8	210,000	1948	Apr. 14, 1948	26.22	144,000
1939	Feb. 4, 1939	27.2	147,000	1949	Dec. 16, 1948	24.99	130,000
1940	Apr. 20, 1940	23.86	115,000	1950	Feb. 1, 1950	23.07	102,000
1941	June 5, 1941	31.20	201,000	1951	Feb. 2, 1951	25.3	129,000
1942	Apr. 10, 1942	21.23	81,800	1952	Jan. 28, 1952	23.09	118,000
1943	Dec. 30, 1942	29.96	170,000	1953	May 8, 1953	20.16	68,500
1944	Mar. 24, 1944	21.18	81,800	1954	Mar. 2, 1954	18.43	46,100
1945	Mar. 7, 1945	27.22	134,000	1955	Oct. 16, 1954	30.63	200,000
1946	June 3, 1946	22.42	96,200	1956	Aug. 6, 1956	26.57	164,000
1947	Mar. 15, 1947	19.21	53,900	1957	Feb. 11, 1957	22.34	112,000
				1958	May 6, 1958	21.24	84,900

## CHARTIERS CREEK BASIN

## 855. Chartiers Creek at Carnegie, Pa.

Location. --Lat 40°24'00", long 80°05'55", on right bank 200 ft upstream from highway bridge at Carnegie, Allegheny County, 0.2 mile downstream from Robinson Run, and 9.0 miles upstream from mouth.

Drainage area. --257 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1933; recording gage thereafter. Prior to Dec. 15, 1931, gage at site half a mile downstream at different datum. Jan. 8, 1932 to October 26, 1936, gage at site 1 mile downstream at different datum. Datum of present gage is 762.03 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (Pennsylvania Railroad benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --15 ft.

Remarks. --Base for partial-duration series, 2,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Dec. 29, 1915	10.0	5,400	1920	Nov. 2, 1919	8.5	3,950
	Feb. 25, 1916	7.2	2,860		Nov. 27, 1919	12.3	7,860
	Mar. 7, 1916	7.4	3,020		Dec. 9, 1919	7.9	3,420
	Mar. 22, 1916	11.1	6,510		Dec. 13, 1919	7.5	3,100
1917	Jan. 5, 1917	6.9	2,630		Jan. 9, 1920	6.9	2,630
	Jan. 22, 1917	<sup>a</sup> 12.0	—		Jan. 21, 1920	8.1	3,590
	Mar. 11, 1917	7.6	3,180		Apr. 21, 1920	6.8	2,560
					June 17, 1920	16.1	12,800
1918	Feb. 9, 1918	<sup>a</sup> 10.5	—	1921	Mar. 7, 1921	8.5	3,950
	Feb. 20, 1918	7.2	2,860		Sept. 21, 1921	11.5	6,950
	Feb. 26, 1918	7.4	3,020				
1919	Jan. 2, 1919	7.0	2,700	1922	Nov. 28, 1921	7.9	3,420
	July 15, 1919	8.2	3,680		Dec. 24, 1921	8.5	3,950
					Apr. 1, 1922	9.61	5,000
					Apr. 15, 1922	9.2	4,600



## CHARTIERS CREEK BASIN

Chartiers Creek at Carnegie, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Apr. 14, 1923	7.1	2,780	1944	Mar. 7, 1944	8.88	4,850
	May 13, 1923	8.5	3,950		Mar. 24, 1944	7.18	3,230
1924	Dec. 23, 1923	9.0	4,400	1945	Jan. 1, 1945	8.48	4,450
	Jan. 3, 1924	9.9	5,300		Feb. 14, 1945	7.02	3,050
	Jan. 11, 1924	7.4	3,020		Feb. 22, 1945	7.16	3,230
	Jan. 16, 1924	9.1	4,500		Mar. 3, 1945	7.10	3,140
	Mar. 5, 1924	7.6	3,180		Mar. 6, 1945	13.49	12,200
	Mar. 29, 1924	10.0	5,400		May 17, 1945	8.89	4,920
	May 12, 1924	8.8	4,220	1946	May 27, 1946	6.14	2,270
	June 29, 1924	10.2	5,600		June 8, 1947	8.33	4,280
	Sept. 29, 1924	7.9	3,420	1948	Feb. 14, 1948	7.00	3,050
1925	Feb. 7, 1925	6.0	2,050		Apr. 14, 1948	8.94	4,920
					June 12, 1948	6.81	2,870
1926	Feb. 15, 1926	8.8	4,220	1949	Dec. 16, 1948	6.86	2,960
	Feb. 19, 1926	8.9	4,310		Jan. 28, 1949	6.57	2,690
	Feb. 25, 1926	8.6	4,040	1950	Jan. 7, 1950	6.73	2,780
	Sept. 5, 1926	11.3	6,560		Mar. 23, 1950	6.67	2,780
1927	Nov. 16, 1926	10.5	5,650		June 25, 1950	8.39	4,160
	Jan. 22, 1927	8.7	3,810		July 5, 1950	9.41	5,100
	Feb. 24, 1927	7.2	2,540		Sept. 22, 1950	7.10	3,030
	Mar. 21, 1927	8.2	3,360	1951	Nov. 4, 1950	7.15	3,110
	June 5, 1927	9.9	4,990		Dec. 4, 1950	11.31	7,160
1928	Nov. 17, 1927	9.8	4,880		Dec. 8, 1950	8.82	4,520
	Nov. 28, 1927	7.6	2,860		Jan. 15, 1951	10.80	6,560
	Dec. 16, 1927	9.8	4,880		Feb. 1, 1951	7.52	3,350
	Feb. 15, 1928	8.0	3,180		Feb. 7, 1951	6.95	2,950
	Mar. 30, 1928	11.0	6,200		Mar. 7, 1951	7.15	3,110
	June 22, 1928	12.22	7,660		Apr. 29, 1951	6.81	2,790
	July 5, 1928	8.1	3,270		June 25, 1951	6.55	2,650
	July 14, 1928	10.8	5,980		June 28, 1951	6.85	2,810
1929	July 21, 1928	9.0	4,080	1952	Jan. 27, 1952	10.33	6,000
	Feb. 26, 1929	12.20	7,660		Feb. 5, 1952	7.18	3,110
1930	Apr. 17, 1929	7.2	2,540	1953	May 7, 1953	7.07	3,030
	Nov. 18, 1929	9.2	4,280	1954	June 16, 1954	8.08	3,890
1931	Feb. 26, 1930	7.6	2,860		Oct. 16, 1954	11.55	7,520
	Apr. 4, 1931	10.03	5,100	1955	Feb. 7, 1955	7.64	3,340
1932	Jan. 30, 1932	4.8	2,390		Mar. 4, 1955	9.15	4,900
	Jan. 26, 1933	5.6	3,010		Aug. 13, 1955	7.77	3,520
1933	Mar. 15, 1933	10.0	8,200	1956	Nov. 16, 1955	7.88	3,610
	Mar. 21, 1933	6.7	4,150		Feb. 7, 1956	7.43	3,160
	Apr. 12, 1933	7.0	4,480		Feb. 18, 1956	6.87	2,720
	May 10, 1933	6.7	4,150		Feb. 25, 1956	8.84	4,500
	Mar. 17, 1936	11.0	<sup>b</sup> 9,600		Mar. 8, 1956	8.59	4,300
1941	June 5, 1941	6.85	3,090		June 19, 1956	7.46	3,250
	Mar. 9, 1942	8.17	4,380		June 25, 1956	7.52	3,250
	Mar. 17, 1942	8.00	4,180		Aug. 6, 1956	16.37	13,500
1942	Apr. 9, 1942	11.00	7,380	1957	Apr. 4, 1957	10.74	5,630
	Dec. 30, 1942	12.30	8,700		May 4-5, 1958	6.28	2,770
1943	Apr. 20, 1943	6.20	2,580	1958	Aug. 4, 1958	7.77	3,820
	July 28, 1943	11.14	7,020				

<sup>a</sup> Backwater from ice.<sup>b</sup> Annual peak only.

## 860. Ohio River at Sewickley, Pa.

Location. --Lat 40°31'50", long 80°11'20", on left bank 200 ft upstream from highway bridge at Sewickley, Allegheny County, 0.5 mile upstream from Narrows Run, 1.5 miles upstream from Dashields Dam, and 11.8 miles downstream from confluence of Allegheny and Monongahela Rivers.

Drainage area. --19,500 sq mi.

Gage. --Nonrecording gage prior to Nov. 22, 1933; recording gage thereafter. Datum of gage is 690.00 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Mar. 6, 1934	12.51	202,000	1946	June 3, 1946	13.57	195,000
1935	Mar. 13, 1935	15.7	225,000	1947	Apr. 7, 1947	10.68	155,000
				1948	Apr. 15, 1948	19.89	277,000
1936	Mar. 18, 1936	34.75	574,000	1949	Dec. 17, 1948	13.11	189,000
1937	Apr. 27, 1937	23.93	334,000	1950	Mar. 29, 1950	11.86	172,000
1938	Dec. 19, 1937	17.07	242,000				
1939	Feb. 4, 1939	15.50	222,000	1951	Dec. 5, 1950	18.58	259,000
1940	Apr. 21, 1940	18.73	262,000	1952	Jan. 28, 1952	20.27	282,000
				1953	June 1, 1953	9.80	137,000
1941	June 5, 1941	16.68	234,000	1954	Mar. 4, 1954	9.75	137,000
1942	Mar. 10, 1942	13.54	194,000	1955	Oct. 16, 1954	22.76	318,000
1943	Dec. 31, 1942	27.39	400,000				
1944	Mar. 18, 1944	10.95	159,000	1956	Mar. 9, 1956	16.34	230,000
1945	Mar. 7, 1945	23.61	331,000	1957	Feb. 11, 1957	12.86	168,000
				1958	May 9, 1958	10.54	152,000

## BEAVER RIVER BASIN

## 1000. Shenango River near Turnerville, Pa.

Location. --Lat 41°30'45", long 80°28'25", at single-span steel highway bridge half a mile east of Turnerville, Crawford County.

Drainage area. --152 sq mi.

Gage. --Recording gage prior to Oct. 1, 1918; nonrecording gage thereafter. Prior to Oct. 1, 1919 at datum 5.62 ft higher. Datum of gage 970.00 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Mar. 19, 1912	12.5	2,970	1918	Mar. 15, 1918	7.6	3,450
1913	Mar. 26, 1913	16.4	11,000	1919	May 11, 1919	6.92	2,900
1914	May 13, 1914	7.1	2,930	1920	Mar. 13, 1920	13.4	4,180
1915	Feb. 3, 1915	7.1	2,930				
				1921	Mar. 29, 1921	10.8	1,610
1916	Mar. 28, 1916	8.2	4,180	1922	Nov. 3, 1921	11.5	2,040
1917	Jan. 7, 1917	6.5	2,340				

## BEAVER RIVER BASIN

## 1010. Sugar Run at Pymatuning Dam, Pa.

Location. --Lat 41°29'50", long 80°27'55", on right bank at highway bridge at Pymatuning Dam, Crawford County, a quarter of a mile upstream from mouth, and 1 3/4 miles northwest of Jamestown.

Drainage area. --9.34 sq mi.

Gage. --Nonrecording gage prior to Oct. 17, 1938; recording gage thereafter. Datum of gage is 984.58 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 500 cfs and extended on basis of slope-area measurement.

Bankfull stage. --4 ft.

Remarks. --Base for partial-duration series, 250 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Aug. 15, 1935	2.95	405	1946	Oct. 23, 1945	2.70	290
1936	Mar. 24, 1936	4.0	820		Feb. 27, 1946	3.20	417
					May 21, 1946	2.63	273
1937	Jan. 15, 1937	2.5	280	1947	Mar. 14, 1947	<sup>a</sup> 3.64	—
	Jan. 18, 1937	2.6	309		Apr. 5, 1947	3.58	635
	Jan. 21, 1937	4.1	870		May 25, 1947	2.60	266
	Jan. 24, 1937	4.3	970		June 2, 1947	3.71	680
	Apr. 26, 1937	3.3	518		July 14, 1947	3.47	576
	Sept. 4, 1937	6.8	2,800		July 17, 1947	4.50	1,070
1938	Dec. 18, 1937	3.5	500	1948	Feb. 14, 1948	<sup>a</sup> 2.88	300
	Mar. 5, 1938	3.2	417		Mar. 19, 1948	3.05	377
	Mar. 17, 1938	2.6	266		Apr. 28, 1948	3.11	390
	Apr. 8, 1938	3.1	390	1949	Mar. 23, 1949	2.09	156
1939	Feb. 19, 1939	2.54	252	1950	Jan. 16, 1950	2.67	302
	Feb. 28, 1939	2.70	290		Feb. 13, 1950	2.96	388
	Mar. 12, 1939	2.58	261		Mar. 26, 1950	3.10	431
1940	Jan. 14, 1940	<sup>a</sup> 3.66	—		Apr. 4, 1950	2.86	357
	Feb. 12, 1940	<sup>a</sup> 4.15	—		Apr. 25, 1950	2.59	280
	Mar. 3, 1940	<sup>a</sup> 3.96	—		June 3, 1950	3.42	524
	Mar. 18, 1940	<sup>a</sup> 4.60	—	1951	Dec. 3, 1950	3.58	586
	Apr. 20, 1940	3.65	542		Dec. 7, 1950	2.58	278
	May 31, 1940	2.73	297		Jan. 3, 1951	2.79	336
1941	Aug. 26, 1941	2.37	214		Feb. 12, 1951	2.53	265
1942	Feb. 16, 1942	<sup>a</sup> 2.75	—		June 13, 1951	2.88	363
	Mar. 9, 1942	<sup>a</sup> 2.86	—	1952	Nov. 23, 1951	2.61	287
	Mar. 16, 1942	4.39	1,020		Jan. 18, 1952	3.34	561
	Apr. 10, 1942	2.93	386		Jan. 26, 1952	4.17	856
	May 16, 1942	2.92	383		Feb. 4, 1952	2.86	364
1943	Feb. 11, 1943	2.85	326		Mar. 11, 1952	2.50	257
	Apr. 19, 1943	2.78	309	1953	Jan. 18, 1953	2.01	145
	May 8, 1943	2.76	304	1954	Mar. 1, 1954	3.68	696
1944	Apr. 11, 1944	3.18	417		Apr. 16, 1954	2.74	325
	May 23, 1944	2.81	316	1955	Oct. 15, 1954	5.84	1,970
1945	Feb. 22, 1945	<sup>a</sup> 4.57	950		Dec. 18, 1954	2.54	268
					Mar. 4, 1955	3.07	434
					Apr. 25, 1955	2.94	390
					Aug. 11, 1955	3.77	702

<sup>a</sup>Backwater from ice.

## 1015. Shenango River at Pymatuning Dam, Pa.

Location. --Lat 41°29'55", long 80°27'30", on left bank 500 ft downstream from Sugar Run, 550 ft downstream from Pymatuning Dam, Crawford County, and 1½ miles northwest of Jamestown.

Drainage area. --167 sq mi.

Gage. --Recording gage. Datum of gage is 970.00 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --9 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Aug. 15, 1935	5.74	516	1946	Mar. 7, 1946	7.19	1,000
1936	Apr. 1, 1936	6.80	880	1947	June 2, 1947	8.46	1,360
1937	Sept. 4, 1937	9.2	1,540	1948	Mar. 27, 28, 1948	7.51	1,090
1938	Mar. 17, 1938	6.74	768	1949	Jan. 28, 1949	5.92	575
1939	Feb. 28, 1939	6.67	768	1950	Apr. 4, 1950	7.75	1,180
1940	Apr. 20, 1940	7.51	1,090	1951	Dec. 3, 1950	6.77	880
1941	Dec. 30, 31, 1940	7.23	1,000	1952	Jan. 26, 1952	7.64	1,120
1942	Mar. 11, 1942	8.32	1,340	1953	Sept. 29, 1953	5.74	518
1943	June 6, 7, 1943	8.00	1,220	1954	Apr. 30, May 2	6.97	940
1944	Mar. 20-23, 1944	7.05	940	1955	Oct. 15, 1954	8.75	1,430
1945	Sept. 25, 1945	7.05	940	1956	June 22, 1956	7.34	1,030
				1957	June 29, 1957	8.52	1,360
				1958	July 15, 1958	8.88	1,460

## 1020. Shenango River near Jamestown, Pa.

Location. --Lat 41°37'30", long 85°25'30", at Frye Bridge, 2 miles downstream from Jamestown, Mercer County.

Drainage area. --181 sq mi.

Gage. --Nonrecording gage. Datum of gage is 955.00 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements below 1,400 cfs and extended by logarithmic plotting.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 26, 27, 1913	14.2	—	1926	Sept. 27, 1926	7.7	2,180
1920	Mar. 13, 1920	9.6	3,040	1927	Jan. 23, 1927	8.38	2,530
1921	Mar. 29, 1921	6.7	1,680	1928	Dec. 1, 1927	8.00	2,330
1922	Nov. 3, 1921	7.4	2,000	1929	Jan. 20, 1929	9.10	2,790
1923	Jan. 21, 1923	6.85	1,720	1930	Jan. 14, 1930	7.8	2,180
1924	May 10, 1924	7.4	2,030	1931	Apr. 4, 1931	5.63	1,240
1925	Feb. 11, 1925	8.60	2,630	1932	May 9, 1932	7.71	2,130
				1933	Mar. 14, 1933	5.6	1,240
				1934	Jan. 1, 1934	4.74	886



## BEAVER RIVER BASIN

1025. Little Shenango River at Greenville, Pa.

Location. --Lat 41°25'15", long 80°22'35", on left bank 1,500 ft downstream from Williamson Crossing Bridge, 1 mile northeast of Greenville, Mercer County, and 2 miles upstream from mouth.

Drainage area. --104 sq mi.

Gage. --Nonrecording gage Jan. 1, 1914 to Nov. 4, 1915; recording gage Nov. 4, 1915 to Sept. 30, 1918; nonrecording gage Nov. 7, 1919 to Aug. 31, 1923 and Nov. 19, 1925 to June 20, 1934; recording gage thereafter. Prior to June 21, 1934 at site 1 mile downstream at datum 8.96 ft lower. Datum of present gage is 953.46 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 3,200 cfs and extended on basis of slope-area measurement.

Bankfull stage. --7 ft.

Remarks. --Base for partial-duration series, 1,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Mar. 28, 1914	4.6	1,510	1934	Jan. 2, 1934	4.5	1,440
	Apr. 9, 1914	5.4	2,070		Mar. 4, 1934	<sup>b</sup> 4.65	—
	Apr. 26, 1914	5.2	1,930	1935	Feb. 16, 1935	5.66	1,280
	May 12, 1914	6.4	2,770		Feb. 27, 1936	<sup>b</sup> 7.50	—
1915	Jan. 7, 1915	5.9	2,420	1936	Mar. 25, 1936	10.81	4,440
	Feb. 2, 1915	8.0	3,890		Jan. 15, 1937	8.66	2,890
	Aug. 4, 1915	6.41	2,770	1937	Jan. 25, 1937	11.00	4,600
1916	Jan. 2, 1916	6.8	<sup>a</sup> 3,050		Apr. 26, 1937	8.76	2,960
1917	June 9, 1917	5.3	<sup>a</sup> 2,000	1938	Dec. 18, 1937	8.67	2,780
1918	Mar. 14, 1918	6.1	<sup>a</sup> 2,560		Mar. 6, 1938	7.45	2,030
	Mar. 11, 1920	6.8	3,070		Apr. 9, 1938	7.38	2,030
1920	June 17, 1920	5.2	1,920	1939	Feb. 20, 1939	7.05	1,810
	Mar. 28, 1921	4.5	1,420		Mar. 1, 1939	6.61	1,610
1921	Mar. 28, 1921	4.5	1,420	1940	Feb. 12, 1940	6.63	1,610
1922	Nov. 2, 1921	5.55	2,210		Apr. 20, 1940	8.45	2,600
	Feb. 13, 1922	<sup>b</sup> 7.60	—	1941	Dec. 29, 1940	5.75	1,230
1923	Jan. 21, 1923	5.6	2,210		Feb. 7, 1942	6.86	1,760
1926	Jan. 19, 1926	<sup>b</sup> 5.2	—	1942	Feb. 17, 1942	8.69	2,780
	Feb. 26, 1926	<sup>b</sup> 9.60	—		Mar. 9, 1942	8.52	2,660
	Sept. 25, 1926	5.1	1,850		Mar. 14, 1942	6.88	1,560
	Oct. 25, 1926	5.6	2,210		Mar. 17, 1942	7.96	2,140
1927	Nov. 16, 1926	5.0	1,780		Apr. 10, 1942	8.91	2,900
	Jan. 20, 1927	<sup>b</sup> 7.85	—		May 16, 1942	7.19	1,920
	Jan. 22, 1927	6.2	2,640		May 23, 1942	6.60	1,610
	Mar. 21, 1927	5.4	2,070	1943	Dec. 30, 1942	8.38	2,360
1928	Dec. 1, 1927	7.05	3,220		Feb. 11, 1943	7.48	2,080
	Dec. 14, 1927	6.2	2,640		Apr. 20, 1943	6.95	1,810
	Dec. 30, 1927	4.7	1,560	1944	Apr. 12, 1944	6.90	1,760
	June 6, 1928	4.9	1,700	1945	Feb. 23, 1945	9.73	3,460
1929	Jan. 19, 1929	5.8	2,350		Feb. 27, 1945	7.48	2,080
	Feb. 27, 1929	6.0	2,490	1946	Oct. 24, 1945	6.52	1,560
	Apr. 5, 1929	5.4	2,070		Feb. 27, 1946	7.54	2,080
	May 3, 1929	7.0	3,220		May 28, 1946	12.26	6,200
1930	Nov. 18, 1929	5.0	1,790	1947	Apr. 2, 1947	6.94	1,840
	Jan. 12, 1930	4.72	1,580		Apr. 5, 1947	6.93	1,840
	Jan. 14, 1930	5.5	2,140		June 3, 1947	7.07	1,960
	Feb. 13, 1950	5.0	1,790	1948	Feb. 14, 1948	7.42	2,140
1931	May 23, 1931	3.84	970		Mar. 20, 1948	7.32	2,080
1932	Jan. 18, 1932	4.9	1,720		Mar. 22, 1948	7.16	2,020
1933	Mar. 14, 1933	5.86	2,420		Apr. 12, 1948	6.47	1,600
	Apr. 12, 1933	4.65	1,510		Apr. 28, 1948	6.57	1,660

## Little Shenango River at Greenville, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 6, 1949	5.86	1,300	1954	Mar. 1, 1954	9.0	3,050
1950	Jan. 16, 1950	6.70	1,720		Apr. 17, 1954	6.95	1,820
	Feb. 14, 1950	8.74	3,030	1955	Oct. 16, 1954	12.73	6,620
	Mar. 27, 1950	9.22	3,420		Feb. 22, 1955	7.18	1,920
	Apr. 5, 1950	6.40	1,550		Mar. 4, 1955	7.34	1,980
	Apr. 26, 1950	6.34	1,500		Apr. 26, 1955	7.21	1,920
1951	Dec. 4, 1950	10.14	3,920	1956	Nov. 16, 1955	9.58	3,500
	Dec. 8, 1950	6.97	1,820		Feb. 25, 1956	9.22	3,190
	Jan. 4, 1951	9.55	3,500		Mar. 8, 1956	7.41	2,040
	Feb. 13, 1951	7.29	1,980		May 12, 1956	7.37	2,040
	Mar. 4, 1951	7.01	1,820		Aug. 5, 1956	8.30	2,580
1952	Nov. 23, 1951	6.35	1,520	1957	Jan. 23, 1957	8.99	3,050
	Jan. 18, 1952	8.96	3,050		Apr. 5, 1957	7.89	2,340
	Jan. 27, 1952	11.00	4,750		June 29, 1957	7.73	2,220
	Feb. 4, 1952	6.83	1,720	1958	July 15, 1958	13.50	7,580
	May 12, 1952	7.95	2,400				
1953	June 1, 1953	5.07	920				

<sup>a</sup>Annual peak only.<sup>b</sup>Backwater from ice.

## 1030. Pymatuning Creek near Orangeville, Pa.

Location. --Lat 41°18'40", long 80°28'40", on right bank 2 miles upstream from mouth, 3 miles southeast of Orangeville, Mercer County, and 3 miles north of Sharpville.

Drainage area. --169 sq mi.

Gage. --Nonrecording gage prior to June 18, 1934; recording gage thereafter. Prior to June 18, 1934, at site 1,500 ft downstream at datum 0.62 ft higher. Datum of present gage is 873.35 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 2,200 cfs and extended by logarithmic plotting.

Bankfull stage. --6 ft.

Remarks. --Only annual peaks are shown. Backwater from Shenango River.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	May 13, 1914	8.0	4,200	1936	Mar. 25, 1936	10.68	4,300
1915	Feb. 3, 1915	9.1	6,200	1937	Jan. 25, 1937	10.41	3,850
1916	Mar. 28, 1916	7.6	3,640	1938	Apr. 10, 1938	9.16	2,200
1917	June 10, 1917	6.6	2,370	1939	Feb. 21, 1939	8.39	1,670
1918	Mar. 15, 1918	8.2	4,500	1940	Apr. 21, 1940	9.65	2,750
1919	May 11, 1919	7.75	3,920	1941	Dec. 30, 1940	7.87	1,460
1920	Mar. 13, 1920	8.9	5,800	1942	Apr. 11, 1942	9.64	2,750
1921	Mar. 29-30, 1921	6.4	2,150	1943	Dec. 30, 1942	10.46	4,000
1922	Apr. 1, 1922	6.80	2,610	1944	Apr. 13, 1944	9.42	2,550
1923	Jan. 21, 1923	6.5	2,260	1945	Feb. 23, 1945	10.15	3,550
1926	Feb. 27, 1926	7.55	3,640	1946	May 28, 1946	9.37	2,540
1927	Jan. 23, 1927	8.60	5,200	1947	June 4, 1947	9.77	3,010
1928	Dec. 2, 1927	7.82	3,920	1948	Mar. 23, 1948	9.74	2,890
1929	Apr. 5, 1929	8.60	5,200	1949	Jan. 28, 1949	8.01	1,310
1930	Jan. 14, 1930	7.51	3,500	1950	Feb. 15, 1950	9.90	3,130
1931	Apr. 4, 1931	5.05	1,170	1951	Dec. 4, 1950	10.31	3,400
1932	Jan. 15, 1932	6.3	1,910	1952	Jan. 27, 1952	10.52	4,000
1933	Mar. 15, 1933	7.7	2,980	1953	Mar. 25, 1953	6.96	900
1934	Mar. 6, 1934	7.60	1,700	1954	Mar. 3, 1954	9.52	2,090
1935	Jan. 22, 1934	7.24	1,180	1955	Oct. 16, 1954	10.73	3,650
				1956	Nov. 16, 1955	10.80	3,600
				1957	June 29, 1957	9.84	2,220
				1958	July 15, 1958	11.77	5,200

## BEAVER RIVER BASIN

## 1035. Shenango River at Sharpsville, Pa.

Location. --Lat 41°16'00", long 80°28'20", on left bank 700 ft upstream from Erie Railroad Bridge at Sharpsville, Mercer County, and 3 miles downstream from Pymatuning Creek.

Drainage area. --588 sq mi.

Gage. --Recording gage. Datum of gage is 861.57 ft above mean sea level, datum of 1929, New York-Pennsylvania supplementary adjustment of 1943.

Stage-discharge relation. --Defined by current-meter measurements.

Historical data. --Maximum stage known, 19.3 ft Mar. 26, 1913, from Pymatuning survey-profile map.

Bankfull stage. --8 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 21, 1939	7.03	4,570	1949	Jan. 28, 1949	6.60	4,220
1940	Apr. 21, 1940	9.08	7,880	1950	Feb. 15, 1950	9.83	9,000
1941	Dec. 30, 1940	6.62	4,200	1951	Dec. 5, 1950	10.61	10,300
1942	Apr. 11, 1942	9.33	8,200	1952	Jan. 27, 1952	12.04	12,800
1943	Dec. 30, 1942	10.35	9,960	1953	Mar. 25, 1953	—	—
1944	Apr. 13, 1944	7.64	5,600	1954	Mar. 2, 1954	8.64	7,070
1945	Feb. 23, 1945	9.91	9,160	1955	Oct. 16, 1954	12.64	13,900
1946	May 28, 1946	10.57	10,300	1956	Nov. 17, 1955	9.28	8,170
1947	June 4, 1947	8.32	6,650	1957	Jan. 24, 1957	8.57	7,070
1948	Mar. 20, 1948	7.06	4,900	1958	July 16, 1958	13.97	12,900

## 1040. Shenango River at Sharon, Pa.

Location. --Lat 41°13'55", long 80°30'35", at Chestnut Street Bridge in Sharon, Mercer County, 500 ft upstream from Pine Run.

Drainage area. --608 sq mi.

Gage. --Nonrecording gage prior to Apr. 1, 1915; recording gage Apr. 1, 1915 to May 23, 1919; nonrecording gage May 24, 1919 to Aug. 18, 1927; recording gage thereafter. Datum of gage is 840.00 ft above mean sea level (preliminary levels of 1905).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 2, 1910	12.81	<sup>a</sup> 13,600	1926	Feb. 27, 1926	9.64	5,660
1911	Sept. 16, 1911	—	<sup>a</sup> 13,000	1927	Jan. 22, 1927	10.50	6,890
1912	Mar. 19, 1912	10.30	8,420	1928	Dec. 2, 1927	12.30	9,760
1913	Mar. 26, 1913	18.1	25,200	1929	Apr. 5, 1929	12.00	9,250
1914	May 13, 1914	—	9,930	1930	Jan. 14, 1930	10.5	6,900
1915	Feb. 2, 1915	—	12,700	1931	Apr. 4, 1931	7.15	3,000
1916	Mar. 28, 1916	—	10,200	1932	Jan. 18, 1932	8.82	4,680
1917	Jan. 6, 1917	—	7,120	1933	Mar. 15, 1933	10.65	7,050
1918	Mar. 15, 1918	—	16,000	1934	Mar. 6, 1934	9.62	5,670
1919	May 11, 1919	—	11,300	1935	Jan. 22, 1935	7.73	3,490
1920	Mar. 13, 1920	13.3	13,200	1936	Mar. 25, 1936	13.40	11,900
1921	Mar. 29, 1921	8.4	4,230	1937	Jan. 26, 1937	13.52	12,400
1922	Nov. 3, Apr. 1	8.80	4,690	1938	Dec. 19, 1937	10.59	7,400
1923	Jan. 22, 1923	8.9	4,810				
1924	Jan. 12, 1924	10.80	7,340				
1925	Feb. 10, 1925	11.3	8,130				

<sup>a</sup>Maximum daily discharge.

## 1045. Shenango River at New Castle, Pa.

Location. --Lat 41°00'00", long 80°21'05", at West Washington Street Bridge, at New Castle, Lawrence County.

Drainage area. --792 sq mi.

Gage. --Nonrecording gage. Datum of gage is 787.00 ft above mean sea level.

Stage-discharge relation. --Defined by current-meter measurements below 23,000 cfs and extended by logarithmic plotting.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 26, 1913	17.82	33,000	1923	Jan. 22, 1923	6.5	5,020
1914	May 14, 1914	—	9,480	1924	Jan. 12, 1924	—	8,560
1915	Feb. 3, 1915	—	13,800	1925	Feb. 10, 1925	9.3	10,200
1916	Mar. 29, 1916	—	10,600	1926	Feb. 26, 1926	7.7	7,050
1917	Jan. 7, 1917	—	7,980	1927	Jan. 23, 1927	8.7	8,960
1918	Mar. 16, 1918	—	12,000	1928	Dec. 2, 1927	9.60	10,800
1919	May 11, 1919	—	10,200	1929	Apr. 6, 1929	11.10	14,200
1920	Mar. 13, 1920	9.60	10,800	1930	Jan. 15, 1930	8.25	8,260
1921	Mar. 29, 1921	6.7	5,340	1931	Apr. 5, 1931	5.36	3,920
1922	Apr. 1, 1922	6.87	5,660	1932	Jan. 18, 1932	6.8	5,980
				1933	Mar. 15, 1933	8.48	8,800
				1934	Aug. 9, 1934	6.20	4,920

## 1050. Neshannock Creek at Eastbrook, Pa.

Location. --Lat 41°02'30", long 80°18'20", at single-span wooden highway bridge at Eastbrook station of Pennsylvania Railroad, in Lawrence County.

Drainage area. --228 sq mi.

Gage. --Nonrecording gage. Datum of gage is 877.53 ft unadjusted.

Stage-discharge relation. --Defined by current-meter measurements below 1,800 cfs and extended.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	May 10, 1919	5.8	5,000	1921	June 29, 1921	3.7	1,660
1920	Mar. 12, 1920	7.2	6,690	1922	Apr. 14-15, 1922	4.44	2,480
				1923	May 12, 1923	4.3	2,400
				1946	May 28, 1946		<sup>a</sup> 10,000

<sup>a</sup>Slope-area measurement.



## BEAVER RIVER BASIN

## 1055. Beaver River at Wampum, Pa.

Location. --Lat 40°53'15", long 80°20'05", on right bank at downstream side of bridge on State Highway 288 at Wampum, Lawrence County, 2 3/4 miles upstream from Connoquenessing Creek.

Drainage area. --2,235 sq mi.

Gage. --Nonrecording gage prior to Nov. 16, 1938; recording gage thereafter. Prior to Sept. 30, 1918 at site 1 mile upstream at datum 0.84 ft higher. Datum of present gage is 736.24 ft above mean sea level (Pennsylvania RR benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 24,000 cfs and extended on basis of contracted-opening measurements.

Bankfull stage. --25 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Feb. 2, 1915	17.6	37,900	1941	Dec. 31, 1940	10.87	15,600
1916	Mar. 27, 1916	16.0	31,200	1942	Apr. 11, 1942	15.19	25,300
1917	Jan. 6, 1917	13.5	21,300	1943	Dec. 30, 1942	<sup>a</sup> 20.54	40,900
1918	Feb. 20, 1918	15.4	28,800	1944	Apr. 13, 1944	12.29	17,400
				1945	Mar. 22, 1945	13.77	21,000
1933	Mar. 15, 1933	16.06	24,300	1946	May 28, 1946	<sup>a</sup> 21.53	50,100
1934	Aug. 9, 1934	12.7	17,300	1947	June 3, 1947	12.06	17,000
1935	Aug. 3, 1935	10.5	13,900	1948	Apr. 14, 1948	12.13	17,000
1936	Mar. 25, 1936	19.22	34,000	1949	Jan. 28, 1949	11.54	15,800
1937	Jan. 25, 1937	21.44	48,000	1950	Feb. 15, 1950	<sup>a</sup> 15.55	23,500
1938	Apr. 10, 1938	15.0	22,100	1951	Dec. 4, 1950	<sup>a</sup> 15.00	22,300
1939	Mar. 13, 1939	14.90	21,900	1952	Jan. 27, 1952	<sup>a</sup> 19.90	36,700
1940	Apr. 21, 1940	17.72	29,200	1953	May 22, 1953	10.70	13,700
				1954	Mar. 3, 1954	10.87	14,100
				1955	Oct. 16, 1954	<sup>a</sup> 20.61	41,400
				1956	Feb. 25-26, 1956	<sup>a</sup> 15.49	23,200
				1957	Apr. 5, 1957	<sup>a</sup> 15.99	24,100
				1958	July 17, 1958	13.77	20,900

<sup>a</sup>Backwater from Connoquenessing Creek.

## 1060. Connoquenessing Creek at Hazen, Pa.

Location. --Lat 40°49'00", long 80°14'35", on right bank at downstream side of highway bridge at Hazen, Beaver County, half a mile upstream from Brush Creek.

Drainage area. --356 sq mi.

Gage. --Nonrecording gage prior to June 23, 1941; recording gage thereafter. Datum of gage is 852.31 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 18,000 cfs and extended above by logarithmic plotting.

Bankfull stage. --9 ft.

Remarks. --Base for partial-duration series, 5,000 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Dec. 29, 1915	8.5	5,450	1919	May 10, 1919	8.6	5,540
	Jan. 2, 1916	9.1	6,000	1920	Mar. 5, 1920	<sup>a</sup> 15	—
	Mar. 26, 1916	8.0	5,000		Mar. 11, 1920	9.9	6,800
1917	Jan. 5, 1917	8.2	5,180		June 17, 1920	8.4	5,360
1918	Oct. 25, 1917	7.0	4,100	1921	Mar. 8, 1921	7.3	4,370
	Feb. 20, 1918	<sup>a</sup> 11.0	—				

## Connoquenessing Creek at Hazen, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 7, 1922	9.65	6,500	1942	Mar. 9, 1942	11.53	8,840
	Apr. 15, 1922	9.6	6,500		Mar. 14, 1942	9.00	5,800
1923	May 13, 1923	13.2	11,600		Mar. 17, 1942	8.53	5,250
1924					Apr. 10, 1942	9.20	6,020
	Dec. 6, 1923	10.3	7,400	1943	Dec. 30, 1942	12.11	9,670
	Jan. 17, 1924	11.0	8,240		Apr. 20, 1943	8.48	5,250
	May 9, 1924	10.7	7,880	1944	Mar. 7, 1944	8.06	4,810
	June 29, 1924	16.66	23,000	1945	Jan. 1, 1945	<sup>a</sup> 13.58	—
	Sept. 30, 1924	10.1	7,130		Feb. 14, 1945	<sup>a</sup> 11.82	—
1925	Feb. 9, 1925	11.35	8,300		Feb. 16, 1945	8.84	5,580
1926					Feb. 22, 1945	12.48	10,200
	Feb. 25, 1926	8.9	5,800		Feb. 27, 1945	8.98	5,800
	Sept. 5, 1926	11.6	8,500		Mar. 7, 1945	11.02	8,190
	Sept. 24, 1926	10.7	7,850		Mar. 22, 1945	11.94	9,390
1927					Apr. 5, 1945	8.56	5,360
	Nov. 16, 1926	10.6	7,730	1946	Feb. 27, 1946	11.58	8,970
	Jan. 19, 1927	<sup>a</sup> 10.6	—		May 28, 1946	10.88	8,060
	Jan. 22, 1927	10.4	7,490	1947	June 7, 1947	11.28	8,580
	Mar. 21, 1927	9.5	6,460	1948			
	May 19, 1927	10.4	7,490		Feb. 14, 1948	10.93	8,060
1928					Apr. 12, 1948	10.48	7,550
	Nov. 18, 1927	13.0	10,700		Apr. 14, 1948	11.44	8,710
	Dec. 14, 1927	12.4	9,920		Aug. 12, 1948	9.70	6,590
	Mar. 30, 1928	9.2	6,140	1949	Dec. 16, 1948	9.31	6,130
	June 6, 1928	10.1	7,130		Jan. 28, 1949	8.30	5,030
	July 14, 1928	8.2	5,080	1950			
	July 20, 1928	11.2	8,440		Jan. 6, 1950	8.56	5,280
1929					Jan. 10, 1950	10.59	7,670
	Feb. 26, 1929	11.80	9,160		Feb. 14, 1950	9.75	6,700
	Apr. 5, 1929	9.6	6,580		Apr. 26, 1950	9.31	6,100
1930				1951			
	Oct. 3, 1929	9.0	6,080		Dec. 4, 1950	12.53	10,200
	Nov. 18, 1929	8.3	5,380		Dec. 8, 1950	11.38	8,710
	Jan. 12, 1930	8.0	5,080		Jan. 15, 1951	10.38	7,420
	Feb. 26, 1930	12.0	9,400	1952			
1931					Jan. 27, 1952	14.54	13,000
	Apr. 4, 1931	7.35	4,480		Feb. 4, 1952	8.41	5,060
1932				1953			
	Jan. 23, 1932	7.7	4,780		Mar. 24, 1953	8.81	5,500
1933				1954			
	Mar. 15, 1933	13.1	10,600		Mar. 1, 1954	8.51	5,170
1934					Apr. 17, 1954	9.96	6,940
	Aug. 9, 1934	9.38	6,520		June 17, 1954	8.48	5,170
1935				1955			
	May 7, 1935	9.08	5,940		Oct. 16, 1954	15.51	18,200
1936					Feb. 22, 1955	8.56	5,270
	Feb. 26, 1936	<sup>a</sup> 10.7	—	1956			
	Mar. 17, 1936	12.45	9,560		Feb. 7, 1956	10.62	7,730
1937					Feb. 12, 1956	8.76	5,510
	Nov. 5, 1936	10.1	7,620		Feb. 26, 1956	12.47	10,300
	Jan. 15, 1937	9.3	6,430		Mar. 8, 1956	9.63	6,470
	Jan. 22, 1937	12.90	10,700		Apr. 3, 1956	9.02	5,750
	Jan. 25, 1937	13.01	10,900		May 12, 1956	11.12	8,380
	Apr. 26, 1937	12.9	10,700		June 24, 1956	10.45	7,470
	Aug. 22, 1937	8.7	5,550		Aug. 6, 1956	11.07	8,380
1938				1957			
	Dec. 18, 1937	12.00	9,530		Jan. 23, 1957	9.00	5,750
	Mar. 15, 1938	9.05	5,880		Apr. 5, 1957	13.86	13,400
	Apr. 9, 1938	11.00	8,240		Apr. 9, 1957	8.54	5,150
1939				1958			
	Jan. 30, 1939	8.80	5,660		May 8, 1958	8.43	5,030
	Mar. 12, 1939	11.6	9,010		Aug. 1, 1958	10.91	8,120
1940							
	Mar. 4, 1940	11.8	9,270				
	Apr. 20, 1940	13.9	12,200				
1941							
	July 19, 1941	9.18	6,040				
	Aug. 15, 1941	8.80	5,600				

<sup>a</sup>Backwater from ice.

## BEAVER RIVER BASIN

1065. Slippery Rock Creek at Wurtensburg, Pa.

Location. --Lat 40°53'00", long 80°13'55", on left bank at highway bridge at Camp Elwood, 2 miles north of Wurtensburg, Lawrence County, and 2.8 miles upstream from mouth.

Drainage area. --398 sq mi.

Gage. --Nonrecording gage prior to Sept. 30, 1940; recording gage thereafter. Prior to Sept. 30, 1922, gage at site  $1\frac{1}{2}$  miles downstream at datum 13.77 ft lower and Oct. 1, 1922 to Sept. 30, 1940, at site 2 miles downstream at datum 18.92 ft lower. Datum of present gage is 831.40 ft above mean sea level, adjustment of 1907.

Stage-discharge relation. --Defined by current-meter measurements below 8,000 cfs and extended.

Bankfull stage. --5 ft.

Remarks. --Base for partial-duration series, 3,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Feb. 26, 1912	<sup>a</sup> 6.9	—	1922	Nov. 2, 1921	5.77	4,150
	Mar. 16, 1912	6.0	4,780		Feb. 13, 1922	<sup>a</sup> 6.52	—
	Mar. 30, 1912	6.2	5,250		Feb. 21, 1922	5.55	3,760
	Apr. 3, 1912	6.4	5,730		Mar. 7, 1922	5.8	4,150
	Apr. 30, 1912	6.0	4,780		Apr. 15, 1922	5.5	3,570
	July 24, 1912	5.65	4,020	1923	Jan. 21, 1923	7.9	6,400
	Aug. 26, 1912	8.17	10,800		May 13, 1923	8.4	7,550
	Sept. 3, 1912	6.9	7,050	1924	Dec. 6, 1923	6.8	4,070
1913	Jan. 8, 1913	8.0	10,300		Mar. 5, 1924	6.5	3,530
	Jan. 12, 1913	7.1	7,630		May 9, 1924	8.3	7,320
	Jan. 18, 1913	6.0	4,780		Sept. 30, 1924	7.8	6,170
	Jan. 24, 1913	5.8	4,330	1925	Feb. 10, 1925	8.1	6,860
	Feb. 28, 1913	5.8	4,330		Feb. 26, 1926	7.7	5,950
	Mar. 26, 1913	10.21	17,800	1926	Sept. 5, 1926	9.0	9,000
1914	Nov. 14, 1913	6.2	4,910		Oct. 25, 1926	6.5	3,530
	Jan. 30, 1914	5.6	3,710	1927	Nov. 17, 1926	6.8	4,070
	Mar. 16, 1914	5.6	3,710		Jan. 20, 1927	8.62	8,030
	Mar. 28, 1914	5.8	4,100		Mar. 21, 1927	7.6	5,730
	Apr. 8, 1914	5.7	3,900	1928	Nov. 18, 1927	—	<sup>b</sup> 8,500
	Apr. 26, 1914	6.8	6,240		Dec. 1, 1927	9.1	9,250
1915	May 13, 1914	6.4	5,340		Dec. 14, 1927	11.80	18,200
	Jan. 7, 1915	6.5	5,560		Mar. 14, 1928	6.8	4,070
	Jan. 19, 1915	5.8	4,100		June 6, 1928	6.8	4,070
	Feb. 2, 1915	8.5	10,700		June 19, 1928	6.6	3,710
	Feb. 15, 1915	5.4	3,340	1929	Nov. 20, 1928	6.5	3,530
1916	Aug. 4, 1915	5.9	4,300		Dec. 1, 1928	7.2	4,880
	Dec. 18, 1915	6.2	5,250		Jan. 19, 1929	6.8	4,070
	Jan. 2, 1916	6.8	6,780		Feb. 27, 1929	9.9	11,500
	Mar. 8, 1916	5.6	3,910		Apr. 5, 1929	9.7	10,900
1917	Mar. 27, 1916	6.9	7,050		May 3, 1929	7.1	4,670
	Jan. 5, 1917	6.5	5,980	1930	July 10, 1929	7.4	5,300
	June 7, 1917	6.3	5,490		Nov. 18, 1929	7.6	5,730
1918	July 15, 1917	5.4	3,530		Dec. 13, 1929	6.5	3,530
	Oct. 19, 1917	5.6	3,710		Jan. 13, 1930	8.0	6,630
	Oct. 25, 1917	6.6	5,780		Feb. 26, 1930	6.7	3,890
	Oct. 30, 1917	5.8	4,100	1931	June 8, 1931	5.85	2,930
	Dec. 25, 1917	<sup>a</sup> 6.64	—		Dec. 13, 1931	7.1	4,670
	Feb. 13, 1918	<sup>a</sup> 11.0	—	1932	Jan. 18, 1932	7.2	4,880
	Feb. 20, 1918	8.3	10,100		Jan. 26, 1932	6.5	3,530
1919	Mar. 15, 1918	6.2	4,910		—	—	—
	May 11, 1919	6.2	4,990	1933	—	—	—
1920	Mar. 5, 1920	6.1	4,770		Mar. 4, 1934	6.6	3,710
	Mar. 13, 1920	8.9	11,000	1934	Aug. 9, 1934	10.38	13,000
	June 18, 1920	5.9	4,350		—	—	—
1921	June 23, 1921	5.57	3,760				



## Slippery Rock Creek at Wurtensburg, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Jan. 22, 1935	7.64	5,730	1948	Feb. 14, 1948	6.32	6,040
	May 8, 1935	7.22	4,880		Apr. 14, 1948	6.52	6,500
					Apr. 28, 1948	5.42	4,220
1936	Feb. 26, 1936	7.8	6,170	1949	Dec. 16, 1948	6.43	6,270
	Mar. 17, 1936	6.9	4,270		Jan. 6, 1949	5.13	3,780
	Mar. 25, 1936	9.04	9,000		Jan. 28, 1949	5.98	5,390
1937	Nov. 5, 1936	6.8	4,070	1950	Jan. 7, 1950	5.71	4,780
	Jan. 15, 1937	8.2	7,090		Jan. 11, 1950	6.10	5,600
	Jan. 22, 1937	10.2	12,400		Feb. 14, 1950	7.12	7,450
	Jan. 25, 1937	12.05	19,000		Feb. 23, 1950	5.02	3,510
	Apr. 26, 1937	10.0	11,800		Mar. 27, 1950	5.97	5,130
	Aug. 12, 1937	6.7	3,890		Apr. 26, 1950	6.83	6,730
1938	Dec. 18, 1937	8.8	8,510	1951	Dec. 4, 1950	7.22	7,700
	Mar. 6, 1938	7.4	5,300		Dec. 8, 1950	6.37	5,860
	Mar. 15, 1938	7.0	4,470		Jan. 4, 1951	6.64	6,280
	Apr. 9, 1938	8.4	7,550		Jan. 15, 1951	5.22	3,680
1939	Jan. 30, 1939	8.6	8,030		Feb. 13, 1951	5.89	4,850
	Mar. 1, 1939	6.7	3,890		Feb. 21, 1951	5.35	3,980
	Mar. 12, 1939	8.8	8,510		Mar. 4, 1951	6.31	5,650
1940	Mar. 4, 1940	6.7	3,890		Apr. 30, 1951	6.95	7,200
	Mar. 19, 1940	7.4	5,300	1952	Jan. 18, 1952	6.29	5,650
	Mar. 31, 1940	6.9	4,270		Jan. 27, 1952	8.53	11,000
	Apr. 21, 1940	9.5	8,450		Feb. 5, 1952	6.24	5,450
	June 1, 1940	6.5	3,530		Apr. 16, 1952	5.26	3,830
1941	Feb. 15, 1941	<sup>a</sup> 6.0	—		May 12, 1952	5.92	4,850
	Mar. 4, 1941	<sup>a</sup> 9.0	—		May 26, 1952	5.27	3,830
	July 31, 1941	5.2	3,410	1953	May 23, 1953	5.68	4,480
1942	Feb. 6, 1942	<sup>a</sup> 6.75	—	1954	Mar. 1, 1954	5.50	4,140
	Feb. 17, 1942	5.62	4,950		Apr. 17, 1954	6.84	6,730
	Mar. 9, 1942	6.98	7,770		June 17, 1954	6.13	5,250
	Mar. 15, 1942	5.83	5,310	1955	Oct. 16, 1954	10.23	13,500
	Apr. 10, 1942	5.81	5,310		Dec. 18, 1954	5.10	3,530
1943	Dec. 23, 1942	<sup>a</sup> 6.41	—		Dec. 30, 1954	5.20	3,680
	Dec. 30, 1942	8.59	11,700		Feb. 22, 1955	5.91	4,850
	Feb. 11, 1943	4.95	3,900		Mar. 5, 1955	5.53	4,140
	Mar. 12, 1943	5.32	4,450		Apr. 26, 1955	6.15	5,450
	Apr. 20, 1943	5.20	4,290	1956	Feb. 12, 1956	5.76	4,490
	June 17, 1943	5.42	4,610		Feb. 26, 1956	8.36	10,100
1944	Jan. 28, 1944	<sup>a</sup> 10.83	—		Mar. 8, 1956	5.86	4,770
	Apr. 12, 1944	4.62	3,390		Apr. 3, 1956	6.06	5,140
1945	Dec. 26, 1944	<sup>a</sup> 4.98	—		Apr. 8, 1956	5.46	4,120
	Feb. 16, 1945	<sup>a</sup> 10.0	—		May 12, 1956	6.34	5,530
	Feb. 22, 1945	<sup>a</sup> 10.65	—		June 22, 1956	9.06	12,000
	Feb. 23, 1945	7.46	8,970		July 4, 1956	5.13	3,520
	Feb. 27, 1945	6.05	5,670		July 17, 1956	6.23	5,330
	Mar. 4, 1945	5.34	4,450		July 20, 1956	5.41	3,900
	Mar. 7, 1945	6.35	6,270		Aug. 5, 1956	6.98	6,960
	Mar. 22, 1945	6.13	5,870	1957	Jan. 23, 1957	6.37	5,760
	Apr. 5, 1945	5.71	5,130		Apr. 4, 1957	7.22	7,380
1946	Oct. 3, 1945	4.82	3,680		Apr. 9, 1957	6.23	5,370
	Feb. 27, 1946	7.41	8,730	1958	July 11, 1958	5.32	3,820
	May 28, 1946	8.51	11,500		July 16, 1958	6.78	6,560
1947	Mar. 14, 1947	<sup>a</sup> 6.10	—		July 31, 1958	6.20	5,370
	June 8, 1947	4.66	3,460				

<sup>a</sup>Backwater from ice.<sup>b</sup>Estimated daily discharge.<sup>c</sup>Maximum occurred in period of no gage height record.



## BEAVER RIVER BASIN

1075. Beaver River at Beaver Falls, Pa.

Location. --Lat 40°45'45", long 80°18'55", on left bank at Beaver Falls, Beaver County, 200 ft upstream from pumping plant of Beaver Valley Water Co., 5.5 miles upstream from mouth and 7 miles downstream from Connoquenessing Creek.

Drainage area. --3,106 sq mi.

Gage. --Nonrecording gage prior to Dec. 3, 1941; recording gage thereafter. Prior to Dec. 3, 1941, at site 200 ft downstream. Datum of gage is 727.48 ft above mean sea level, datum of 1929 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 60,000 cfs and extended by logarithmic plotting.

Bankfull stage. --15 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 27, 1913	17.4	103,000	1946	May 28, 1946	12.96	56,200
1936	Mar. 25, 1936	12.1	48,800	1947	June 8, 1947	9.15	27,200
1937	Jan. 25, 1937	13.8	64,500	1948	Apr. 15, 1948	9.80	31,200
1938	Apr. 9, 1938	11.0	39,700	1949	Jan. 28, 1949	8.99	25,800
1939	Mar. 13, 1939	11.1	40,500	1950	Feb. 15, 1950	10.86	36,400
1940	Apr. 21, 1940	12.1	48,800	1951	Dec. 4, 1950	10.75	40,500
1941	Dec. 30, 1940	8.3	20,100	1952	Jan. 27, 1952	13.16	56,000
1942	Mar. 15, 1942	10.25	34,000	1953	May 23, 1953	8.61	20,800
1943	Dec. 30, 1942	13.15	57,800	1954	Apr. 17, 1954	9.53	26,700
1944	Apr. 13, 1944	8.93	24,900	1955	Oct. 16, 1954	13.33	58,500
1945	Feb. 23, 1945	10.54	36,200	1956	Feb. 26, 1956	11.33	40,200
				1957	Apr. 5, 1957	11.71	43,400
				1958	Aug. 1, 1958	9.69	28,100

## RACCOON CREEK BASIN

1080. Raccoon Creek at Moffatts Mill, Pa.

Location. --Lat 40°37'40", long 80°20'20", on left bank at downstream side of highway bridge at Moffatts Mill, Beaver County, 1.4 miles downstream from Gums Run, 4 miles south of Vanport, and 4.2 miles upstream from mouth.

Drainage area. --178 sq mi.

Gage. --Nonrecording gage May 27, 1915, to July 31, 1932; recording gage thereafter. Datum of gage is 719.16 ft above mean sea level, datum of 1929, Parkersburg-Uniontown supplementary adjustment of 1944 (Corps of Engineers benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 4,500 cfs and extended by logarithmic plotting.

Bankfull stage. --4 ft.

Remarks. --Base for partial duration series, 2,500 cfs.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Mar. 22, 1916	<sup>a</sup> 6.2	3,370	1921	Sept. 21, 1921	6.1	3,220
1917	Jan. 22, 1917	7.9	6,090	1922	Apr. 15, 1922	9.8	10,000
1918	Feb. 20, 1918	5.8	2,790	1923	May 13, 1923	8.6	7,440
1919	May 10, 1919	<sup>a</sup> 4.87	1,620	1924	June 29, 1924	9.4	9,120
1920	Mar. 5, 1920	<sup>b</sup> 9.8	—	1925	Feb. 8, 1925	5.35	2,175
	June 17, 1920	<sup>a</sup> 6.49	3,820				

## Raccoon Creek at Moffatts Mills, Pa.--Continued

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 5, 1926	7.7	5,760	1948	Feb. 14, 1948	<sup>b</sup> 6.31	—
1927	Nov. 17, 1926	6.60	3,970		Apr. 12, 1948	7.36	5,260
1928	Mar. 30, 1928	8.50	7,240	1949	Jan. 28, 1949	5.34	2,190
1929	Feb. 25, 1929	6.20	3,370	1950	July 6, 1950	7.55	4,970
1930	Feb. 24, 1930	<sup>a</sup> 6.03	3,140	1951	Dec. 4, 1950	7.06	4,210
1931	June 7, 1931	7.27	5,100		Dec. 8, 1950	6.82	3,810
1932	Mar. 22, 1932	4.90	1,620		Jan. 4, 1951	6.26	3,190
1942	Mar. 9, 1942	6.91	4,450		Jan. 15, 1951	7.24	4,350
	Mar. 17, 1942	6.15	3,300		Mar. 7, 1951	6.37	3,310
	Apr. 10, 1942	7.06	4,770	1952	Dec. 21, 1951	5.73	2,580
1943	Dec. 30, 1942	6.58	3,970		Jan. 27, 1952	9.71	8,590
	Mar. 12, 1943	5.64	2,580		Feb. 4, 1952	6.05	2,850
	Mar. 20, 1943	5.67	2,580		May 26, 1952	5.83	2,680
	Apr. 20, 1943	5.63	2,580	1953	June 17, 1953	5.45	2,260
1944	Mar. 7, 1944	6.03	3,140	1954	Apr. 17, 1954	4.42	1,300
1945	Jan. 1, 1945	6.64	4,030	1955	Oct. 16, 1954	8.42	6,250
	Feb. 14, 1945	6.72	4,130		Feb. 7, 1955	6.21	3,070
	Feb. 22, 1945	6.48	3,820		Mar. 4, 1955	6.58	3,550
	Mar. 7, 1945	8.23	6,660	1956	Feb. 26, 1956	7.25	4,350
	Mar. 22, 1945	6.50	3,820		Mar. 8, 1956	6.42	3,310
	Apr. 5, 1945	5.92	2,930		June 25, 1956	5.8	2,630
1946	May 27, 1946	7.50	5,430		Aug. 6, 1956	8.52	6,430
1947	June 7, 1947	6.41	3,670	1957	Apr. 5, 1957	8.47	6,430
				1958	May 5, 1958	5.85	2,680

<sup>a</sup>Mean daily.<sup>b</sup>Backwater from ice.

## OHIO RIVER BASIN

## 1085. Ohio River at Montgomery Island Dam, Pa.

Location. --Lat 40°38'50", long 80°23'20", on left bank at Montgomery Island Dam, Beaver County, 2.2 miles downstream from Raccoon Creek, 5½ miles southwest of Beaver, and at mile 31.7.

Drainage area. --22,960 sq mi, approximately.

Gage. --Nonrecording gage. Datum of gage is 653.6 ft above mean sea level, adjustment of 1912. Auxiliary gage at lock 7, 4.8 miles downstream, at datum 6.4 ft lower.

Stage-discharge relation. --Defined by current-meter measurements.

Bankfull stage. --32 ft.

Remarks. --Only annual peaks are shown. Flow regulated.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 11, 1942	29.8	231,000	1946	May 29, 1946	30.1	225,000
1943	Dec. 31, 1942	46.8	438,000	1947	Apr. 7, 1947	24.2	163,000
1944	Mar. 18, 1944	24.7	169,000	1948	Apr. 15, 1948	39.0	332,000
1945	Mar. 7, 1945	42.8	396,000	1949	Dec. 17, 1948	28.6	207,000
				1950	Mar. 29, 1950	26.7	187,000
				1951	Dec. 5, 1950	36.6	297,000

## LITTLE BEAVER CREEK BASIN

1095. Little Beaver Creek near East Liverpool, Ohio

Location. --Lat 40°40'32", long 80°32'23", at Grimms Bridge, 1½ miles upstream from Island Run, 4 miles upstream from mouth, and 4 miles northeast of East Liverpool, Columbiana County, Ohio.

Drainage area. --505 sq mi.

Gage. --Nonrecording prior to Sept. 22, 1926; recording thereafter. Datum of gage is 702.77 ft above mean sea level, adjustment of 1912.

Stage-discharge relation. --Defined by current-meter measurements below 16,000 cfs and extended above on basis of slope-area measurement at 25,000 cfs.

Historical data. --Maximum stage known, about 20 ft.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Jan. 2, 1916	10.5	7,700	1936	Mar. 24, 1936	12.22	11,400
1917	Jan. 5, 1917	9.5	5,750	1937	Jan. 25, 1937	15.69	20,100
1918	Feb. 20, 1918	11.3	9,380	1938	May 19, 1938	11.94	11,400
1919	May 10, 1919	10.4	7,500	1939	Mar. 13, 1939	—	<sup>a</sup> 12,000
1920	Mar. 5, 1920	11.6	10,000	1940	Apr. 20, 1940	14.01	15,800
1921	Apr. 30, 1921	9.7	6,130	1941	July 19, 1941	17.4	25,000
1922	Apr. 15, 1922	9.8	6,320	1942	Mar. 14, 1942	10.58	7,910
1923	May 13, 1923	14.6	17,000	1943	Dec. 30, 1942	13.95	15,500
1924	Jan. 16, 1924	14.0	15,500	1944	Apr. 12, 1944	<sup>b</sup> 10.46	5,030
1925	Feb. 8, 1925	8.9	4,680	1945	Mar. 7, 1945	11.98	10,900
1926	Feb. 25, 1926	12.1	11,100	1946	May 27, 1946	17.23	24,400
1927	Jan. 19, 1927	11.6	10,000	1947	June 7, 1947	13.98	15,500
1928	Dec. 14, 1927	11.7	10,200	1948	Apr. 14, 1948	11.32	9,380
1929	Feb. 26, 1929	14.4	16,500	1949	Jan. 28, 1949	9.93	6,510
1930	Feb. 26, 1930	13.14	13,400	1950	Feb. 14, 1950	11.65	10,000
1931	June 8, 1931	8.31	3,990	1951	Dec. 3, 1950	12.67	12,500
1932	Jan. 18, 1932	9.46	5,970	1952	Jan. 27, 1952	14.06	15,800
1933	Mar. 15, 1933	15.01	18,100	1953	May 23, 1953	10.37	7,500
1934	Apr. 4, 1934	10.48	8,070	1954	Apr. 17, 1954	10.00	6,700
1935	Aug. 7, 1935	12.10	11,300	1955	Oct. 15, 1954	16.24	21,500
				1956	May 13, 1956	13.30	13,900
				1957	Apr. 4, 1957	13.42	14,100
				1958	Aug. 1, 1958	14.67	17,000

<sup>a</sup>Estimated.

<sup>b</sup>Occurred Jan. 4, 1944; ice jam.

## YELLOW CREEK BASIN

1100. Yellow Creek near Hammondsville, Ohio

Location. --Lat 40°32'15", long 80°43'35", in sec. 29, T. 8 N., R. 2 W., 1,000 ft upstream from Lowery Run, 0.9 mile upstream from Bush Creek, and 1.65 miles southwest of Hammondsville, Jefferson County.

Drainage area. --148 sq mi.

Gage. --Recording. Datum of gage is 692.1 ft above mean sea level (Ohio State Highway Department benchmark).

Stage-discharge relation. --Defined by current-meter measurements.

Historical data. --The highest stage known is reported to have occurred in 1912.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	July 19, 1941	8.43	4,260	1951	Apr. 29, 1951	8.93	4,820
1942	Apr. 9, 1942	8.0	3,690	1952	Jan. 27, 1952	12.17	9,580
1943	Dec. 30, 1942	8.58	4,560	1953	June 17, 1953	5.84	1,800
1944	Mar. 7, 1944	7.63	3,180	1954	June 17, 1954	6.11	2,000
1945	Mar. 7, 1945	9.40	5,100	1955	Mar. 4, 1955	9.07	5,060
1946	May 29, 1946	7.83	3,300	1956	Feb. 25, 1956	9.35	5,420
1947	June 7, 1947	8.73	4,300	1957	Apr. 5, 1957	9.04	4,940
1948	Apr. 12, 1948	10.50	6,750	1958	May 4, 1958	6.70	2,540
1949	Jan. 28, 1949	6.63	2,190				
1950	Jan. 6, Feb. 14	7.08	2,610				

## 1105. Yellow Creek at Hammondsville, Ohio

Location. --Lat 40°33'15", long 80°42'30", at highway bridge one-fifth of a mile southwest of Hammondsville, Jefferson County, and 1,000 ft above North Fork.

Drainage area. --169 sq mi.

Gage. --Nonrecording. At site 300 ft downstream at datum 1.26 ft higher Apr. 5 to Sept. 30, 1931. Altitude of gage is 680 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements below 3,900 cfs and extended above.

Historical data. --Highest flood known prior to Oct. 1, 1935, reached a stage of about 16 ft.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Dec. 29, 1915	10.8	5,190	1926	Sept. 24, 1926	13.0	7,470
1917	Jan. 5, 1917	8.6	3,340	1927	Jan. 22, 1927	10.2	4,650
1918	Feb. 20, 1918	10.6	5,010	1928	Dec. 14, 1927	11.5	5,870
1919	July 17, 1919	12.6	7,030	1929	Feb. 26, 1929	13.2	7,590
1920	June 17, 1920	13.2	7,710	1930	Nov. 18, 1929	10.93	5,280
1921	Mar. 7, 1921	8.2	3,020	1931	Apr. 4, 1931	7.68	2,650
1922	Apr. 15, 1922	10.0	4,470	1932	Jan. 23, 1932	8.10	3,730
1923	May 12, 1923	12.6	7,030	1933	Mar. 19, 1933	8.32	3,910
1924	Jan. 16, 1924	12.6	7,030	1934	Mar. 3, 1934	10.0	5,200
1925	Feb. 8, 1925	<sup>a</sup> 12.0	4,140	1935	Aug. 7, 1935	12.60	7,610

<sup>a</sup>Backwater from ice.

## WHEELING CREEK BASIN

## 1120. Wheeling Creek at Elm Grove, W. Va.

Location. --Lat 40°02'40", long 80°39'40", at highway bridge at Elm Grove, Ohio County, 500 ft downstream from Little Wheeling Creek.

Drainage area. --282 sq mi.

Gage. --Recording. Datum of gage is 667.59 ft above mean sea level, datum of 1929.

Stage-discharge relation. --Defined by current-meter measurements below 8,500 cfs and extended above on basis on slope-area measurements at gage heights 13.2 and 13.67 ft.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 5, 1941	13.08	20,300	1951	Jan. 15, 1951	11.62	15,900
1942	Mar. 9, 1942	9.10	9,090	1952	Jan. 27, 1952	9.22	10,000
1943	Dec. 30, 1942	13.67	22,100	1953	May 7, 1953	6.77	6,740
1944	Mar. 5, 1944	7.95	6,920	1954	Apr. 17, 1954	4.39	3,240
1945	Mar. 6, 1945	12.67	19,100	1955	Oct. 16, 1954	9.90	11,600
1946	June 2, 1946	9.75	11,000	1956	July 27, 1956	9.05	9,600
1947	June 7, 1947	7.23	5,460	1957	Apr. 18, 1957	7.78	7,360
1948	Feb. 14, Apr. 14	<sup>a</sup> 8.45	7,760	1958	May 4, 1958	7.23	6,340
1949	Dec. 15, 1948	7.38	5,800				
1950	Jan. 7, 1950	7.95	6,920				

<sup>a</sup>Occurred Feb. 14, 1948.



## STREAMS TRIBUTARY TO LAKE ERIE

## 2125. Ashtabula River near Ashtabula, Ohio

Location. --Lat 41°51'19", long 80°45'43", at highway bridge 1 mile upstream from Hubbard Run, 1¼ miles south-east of Ashtabula, Ashtabula County, and 5½ miles upstream from mouth.

Drainage area. --118 sq mi.

Gage. --Nonrecording prior to Aug. 27, 1924; recording thereafter. Altitude of gage is 605 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Feb. 9, 1925	<sup>a</sup> 9.0	3,250	1941	Dec. 13, 1940	<sup>a</sup> 6.20	2,700
1926	Sept. 24, 1926	<sup>a</sup> 8.03	4,950	1942	May 16, 1942	9.67	10,800
1927	Oct. 25, 1926	<sup>a</sup> 7.93	4,020	1943	Dec. 28, 1942	<sup>a</sup> 8.6	3,930
1928	Dec. 1, 1927	7.73	5,430	1944	Apr. 12, 1944	<sup>a</sup> 7.2	3,700
1929	Jan. 19, 1929	8.35	7,500	1945	Feb. 23, 1945	<sup>a</sup> 9.60	5,010
1930	Jan. 12, 1930	<sup>a</sup> 6.96	3,050	1946	June 1, 1946	6.60	4,180
1931	Apr. 2, 1931	6.94	2,010	1947	June 8, 1947	8.43	7,500
1932	May 8, 1932	5.51	3,150	1951	Dec. 4, 1950	8.25	7,180
1933	Dec. 31, 1932	7.51	5,230	1952	Jan. 27, 1952	6.30	4,450
1934	Aug. 9, 1934	<sup>a</sup> 5.78	3,170	1953	May 23, 1953	7.94	6,810
1935	Feb. 15, 1935	4.98	2,500	1954	Mar. 1, 1954	7.51	6,250
				1955	Oct. 16, 1954	9.32	8,880
1940	Mar. 30, 1940	<sup>a</sup> 9.16	4,470	1956	May 12, 1956	6.55	5,070
				1957	Jan. 23, 1957	7.38	6,110
				1958	Sept. 5, 1958	<sup>a</sup> 4.60	2,800

<sup>a</sup>Occurred on different date than peak discharge; ice jams.

## 2130. Conneaut Creek at Amboy, Ohio

Location. --Lat 41°55'34", long 80°36'18", at highway bridge half a mile east of Amboy, Ashtabula County, 3 miles southwest of Conneaut, and 6½ miles upstream from mouth.

Drainage area. --178 sq mi.

Gage. --Nonrecording prior to Aug. 17, 1924; recording thereafter. Altitude of gage is 605 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Mar. 4, 1923	<sup>a</sup> 10.0	3,190	1951	Dec. 4, 1950	<sup>a</sup> 9.22	8,830
1924	May 9, 1924	8.3	7,320	1952	Jan. 27, 1952	<sup>a</sup> 12.25	5,140
1925	Feb. 9, 1925	5.9	3,900	1953	May 23, 1953	7.85	6,430
1926	Sept. 25, 1926	8.1	7,700	1954	Mar. 1, 1954	7.97	6,810
1927	Oct. 26, 1926	6.5	4,850	1955	Oct. 16, 1954	10.74	12,900
1928	Dec. 1, 1927	8.2	7,900	1956	May 13, 1956	<sup>a</sup> 8.50	6,810
1929	Jan. 19, 1929	<sup>a</sup> 11.0	7,900	1957	June 30, 1957	<sup>a</sup> 10.35	7,400
1930	Jan. 13, 1930	5.70	3,610	1958	Sept. 5, 1958	8.77	8,410
1931	Apr. 2, 1931	4.52	2,050				
1932	May 9, 1932	5.50	3,330				
1933	Jan. 1, 1933	6.54	4,850				
1934	Mar. 4, 1934	12.94	3,900				
1935	Feb. 16, 1935	<sup>a</sup> 10.4	3,750				

<sup>a</sup>Occurred on different date than peak discharge; ice jams.

## 2135. Cattaraugus Creek at Gowanda, N. Y.

Location. --Lat 42°27'50", long 78°56'10", at Gowanda, Erie County, 380 ft downstream from highway bridge and 4.2 miles downstream from South Branch.

Drainage area. --428 sq mi.

Gage. --Recording. Datum of gage is 738.74 ft above mean sea level (village of Gowanda benchmark).

Stage-discharge relation. --Defined by current-meter measurements below 6,500 cfs and extended above by logarithmic plotting.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Apr. 5, 1941	8.84	15,500	1951	Nov. 25, 1950	10.87	17,600
1942	Mar. 17, 1942	13.73	35,900	1952	Mar. 11, 1952	8.84	12,300
1943	Dec. 30, 1942	9.72	16,800	1953	Mar. 24, 1953	6.75	6,730
1944	June 24, 1944	10.35	19,400	1954	Apr. 28, 1954	8.45	11,100
1945	Mar. 3, 1945	9.10	14,400	1955	Mar. 1, 1955	10.78	19,400
1946	Oct. 2, 1945	10.74	21,100	1956	Mar. 7, 1956	14.14	34,600
1947	Apr. 5, 1947	12.05	24,700	1957	Jan. 23, 1957	11.64	22,900
1948	Mar. 22, 1948	10.33	17,600	1958	June 13, 1958	8.46	11,200
1949	Jan. 5, 1949	8.77	8,820				
1950	Mar. 28, 1950	9.63	15,000				

## STREAMS TRIBUTARY TO LAKE ONTARIO

## 2215. Genesee River at Scio, N. Y.

Location. --Lat 42°09'50", long 77°58'50", 0.4 mile upstream from Vandermark Creek and three-quarters of a mile upstream from Scio, Alleghany County.

Drainage area. --309 sq mi.

Gage. --Nonrecording prior to Aug. 11, 1938; recording thereafter. At datum 1.0 ft higher prior to Oct. 12, 1938. Altitude of gage is 1,440 ft (from topographic map).

Stage-discharge relation. --Defined by current-meter measurements.

Remarks. --Only annual peaks are shown.

## Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	Mar. 12, 1917	<sup>a</sup> 7.8	5,020	1936	Mar. 12, 1936	8.2	7,760
1918	Mar. 14, 1918	9.0	10,400	1937	Jan. 25, 1937	7.5	6,640
1919	May 22, 1919	9.1	10,600	1938	Mar. 6, 1938	7.8	7,120
1920	Mar. 12, 1920	8.16	8,810	1939	Feb. 20, 1939	8.54	7,180
1921	Feb. 17, 1921	5.1	3,810	1940	Mar. 31, 1940	9.22	8,530
1922	June 12, 1922	5.4	4,230	1941	Apr. 5, 1941	8.55	7,200
1923	Mar. 4, 1923	6.5	6,010	1942	July 18, 1942	9.74	9,740
1924	Sept. 30, 1924	7.90	8,320	1943	Dec. 30, 1942	9.07	8,290
1925	Feb. 11, 1925	7.8	8,140	1944	Mar. 17, 1944	7.06	4,810
1926	Mar. 23, 1926	<sup>b</sup> 6.8	3,530	1945	May 18, 1945	9.12	8,390
1927	Mar. 21, 1927	6.6	6,090	1946	May 28, 1946	10.63	12,000
1928	Dec. 1, 1927	7.5	7,600	1947	Apr. 5, 1947	9.65	9,030
1929	Apr. 21, 1929	7.1	6,800	1948	Mar. 22, 1948	10.04	9,190
1930	Feb. 25, 1930	5.8	4,710	1949	Jan. 6, 1949	5.81	2,690
1931	May 24, 1931	4.6	3,020	1950	Mar. 28, 1950	10.13	9,390
1932	Feb. 11, 1932	5.3	3,970	1951	Nov. 25, 1950	11.22	12,200
1933	Apr. 7, 1933	4.9	3,410	1952	Mar. 11, 1952	9.00	6,450
1934	Mar. 27, 1934	5.8	4,710	1953	Mar. 24, 1953	9.30	7,060
1935	July 8, 1935	8.1	8,560	1954	Mar. 2, 1954	8.30	5,360
				1955	Mar. 1, 1955	8.76	6,080
				1956	Mar. 8, 1956	10.50	16,900
				1957	Jan. 23, 1957	8.98	8,240
				1958	Apr. 7, 1958	9.03	7,950

<sup>a</sup>Occurred Feb. 27, 1917; backwater from ice.

<sup>b</sup>Occurred Feb. 26, 1926; backwater from ice.

