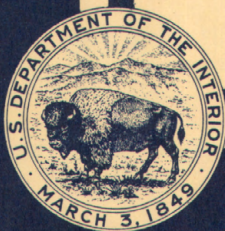
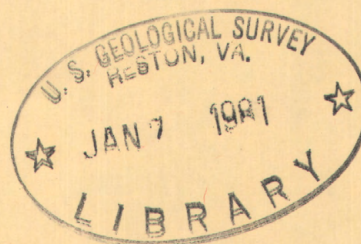


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Water Resources Data for Pennsylvania

Part 1. Surface Water Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the Pennsylvania Department of
Environmental Resources and with other State, municipal, and
Federal agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

S	M	T	W	T	F	S
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NOVEMBER 1970

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JANUARY 1971

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31						

FEBRUARY 1971

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27	28					

MARCH 1971

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MAY 1971

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JUNE 1971

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JULY 1971

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AUGUST 1971

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29	30	31				

SEPTEMBER 1971

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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

1971

**Water Resources Data
for
Pennsylvania**

Part 1. Surface Water Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

**Prepared in cooperation with the Pennsylvania Department of Environmental
Resources and with other State, municipal, and Federal agencies**

II

Prepared in cooperation with

Pennsylvania Department of Environmental Resources
Pennsylvania Department of Transportation
Chester County Water Resources Authority
Pennsylvania State University
City of Bethlehem
City of Easton
City of Harrisburg
City of Philadelphia
Corps of Engineers, U.S. Army

Water resources records, 1971, for Pennsylvania are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Pennsylvania
Part 1: Surface Water Records
2. Water Resources Data for Pennsylvania
Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Federal Building
P.O. Box 1107
Harrisburg, Pennsylvania 17108

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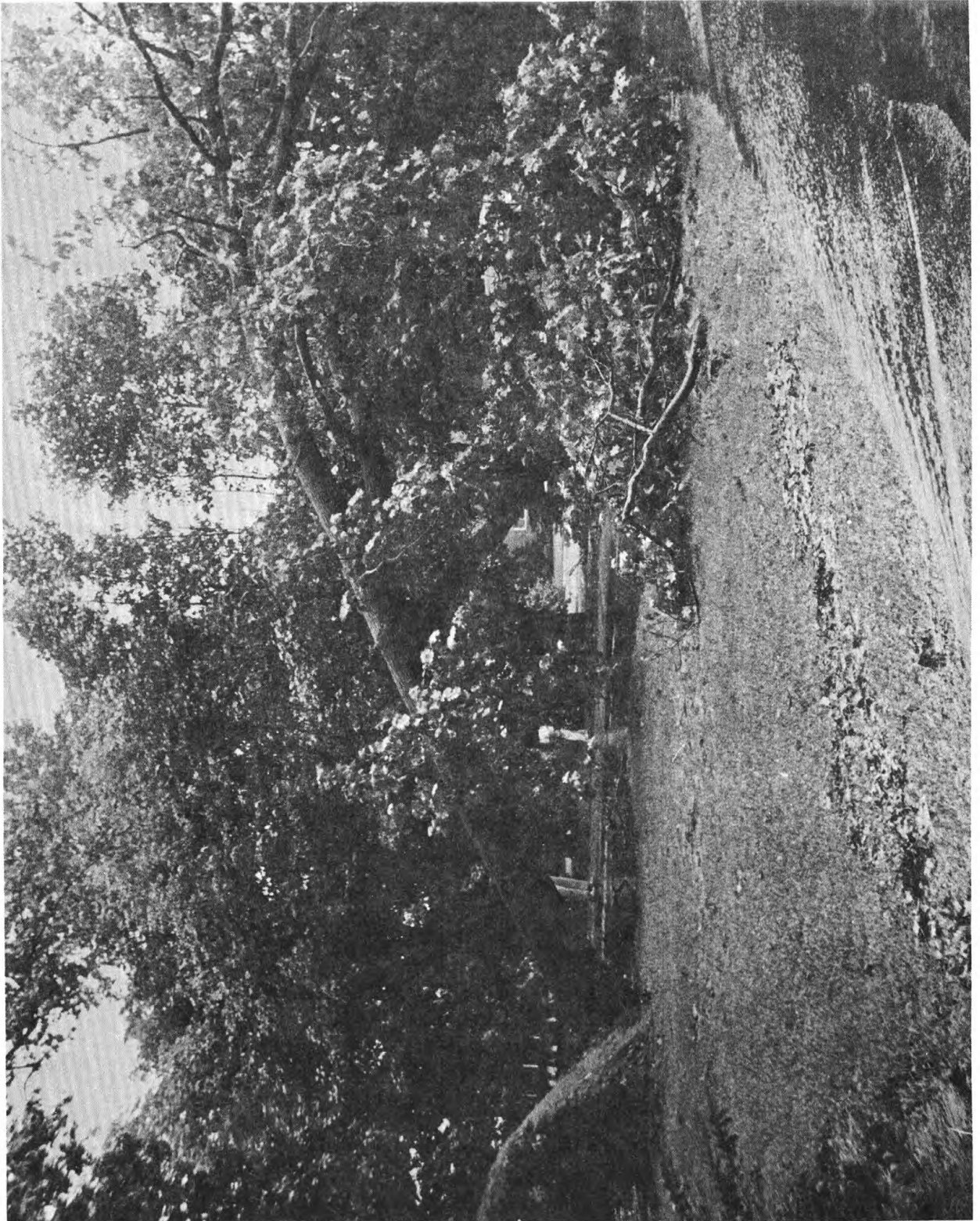


Figure 1.--Flood of September 13, 1971 at Norristown, Pa.

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FOR WHICH RECORDS ARE PUBLISHED

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WATER RESOURCES DATA FOR PENNSYLVANIA, 1971

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1971 water year for Pennsylvania, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report and their locations shown in figures 3, 4, and 5. Records for a few pertinent gaging stations in bordering States are also included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of Norman H. Beamer, district chief and David Barton, district coordinator. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Pennsylvania.

Through September 30, 1960, the records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Since 1951 there have been 20 volumes in the series; each volume covered an area whose boundaries coincided with those of certain natural drainage areas. The records in Pennsylvania were contained in Parts 1B, 3A and 4 of that series.

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 for the Delaware, Susquehanna, and Ohio River basins in Pennsylvania are published in Geological Survey water-supply papers 1902, 1903, and 1907. Similar data for the period 1966-70 is now being compiled and will be published in Geological Survey water-supply papers as part of the series entitled "Surface Water Supply of the United States, 1966-70."

COOPERATION

The U.S. Geological Survey and organizations of the State of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21, and 1931 to date. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources,
M. K. Goddard, secretary, through the following:
Office of Engineering and Construction,
C. H. McConnell, deputy secretary. State
Soil and Water Conservation Commission,
W. N. Peechatka, director. Office of
Environmental Protection and Regulation,
W. E. Gilbertson, deputy secretary.

State Department of Transportation, J. G. Kassab,
secretary, through the Bureau of Materials,
Testing and Research, L. D. Sandvig, director.

Chester County Water Resources Authority,
R. G. Struble, executive director.

Pennsylvania State University, College of Earth
and Mineral Sciences, through Professor E. R.
Parizek.

City of Bethlehem, H. G. Payrow, Jr., mayor.

City of Easton, F. L. Ashton, Jr., mayor.

City of Harrisburg, H. A. Swenson, mayor.

City of Philadelphia, Water Department, S. S. Baxter,
water commissioner.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 105 gaging stations published in this report.

Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce.

The following organizations aided in collecting records:

Allegheny Power Service Corp.; Greater Johnstown Water Authority; Latrobe Municipal Authority; Manufacturers Water Co.; Municipal Authority of Westmoreland County; Municipality of Lancaster; P. H. Glatfelter Co.; Palmer Water Co.; Panther Valley Water Co.; Pennsylvania Electric Co.; Pennsylvania Power and Light Co.; Philadelphia Electric Co.; Philadelphia Suburban Water Co.; Safe Harbor Water Power Corp.; and York Water Co.

DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

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

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

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

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

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 01570500, includes the part number "01" and a 6-digit station number. The complete number 01570500 appears just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors

affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 5-, 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is

obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1971 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data

given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation records. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932 to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average rainfall on the drainage basin is usually less than 20 inches.

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height. For some reservoirs a tabulation of monthly evaporation from the water surface is included.

In the yearly summary below the monthly summary, the figures following MAX are the maximum daily discharges for the calendar and water years; likewise, those following MIN are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year. For some reservoirs the yearly evaporation also is included.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnotes, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

Each volume of the 1961-65 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1965 to September 30, 1970, will also include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1302 (1B), 1305 (3A), and 1307 (4); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1722 (1B), 1725 (3A), and 1727 (4); and records for October 1960 to September 1965 have been compiled and published in Water-Supply Papers 1902 (1B), 1903 (1B), 1907 (3A), and 1912 (4). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in Pennsylvania through 1970 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, and on the sediment. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES
OTHER THAN THE GEOLOGICAL SURVEY

There were no records of discharge collected in Pennsylvania during the year by agencies other than the Geological Survey.

HYDROLOGIC CONDITIONS

The water year 1971 continued the trend shown in recent years with runoff generally in the median range throughout the state. At the index station on the Susquehanna River at Harrisburg, in southcentral Pennsylvania, runoff increased and was about 8 percent greater than the mean for 81 years of record. Runoff was excessive in November, February, and March while it was deficient in June and July. At the index station in northwestern Pennsylvania on Oil Creek near Rouseville yearly runoff was 14 percent above the mean for 39 years of record. At this representative station runoff was excessive in October, November, and December while April and June were deficient.

In mid-September extensive flooding occurred in the southeastern and southwestern sections of the state. At the gaging station on Chester Creek near Chester, a long-term station, a new peak flow of record was established. Property damage totalled in the millions of dollars and four people lost their lives. On nearby Skippack Creek near Collegeville, a short-term station, a new peak flow of record was also established. In southwestern Pennsylvania previous peak flows were exceeded on Lick Run at Hopwood and on Poplar Run near Normalville. However, there are stations with short periods of record.

Figure 2, on page 17, for which records of two long-term gaging stations were used, shows a comparison of the monthly and yearly mean discharge for the 1971 water year with the median discharge for the period 1931-60.

SELECTED REFERENCES

- Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.
- Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

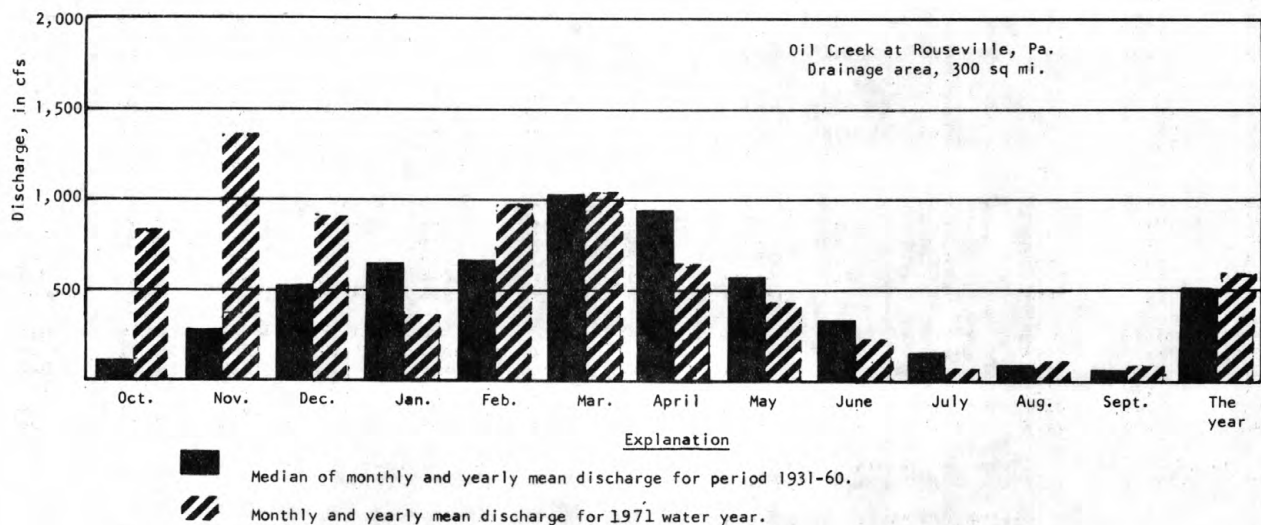
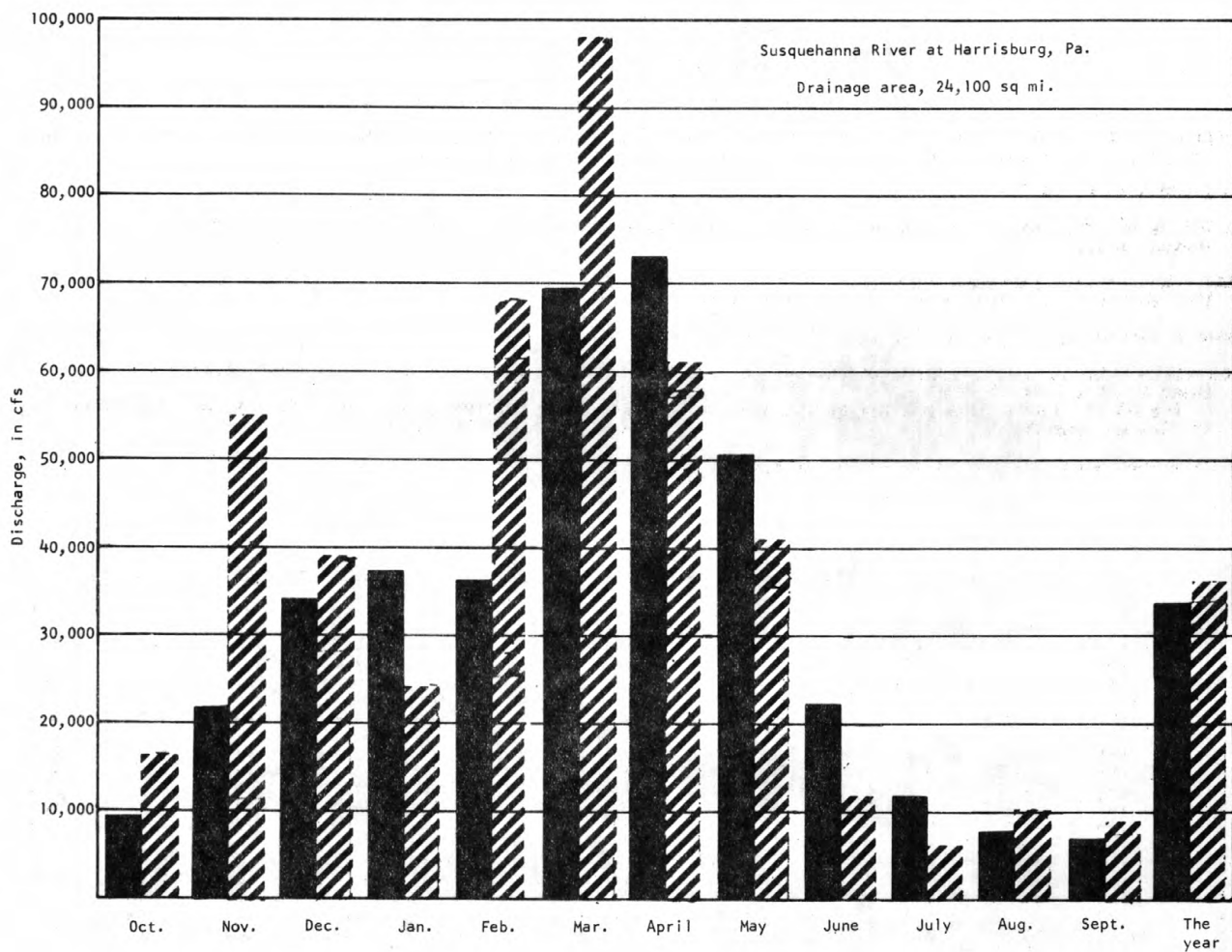


Figure 2.--Comparison of discharge at two long-term representative gaging stations during 1971 water year with median discharge for period 1931-60.

GAGING-STATION RECORDS

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DELAWARE RIVER BASIN

01427650 North Branch Calkins Creek near Damascus, Pa.

LOCATION.--Lat 41°41'57", long 75°09'58", Wayne County, on right bank 24 ft downstream from bridge on State Highway 371, 4 miles west of Damascus, and 4.8 miles upstream from Sunny Brook.

DRAINAGE AREA.--7.02 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1962-64. October 1964 to current year.

GAGE.--Water-stage recorder and wooden control. Altitude of gage is 740 ft (from topographic map). July 25, 1961 to Sept. 17, 1964, crest-stage at same site and datum.

AVERAGE DISCHARGE.--7 years, 11.2 cfs (21.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 250 cfs Mar. 16 (gage height, 6.86 ft); minimum, 0.15 cfs July 24 (gage height, 2.20 ft).

Period of record: Maximum discharge, 550 cfs Mar. 10, 1964; maximum gage height, 7.79 ft May 30, 1968; no flow on many days.

REMARKS.--Records fair except those for winter periods, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	2.8	6.7	5.2	2.1	59	24	7.0	1.7	2.8	4.2	3.2
2	.67	2.8	5.7	5.0	1.9	45	63	9.4	1.6	3.1	13	2.5
3	.95	2.3	5.0	5.0	1.7	33	108	14	4.2	1.1	51	2.3
4	1.4	2.2	19	7.0	1.5	42	80	9.9	1.9	.67	29	2.2
5	.85	2.2	8.9	24	1.4	56	52	7.8	1.1	.52	8.6	1.9
6	.76	1.9	7.8	20	1.5	43	29	7.0	.95	.46	4.5	1.7
7	.95	1.7	6.2	16	1.6	41	39	8.6	1.5	.41	3.1	1.5
8	.95	1.6	4.5	12	2.1	38	34	7.2	1.4	.37	2.2	1.5
9	.67	1.6	5.0	9.9	2.5	29	47	10	1.2	.33	1.7	1.5
10	.59	1.6	6.0	8.9	2.3	24	69	10	.95	.29	1.4	1.3
11	.67	4.2	6.0	7.8	2.1	21	40	6.2	.76	.29	1.1	1.
12	.67	23	7.0	7.8	2.0	19	44	5.5	.67	.29	1.1	1.
13	.67	41	6.0	7.8	2.8	20	54	106	1.1	.29	.85	2.8
14	.67	26	5.7	6.7	170	34	46	55	1.2	.26	.76	2.5
15	17	68	5.5	6.0	181	77	23	26	1.9	.23	.67	2.0
16	6.2	34	5.2	5.5	106	159	19	21	1.6	.23	.59	1.6
17	2.8	20	6.7	4.7	89	87	16	17	.95	.20	.52	2.5
18	2.0	15	6.0	4.6	76	47	16	13	.85	.23	.46	2.2
19	1.7	17	6.2	4.4	57	33	13	11	.59	.26	.41	2.0
20	1.4	23	8.4	4.1	52	27	12	8.0	.52	.41	.41	2.0
21	1.4	46	7.6	3.9	63	19	9.9	9.9	.54	.29	1.2	5.0
22	43	21	6.8	3.7	51	19	8.6	10	.46	.23	.95	2.8
23	47	16	7.4	3.5	89	16	7.2	6.5	.41	.20	.67	2.0
24	16	11	7.2	3.3	71	17	6.2	4.7	.37	.17	.37	1.9
25	7.6	8.6	7.0	3.1	38	16	6.0	4.2	.37	.52	.33	1.5
26	5.7	7.2	6.6	3.0	35	14	6.0	3.8	1.5	.37	.37	1.3
27	4.7	7.5	6.0	2.9	84	12	6.0	3.4	1.1	.29	7.2	1.5
28	4.0	7.2	6.2	2.8	77	12	5.5	3.4	.67	.23	90	2.9
29	3.6	6.7	5.7	2.7	-----	15	17	2.9	.52	1.7	22	2.8
30	3.2	9.9	5.4	2.5	-----	16	8.9	2.5	.46	2.5	7.5	2.3
31	3.1	-----	5.2	2.3	-----	17	-----	2.3	-----	19	4.2	-----
TOTAL	181.83	433.0	208.6	206.1	1,264.5	1,107	909.3	413.2	33.02	38.24	260.36	64.2
MEAN	5.87	14.4	6.73	6.65	45.2	35.7	30.3	13.3	1.10	1.23	8.40	2.14
MAX	47	68	19	24	181	159	108	106	4.2	19	90	5.0
MIN	.59	1.6	4.5	2.3	1.4	12	5.5	2.3	.37	.17	.33	1.1
CFSM	.84	2.05	.96	.95	6.44	5.09	4.32	1.89	.16	.18	1.20	.30
IN.	.96	2.29	1.11	1.09	6.70	5.87	4.82	2.19	.17	.20	1.38	.34

CAL YR 1970 TOTAL 5,228.38 MEAN 14.3 MAX 310 MIN .15 CFSM 2.04 IN 27.71
WTR YR 1971 TOTAL 5,119.35 MEAN 14.0 MAX 181 MIN .17 CFSM 1.99 IN 27.13

PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-14	1600	6.79	237	5-13	1615	6.64	212
3-16	1730	6.86	250	8-28	1100	6.58	203
4- 3	1900	6.35	170				

DELAWARE RIVER BASIN

01428500 Delaware River above Lackawaxen River near Barryville, N.Y.

LOCATION.--Lat 41°30'32", long 74°59'13", Sullivan County, on left bank 1.6 miles upstream from Lackawaxen River and 4.6 miles northwest of Barryville.

DRAINAGE AREA.--2,023 sq mi.

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

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

EXTREMES.--Current year: Maximum discharge, 19,200 cfs Oct. 24 (gage height, 8.98 ft); maximum gage height, 15.62 ft Feb. 15 (ice jam); minimum daily, 360 cfs Feb. 4-6.

Period of record: Maximum discharge, 130,000 cfs Aug. 19, 1955 (gage height, 26.40 ft from floodmarks in gage house), from rating curve extended above 55,000 cfs on basis of slope-area measurement at gage height 23.19 ft; minimum, 122 cfs Sept. 5, 1953 (gage height, 1.11 ft); minimum daily, 126 cfs Sept. 4, 1953.

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 sq mi of drainage area controlled by Pepacton Reservoir (see New York Annual Report), and subsequent to October 1963, entire flow from 454 sq mi of drainage area controlled by Cannonsville Reservoir (see New York Annual Report). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Records of water temperatures for the water year 1971 are published in Part 2 of the New York Annual Report.

COOPERATION.--Five discharge measurements supplied by the Board of Water Supply, City of New York.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	1,660	1,980	900	390	8,400	2,410	4,580	1,490	1,490	1,730	1,070
2	1,620	1,550	1,810	1,100	380	7,300	3,130	4,220	1,360	1,640	1,220	864
3	1,990	1,410	1,650	1,100	370	5,000	6,820	4,530	1,270	1,790	1,840	728
4	2,410	1,340	1,800	1,200	360	3,900	9,010	4,500	1,130	1,810	5,280	816
5	2,050	1,540	2,300	2,200	360	3,300	8,940	4,530	970	1,820	3,100	1,470
6	1,790	1,620	2,060	2,000	360	3,000	7,300	4,220	808	1,670	1,860	1,550
7	1,760	1,660	1,600	1,800	370	3,000	6,610	3,840	768	1,530	1,320	1,330
8	1,750	1,540	1,200	1,700	380	3,200	7,270	3,510	752	1,600	1,010	1,080
9	1,800	1,580	1,100	1,600	420	2,700	6,730	3,730	671	1,680	816	1,120
10	2,040	1,560	1,200	1,500	470	2,500	9,910	4,200	602	1,810	678	1,110
11	2,080	1,620	1,200	1,400	550	2,400	10,500	3,900	560	1,890	596	1,380
12	2,120	1,840	1,200	1,200	760	2,300	10,100	3,320	525	1,900	548	1,600
13	2,150	1,950	1,100	1,200	1,400	2,200	12,000	4,450	832	1,920	626	1,230
14	2,080	2,380	1,100	1,100	3,000	2,360	17,000	10,100	1,150	1,880	768	1,050
15	2,740	2,740	1,100	1,000	12,000	3,840	14,100	8,430	1,350	1,930	1,560	816
16	4,220	3,880	1,000	960	7,140	9,550	10,700	7,140	1,380	1,930	1,300	1,240
17	3,210	3,530	1,000	900	5,170	10,000	8,710	6,280	1,440	2,110	925	1,140
18	2,410	2,960	1,100	850	3,990	6,950	7,270	5,250	1,500	2,150	1,050	824
19	2,020	2,690	1,100	800	3,690	5,680	6,670	4,220	1,590	1,980	1,080	596
20	1,750	2,710	1,100	760	3,370	4,830	7,140	3,490	1,600	1,710	1,230	943
21	1,560	4,880	1,100	700	3,370	4,060	7,530	3,150	1,390	1,600	1,770	800
22	1,700	4,830	1,000	660	3,730	3,370	7,720	3,150	1,270	1,880	2,040	638
23	7,980	3,840	980	610	3,990	3,100	7,340	2,930	1,280	1,940	1,560	713
24	13,300	3,260	960	580	4,960	2,910	6,340	2,560	1,300	2,080	1,140	856
25	5,850	2,770	930	550	4,000	2,610	5,770	2,300	1,550	2,240	1,120	916
26	4,010	2,440	910	530	3,700	2,360	5,090	2,180	1,820	2,080	1,040	784
27	3,210	2,210	890	490	4,300	2,200	4,700	2,080	1,850	1,980	1,300	1,170
28	2,680	2,060	870	450	7,000	2,150	4,150	1,950	1,730	1,890	2,940	784
29	2,320	1,980	850	430	-----	2,200	4,900	1,860	1,590	1,940	3,570	664
30	2,040	2,010	840	420	-----	2,380	5,280	1,700	1,560	1,980	2,120	848
31	1,810	-----	830	400	-----	2,320	-----	1,640	-----	1,700	1,430	-----
TOTAL	89,940	72,040	37,860	31,090	79,980	122,070	231,140	123,940	37,088	57,550	48,567	30,130
MEAN	2,901	2,401	1,221	1,003	2,856	3,938	7,705	3,998	1,236	1,856	1,567	1,004
MAX	13,300	4,880	2,300	2,200	12,000	10,000	17,000	10,100	1,850	2,240	5,280	1,600
MIN	1,490	1,340	830	400	360	2,150	2,410	1,640	525	1,490	548	596
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 1,076,776		MEAN 2,950		MAX 24,700		MIN 671		CFSM -	IN. -		
WTR YR 1971	TOTAL 961,395		MEAN 2,634		MAX 17,000		MIN 360		CFSM -	IN. -		

DELAWARE RIVER BASIN

21

01429000 West Branch Lackawaxen River at Prompton, Pa.

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

DRAINAGE AREA.--59.7 sq mi.

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

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

AVERAGE DISCHARGE.--27 years, 103 cfs (23.43 inches per year), adjusted for storage since January 1961.

EXTREMES.--Current year: Maximum discharge, 760 cfs Mar. 17 (gage height, 3.26 ft); minimum, 1.1 cfs July 21 (gage height, 0.64 ft).

Period of record: Maximum discharge, 5,860 cfs Aug. 18, 1955 (gage height, 9.24 ft), from rating curve extended above 3,600 cfs; no flow July 26 to Aug. 25, 1960, result of construction work upstream.

Flood of May 23, 1942, reached a stage of 16.7 ft, from floodmark.

REMARKS.--Records fair. Flow regulated by Prompton Reservoir 500 ft upstream (see p. 82).

REVISIONS (WATER YEARS).--WSP 1432: 1948-49.

CORRECTIONS.--The maximum discharge for water year 1970 is 908 cfs Apr. 10, 1970 (gage height, 3.49 ft); the previously published figure was in error.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	35	78	53	27	340	170	160	39	15	42	35
2	19	32	72	53	26	290	250	138	35	23	43	29
3	20	30	69	52	25	250	350	144	34	24	61	25
4	22	28	83	53	24	210	400	138	32	22	146	22
5	21	30	91	67	25	180	380	131	31	19	109	19
6	21	29	85	91	27	180	350	123	28	17	76	18
7	21	27	74	89	30	190	320	116	26	16	56	16
8	22	25	64	82	33	170	330	106	27	15	43	15
9	22	24	66	76	38	160	290	113	26	14	34	14
10	22	22	66	72	36	140	490	123	24	13	29	14
11	21	25	66	70	35	133	440	121	22	12	26	13
12	19	37	69	67	34	123	430	111	20	12	24	13
13	18	92	69	61	80	118	450	141	22	11	21	17
14	18	126	67	61	150	118	580	250	24	12	19	22
15	37	159	64	59	150	188	470	238	33	12	17	22
16	55	207	59	56	150	546	350	214	39	11	15	19
17	48	169	61	50	150	703	272	191	35	11	14	20
18	40	133	62	46	150	529	235	93	31	11	13	19
19	40	113	64	46	140	409	217	238	28	12	12	18
20	30	104	69	43	140	333	121	224	25	13	12	17
21	29	201	70	41	150	280	66	144	22	5.6	13	22
22	51	188	69	40	160	228	83	116	21	2.7	13	22
23	131	155	67	40	220	194	93	93	19	13	13	22
24	118	128	67	40	230	166	100	76	18	16	11	22
25	91	104	66	39	190	144	100	66	16	17	10	19
26	74	91	64	40	180	128	100	61	17	15	9.5	18
27	61	82	61	41	250	120	100	56	17	15	18	17
28	53	78	59	40	350	120	155	52	16	13	55	21
29	46	76	55	36	-----	130	224	48	15	14	76	25
30	39	80	53	37	-----	160	191	43	15	19	58	27
31	39	-----	50	28	-----	140	-----	41	-----	32	45	-----
TOTAL	1,270	2,630	2,079	1,669	3,200	7,120	8,107	3,909	757	457.3	1,133.5	602
MEAN	41.0	87.7	67.1	53.8	114	230	270	126	25.2	14.8	36.6	20.1
MAX	131	207	91	91	350	703	580	250	39	32	146	35
MIN	18	22	50	28	24	118	66	41	15	2.7	9.5	13
MEAN*	41.8	89.5	65.6	53.5	127	222	281	112	22.8	16.6	36.6	19.3
CFSM*	.70	1.50	1.10	.90	2.13	3.72	4.71	1.88	.38	.28	.61	.32
IN.*	.81	1.67	1.27	1.04	2.22	4.29	5.26	2.17	.42	.32	.70	.36

CAL YR 1970 TOTAL 31,360.5 MEAN 85.9 MAX 824 MIN 7.5 MEAN* 85.8 CFSM* 1.44 IN.* 19.51
WTR YR 1971 TOTAL 32,933.8 MEAN 90.2 MAX 703 MIN 2.7 MEAN* 90.2 CFSM* 1.51 IN.* 20.53

* Adjusted for change in contents in Prompton Reservoir.

01429500 Dyberry Creek near Honesdale, Pa.

LOCATION.--Lat 41°36'26", long 75°16'03", Wayne County, on right bank, 180 ft upstream from unnamed tributary, 1,700 ft below General Edgar Jadwin Reservoir, 2.1 miles north of Honesdale, and 2.6 miles upstream from mouth.

DRAINAGE AREA.--64.6 sq mi.

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

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

AVERAGE DISCHARGE.--28 years, 106 cfs (22.28 inches per year), adjusted for storage since October 1959.

EXTREMES.--Current year: Maximum discharge, 1,460 cfs Feb. 14 (gage height, 5.49 ft); minimum daily, 5.4 cfs Aug. 26.

Period of record: Maximum discharge, 15,500 cfs July 10, 1952 (gage height, 14.6 ft, site and datum then in use), from rating curve extended above 2,500 cfs on basis of slope-area measurement at gage height, 13.78 ft, site and datum then in use; no flow Oct. 2, 3, 1968 (result of shutoff at General Edgar Jadwin Reservoir). Flood of May 23, 1942, reached a stage of 15.86 ft, site and datum then in use, from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at high flow by General Edgar Jadwin Reservoir, 1,700 ft upstream (see p. 82).

REVISIONS (WATER YEARS).--WSP 1382: 1947(M), 1950(M), 1951-53.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	63	50	27	472	174	111	39	15	46	25
2	16	18	55	50	26	386	299	107	35	35	57	19
3	18	16	52	47	25	271	593	150	41	27	175	15
4	17	15	84	49	25	214	649	125	38	19	228	14
5	15	17	80	60	26	206	581	105	33	15	73	13
6	13	16	66	86	28	194	341	94	27	12	41	12
7	13	15	53	86	31	222	314	94	28	11	27	10
8	12	14	44	81	35	230	380	94	33	10	20	9.9
9	10	13	55	73	40	166	351	118	28	9.4	15	9.6
10	9.5	13	52	75	38	152	685	125	23	9.0	12	8.8
11	12	15	52	69	36	143	549	103	19	8.6	12	8.6
12	13	41	57	64	35	134	507	94	17	8.6	12	9.9
13	11	104	58	56	130	134	617	403	22	8.3	9.9	15
14	9.5	116	54	58	1,000	171	750	531	30	8.3	9.0	17
15	57	185	53	59	1,330	440	489	227	46	7.8	8.6	16
16	63	178	44	50	912	993	302	174	47	7.1	7.8	15
17	41	106	48	47	617	835	230	154	33	7.8	7.0	16
18	31	81	63	43	503	430	199	136	24	8.3	6.6	15
19	25	74	60	41	403	326	181	116	22	8.0	6.4	14
20	21	72	71	40	347	291	171	103	19	9.9	6.4	13
21	20	232	66	40	451	224	157	111	15	9.6	7.6	17
22	68	137	57	39	403	184	143	118	14	9.0	7.4	18
23	124	103	66	38	669	166	127	94	13	8.3	6.6	17
24	76	81	64	38	763	147	111	78	12	7.4	6.0	17
25	54	68	63	37	447	134	103	71	12	8.3	5.5	15
26	42	61	61	36	338	125	97	69	17	8.8	5.4	14
27	33	60	54	36	617	122	92	62	15	8.0	31	13
28	28	58	56	35	653	122	88	61	13	7.0	282	17
29	25	61	52	33	-----	134	162	56	13	14	140	19
30	22	71	49	32	-----	143	127	51	13	20	62	17
31	20	-----	47	28	-----	138	-----	47	-----	93	36	-----
TOTAL	932.0	2,060	1,799	1,576	9,955	8,049	9,569	3,982	741	438.5	1,369.2	439.8
MEAN	30.1	68.7	58.0	50.8	356	260	319	128	24.7	14.1	44.2	14.7
MAX	124	232	84	86	1,330	993	750	531	47	93	282	25
MIN	9.5	13	44	28	25	122	88	47	12	7.0	5.4	8.6
MEAN*	30.1	68.7	58.0	50.8	359	257	319	128	24.7	14.1	44.2	14.7
CFSM*	.47	1.06	.90	.79	5.56	3.98	4.94	1.98	.38	.22	.68	.23
IN.*	.54	1.18	1.04	.91	5.79	4.59	5.51	2.28	.42	.25	.78	.26

CAL YR 1970 TOTAL 36,310.9 MEAN 99.5 MAX 1,480 MIN 1.2 MEAN* 99.5 CFSM* 1.54 IN.* 20.93
WTR YR 1971 TOTAL 40,910.5 MEAN 112 MAX 1,330 MIN 5.4 MEAN* 112 CFSM* 1.73 IN.* 23.55

* Adjusted for change in contents in General Edgar Jadwin Reservoir.

01431500 Lackawaxen River at Hawley, Pa.

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

DRAINAGE AREA.--290 sq mi.

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

GAGE.--Nonrecording gage, water-stage recorder, and crest-stage gage. Datum of gage is 869.00 ft above mean sea level. Prior to 1938, nonrecording gage at same site and datum. Aug. 10, 1938 to Aug. 19, 1955, water-stage recorder, and Aug. 20, 1955 to Feb. 13, 1956, nonrecording gage at site 1,000 ft downstream at same datum.

AVERAGE DISCHARGE.--42 years (1908-17, 1938-71), 462 cfs (21.63 inches per year), adjusted for storage since October 1959.

EXTREMES.--Current year: Maximum discharge, 5,040 cfs Mar. 16 (gage height, 6.63 ft); minimum, 32 cfs July 23, 24 (gage height, 1.16 ft).

Period of record: Maximum discharge, 51,900 cfs Aug. 19, 1955 (gage height, 24.8 ft, at present site, 20.6 ft at former site, from floodmark), from rating curve extended above 12,000 cfs on basis of slope-area measurement at gage height, 24.2 ft, at present site, 20.1 ft at former site; minimum daily, 8 cfs Sept. 8, 1909.

Flood in March 1936 reached a stage of 19.1 ft, at present site, 13.9 ft, at former site, from floodmarks (discharge, 27,600 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Regulation by Prompton Reservoir and, at high flow, by General Edgar Jadwin Reservoir located 14.9 and 13.0 miles upstream, respectively (see p. 82). Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	110	274	230	120	2,180	833	474	196	56	267	189
2	67	104	240	230	120	1,860	1,300	420	176	68	275	147
3	73	99	232	220	110	1,410	2,250	555	166	79	631	125
4	107	96	324	230	110	1,150	2,420	531	160	68	1,120	109
5	87	91	355	290	120	962	2,240	463	144	63	543	97
6	75	89	307	390	140	892	1,700	410	135	58	317	89
7	69	87	266	390	130	983	1,520	391	122	52	229	83
8	69	82	266	350	140	1,170	1,610	371	116	49	172	79
9	71	78	254	320	160	997	1,430	420	114	48	135	70
10	67	71	243	310	150	772	2,060	491	104	45	111	66
11	65	78	243	300	140	684	1,960	426	97	44	97	63
12	64	129	254	280	150	636	1,740	376	89	43	94	63
13	64	378	270	260	500	636	1,870	1,170	94	41	85	104
14	60	678	254	260	1,600	746	2,120	2,220	109	41	74	147
15	197	753	243	250	1,200	1,780	1,710	1,270	130	43	72	144
16	251	920	230	240	900	4,130	1,250	950	150	39	63	119
17	173	642	240	220	740	4,090	982	833	135	41	54	116
18	126	472	260	210	620	2,560	833	618	119	41	51	111
19	101	402	290	200	580	1,990	735	592	104	44	51	101
20	82	369	324	200	680	1,540	624	637	94	48	49	94
21	75	753	311	190	840	1,330	474	514	85	46	56	160
22	186	642	302	190	1,200	1,120	457	537	83	44	64	157
23	543	488	290	180	1,700	942	431	426	77	34	52	106
24	421	397	290	180	1,500	802	395	357	70	40	48	116
25	302	320	280	170	1,300	650	386	313	66	54	45	101
26	240	286	280	170	1,200	592	376	292	64	52	44	97
27	197	274	270	160	2,000	585	366	263	64	56	106	92
28	166	258	260	160	2,300	611	348	248	61	49	894	111
29	144	240	240	150	-----	678	624	233	58	64	728	130
30	129	290	230	140	-----	795	567	214	56	160	386	122
31	118	-----	220	130	-----	728	-----	218	-----	233	260	-----
TOTAL	4,460	9,676	8,342	7,200	20,450	40,001	35,611	17,233	3,238	1,843	7,173	3,308
MEAN	144	323	269	232	730	1,290	1,187	556	108	59.5	231	110
MAX	543	920	355	390	2,300	4,130	2,420	2,220	196	233	1,120	189
MIN	60	71	220	130	110	585	348	214	56	34	44	63
MEAN [‡]	145	325	268	232	746	1,280	1,198	542	106	61.3	231	109
CFSM [‡]	.50	1.12	.92	.80	2.57	4.41	4.13	1.87	.37	.21	.80	.38
IN. [‡]	.58	1.25	1.06	.92	2.68	5.08	4.61	2.16	.41	.24	.92	.42

CAL YR 1970 TOTAL 146,571 MEAN 402 MAX 5,300 MIN 32 MEAN[‡] 402 CFSM[‡] 1.39 IN.[‡] 18.79
WTR YR 1971 TOTAL 158,535 MEAN 434 MAX 4,130 MIN 34 MEAN[‡] 434 CFSM[‡] 1.50 IN.[‡] 20.33

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

01432000 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 which is at lat 41°27'33", long 75°11'08", Pike County, at Wilsonville, 1.2 miles south of Hawley.

DRAINAGE AREA.--228 sq mi.

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

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

AVERAGE DISCHARGE.--62 years, 354 cfs (unadjusted).

EXTREMES.--Period of record: Maximum daily discharge, 4,840 cfs Mar. 29, 1914; no flow at times each year subsequent to Nov. 3, 1925.

REMARKS.--Records good. No flow over spillway during year. Flow regulated by Lake Wallenpaupack (see p. 82).

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

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	93	99	0	1,250	0	664	0	232	521	0	621
2	462	0	51	0	1,280	0	688	0	245	4.3	516	566
3	0	1.6	0	13	1,220	461	5.8	349	289	0	1,050	576
4	0	204	77	569	1,070	745	0	235	495	0	1,810	0
5	427	94	0	217	683	240	696	231	0	0	1,670	0
6	465	3.1	0	213	0	0	818	121	0	0	813	0
7	477	4.8	109	1,070	0	0	759	0	584	0	781	601
8	430	0	192	960	582	818	719	0	515	464	0	710
9	457	0	51	0	1,090	184	692	0	234	417	920	853
10	0	1.6	96	1.6	794	0	0	0	233	0	967	734
11	25	0	491	397	744	0	0	0	115	0	819	0
12	562	31	493	254	115	0	702	136	6.4	0	827	0
13	204	0	0	1,010	0	0	706	1,100	0	3.2	812	486
14	247	0	259	427	290	0	670	1,680	1.6	0	0	742
15	76	0	326	464	990	505	715	5.5	112	0	0	466
16	2.8	420	244	80	638	520	710	0	229	0	891	473
17	0	3.1	95	18	968	718	700	741	224	0	834	490
18	0	51	220	1,050	0	696	665	694	274	0	800	475
19	169	0	0	1,120	5.2	720	669	749	0	47	819	0
20	0	0	12	1,160	0	740	503	680	0	0	829	474
21	90	0	687	1,050	0	849	482	776	232	0	0	518
22	446	0	263	428	647	1,220	382	0	222	0	0	806
23	480	148	226	0	89	769	360	0	247	0	837	806
24	160	420	220	0	12	971	0	338	227	0	708	806
25	0	269	0	835	0	836	9.2	343	681	0	685	806
26	736	0	0	1,040	62	685	371	353	0	347	744	0
27	61	12	0	1,230	0	0	364	403	0	0	851	472
28	264	13	226	1,230	0	0	340	384	297	24	1,430	466
29	0	0	220	740	-----	736	348	0	113	87	0	510
30	5.1	110	296	0	-----	710	360	0	595	426	600	782
31	0	-----	223	0	-----	685	-----	0	-----	0	600	-----
TOTAL	6,670.9	1,879.2	5,176	15,576.6	12,529.2	13,808	14,098.0	9,318.5	6,403.0	2,340.5	21,613	14,239
MEAN	215	62.6	167	502	447	445	470	301	213	75.5	697	475
MAX	736	420	687	1,230	1,280	1,220	818	1,680	681	521	1,810	853
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 150,808.80	MEAN 413	MAX 1,660	MIN 0	CFSM -	IN. -						
WTR YR 1971	TOTAL 123,651.90	MEAN 339	MAX 1,810	MIN 0	CFSM -	IN. -						

01434000 Delaware River at Port Jervis, N.Y.

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., on right bank 250 ft downstream from bridge on U.S. Highways 6 and 209 at Port Jervis, 1.2 miles upstream from Neversink River, and 6.5 miles downstream from Mongaup River.

DRAINAGE AREA.--3,076 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above mean sea level. Prior to June 20, 1914, nonrecording gage at highway bridge 250 ft upstream at same datum operated by U.S. Weather Bureau. June 20, 1914 to Aug. 13, 1928, nonrecording gages at highway bridge 250 ft upstream at present datum.

EXTREMES.--Current year: Maximum discharge, 23,900 cfs Apr. 14 (gage height, 7.42 ft), maximum gage height 14.44 ft Feb. 16 (ice jam); minimum discharge, 808 cfs Aug. 15 (gage height, 1.78 ft); minimum daily, 1,040 cfs June 13.

Period of record: Maximum discharge, 233,000 cfs Aug. 19, 1955 (gage height, 23.91 ft, from floodmarks in gage house), from rating curve extended above 89,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 175 cfs Sept. 23, 1908 (gage height, 0.6 ft).

Maximum discharge previously known, 205,000 cfs Oct. 10, 1903 (gage height, 23.1 ft, reported by U.S. Weather Bureau), from rating curve extended above 70,000 cfs by velocity-area studies; maximum stage known, 25.5 ft Mar. 8, 1904 (ice jam).

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack (see p. 82) and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see New York Annual Report) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 sq mi of drainage area controlled by Pepacton Reservoir (see New York Annual Report), and subsequent to October 1963, entire flow from 454 sq mi of drainage area controlled by Cannonsville Reservoir (see New York Annual Report). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of the New York Annual Report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1013: 1905-36. Correction, the total discharge for calendar year 1969 is 1,541,440 cfs and the mean discharge for calendar year 1969 is 4,223 cfs; the previously published figures were in error.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,130	2,170	3,210	1,800	2,200	14,900	5,620	5,940	2,770	2,550	2,350	2,310
2	2,240	2,460	2,960	1,600	3,200	13,100	6,760	5,310	2,460	2,150	2,250	1,970
3	2,460	1,910	2,730	2,100	3,300	10,200	11,500	5,900	2,480	1,900	3,160	1,820
4	2,630	1,720	2,750	3,000	3,000	9,330	14,500	6,010	2,630	1,990	9,200	1,780
5	2,610	2,170	3,440	3,530	2,700	7,180	14,800	5,590	2,230	1,990	7,490	1,590
6	2,650	2,350	3,120	4,070	2,000	6,340	12,900	5,520	1,550	2,070	4,410	2,040
7	2,630	2,100	3,010	5,470	1,290	6,910	11,600	4,760	1,720	1,770	3,080	2,220
8	2,800	1,850	2,420	6,060	1,850	7,890	12,200	4,570	2,110	1,840	2,570	2,280
9	2,490	1,980	2,730	3,920	2,800	6,950	10,800	4,820	1,840	2,290	1,840	2,190
10	2,490	2,080	2,880	3,070	3,500	5,020	13,300	5,450	1,400	2,380	2,290	2,310
11	2,330	2,210	3,040	3,530	3,200	4,980	14,600	5,350	1,370	1,980	2,030	2,260
12	2,750	2,650	3,090	3,560	2,100	4,660	13,900	4,540	1,160	2,050	1,670	2,130
13	3,010	3,710	2,460	3,740	2,500	4,540	15,400	5,900	1,040	2,070	1,670	2,070
14	2,650	5,190	2,440	3,830	5,000	4,380	20,300	15,200	1,480	1,960	1,620	2,650
15	2,800	5,400	2,650	3,000	9,000	6,990	18,600	12,100	1,840	2,130	1,450	2,360
16	5,120	7,790	2,510	2,800	11,000	15,200	14,200	9,650	2,070	2,170	1,940	2,430
17	4,590	6,870	2,330	2,600	8,500	19,000	11,800	8,980	2,270	2,400	2,090	2,500
18	2,960	5,540	2,280	2,500	7,000	13,500	10,100	7,810	2,170	2,310	2,110	2,140
19	2,630	4,890	2,260	3,200	6,400	11,200	9,240	6,760	2,090	2,480	2,170	1,590
20	2,170	4,660	2,300	3,300	6,000	9,830	9,150	5,620	1,900	2,050	2,270	1,260
21	1,830	6,750	2,700	3,400	6,130	8,380	9,200	5,380	1,990	1,810	2,480	2,420
22	2,650	7,710	2,960	3,400	7,070	8,050	8,980	5,250	1,900	1,990	2,380	2,210
23	9,680	6,270	2,000	2,700	7,510	6,610	8,550	4,510	1,880	2,150	2,290	2,140
24	17,700	5,780	2,000	2,170	9,190	6,340	7,450	4,020	1,920	2,130	2,090	2,160
25	8,510	4,990	2,000	2,630	8,690	5,970	6,640	3,900	2,050	2,380	1,990	2,200
26	6,060	3,920	1,950	3,410	7,270	5,250	6,270	3,700	2,480	2,420	1,980	2,000
27	5,020	3,560	1,800	3,400	8,240	4,630	6,040	3,450	2,070	2,700	2,550	1,790
28	4,010	3,090	1,700	3,300	13,100	4,260	5,550	3,080	2,250	2,170	6,010	1,910
29	3,150	2,880	2,100	3,400	-----	4,730	6,190	2,770	2,050	2,270	6,610	1,660
30	2,780	3,120	1,900	2,510	-----	5,590	7,140	2,330	1,990	2,930	4,170	2,130
31	2,560	-----	2,000	1,910	-----	5,520	-----	2,700	-----	2,770	3,130	-----
TOTAL	120,090	117,770	77,720	98,910	153,740	247,430	323,280	176,870	59,160	68,250	93,340	62,520
MEAN	3,874	3,926	2,507	3,191	5,491	7,982	10,780	5,705	1,972	2,202	3,011	2,084
MAX	17,700	7,790	3,440	6,060	13,100	19,000	20,300	15,200	2,770	2,930	9,200	2,650
MIN	1,830	1,720	1,700	1,600	1,290	4,260	5,550	2,330	1,040	1,770	1,450	1,260
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 1,772,490		MEAN 4,856		MAX 38,900		MIN 1,250		CFSM -		IN.-	
WTR YR 1971	TOTAL 1,599,080		MEAN 4,381		MAX 20,300		MIN 1,040		CFSM -		IN.-	

DELAWARE RIVER BASIN

01438500 Delaware River at Montague, N.J.

LOCATION.--Lat 41°18'30", long 74°47'50", Sussex County, on right bank 0.4 mile upstream from toll bridge at Montague, 0.8 mile downstream from Saw Kill, and at mile 246.3 upstream from Atlantic Ocean.

DRAINAGE AREA.--3,480 sq mi.

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

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

AVERAGE DISCHARGE.--32 years, 5,693 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 24,600 cfs Apr. 14 (gage height, 11.53 ft); maximum gage height, 12.57 ft Feb. 15 (backwater from ice); minimum discharge, 962 cfs Aug. 15; minimum daily, 1,310 cfs June 13. Period of record: Maximum discharge, 250,000 cfs Aug. 19, 1955 (gage height, 35.15 ft), from rating curve extended above 90,000 cfs on basis of flood-routing study; minimum, 382 cfs Aug. 24, 1954 (gage height, 3.83 ft); minimum daily, 412 cfs Aug. 23, 1954. Maximum stage known during period 1903-71, 35.5 ft Oct. 10, 1903 (present datum), from floodmark. Gage height of 28.45 ft (present datum) was observed Mar. 18, 1936 (discharge, 164,500 cfs, from present rating curve extended above 90,000 cfs).

REMARKS.--Records excellent except those for winter periods, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see New Jersey Annual Report) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see New Jersey Annual Report. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,090	2,560	3,890	2,200	2,200	16,200	6,880	6,890	3,660	2,520	2,660	2,880
2	2,160	2,790	3,670	2,100	3,300	16,100	8,020	6,140	3,250	2,380	2,490	2,460
3	2,370	2,320	3,340	2,400	3,500	12,600	13,500	6,580	3,080	1,930	3,230	2,190
4	2,500	2,120	3,340	3,200	3,400	11,600	16,800	6,820	3,250	2,110	9,340	2,120
5	2,500	2,750	4,000	3,800	3,100	9,210	16,800	6,360	2,880	2,070	8,560	1,750
6	2,500	2,800	3,770	4,300	2,700	8,020	15,100	6,280	1,970	2,120	5,100	2,240
7	2,500	2,520	3,610	5,120	1,700	8,700	13,700	5,490	2,140	1,860	3,650	2,550
8	2,690	2,280	3,000	6,520	2,100	9,640	14,200	5,270	2,640	1,870	3,070	2,550
9	2,450	2,230	3,240	5,100	2,900	8,820	13,200	5,740	2,250	2,360	1,970	2,590
10	2,500	2,370	3,360	3,500	3,700	6,570	14,800	6,420	1,800	2,430	2,540	2,540
11	2,320	2,610	3,430	3,500	3,300	6,390	16,600	6,300	1,710	2,040	2,440	2,460
12	2,430	3,530	3,700	4,100	3,000	6,010	15,500	5,390	1,430	2,230	1,900	2,370
13	2,980	5,110	3,120	3,800	2,500	5,860	16,900	6,600	1,310	2,120	1,810	2,530
14	2,610	6,900	2,880	4,400	5,500	5,650	21,300	16,800	1,720	2,070	1,860	3,260
15	2,800	6,690	3,180	3,300	10,000	8,050	20,200	13,900	2,140	2,160	1,400	3,140
16	4,920	9,350	3,010	3,300	12,500	16,400	15,900	11,100	2,290	2,290	1,990	2,530
17	4,610	8,620	3,010	2,700	9,500	21,500	13,300	10,500	2,450	2,410	2,440	3,120
18	3,140	6,930	2,780	2,600	8,000	16,200	11,500	9,290	2,240	2,430	2,220	2,740
19	2,670	6,230	2,830	3,400	7,200	13,600	10,400	8,020	2,200	2,520	2,400	2,080
20	2,410	5,930	2,800	3,500	6,800	12,100	10,200	6,960	1,980	2,270	2,420	1,460
21	1,980	7,670	2,990	3,600	7,200	10,500	10,200	6,400	2,160	1,920	2,640	3,050
22	2,650	9,060	3,620	3,700	7,600	9,910	10,000	6,810	2,000	1,950	2,650	2,870
23	10,000	7,470	2,800	3,100	8,600	8,300	9,640	5,550	1,970	2,270	2,410	2,690
24	17,600	6,700	2,700	2,500	10,000	7,930	8,490	4,810	1,950	2,160	2,470	2,620
25	9,420	5,920	2,980	2,600	9,800	7,380	7,650	4,700	2,000	2,470	2,170	2,620
26	6,630	4,890	2,650	3,600	8,800	6,520	7,100	4,560	2,640	2,560	2,120	2,460
27	5,680	4,320	2,700	3,500	9,200	5,940	6,880	4,170	2,180	2,820	2,610	2,010
28	4,360	3,890	2,670	3,500	15,000	5,350	6,400	3,780	2,250	2,290	6,820	2,420
29	3,690	3,600	2,900	3,600	-----	5,660	6,940	3,430	2,200	2,320	8,270	2,020
30	3,160	3,790	2,800	3,200	-----	6,770	8,150	2,860	2,050	3,060	5,070	2,280
31	2,920	-----	2,600	2,200	-----	6,790	-----	3,590	-----	3,230	3,720	-----
TOTAL	123,240	143,950	97,370	107,940	173,100	300,270	366,150	207,510	67,790	71,260	104,440	74,900
MEAN	3,975	4,798	3,141	3,482	6,182	9,686	12,210	6,694	2,260	2,299	3,369	2,497
MAX	17,600	9,350	4,000	6,520	15,000	21,500	21,300	16,800	3,660	3,230	9,340	3,260
MIN	1,980	2,120	2,600	2,100	1,700	5,350	6,400	2,860	1,310	1,870	1,400	1,460
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 1,886,750		MEAN 5,169		MAX 42,000		MIN 1,490		CFSM -		IN. -	
WTR YR 1971	TOTAL 1,837,920		MEAN 5,035		MAX 21,500		MIN 1,310		CFSM -		IN. -	

01439500 Bush Kill at Shoemakers, Pa.

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, on right bank 30 ft downstream from highway bridge, 0.1 mile downstream from Saw Creek, 0.7 mile northwest of Shoemakers, and 2 miles southwest of Bushkill.

DRAINAGE AREA.--117 sq mi.

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

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

AVERAGE DISCHARGE.--63 years, 229 cfs (26.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,070 cfs Oct. 23 (gage height, 4.38 ft); minimum, 12 cfs Oct. 10, 11, 12, 13, 14, 15; minimum gage height, 0.91 ft Oct. 12, 13, 14, 15.

Period of record: Maximum discharge, 23,400 cfs Aug. 19, 1955 (gage height, 13.95 ft from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area measurement of peak flow; minimum, 2.6 cfs Sept. 25, 26, 27, 1964 (gage height, 0.72 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	150	269	130	80	898	411	172	478	70	109	68
2	16	140	253	120	76	866	472	158	386	98	162	59
3	15	130	236	110	68	738	708	162	342	88	190	50
4	16	130	257	140	50	641	738	151	300	70	269	45
5	16	380	236	290	20	572	693	142	261	61	201	39
6	16	300	224	260	92	520	613	136	232	53	136	36
7	15	240	205	240	86	613	663	132	216	51	104	36
8	14	210	209	220	92	620	663	158	205	50	82	34
9	13	190	190	200	110	514	553	213	186	48	68	57
10	13	180	179	180	100	449	520	194	165	47	57	53
11	12	280	179	170	92	428	478	176	148	44	51	41
12	12	500	190	170	86	406	438	158	136	45	48	45
13	12	754	183	160	270	411	417	249	145	41	42	158
14	12	850	172	160	760	428	391	391	209	48	39	396
15	32	954	169	170	560	559	356	323	269	45	38	508
16	75	914	160	160	450	778	328	333	305	38	34	342
17	49	730	190	150	370	986	305	337	228	34	29	314
18	37	613	180	140	340	882	278	296	186	36	26	318
19	32	559	170	130	340	850	257	265	162	36	23	249
20	29	520	180	130	380	842	236	240	142	42	22	220
21	27	648	170	120	460	715	220	287	132	45	21	337
22	280	546	170	120	560	620	205	328	126	41	19	333
23	1,540	484	170	110	760	572	194	278	115	36	18	283
24	760	428	169	100	660	514	186	245	104	32	16	253
25	500	381	150	90	546	449	179	240	96	34	15	220
26	360	347	150	86	484	417	172	337	112	35	15	197
27	280	328	140	84	730	381	169	274	101	41	38	186
28	230	309	140	86	898	376	165	240	84	39	265	197
29	200	287	130	84	-----	396	201	220	77	35	216	201
30	180	300	120	84	-----	417	186	213	72	68	126	179
31	160	-----	130	82	-----	411	-----	484	-----	107	88	-----
TOTAL	4,969	12,782	5,670	4,476	9,520	18,269	11,395	7,532	5,720	1,558	2,567	5,454
MEAN	160	426	183	144	340	589	380	243	191	50.3	82.8	182
MAX	1,540	954	269	290	898	986	738	484	478	107	269	508
MIN	12	130	120	82	20	376	165	132	72	32	15	34
CFSM	1.37	3.64	1.56	1.23	2.91	5.03	3.25	2.08	1.63	.43	.71	1.56
IN.	1.58	4.06	1.80	1.42	3.03	5.81	3.62	2.39	1.82	.50	.82	1.73

CAL YR 1970 TOTAL 88,177.9 MEAN 242 MAX 2,400 MIN 9.9 CFSM 2.07 IN 28.04
WTR YR 1971 TOTAL 89,912.0 MEAN 246 MAX 1,540 MIN 12 CFSM 2.10 IN 28.59

PEAK DISCHARGE (BASE, 1,100 CFS).--Oct. 23 (1230) 2,070 cfs (4.38 ft).

DELAWARE RIVER BASIN

01440200 Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa.

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, N.J., on left bank 40 ft streamward from River Road, 1.0 mile downstream from Tocks Island, 3.7 miles northeast of Delaware Water Gap, Pa., 4.0 miles upstream from bridge on Interstate Highway 80, and at mile 216.1 upstream from Atlantic Ocean.

DRAINAGE AREA.--3,850 sq mi, approximately.

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

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

AVERAGE DISCHARGE.--7 years, 4,971 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 32,200 cfs Feb. 28 (gage height, 11.84 ft); minimum, 1,220 cfs Aug. 15, 16 (gage height, 4.77 ft), minimum daily, 1,580 cfs Aug. 15.

Period of record: Maximum discharge, 59,800 cfs Apr. 3, 1970 (gage height, 15.84 ft); maximum gage height, 18.85 ft Feb. 4, 1970 (ice jam); minimum daily discharge, 580 cfs July 7, 8, 1965.

REMARKS.--Records excellent except those for January, February, August and September, which are good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see New Jersey Annual Report) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see New Jersey Annual Report). Records of water quality for the current year are published in Part 2 of the New Jersey Annual Report).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,400	3,210	4,440	3,100	2,300	22,800	8,290	8,570	5,740	2,700	3,000	3,090
2	2,180	3,300	4,270	2,600	2,400	20,700	8,880	7,110	4,970	3,000	3,100	2,580
3	2,420	3,130	3,850	2,800	2,750	16,200	13,600	6,750	4,300	2,800	3,480	2,210
4	2,450	2,660	3,790	3,300	2,760	14,800	18,500	7,900	4,380	2,400	6,500	2,100
5	2,900	3,270	4,280	4,800	3,300	13,100	18,700	7,300	4,060	2,300	9,750	1,720
6	2,920	3,850	4,540	5,100	3,100	10,400	17,700	7,020	3,130	2,200	6,530	1,800
7	2,700	3,340	4,100	5,400	2,800	10,800	15,800	6,610	2,780	2,100	4,520	2,180
8	2,720	2,980	3,460	6,300	2,570	12,100	15,800	5,830	3,450	1,900	3,470	2,370
9	2,820	2,640	3,400	5,600	3,020	11,800	15,100	6,380	4,140	2,000	2,580	2,470
10	2,620	2,710	3,510	4,320	3,400	9,470	15,200	7,010	3,500	2,500	2,580	2,340
11	2,500	2,960	3,790	3,900	3,500	8,370	18,500	7,220	2,600	2,600	2,620	2,400
12	2,550	3,770	4,180	4,840	3,300	8,350	16,700	6,410	2,300	2,300	2,160	2,300
13	3,420	6,330	3,790	4,220	3,560	7,840	17,600	6,370	2,100	2,200	1,860	2,700
14	3,050	9,900	3,070	4,600	6,940	7,660	21,700	16,000	2,200	2,100	1,900	3,000
15	3,220	9,830	3,440	4,000	10,600	9,070	24,000	16,500	2,590	1,910	1,580	2,900
16	4,230	12,000	3,430	3,600	13,900	16,400	17,800	12,800	3,030	2,030	1,800	2,800
17	5,280	11,800	3,230	2,720	12,700	27,500	14,700	11,800	3,160	2,090	2,500	3,100
18	4,140	9,500	3,060	2,720	10,500	21,700	12,700	10,700	3,070	2,370	2,350	2,800
19	3,100	8,260	3,200	3,220	9,500	17,100	11,700	9,400	2,930	2,230	2,550	2,400
20	2,880	7,770	2,990	3,700	8,600	15,700	11,100	8,250	2,710	2,420	2,520	1,900
21	2,320	8,250	3,180	3,800	9,500	13,700	11,400	7,460	2,450	1,950	2,720	1,700
22	2,720	11,100	3,830	3,850	10,500	12,600	11,200	8,250	2,560	1,830	2,680	3,100
23	10,500	9,510	3,370	3,400	12,300	11,200	10,500	7,110	2,450	2,090	2,600	2,800
24	23,100	8,400	3,240	2,960	14,000	10,200	9,520	6,150	2,480	2,030	2,720	2,700
25	14,500	7,460	3,080	2,550	12,000	9,320	8,550	5,870	2,770	2,130	2,220	2,700
26	9,360	6,280	2,790	3,340	11,000	8,570	7,770	6,360	2,940	2,310	2,160	2,500
27	7,790	5,100	2,880	3,800	15,000	7,670	7,470	5,460	2,680	2,530	2,450	2,300
28	5,770	4,840	2,910	3,900	25,500	6,770	7,200	5,060	2,400	2,350	5,420	2,600
29	4,940	4,210	2,790	3,900	-----	6,800	7,010	4,670	2,800	2,050	9,590	2,700
30	3,900	4,180	3,010	3,500	-----	8,130	9,120	3,770	2,400	2,600	6,270	2,900
31	3,530	-----	2,640	3,000	-----	8,410	-----	4,680	-----	3,100	4,420	-----
TOTAL	148,930	182,540	107,540	118,840	221,000	385,230	403,810	240,770	93,070	71,120	110,600	75,160
MEAN	4,804	6,085	3,469	3,834	7,893	12,430	13,460	7,767	3,102	2,294	3,568	2,505
MAX	23,100	12,000	4,540	6,300	25,500	27,500	24,000	16,500	5,740	3,100	9,750	3,100
MIN	2,180	2,640	2,640	2,550	2,300	6,770	7,010	3,770	2,100	1,830	1,580	1,700
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL	2,177,430	MEAN	5,966	MAX	50,800	MIN	1,640	CFSM	-	IN.	-
CAL YR 1971	TOTAL	2,158,610	MEAN	5,914	MAX	27,500	MIN	1,580	CFSM	-	IN.	-

DELAWARE RIVER BASIN

29

01440400 Brodhead Creek near Analomink, Pa.

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

DRAINAGE AREA.--65.9 sq mi.

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

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

AVERAGE DISCHARGE.--14 years, 117 cfs (24.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,360 cfs Oct. 23 (gage height, 5.24 ft); minimum, 8.3 cfs Oct. 9, 10, 11, 12, 13, 14, 15 (gage height, 1.32 ft).

Period of record: Maximum discharge, 12,900 cfs July 28, 1969 (gage height, 11.82 ft), from rating curve extended above 1,400 cfs on basis of slope-area measurement of peak flow; minimum, 5.9 cfs Sept. 8, 1964; minimum gage height, 1.22 ft Sept. 18, 19, 23, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	85	141	72	46	780	221	99	203	40	48	35
2	9.5	80	129	70	46	600	279	94	158	72	69	29
3	10	78	121	68	43	520	451	99	143	47	106	26
4	11	78	137	89	44	420	422	95	127	37	178	23
5	10	211	124	169	47	340	382	88	114	31	108	22
6	9.5	164	117	152	54	300	335	84	105	30	73	22
7	9.1	135	103	142	50	270	361	81	104	27	55	25
8	9.1	119	97	130	56	260	333	96	108	24	44	21
9	8.7	108	95	120	66	290	294	121	92	23	36	45
10	8.3	103	95	108	60	250	332	108	78	22	29	39
11	8.3	158	94	102	54	240	306	94	65	21	29	31
12	8.3	417	103	97	50	240	303	87	62	21	28	39
13	8.3	835	98	95	76	260	319	188	62	19	23	116
14	8.3	675	91	94	500	300	323	277	82	24	20	202
15	30	723	87	96	320	410	262	206	158	20	19	171
16	39	574	83	92	260	540	222	207	154	18	19	113
17	24	425	104	88	220	600	196	199	109	18	16	97
18	18	343	100	84	200	460	175	167	86	20	15	82
19	15	300	92	82	180	400	159	149	72	21	15	71
20	14	309	105	80	230	423	146	137	64	24	15	76
21	13	450	97	78	270	352	137	165	59	19	14	226
22	518	336	97	77	320	310	130	174	55	17	13	176
23	945	289	96	72	480	285	119	143	49	16	13	138
24	510	243	95	70	470	254	111	125	45	15	13	120
25	290	210	90	67	400	224	110	135	42	18	12	99
26	211	188	87	64	360	205	104	173	50	17	12	89
27	162	173	84	62	500	192	100	140	45	21	37	86
28	133	160	80	60	720	190	98	122	39	18	182	104
29	114	150	74	56	-----	205	127	114	37	19	100	104
30	103	162	70	56	-----	219	110	113	37	47	62	90
31	93	-----	72	50	-----	216	-----	259	-----	51	45	-----
TOTAL	3,360.4	8,281	3,058	2,742	6,122	10,555	6,967	4,339	2,604	817	1,448	2,517
MEAN	108	276	98.6	88.5	219	340	232	140	86.8	26.4	46.7	83.9
MAX	945	835	141	169	720	780	451	277	72	72	182	226
MIN	8.3	78	70	50	43	190	98	81	37	15	12	21
CFSM	1.64	4.19	1.50	1.34	3.32	5.16	3.52	2.12	1.32	.40	.71	1.27
IN.	1.90	4.67	1.73	1.55	3.46	5.96	3.93	2.45	1.47	.46	.82	1.42

CAL YR 1970 TOTAL 51,414.2 MEAN 141 MAX 1,580 MIN 8.3 CFSM 2.14 IN 29.02
WTR YR 1971 TOTAL 52,810.4 MEAN 145 MAX 945 MIN 8.3 CFSM 2.20 IN 29.81

PEAK DISCHARGE (BASE, 1,100 CFS).--Oct. 23 (1230) 1,360 cfs (5.24 ft).

DELAWARE RIVER BASIN

01442500 Brodhead Creek at Minisink Hills, Pa.

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, on left bank at Minisink Hills, 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.

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

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

AVERAGE DISCHARGE.--20 years (1951-71), 510 cfs (26.74 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,730 cfs Nov. 13 (gage height, 5.67 ft); minimum, 59 cfs Oct. 13, 14 (gage height, 1.45 ft).

Period of record: Maximum discharge, 68,800 cfs Aug. 19, 1955 (gage height, 29.9 ft, site and datum then in use, 27.0 ft, present site and datum, from floodmarks), from rating curve extended above 4,600 cfs on basis of computation of flow over dam at gage height, 14.43 ft, and slope-area measurement at peak flow, site and datum then in use; minimum, 29 cfs Sept. 27, 1964 (gage height, 1.12 ft).

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1232: 1951(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	240	615	260	160	3,040	866	313	1,180	191	191	180
2	66	217	544	260	150	2,740	945	296	915	288	260	152
3	67	212	514	270	150	2,340	1,430	296	847	208	363	142
4	66	212	609	353	140	2,100	1,280	291	718	176	680	131
5	64	703	529	905	150	1,710	1,160	259	615	158	387	128
6	62	499	469	790	170	1,530	1,030	254	544	142	259	125
7	62	421	428	615	180	2,000	1,280	254	499	136	204	145
8	61	368	374	536	180	1,920	1,140	334	455	128	172	128
9	60	313	380	529	210	1,550	965	441	407	119	152	136
10	61	285	374	514	200	1,380	996	368	368	122	136	139
11	60	558	368	477	180	1,320	915	313	330	119	136	139
12	61	2,020	428	455	200	1,330	876	280	308	119	136	180
13	60	4,110	407	407	600	1,350	885	720	250	114	125	607
14	62	3,360	374	414	2,090	1,390	885	1,050	293	125	119	1,340
15	178	3,460	368	400	1,360	1,840	745	745	564	119	105	1,270
16	209	2,830	349	349	1,110	2,580	649	809	607	109	105	709
17	105	2,130	434	280	925	2,770	583	800	434	112	100	727
18	84	1,670	484	270	847	2,260	552	640	355	117	97	552
19	76	1,430	421	264	838	2,030	499	560	302	114	95	414
20	72	1,300	484	296	925	2,300	462	521	280	125	93	407
21	72	1,930	477	250	1,140	1,880	441	656	250	114	93	949
22	1,940	1,360	448	250	1,350	1,640	421	792	235	105	89	709
23	2,960	1,200	441	240	2,170	1,500	393	544	221	100	86	552
24	1,680	1,030	434	230	2,020	1,310	362	492	204	93	84	499
25	895	905	414	220	1,710	1,160	355	459	196	105	84	407
26	674	828	400	220	1,580	1,050	330	906	196	105	84	374
27	499	745	368	210	2,870	975	319	607	187	125	228	362
28	421	727	330	200	3,230	935	308	521	172	114	1,100	387
29	349	658	300	190	-----	905	400	484	169	100	470	393
30	296	709	280	190	-----	925	362	462	169	176	274	336
31	254	-----	260	170	-----	885	-----	1,620	-----	204	212	-----
TOTAL	11,644	36,430	13,105	11,014	26,835	52,645	21,834	17,087	12,270	4,182	6,719	12,719
MEAN	376	1,214	423	355	958	1,698	728	551	409	135	217	424
MAX	2,960	4,110	615	905	3,230	3,040	1,430	1,620	1,180	288	1,100	1,340
MIN	60	212	260	170	140	885	308	254	169	93	84	125
CFSM	1.45	4.69	1.63	1.37	3.70	6.56	2.81	2.13	1.58	.52	.84	1.64
IN.	1.67	5.23	1.88	1.58	3.85	7.56	3.14	2.45	1.76	.60	.97	1.83

CAL YR 1970 TOTAL 223,652 MEAN 613 MAX 6,600 MIN 60 CFSM 2.37 IN 32.12
WTR YR 1971 TOTAL 226,484 MEAN 621 MAX 4,110 MIN 60 CFSM 2.40 IN 32.53

PEAK DISCHARGE (BASE, 4,300 CFS).--Nov. 13 (2000) 4,730 cfs (5.67 ft).

DELAWARE RIVER BASIN

31

01446500 Delaware River at Belvidere, N.J.

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

DRAINAGE AREA.--4,535 sq mi.

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

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

AVERAGE DISCHARGE.--49 years, 7,688 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 32,500 cfs Mar. 17 (gage height, 10.21 ft); minimum, 1,410 cfs Aug. 16 (gage height, 2.96 ft).

Period of record: Maximum discharge, 273,000 cfs Aug. 19, 1955 (gage height, 30.21 ft, from highwater mark in gage house), from rating curve extended above 110,000 cfs on basis of flood-routing study; minimum, 609 cfs Sept. 28, 29, 1943 (gage height, 2.11 ft).

Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark (discharge, 220,000 cfs, from rating curve extended above 170,000 cfs).

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see New Jersey Annual Report) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see New Jersey Annual Report).

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,620	4,500	6,030	3,250	2,460	27,200	10,000	9,280	8,390	2,980	3,790	4,280
2	2,400	4,200	5,820	2,940	2,510	26,300	10,400	7,940	7,060	3,540	3,810	3,480
3	2,520	3,970	5,390	2,990	3,640	21,500	15,100	7,500	6,590	3,000	4,330	3,000
4	2,640	3,540	5,320	3,640	3,750	19,400	20,600	8,380	6,240	2,710	6,540	2,760
5	2,870	4,430	5,470	5,760	3,800	16,300	21,200	7,950	5,730	2,730	11,200	2,560
6	2,950	5,250	5,880	6,480	3,740	14,000	20,500	7,500	4,750	2,670	7,820	2,320
7	2,830	4,730	5,350	6,120	3,360	14,900	19,200	7,270	3,990	2,690	5,310	2,810
8	2,850	4,210	4,750	6,390	2,650	16,500	19,100	6,700	4,190	2,400	3,970	2,970
9	3,000	3,750	4,420	6,530	2,950	15,600	18,200	7,420	4,190	2,490	3,270	3,080
10	2,770	3,780	4,650	5,390	3,440	12,800	17,700	7,830	3,680	2,860	2,620	2,950
11	2,700	4,380	4,900	4,810	3,890	11,100	20,800	8,100	3,140	2,860	2,920	3,000
12	2,580	6,430	5,390	5,200	3,820	10,900	19,200	7,410	2,970	2,540	2,670	3,330
13	3,060	12,000	5,060	4,910	4,470	10,600	19,600	7,890	2,710	2,560	2,240	4,390
14	3,120	15,400	4,300	4,940	8,600	10,500	22,500	16,300	2,700	2,650	2,130	6,270
15	3,760	15,400	4,470	4,950	11,100	11,600	26,100	19,900	3,400	2,520	2,110	7,810
16	4,460	16,800	4,560	3,970	16,300	18,800	20,800	15,400	4,230	2,640	1,750	5,910
17	5,850	15,800	4,490	3,290	15,300	30,200	17,400	14,300	4,110	2,710	2,330	5,700
18	4,850	12,800	4,530	3,020	13,100	26,100	15,100	12,900	3,970	2,950	2,470	5,930
19	3,490	11,100	4,460	3,090	11,300	21,200	13,400	11,100	3,670	2,880	2,450	4,720
20	3,150	10,300	4,450	3,960	10,900	20,900	12,400	9,800	3,410	3,100	2,530	3,840
21	2,700	11,100	4,620	4,000	11,000	18,400	12,400	8,940	3,160	2,620	2,640	4,160
22	4,440	13,400	5,070	4,300	12,400	16,100	12,300	9,710	3,210	2,330	2,770	5,430
23	14,800	11,900	4,490	4,470	14,800	14,700	11,800	8,600	3,000	2,430	2,690	4,830
24	24,800	10,800	4,150	3,480	16,600	13,200	10,900	7,370	2,910	2,610	2,610	4,430
25	18,200	9,440	4,340	3,100	17,100	12,100	5,770	6,860	2,900	2,630	2,410	4,160
26	11,400	8,220	4,040	3,520	15,600	11,000	9,030	7,930	3,190	2,900	2,270	3,990
27	9,900	6,800	3,460	4,130	17,500	10,100	8,700	6,890	3,270	3,050	2,790	3,870
28	7,000	6,580	3,410	3,920	23,400	8,970	8,310	6,330	3,000	3,110	7,080	3,600
29	6,000	5,950	3,100	4,100	-----	8,840	8,000	5,750	3,120	2,630	11,900	3,500
30	5,300	5,930	3,360	4,320	-----	9,860	9,570	5,120	2,880	2,970	8,480	3,400
31	4,500	-----	3,090	3,540	-----	10,200	-----	7,100	-----	3,940	6,000	-----
TOTAL	173,910	252,890	142,860	134,510	259,480	489,870	460,080	281,470	119,760	86,700	127,900	122,410
MEAN	5,610	8,430	4,608	4,339	9,267	15,800	15,340	9,080	3,992	2,797	4,126	4,080
MAX	24,800	16,800	6,030	6,530	23,400	30,200	26,100	19,900	8,390	3,940	11,900	7,810
MIN	2,400	3,540	3,090	2,940	2,460	8,840	8,000	5,120	2,700	2,330	1,750	2,320
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL	2,645,220	MEAN	7,247	MAX	64,000	MIN	2,140	CFSM	-	IN.	-
CAL YR 1971	TOTAL	2,651,840	MEAN	7,265	MAX	30,200	MIN	1,750	CFSM	-	IN.	-

DELAWARE RIVER BASIN

01446600 Martins Creek near East Bangor, Pa.

LOCATION.--Lat 40°54'00", long 75°12'08", Northampton County, at right downstream end of bridge on township road, 100 ft downstream from confluence of the East Fork and West Fork, 1.8 miles northwest of East Bangor.

DRAINAGE AREA.--10.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 663.92 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 13.4 cfs (17.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 279 cfs Oct. 23 (gage height, 3.10 ft); minimum, 0.42 cfs Oct. 6; minimum gage height, 1.45 ft Aug. 16.

Period of record: Maximum discharge, 1,620 cfs Apr. 2, 1970 (gage height, 3.89 ft), from rating curve extended above 210 cfs on basis of contracted-opening and flow over embankment measurements at gage height 3.87 ft; no flow at times.

REMARKS.--Records fair. Diversion above station for irrigation.

REVISIONS (WATER YEARS).--WRD Penna. 1967: 1962, 1964(M), 1965, 1966(M). WRD Penna. 1970: 1969(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	4.5	14	8.5	4.5	83	14	7.4	37	3.4	4.7	4.2
2	.49	7.7	12	9.5	4.4	60	13	7.0	30	3.8	8.3	4.0
3	.56	6.1	12	11	4.1	48	26	7.8	25	3.0	11	3.8
4	.56	8.1	17	17	4.0	46	22	7.2	15	2.9	12	3.8
5	.49	25	18	63	4.2	48	17	6.6	12	2.7	5.6	3.8
6	.49	20	14	66	4.9	39	14	6.2	11	2.4	3.2	4.0
7	.49	10	11	37	4.5	78	39	6.2	11	2.1	2.4	4.0
8	.49	7.3	6.9	23	5.0	85	58	7.6	12	2.0	2.1	4.0
9	.56	6.1	7.3	17	6.0	45	33	10	10	2.1	2.0	3.8
10	.56	6.9	8.5	14	5.4	36	21	9.0	7.4	2.0	1.9	3.8
11	.64	29	8.5	14	4.9	38	18	7.6	5.9	2.1	2.0	4.2
12	.72	144	14	13	4.5	45	14	7.2	5.6	2.1	2.0	7.8
13	.80	127	17	11	12	50	12	29	5.9	2.1	1.9	57
14	.72	64	14	10	140	49	12	37	5.9	2.4	1.7	85
15	35	76	14	12	85	50	11	33	6.6	1.9	1.9	53
16	42	45	12	10	45	50	9.3	29	7.4	2.0	1.9	27
17	12	25	20	9.0	32	40	9.3	30	5.6	2.6	1.7	31
18	4.8	19	32	8.2	28	31	9.3	18	4.2	2.9	1.5	30
19	3.2	18	28	7.6	30	39	8.8	12	3.8	3.4	1.5	28
20	2.8	17	30	7.4	44	112	7.4	11	3.8	2.7	1.5	17
21	3.9	22	27	7.2	81	75	7.0	20	4.2	2.1	1.5	16
22	115	15	20	6.8	94	50	7.0	24	3.6	2.0	1.4	13
23	207	12	19	6.6	141	38	6.6	15	3.0	1.9	1.4	9.3
24	76	9.5	17	6.2	109	31	5.9	8.8	2.9	1.9	1.4	7.4
25	26	9.5	16	6.0	70	25	6.3	18	2.7	2.3	1.3	6.3
26	15	11	14	5.6	67	23	5.9	53	2.4	2.0	1.3	5.3
27	11	12	12	5.4	177	21	5.9	26	2.6	2.4	11	5.0
28	8.1	12	11	5.2	127	20	5.9	14	2.4	2.0	75	5.3
29	6.9	12	9.0	5.0	-----	20	8.8	9.9	2.4	2.0	22	5.3
30	5.8	17	8.5	5.0	-----	18	8.4	15	2.6	2.4	7.0	5.0
31	3.9	-----	7.7	4.7	-----	16	-----	103	-----	4.0	4.7	-----
TOTAL	586.53	797.7	471.4	431.9	1,338.4	1,409	435.8	595.5	253.9	75.6	198.8	457.1
MEAN	18.9	26.6	15.2	13.9	47.8	45.5	14.5	19.2	8.46	2.44	6.41	15.2
MAX	207	144	32	66	177	112	58	103	37	4.0	75	85
MIN	.49	4.5	6.9	4.7	4.0	16	5.9	6.2	2.4	1.9	1.3	3.8
CFSM	1.82	2.56	1.46	1.34	4.60	4.38	1.39	1.85	.81	.23	.62	1.46
IN.	2.10	2.85	1.69	1.54	4.79	5.04	1.56	2.13	.91	.27	.71	1.64

CAL YR 1970 TOTAL 6,005.70 MEAN 16.5 MAX 612 MIN .49 CFSM 1.59 IN 21.48
 WTR YR 1971 TOTAL 7,051.63 MEAN 19.3 MAX 207 MIN .49 CFSM 1.86 IN 25.22

PEAK DISCHARGE (BASE, 135 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	0245	3.10	279	2-23	1345	2.78	168
11-12	1600	3.03	243	2-27	1730	2.99	243
2-14	1430	3.05	269	5-31	0945	2.71	149

DELAWARE RIVER BASIN

33

01446700 Delaware River at Easton, Pa.

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, on right bank 200 ft upstream from city of Easton pumping station, 1.2 miles upstream from Bushkill Creek in Easton.

DRAINAGE AREA.--4,636 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 157.84 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 31,000 cfs Mar. 17 (gage height, 13.10 ft); minimum, 1,640 cfs Aug. 16 (gage height, 3.87 ft).

Period of record: Maximum discharge, 76,500 cfs Apr. 3, 1970 (gage height, 22.08 ft, from floodmark); minimum, 1,640 cfs Aug. 16, 1971 (gage height, 3.87 ft).

REMARKS.--Records good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Cannonsville, Pepacton, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs about 100 miles upstream (see New York Annual Report) and smaller reservoirs. Diversion from Cannonsville, Pepacton, and Neversink Reservoirs (see New York Annual Report). Records of chemical analyses and water temperatures for water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,020	4,830	6,480	3,690	2,980	27,200	10,200	9,500	9,020	3,020	4,520	5,160
2	2,700	4,340	6,310	3,120	3,020	26,400	10,500	8,270	7,700	3,750	4,450	4,230
3	2,720	4,430	5,880	3,250	3,620	21,900	14,200	7,800	7,320	3,330	4,880	3,670
4	2,940	3,970	5,760	3,840	3,990	19,700	19,900	8,500	6,790	2,820	6,510	3,270
5	3,040	4,770	5,810	6,060	4,170	16,500	20,700	8,250	6,310	2,880	11,600	3,080
6	3,140	5,780	6,310	7,180	4,010	14,100	20,000	7,830	5,420	2,800	8,810	2,630
7	3,120	5,280	5,780	6,710	3,730	14,800	19,100	7,640	4,470	2,820	6,060	3,160
8	3,080	4,740	5,280	6,630	2,980	16,700	18,900	7,130	4,250	2,570	4,630	3,480
9	3,270	4,250	4,720	7,070	3,200	15,900	18,200	7,720	4,140	2,550	3,990	3,540
10	3,040	4,120	5,060	6,160	3,730	13,300	17,400	8,020	3,900	3,000	2,840	3,560
11	3,040	4,720	5,210	5,300	4,120	11,500	20,300	8,300	3,560	3,080	3,310	3,520
12	2,820	6,760	5,640	5,490	4,140	11,300	19,100	7,800	3,200	2,680	3,220	3,860
13	3,000	13,000	5,520	5,470	5,910	11,000	19,300	8,160	3,100	2,720	2,630	5,350
14	3,460	17,100	4,830	5,250	10,500	10,800	21,700	15,300	3,000	2,780	2,410	7,400
15	4,010	16,600	4,740	5,470	11,000	11,400	25,000	19,900	4,000	2,700	2,420	8,840
16	4,740	17,600	4,930	4,390	15,900	17,300	20,400	15,400	4,800	2,740	1,870	6,970
17	6,260	16,600	4,950	3,730	15,700	28,700	17,100	14,300	4,700	2,880	2,480	6,610
18	5,420	13,400	5,000	3,140	13,300	26,300	14,800	13,000	4,340	3,080	2,980	6,920
19	3,950	11,800	4,810	3,140	11,800	21,200	13,200	11,400	3,990	3,120	2,700	5,690
20	3,390	10,900	4,900	4,030	11,300	21,300	12,400	10,000	3,690	3,330	2,900	4,650
21	3,040	11,500	5,020	4,210	11,500	18,800	12,400	9,500	3,390	2,960	2,920	4,580
22	4,410	13,300	5,350	4,610	12,800	16,300	12,200	10,300	3,430	2,550	3,120	6,210
23	14,600	12,400	5,090	4,930	15,200	15,000	11,800	9,400	3,220	2,530	3,100	5,540
24	24,400	11,000	4,560	3,970	17,100	13,300	11,100	8,200	3,100	2,880	2,880	5,110
25	18,900	9,880	4,740	3,410	17,400	12,300	9,940	7,500	3,040	2,840	2,940	4,790
26	12,200	8,750	4,540	3,670	15,900	11,300	9,190	8,600	3,200	3,140	2,610	4,610
27	9,970	7,510	3,810	4,500	17,800	10,300	8,870	8,000	3,620	3,290	3,140	4,300
28	7,990	7,130	3,750	4,450	23,200	9,360	8,530	6,890	3,180	3,540	7,510	3,840
29	6,940	6,510	3,500	4,630	-----	9,100	8,250	6,250	3,290	2,960	12,400	4,230
30	5,830	6,410	3,640	4,720	-----	9,910	9,500	5,680	3,160	3,140	9,770	3,730
31	5,250	-----	3,350	4,010	-----	10,400	-----	7,220	-----	4,230	6,940	-----
TOTAL	183,690	269,380	155,270	146,230	270,000	493,370	454,180	291,760	130,330	92,690	142,540	142,530
MEAN	5,925	8,979	5,009	4,717	9,643	15,920	15,140	9,412	4,344	2,990	4,598	4,751
MAX	24,400	17,600	6,480	7,180	23,200	28,700	25,000	19,900	9,020	4,230	12,400	8,840
MIN	2,700	3,970	3,350	3,120	2,980	9,100	8,250	5,680	3,000	2,530	1,870	2,630
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 2,778,150	MEAN 7,611	MAX 66,000	MIN 2,300	CFSM -	IN. -						
WTR YR 1971	TOTAL 2,771,970	MEAN 7,594	MAX 28,700	MIN 1,870	CFSM -	IN. -						

DELAWARE RIVER BASIN

01447500 Lehigh River at Stoddartsville, Pa.

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, on left bank 75 ft upstream from bridge on State Highway 115, at Stoddartsville, 1.9 miles upstream from Tobyhanna Creek, and 4 miles southwest of Thornhurst.

DRAINAGE AREA.--91.7 sq mi.

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

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

AVERAGE DISCHARGE.--28 years, 177 cfs (26.21 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Mar. 16 (gage height, 3.30 ft); minimum, 13 cfs Oct. 13 (gage height, 0.28 ft).

Period of record: Maximum discharge, 31,900 cfs Aug. 19, 1955 (gage height, 16.37 ft, from floodmarks), from rating curve extended above 1,700 cfs on basis of slope-area measurement of peak flow; minimum observed, 7.0 cfs Sept. 26, 27, 1964 (gage height, 0.22 ft).

Flood of May 22, 1942, reached a stage of 12.03 ft, present site and datum (discharge, 15,700 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1382: 1947, 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	47	153	94	64	619	263	192	192	55	202	78
2	21	42	140	90	64	570	387	210	154	98	283	65
3	21	43	130	84	60	478	658	290	139	70	451	56
4	23	59	162	113	60	435	663	264	124	55	565	51
5	21	88	151	229	66	390	621	227	108	47	345	46
6	19	92	139	234	78	328	543	207	98	42	212	51
7	18	78	120	222	72	363	533	188	92	40	149	106
8	17	65	121	200	78	363	514	181	85	38	115	61
9	17	56	117	186	94	306	465	201	86	36	94	51
10	16	52	111	156	84	266	580	209	76	41	80	46
11	15	81	109	133	76	245	543	182	70	36	68	43
12	14	295	126	119	74	236	503	163	67	36	67	74
13	17	525	122	134	230	244	501	429	71	32	56	149
14	21	550	114	126	663	290	499	724	110	44	51	253
15	81	515	109	114	642	545	421	455	232	38	46	232
16	71	460	105	105	535	1,020	352	394	232	32	43	163
17	50	350	121	103	418	1,010	308	358	154	30	41	163
18	40	257	117	103	373	710	274	295	113	36	39	129
19	34	215	115	98	329	590	246	257	92	39	35	108
20	30	215	132	96	295	526	225	232	83	48	36	102
21	29	394	121	94	376	444	212	243	74	40	35	470
22	232	322	118	90	262	378	197	250	70	31	34	354
23	417	262	115	86	386	336	181	208	62	28	30	246
24	283	216	115	86	401	300	169	186	55	26	28	202
25	174	189	109	88	324	266	167	174	55	33	28	166
26	122	170	106	90	296	243	173	177	62	36	26	144
27	92	159	102	78	497	227	179	157	58	48	81	136
28	74	153	99	72	674	229	173	147	55	39	376	152
29	64	149	95	68	-----	251	250	139	56	65	280	154
30	56	167	90	70	-----	264	225	131	58	215	163	134
31	51	-----	94	68	-----	245	-----	202	-----	215	106	-----
TOTAL	2,161	6,266	3,678	3,629	7,571	12,717	11,025	7,672	2,983	1,669	4,165	4,185
MEAN	69.7	209	119	117	270	410	368	247	99.4	53.8	134	140
MAX	417	550	162	234	674	1,020	663	724	232	215	565	470
MIN	14	42	90	68	60	227	167	131	55	26	26	43
CFSM	.76	1.28	1.30	1.28	2.94	4.47	4.01	2.69	1.08	.59	1.46	1.53
IN.	.88	2.54	1.49	1.47	3.07	5.16	4.47	3.11	1.21	.68	1.69	1.70

CAL YR 1970 TOTAL 63,709 MEAN 175 MAX 1,540 MIN 14 CFSM 1.91 IN 25.84
WTR YR 1971 TOTAL 67,721 MEAN 186 MAX 1,020 MIN 14 CFSM 2.03 IN 27.47

PEAK DISCHARGE (BASE, 1,300 CFS).--Mar. 16 (2400) 1,180 cfs (3.30 ft).

01447680 Tunkhannock Creek near Long Pond, Pa.

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, on left bank, 0.6 mile downstream from unnamed tributary, 0.9 mile downstream from bridge on Legislative Route 45040, 3 miles west of Long Pond, and 5 miles upstream from mouth.

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

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,800 ft (from topographic map). Prior to July 7, 1966, nonrecording gage at site 0.9 mile upstream at different datum.

AVERAGE DISCHARGE.--6 years, 37.2 cfs (28.07 inches per year), adjusted for diversion since October 1969.

EXTREMES.--Current year: Maximum discharge, 245 cfs Nov. 14 (gage height, 3.30 ft); minimum, 3.4 cfs Feb. 4 (gage height, 1.87 ft).

Period of record: Maximum discharge, 480 cfs July 30, 1969 (gage height, 4.34 ft); minimum, 2.4 cfs Mar. 11, 1969 (gage height, 1.84 ft).

REMARKS.--Records good except those for winter periods, which are fair. Diversion above station, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	34	56	23	14	109	70	47	66	18	43	29
2	7.1	31	47	22	14	106	78	44	64	23	50	22
3	7.5	33	46	21	13	92	106	44	41	26	56	17
4	7.5	33	49	25	14	67	109	44	36	21	70	15
5	8.1	53	58	46	15	67	104	41	33	17	67	13
6	7.1	67	56	58	16	74	94	37	31	14	53	11
7	6.2	60	53	50	19	78	87	37	31	13	37	12
8	6.2	47	46	41	17	83	89	39	28	9.5	27	14
9	5.7	41	40	35	17	85	87	43	25	9.0	20	14
10	6.5	36	36	28	19	70	87	44	25	9.5	16	19
11	6.2	47	36	26	15	61	92	40	25	10	14	14
12	5.5	125	37	26	14	61	89	35	23	11	10	15
13	5.5	204	35	25	14	63	87	56	23	11	8.7	25
14	5.5	242	34	25	60	67	85	89	26	10	8.4	41
15	16	230	33	25	89	96	85	74	35	11	7.1	44
16	30	195	31	24	72	142	74	56	44	10	6.2	37
17	30	160	31	23	62	154	70	53	37	9.5	5.9	33
18	23	128	34	22	53	142	61	47	30	9.0	5.9	27
19	16	101	33	21	47	134	63	45	25	10	5.9	25
20	13	96	41	21	44	112	58	41	24	11	5.7	24
21	13	109	39	21	47	104	53	44	21	11	5.7	31
22	127	109	35	20	50	92	52	46	19	11	5.9	39
23	220	94	33	20	56	83	50	41	18	9.9	5.5	37
24	211	76	30	19	63	74	46	37	17	8.7	4.9	30
25	163	69	29	19	61	72	43	34	17	9.5	5.1	27
26	117	61	27	19	56	69	44	39	16	9.5	5.5	24
27	81	56	26	20	72	63	46	35	16	14	13	22
28	60	56	24	19	101	65	46	33	16	16	49	23
29	47	55	23	17	-----	67	56	31	16	18	60	25
30	40	56	21	17	-----	72	55	29	16	28	55	25
31	36	-----	23	15	-----	69	-----	62	-----	37	41	-----
TOTAL	1,334.4	2,704	1,142	793	1,134	2,693	2,166	1,387	844	435.1	767.4	734
MEAN	43.0	90.1	36.8	25.6	40.5	86.9	72.2	44.7	28.1	14.0	24.8	24.5
MAX	220	242	58	58	101	154	109	89	66	37	70	44
MIN	5.5	31	21	15	13	61	43	29	16	8.7	4.9	11
(\neq)	.74	5.95	5.80	1.11	.65	.99	.64	.56	.72	.64	.58	2.49
MEAN \neq	43.7	96.0	42.6	26.7	41.2	87.9	72.8	45.3	28.8	14.6	25.4	27.0
CFSM \neq	2.43	5.33	2.37	1.48	2.29	4.88	4.04	2.52	1.60	.81	1.41	1.50
IN. \neq	2.80	5.95	2.73	1.71	2.38	5.63	4.51	2.90	1.78	.93	1.63	1.67

CAL YR 1970 TOTAL 16,810.3 MEAN 46.1 MAX 245 MIN 4.5 MEAN \neq 47.6 CFSM \neq 2.64 IN. \neq 35.85

WTR YR 1971 TOTAL 16,133.9 MEAN 44.2 MAX 242 MIN 4.9 MEAN \neq 45.9 CFSM \neq 2.55 IN. \neq 34.62

PEAK DISCHARGE (BASE, 170 CFS).--Oct. 23 (0600) 226 cfs (3.24 ft); Nov. 14 (0845) 245 cfs (3.30 ft).

\neq Diversion above station into Wild Creek basin, equivalent in cubic feet per second, furnished by city of Bethlehem.

\neq Adjusted for diversion.

DELAWARE RIVER BASIN

01447720 Tobyhanna Creek near Blakeslee, Pa.

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

DRAINAGE AREA.--118 sq mi.

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

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

AVERAGE DISCHARGE.--10 years, 204 cfs (23.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,110 cfs Oct. 22 (gage height, 6.49 ft); minimum, 42 cfs Oct. 14, 15; minimum gage height, 1.75 ft Oct. 14, 15; Aug. 24, 25.

Period of record: Maximum discharge, 6,760 cfs July 29, 1969 (gage height, 10.69 ft), from rating curve extended above 4,200 cfs on basis of slope-area measurement at gage height, 19.41 ft; minimum, 22 cfs Sept. 24, 25, 1964 (gage height, 1.51 ft).

Flood of Aug. 19, 1955, reached a stage of 19.41 ft, from floodmark (discharge, 35,300 cfs, by slope-area measurement).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Pocono Lake about 5.0 miles upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	235	308	150	90	683	351	279	379	120	326	149
2	66	222	282	140	90	630	441	270	288	203	418	115
3	67	220	268	130	84	547	715	299	235	171	772	96
4	72	227	302	162	86	487	733	291	205	131	815	85
5	69	360	293	293	92	401	661	256	180	105	528	78
6	62	360	279	326	110	385	587	235	160	87	338	105
7	57	299	243	251	98	428	555	225	151	79	232	155
8	52	254	230	200	110	448	547	225	141	72	175	168
9	48	227	189	182	130	388	512	240	133	70	137	153
10	46	210	171	166	120	344	596	256	124	81	113	149
11	45	279	171	162	110	320	596	235	115	72	101	135
12	44	1,090	191	155	110	308	563	210	108	69	92	173
13	42	1,630	177	150	280	320	575	408	112	61	82	311
14	42	1,370	168	149	750	357	596	670	135	78	75	524
15	102	1,130	164	149	692	587	531	497	193	75	69	428
16	158	935	160	140	551	1,070	462	405	251	70	66	314
17	131	780	184	140	431	1,090	415	369	217	67	61	265
18	100	592	180	140	354	805	376	311	173	66	59	225
19	80	535	173	130	311	688	347	268	141	70	57	203
20	67	547	200	130	288	596	323	240	124	74	57	193
21	65	795	215	130	314	512	302	248	112	72	57	509
22	1,080	656	220	120	351	445	288	268	105	64	57	465
23	1,870	524	210	120	472	405	265	245	96	59	54	329
24	1,120	441	205	120	497	372	243	215	88	54	49	265
25	710	385	189	120	411	338	235	200	90	67	49	222
26	487	347	184	140	354	320	240	220	88	66	51	198
27	366	326	168	130	520	299	245	212	84	129	112	191
28	293	314	155	120	728	302	245	193	81	113	524	205
29	259	305	149	110	-----	323	314	182	81	119	516	215
30	243	320	140	110	-----	357	320	175	85	245	320	203
31	265	-----	150	100	-----	347	-----	351	-----	311	208	-----
TOTAL	8,180	15,915	6,318	4,765	8,534	14,902	13,179	8,698	4,475	3,120	6,570	6,826
MEAN	264	531	204	154	305	481	439	281	149	101	212	228
MAX	1,870	1,630	308	326	750	1,090	733	670	379	311	815	524
MIN	42	210	140	100	84	299	235	175	81	54	49	78
CFSM	2.24	4.50	1.73	1.31	2.58	4.08	3.72	2.38	1.26	.86	1.80	1.93
IN.	2.58	5.02	1.99	1.50	2.69	4.70	4.15	2.74	1.41	.98	2.07	2.15

CAL YR 1970 TOTAL 96,843 MEAN 265 MAX 1,870 MIN 42 CFSM 2.25 IN 30.53
WTR YR 1971 TOTAL 101,482 MEAN 278 MAX 1,870 MIN 42 CFSM 2.36 IN 31.99

PEAK DISCHARGE (BASE, 1,600 CFS).--Oct. 22 (2300) 2,110 cfs (6.49 ft); Nov. 13 (1800) 1,770 cfs (5.96 ft).

01447800 Lehigh River below Francis E. Walter Reservoir, near White Haven, Pa.

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, on right bank 0.7 mile downstream from Francis E. Walter Reservoir, 2.0 miles upstream from Fawn Run, and 4 miles northeast of White Haven.

DRAINAGE AREA.--290 sq mi.

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

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

AVERAGE DISCHARGE.--14 years, 536 cfs (25.10 inches per year), adjusted for storage since February 1961.

EXTREMES.--Current year: Maximum discharge, 3,890 cfs Feb. 16 (gage height, 6.41 ft); minimum, 18 cfs Apr. 27 (gage height, 2.08 ft).

Period of record: Maximum discharge, 13,800 cfs Dec. 21, 1957 (gage height, 9.85 ft), from rating curve extended above 6,100 cfs; minimum, 1.3 cfs Nov. 14, 1961, result of shutoff at reservoir; minimum gage height, 1.86 ft Sept. 16, 1964; minimum daily discharge, 22 cfs July 20-23, 1965.

Maximum discharge known, 54,200 cfs Aug. 19, 1955, based on slope-area measurement at site 4.9 miles downstream.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Francis E. Walter Reservoir 0.7 mile upstream since February 1961 (see p. 82).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	1,210	629	290	250	2,160	830	706	730	138	660	303
2	112	915	580	292	250	1,850	1,080	690	638	204	838	267
3	103	467	501	304	250	1,540	1,840	796	522	279	1,360	231
4	103	328	531	304	240	1,280	1,910	821	414	294	1,750	211
5	103	342	584	677	260	1,080	1,860	738	383	271	1,720	182
6	103	486	579	933	250	1,080	1,550	683	373	207	985	120
7	103	486	534	547	240	1,070	1,440	630	337	155	630	122
8	101	480	413	476	250	1,130	1,450	595	303	95	474	245
9	101	385	413	463	270	1,070	1,290	601	303	69	260	332
10	84	312	357	461	290	872	1,330	630	298	71	185	350
11	60	361	381	452	280	813	1,430	630	275	91	256	337
12	60	945	356	429	270	796	1,510	574	228	112	252	275
13	60	1,200	410	340	430	787	1,350	1,140	204	69	182	409
14	62	928	394	339	864	830	1,310	2,050	294	105	440	847
15	128	502	376	356	906	1,580	1,280	1,490	547	95	135	949
16	308	1,310	355	333	1,940	2,950	1,010	1,220	698	73	133	404
17	357	2,390	360	300	1,980	3,120	838	1,030	474	451	135	497
18	308	1,320	384	260	1,250	1,880	847	906	429	130	133	668
19	178	1,310	376	250	906	1,290	813	813	388	127	130	535
20	125	1,300	399	250	830	1,340	762	683	256	115	127	364
21	125	1,310	426	250	838	1,350	601	660	252	125	125	787
22	847	1,310	432	270	881	1,710	574	690	228	125	122	1,320
23	1,220	1,310	432	282	1,290	1,520	588	690	201	89	120	762
24	889	1,660	429	271	1,570	915	567	601	201	66	117	623
25	906	2,110	411	277	1,150	838	547	535	198	67	112	516
26	643	2,270	389	280	1,010	813	479	535	198	98	78	463
27	308	1,440	357	270	1,110	762	479	528	198	158	179	369
28	308	477	317	260	2,390	738	588	479	221	179	967	414
29	308	1,050	298	260	-----	746	683	404	217	191	1,080	504
30	787	805	263	260	-----	804	746	378	170	463	581	474
31	1,300	-----	260	250	-----	830	-----	554	-----	653	440	-----
TOTAL	10,328	30,719	13,006	10,986	22,445	39,544	31,582	23,480	10,178	5,365	14,706	13,880
MEAN	333	1,024	420	354	802	1,276	1,053	757	339	173	474	463
MAX	1,300	2,390	629	933	2,390	3,120	1,910	2,050	730	653	1,750	1,320
MIN	60	312	260	250	240	738	479	378	170	66	78	120
MEAN [‡]	384	972	421	352	811	1,269	1,056	758	332	181	468	464
CFSM [‡]	1.32	3.35	1.45	1.21	2.80	4.38	3.64	2.61	1.14	.62	1.61	1.60
IN. [‡]	1.52	3.74	1.67	1.40	2.92	5.05	4.06	3.01	1.27	.71	1.86	1.78

CAL YR 1970 TOTAL 217,028 MEAN 595 MAX 4,410 MIN 60 MEAN[‡] 595 CFSM[‡] 2.05 IN.[‡] 27.81
WTR YR 1971 TOTAL 226,219 MEAN 620 MAX 3,120 MIN 60 MEAN[‡] 620 CFSM[‡] 2.14 IN.[‡] 28.99

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

DELAWARE RIVER BASIN

01448500 Dilldown Creek near Long Pond, Pa.

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, on left bank 60 ft upstream from 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.

DRAINAGE AREA.--2.39 sq mi.

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

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

AVERAGE DISCHARGE.--23 years, 4.62 cfs (26.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 58 cfs Oct. 22 (gage height, 2.245 ft); minimum, 0.62 cfs Oct. 7, 8 (gage height, 0.90 ft).

Period of record: Maximum discharge, 630 cfs June 14, 1969 (gage height, 3.995 ft), from rating curve extended above 300 cfs on basis of culvert and flow-over-dam computations of peak flow; minimum, 0.10 cfs Dec. 10, 1964 (gage height, 0.55 ft).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1382: 1949 (M), 1950-53.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	3.2	5.9	2.4	1.8	16	7.7	3.4	4.7	3.2	4.0	1.4
2	.76	3.1	5.4	2.4	1.6	14	11	3.6	4.0	2.8	4.2	1.4
3	1.0	3.2	5.1	2.3	1.3	12	12	3.8	3.9	1.7	6.0	1.3
4	.86	3.3	7.1	3.7	1.6	11	9.4	3.5	3.5	1.6	4.8	1.3
5	.74	11	5.1	7.1	1.8	8.8	8.4	3.0	3.2	1.5	2.4	1.2
6	.71	4.3	4.8	4.0	1.9	8.2	7.8	3.1	3.4	1.5	1.8	1.2
7	.68	3.6	4.1	3.1	1.9	13	9.3	2.9	3.2	1.4	1.6	1.2
8	.66	3.4	3.8	2.8	1.9	10	8.9	3.7	3.0	1.4	1.5	1.2
9	.66	3.3	4.0	2.8	2.1	8.0	8.0	3.6	2.8	1.4	1.4	1.2
10	.66	3.3	3.9	2.8	1.8	7.0	7.8	3.6	2.6	1.4	1.4	1.2
11	.66	8.5	3.8	2.7	1.8	7.1	6.6	2.9	2.5	1.4	1.4	1.3
12	.68	41	4.2	2.6	1.9	7.4	6.4	2.8	2.6	1.3	1.3	2.2
13	.68	43	3.8	2.5	15	8.2	6.4	11	2.8	1.2	1.2	6.1
14	.66	26	3.5	2.6	15	11	5.8	7.6	5.6	1.4	1.2	3.0
15	3.5	29	3.3	2.6	5.6	20	5.1	4.6	4.5	1.2	1.2	2.2
16	1.4	18	3.2	2.4	4.5	29	5.0	5.9	3.5	1.2	1.2	2.1
17	.90	14	3.4	2.4	4.1	21	4.6	4.8	2.7	1.2	1.1	2.6
18	.82	11	3.2	2.3	4.0	15	4.4	4.0	2.4	1.2	1.1	1.9
19	.74	9.6	3.7	2.2	4.1	13	4.2	3.8	2.3	1.6	1.2	1.8
20	.72	14	4.2	2.2	4.6	14	4.0	3.6	2.2	1.3	1.2	2.0
21	1.3	18	3.3	2.2	6.1	11	4.0	4.9	2.2	1.1	1.1	5.4
22	37	11	3.1	2.2	6.3	9.5	3.9	4.2	2.1	1.0	1.0	2.4
23	17	9.6	3.0	2.2	10	9.1	3.6	3.6	2.0	1.0	1.0	2.3
24	7.2	8.4	3.0	2.1	7.8	8.2	3.6	3.4	2.0	1.0	.92	2.3
25	5.4	7.4	2.9	2.1	6.4	7.3	3.4	4.7	1.9	1.1	.92	2.1
26	4.8	7.0	2.8	2.2	6.9	7.0	3.6	5.5	2.0	1.1	.92	2.2
27	4.2	6.8	2.8	2.1	18	7.0	3.5	3.8	1.8	2.2	3.9	2.2
28	3.8	6.5	2.6	2.0	17	7.5	4.2	3.5	1.8	.92	13	3.1
29	3.6	6.2	2.6	1.9	-----	8.8	5.6	3.3	1.8	3.6	2.2	2.5
30	3.4	7.3	2.5	1.9	-----	8.2	3.8	3.8	1.8	2.6	1.7	2.2
31	3.3	-----	2.4	1.8	-----	7.2	-----	10	-----	5.0	1.5	-----
TOTAL	109.27	344.0	116.5	80.6	156.8	344.5	182.0	135.9	84.8	51.52	69.36	64.5
MEAN	3.52	11.5	3.76	2.60	5.60	11.1	6.07	4.38	2.83	1.66	2.24	2.15
MAX	37	43	7.1	7.1	18	29	12	11	5.6	5.0	13	6.1
MIN	.66	3.1	2.4	1.8	1.3	7.0	3.4	2.8	1.8	.92	.92	1.2
CFSM	1.47	4.81	1.57	1.09	2.34	4.64	2.54	1.83	1.18	.69	.94	.90
IN.	1.70	5.35	1.81	1.25	2.44	5.36	2.83	2.12	1.32	.80	1.08	1.00

CAL YR 1970 TOTAL 1,720.20 MEAN 4.71 MAX 59 MIN .66 CFSM 1.97 IN 26.77
 WTR YR 1971 TOTAL 1,739.75 MEAN 4.77 MAX 43 MIN .66 CFSM 2.00 IN 27.08

PEAK DISCHARGE (BASE, 45 CFS).--Oct. 22 (1700) 58 cfs (2.245 ft); Nov. 13 (1600) 56 cfs (2.225 ft).

DELAWARE RIVER BASIN

39

01449360 Pohopoco Creek at Kresgeville, Pa.

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, on right bank 20 ft downstream from bridge on U.S. Route 209 at Kresgeville, 0.2 mile downstream from Middle Creek, and 13 miles northeast of Leighton.

DRAINAGE AREA.--49.9 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 670 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 87.9 cfs (23.92 inches per year).

EXTREMES.--Current year: Maximum discharge, 746 cfs Nov. 13 (gage height, 6.43 ft); minimum, 16 cfs Oct. 9, 10 (gage height, 2.86 ft).

Period of record: Maximum discharge, 2,080 cfs July 28, 1969 (gage height, 9.21 ft), from rating curve extended above 800 cfs; minimum, 16 cfs Oct. 9, 10, 1970 (gage height, 2.86 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	57	116	70	42	291	133	65	124	46	39	42
2	20	55	109	67	43	246	136	66	113	52	59	40
3	19	55	104	65	40	293	151	66	116	40	76	38
4	18	60	122	86	39	290	133	63	104	37	91	36
5	18	110	103	142	43	240	124	59	97	36	56	35
6	17	72	97	133	50	200	119	60	93	35	43	35
7	18	65	90	121	47	230	151	58	91	34	38	34
8	17	63	84	116	50	280	127	72	86	34	35	33
9	17	61	86	106	62	232	116	71	82	34	33	34
10	17	60	84	102	56	215	112	65	76	33	32	31
11	17	90	82	97	50	213	107	58	72	32	34	32
12	17	324	92	95	47	213	104	57	70	33	34	39
13	17	595	86	87	130	215	103	134	70	29	30	73
14	17	621	82	88	304	213	100	145	92	30	28	88
15	67	544	81	83	240	242	95	119	86	28	28	95
16	39	434	78	77	186	283	93	134	76	27	27	73
17	27	350	90	70	156	295	91	122	64	28	26	83
18	24	283	87	66	142	277	87	110	60	28	26	69
19	23	238	82	64	143	266	83	104	57	30	26	63
20	21	228	88	62	150	300	81	97	56	33	26	61
21	24	254	83	62	184	252	79	106	55	28	25	128
22	218	200	82	60	246	234	78	99	51	26	24	93
23	274	187	82	58	385	218	75	90	49	26	23	86
24	169	172	82	58	402	203	73	84	48	25	23	82
25	121	159	78	56	343	191	72	96	47	26	23	73
26	100	150	78	66	315	181	72	119	46	25	23	71
27	86	142	75	62	466	172	70	90	44	31	54	70
28	75	133	72	56	517	162	72	84	44	25	167	73
29	70	127	70	52	-----	156	78	82	43	26	72	67
30	64	134	66	52	-----	148	70	88	43	34	52	61
31	61	-----	69	48	-----	139	-----	179	-----	36	46	-----
TOTAL	1,712	6,023	2,680	2,427	4,878	7,090	2,985	2,842	2,155	987	1,319	1,838
MEAN	55.2	201	86.5	78.3	174	229	99.5	91.7	71.8	31.8	42.5	61.3
MAX	274	621	122	142	517	300	151	179	124	52	167	128
MIN	17	55	66	48	39	139	70	57	43	25	23	31
CFSM	1.11	4.03	1.73	1.57	3.49	4.59	1.99	1.84	1.44	.64	.85	1.23
IN.	1.28	4.49	2.00	1.81	3.64	5.29	2.23	2.12	1.61	.74	.98	1.37

CAL YR 1970 TOTAL 34,653 MEAN 94.9 MAX 1,120 MIN 17 CFSM 1.90 IN 25.83

WTR YR 1971 TOTAL 36,936 MEAN 101 MAX 621 MIN 17 CFSM 2.02 IN 27.54

PEAK DISCHARGE (BASE, 700 CFS).--Nov. 13 (1745) 746 cfs (6.43 ft).

DELAWARE RIVER BASIN

01449500 Wild Creek at Hatchery, Pa.

LOCATION.--Lat 40°55'22", long 75°33'32", Carbon County, on left bank at Hatchery, 0.5 mile downstream from Penn Forest Dam, 2.2 miles upstream from Wild Creek Dam, 4 miles upstream from mouth, and 9.5 miles northeast of Palmerton.

DRAINAGE AREA.--16.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 842.71 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 34.2 cfs (27.64 inches per year), adjusted for storage since January 1959.

EXTREMES.--Current year: Maximum discharge, 241 cfs Aug. 28 (gage height, 3.17 ft); minimum, 1.2 cfs Aug. 26; minimum gage height, 1.33 ft Dec. 7.

Period of record: Maximum discharge, 2,360 cfs May 23, 1942 (gage height, 6.00 ft), from rating curve extended above 220 cfs on basis of contracted-opening measurement at gage height, 5.59 ft; minimum, 1.0 cfs Aug. 3-6, Oct. 2, 1958, Oct. 24, 1969 (result of regulation).

REMARKS.--Records fair. Flow completely regulated by Penn Forest Reservoir 0.5 mile upstream, since October 1958 (see p. 82).

REVISIONS (WATER YEARS).--WSP 1051: Drainage area. WSP 1382: 1941-42, 1943(M), 1944-45, 1947, 1949, 1951-53.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	26	3.7	34	17	124	46	27	58	21	24	11
2	141	26	3.4	21	16	129	50	27	51	24	44	11
3	139	26	3.4	22	16	124	58	31	51	17	50	11
4	141	26	4.0	29	16	129	55	29	49	15	60	12
5	141	34	3.4	42	16	104	51	22	45	14	31	12
6	98	38	3.4	43	19	93	49	24	42	15	10	12
7	74	38	3.1	38	17	98	68	25	44	14	10	14
8	74	31	3.1	34	20	96	41	27	42	13	9.4	15
9	74	26	3.1	32	23	104	30	30	39	13	8.2	18
10	74	29	3.1	31	21	89	41	30	34	13	7.2	16
11	74	38	3.1	30	19	79	39	25	32	12	10	16
12	74	79	3.4	30	18	74	37	24	32	13	16	19
13	74	193	3.1	29	40	74	39	41	33	10	10	58
14	74	224	2.8	32	82	74	47	56	38	13	10	102
15	76	221	2.8	31	64	84	34	44	39	9.0	12	50
16	74	146	2.8	29	53	104	35	47	36	8.6	7.9	25
17	74	25	3.7	27	48	118	31	51	32	11	5.3	44
18	39	7.2	4.3	25	45	108	38	38	30	12	3.1	55
19	14	5.9	3.7	24	43	106	30	39	28	14	8.2	55
20	11	6.9	4.6	23	45	108	28	39	27	18	10	54
21	9.4	6.9	3.7	23	48	94	31	45	26	13	9.7	58
22	84	6.5	6.5	22	58	85	30	46	25	11	8.2	58
23	141	6.2	17	22	82	82	27	39	23	10	14	59
24	68	5.9	29	21	85	77	26	34	23	9.7	5.6	60
25	39	5.3	27	20	79	71	26	39	22	11	1.6	60
26	42	4.9	31	25	77	67	27	53	22	11	1.2	60
27	42	4.6	29	23	100	64	27	46	20	19	23	63
28	42	4.3	29	21	118	61	27	44	19	17	120	63
29	35	4.3	27	19	-----	60	31	39	18	18	18	64
30	31	4.0	26	19	-----	59	29	43	18	23	17	65
31	29	-----	20	18	-----	48	-----	67	-----	22	15	-----
TOTAL	2,243.4	1,298.9	313.2	839	1,285	2,787	1,128	1,171	998	444.3	579.6	1,220
MEAN	72.4	43.3	10.1	27.1	45.9	89.9	37.6	37.8	33.3	14.3	18.7	40.7
MAX	141	224	31	43	118	129	68	67	58	24	120	102
MIN	9.4	4.0	2.8	18	16	48	26	22	18	8.6	1.2	11
MEAN [#]	27.7	89.4	37.6	26.6	49.7	86.8	37.8	39.1	31.5	14.0	17.9	18.9
CFSM [#]	1.65	5.32	2.24	1.58	2.96	5.17	2.25	2.33	1.88	.83	1.07	1.12
IN. [#]	1.90	5.95	2.58	1.82	3.08	5.96	2.51	2.69	2.10	.96	1.23	1.25

CAL YR 1970 TOTAL 13,618.1 MEAN 37.3 MAX 274 MIN 2.8 MEAN[#] 37.3 CFSM[#] 2.22 IN.[#] 30.13
 WTR YR 1971 TOTAL 14,307.4 MEAN 39.2 MAX 224 MIN 1.2 MEAN[#] 39.6 CFSM[#] 2.36 IN.[#] 32.02

[#] Adjusted for change in contents in Penn Forest Reservoir.

01449800 Pohopoco Creek below Beltzville Dam near Parryville, Pa.

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, on right bank 0.1 mile upstream from Sawmill Run, 0.45 mile downstream from Beltzville Dam, 1.3 miles upstream from Bull Run, and 2.3 miles northeast of Parryville.

DRAINAGE AREA.--96.4 sq mi.

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

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

EXTREMES.--Current year: Maximum discharge, 1,520 cfs June 17 (gage height, 5.37 ft); minimum, 1.5 cfs May 11, 12; minimum gage height, 2.16 ft Oct. 14; minimum daily discharge, 20 cfs Oct. 14.

Period of record: Maximum discharge, 1,640 cfs Aug. 4, 1969 (gage height, 5.52 ft); minimum, 0.1 cfs Mar. 10, 1970 (gage height, 2.07 ft), result of upstream shutoff.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Wild Creek and Penn Forest Reservoirs, 7.3 and 10.0 miles upstream, respectively, and Beltzville Lake, 0.45 mile upstream (see p. 82). Figures of daily discharge do not include diversion from Wild Creek Reservoir to city of Bethlehem.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	91	163	98	54	898	44	27	24	36	34	28
2	24	89	152	96	54	844	32	27	24	36	33	28
3	24	86	145	92	52	754	33	27	24	36	34	33
4	24	89	163	100	52	557	33	27	24	36	33	36
5	23	139	145	207	56	562	33	27	24	36	33	36
6	22	135	135	194	64	434	33	27	24	36	33	36
7	23	113	125	180	60	413	228	27	25	36	33	36
8	22	111	128	160	64	487	434	29	22	36	33	36
9	22	105	119	150	69	476	46	29	21	36	33	36
10	21	91	116	142	65	372	37	29	46	36	33	36
11	22	113	113	132	63	171	37	23	63	36	33	36
12	22	413	125	125	56	63	39	24	63	36	33	36
13	21	694	116	119	44	287	39	25	63	36	33	36
14	20	832	111	125	259	287	39	24	63	36	33	36
15	104	838	111	113	423	273	39	24	86	36	33	36
16	78	798	108	110	307	423	32	24	336	36	33	36
17	46	694	122	98	403	557	25	24	356	36	33	36
18	37	503	125	94	331	688	25	24	36	36	33	36
19	34	372	119	90	264	622	25	24	36	36	33	36
20	32	331	128	88	237	492	25	24	36	36	33	36
21	33	382	125	86	246	423	27	24	36	36	33	36
22	250	302	125	85	282	423	27	24	36	32	33	36
23	423	282	122	84	429	423	27	24	36	32	33	37
24	273	255	122	80	683	450	27	24	36	32	33	37
25	190	232	116	78	716	228	28	24	36	33	33	37
26	145	215	116	94	514	48	29	24	36	33	33	37
27	135	202	113	86	628	50	29	24	36	33	34	37
28	119	190	105	74	838	52	29	24	36	33	35	37
29	111	179	100	68	-----	52	25	24	36	33	34	37
30	102	186	96	68	-----	54	27	24	36	33	34	37
31	96	-----	98	62	-----	54	-----	25	-----	33	34	-----
TOTAL	2,527	9,062	3,807	3,378	7,313	11,917	1,553	781	1,756	1,083	1,031	1,069
MEAN	81.5	302	123	109	261	384	51.8	25.2	58.5	34.9	33.3	35.6
MAX	423	838	163	207	838	898	434	29	356	36	35	37
MIN	20	86	96	62	44	48	25	23	21	32	33	28
(#)	37.8	37.0	34.8	35.2	36.1	34.9	35.3	37.6	41.2	41.1	37.4	39.3
MEAN#	112	414	171	146	345	484	182	184	146	60.6	92.2	147
CFSM#	1.16	4.29	1.77	1.51	3.58	5.02	1.89	1.91	1.51	.63	.96	1.52
IN.#	1.34	4.79	2.04	1.74	3.73	5.79	2.11	2.20	1.68	.73	1.11	1.70
CAL YR 1970	TOTAL 55,241	MEAN 151	MAX 1,160	MIN 20	MEAN# 189	CFSM# 1.96	IN.# 26.66					
WTR YR 1971	TOTAL 45,277	MEAN 124	MAX 898	MIN 20	MEAN# 206	CFSM# 2.14	IN.# 28.96					

Diversion above station from Wild Creek Reservoir for municipal supply, equivalent in cubic feet per second, furnished by city of Bethlehem.

Adjusted for diversion from Wild Creek Reservoir and change in contents in Penn Forest, Wild Creek, and Beltzville Reservoirs.

DELAWARE RIVER BASIN

01450500 Aquashicola Creek at Palmerton, Pa.

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

DRAINAGE AREA.--76.7 sq mi.

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

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

AVERAGE DISCHARGE.--32 years, 144 cfs (25.50 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 2,070 cfs Oct. 23 (gage height, 7.20 ft); minimum, 24 cfs Oct. 6 (gage height, 2.75 ft).

Period of record: Maximum discharge, 11,700 cfs July 10, 1945 (gage height, 13.63 ft), from rating curve extended above 2,500 cfs on basis of contracted-opening measurement of peak flow; minimum, 2.6 cfs Sept. 12, 1957, from rating curve extended below 16 cfs; minimum gage height, 2.44 ft Sept. 16, 1964; minimum daily discharge, 9.1 cfs Sept. 15, 1964.

REMARKS.--Records good. Regulation at low flow by mills above station. Occasional diversion from Pohopoco Creek into Aquashicola Creek above station. Figures of daily discharge do not include water diverted above station from Aquashicola Creek by the New Jersey Zinc Co.

REVISIONS (WATER YEARS).--WSP 1051: 1940-45 (monthly net diversion), drainage area. WRD Penna. 1968: 1967 (monthly net diversion).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	145	145	99	61	645	168	80	515	65	97	129
2	33	136	136	93	61	532	165	78	377	71	111	113
3	33	127	129	91	58	462	180	78	332	61	228	105
4	33	127	141	118	60	428	160	73	270	55	136	99
5	28	214	124	220	66	349	150	69	231	54	97	93
6	26	173	118	240	75	306	148	73	217	52	84	103
7	26	160	107	223	69	388	180	69	209	52	76	97
8	26	153	103	198	76	439	160	85	180	49	68	91
9	27	143	103	183	103	377	148	91	163	48	63	84
10	27	136	101	168	82	329	143	80	150	52	58	80
11	27	178	97	155	73	309	138	73	138	49	66	78
12	27	750	111	145	73	303	133	73	131	49	57	89
13	27	1,400	103	131	458	316	131	165	127	47	52	223
14	26	1,350	101	129	965	309	127	280	153	49	48	439
15	203	1,020	97	120	462	343	122	231	143	47	47	388
16	183	883	97	111	313	395	120	228	129	44	45	303
17	103	645	113	99	249	395	116	203	111	42	42	283
18	78	499	122	99	240	349	111	183	103	42	41	240
19	68	406	116	91	255	356	107	175	95	47	40	209
20	60	363	131	91	280	482	103	163	91	52	40	193
21	60	356	143	89	381	428	103	168	89	45	40	201
22	921	296	155	89	511	391	99	155	87	40	39	178
23	1,510	277	153	87	792	367	95	138	82	39	35	168
24	750	249	145	82	740	336	93	129	78	38	34	160
25	478	220	136	80	558	299	91	133	75	41	34	145
26	356	201	131	97	482	270	89	173	71	38	33	138
27	283	190	120	89	745	246	85	136	68	45	84	131
28	231	175	113	76	813	226	85	127	65	36	377	127
29	201	163	105	76	-----	212	93	120	65	47	261	118
30	178	165	99	78	-----	193	85	131	65	49	178	111
31	160	-----	95	71	-----	180	-----	474	-----	63	148	-----
TOTAL	6,222	11,300	3,690	3,718	9,101	10,960	3,728	4,434	4,610	1,508	2,759	4,916
MEAN	201	377	119	120	325	354	124	143	154	48.6	89.0	164
MAX	1,510	1,400	155	240	965	645	180	474	515	71	377	439
MIN	26	127	95	71	58	180	85	69	65	36	33	78
(\bar{x})	-2.6	-7	-1.6	-2.3	-1.4	-2.4	-1.3	-1.3	-1.1	-1.5	-1.0	0.0
MEAN \neq	198	376	117	118	324	352	123	142	153	47.1	88.0	164
CFSM \neq	2.58	4.90	1.53	1.54	4.22	4.59	1.60	1.85	1.99	.61	1.15	2.14
IN. \neq	2.97	5.47	1.76	1.78	4.39	5.29	1.78	2.13	2.22	.70	1.33	2.39

CAL YR 1970 TOTAL 59,053 MEAN 162 MAX 2,370 MIN 26 MEAN \neq 159 CFSM \neq 2.07 IN. \neq 28.11
 WTR YR 1971 TOTAL 66,946 MEAN 183 MAX 1,510 MIN 26 MEAN \neq 182 CFSM \neq 2.37 IN. \neq 32.21

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-23	0145	7.20	2,070	2-14	0030	6.18	1,380
11-14	0315	6.47	1,570				

\neq Figures of net diversion, in cubic feet per second, include water from Pohopoco Creek to Aquashicola Creek plus water diverted above station from Aquashicola Creek; furnished by New Jersey Zinc Co.

\neq Adjusted for diversion.

DELAWARE RIVER BASIN

43

01451000 Lehigh River at Walnutport, Pa.

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

DRAINAGE AREA.--889 sq mi.

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

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

AVERAGE DISCHARGE.--25 years, 1,723 cfs (26.32 inches per year).

EXTREMES.--Current year: Maximum discharge, 13,200 cfs Nov. 13 (gage height, 6.82 ft); maximum gage height, 6.87 ft Feb. 14 (ice jam); minimum discharge, 244 cfs Oct. 14 (gage height, 1.75 ft).

Period of record: Maximum discharge, 77,800 cfs Aug. 19, 1955 (gage height, 17.68 ft); minimum, 57 cfs July 27, 1965 (gage height, 1.25 ft), result of upstream shutoff.

Maximum stage known, 20.6 ft May 23, 1942, from floodmarks.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Wild Creek Reservoir since October 1946, Penn Forest Reservoir since October 1958, and Francis E. Walter Reservoir since February 1961 (see p. 82). Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	1,920	2,000	1,000	640	7,870	2,000	1,280	2,520	587	1,520	969
2	314	1,780	1,800	960	620	6,820	2,090	1,220	2,180	715	1,840	813
3	301	1,280	1,700	920	600	5,820	2,990	1,380	2,000	655	3,190	770
4	328	1,180	1,780	1,200	620	5,120	3,400	1,380	1,720	665	4,600	695
5	328	1,560	1,730	1,900	680	4,090	3,170	1,340	1,470	655	3,490	655
6	314	1,470	1,650	2,300	740	3,760	2,900	1,230	1,520	606	2,600	645
7	308	1,360	1,530	2,000	700	4,120	2,900	1,230	2,280	532	1,810	560
8	308	1,310	1,400	1,800	780	4,350	3,060	1,210	1,660	473	1,360	523
9	301	1,250	1,310	1,700	1,000	3,840	2,450	1,260	1,440	424	1,140	645
10	294	1,100	1,320	1,600	840	3,340	2,290	1,240	1,320	393	836	695
11	287	1,320	1,280	1,550	740	2,830	2,370	1,200	1,240	386	836	737
12	255	6,950	1,420	1,460	720	2,680	2,370	1,170	1,160	401	872	813
13	249	11,600	1,390	1,300	2,000	3,040	2,370	1,770	1,060	409	770	1,540
14	249	10,700	1,320	1,200	8,000	3,130	2,140	3,960	1,270	378	759	2,620
15	1,320	8,490	1,270	1,200	4,600	3,770	2,100	3,470	1,640	393	780	2,490
16	1,280	7,020	1,220	1,100	3,910	6,820	1,960	2,870	2,020	378	560	1,810
17	936	7,800	1,340	1,000	4,400	7,430	1,560	2,750	1,860	447	532	1,440
18	790	5,290	1,410	960	3,500	6,240	1,540	2,240	1,110	635	506	1,550
19	643	4,450	1,350	940	3,000	4,710	1,480	2,130	1,180	424	498	1,420
20	488	4,170	1,500	920	2,970	4,880	1,420	1,900	931	498	498	1,330
21	437	5,290	1,560	900	3,440	4,330	1,350	1,860	860	424	489	1,570
22	4,220	4,190	1,570	880	4,070	4,100	1,170	1,840	848	393	473	2,320
23	6,500	3,840	1,540	880	6,090	4,690	1,180	1,720	770	371	456	2,020
24	3,660	3,570	1,510	840	6,630	3,520	1,160	1,610	715	343	431	1,490
25	2,700	3,890	1,410	800	5,540	2,820	1,130	1,520	695	322	424	1,380
26	2,250	4,110	1,350	940	4,550	2,470	1,110	1,780	665	329	416	1,230
27	1,560	3,710	1,250	880	6,100	2,300	1,050	1,540	635	481	665	1,210
28	1,320	2,070	1,200	760	7,900	2,190	1,080	1,420	606	498	2,990	1,100
29	1,230	2,140	1,100	780	-----	2,150	1,260	1,320	635	481	2,970	1,210
30	1,150	2,350	1,000	740	-----	2,130	1,340	1,290	615	884	1,490	1,170
31	1,920	-----	980	680	-----	2,070	-----	2,490	-----	1,240	1,290	-----
TOTAL	36,561	117,160	44,190	36,090	85,380	127,430	58,390	54,620	38,625	15,820	41,091	37,420
MEAN	1,179	3,905	1,425	1,164	3,049	4,111	1,946	1,762	1,288	510	1,326	1,247
MAX	6,500	11,600	2,000	2,300	8,000	7,870	3,400	3,960	2,520	1,240	4,600	2,620
MIN	249	1,100	980	680	600	2,070	1,050	1,170	606	322	416	523
CFSM	1.33	4.39	1.60	1.31	3.43	4.62	2.19	1.98	1.45	.57	1.49	1.40
IN.	1.53	4.90	1.85	1.51	3.57	5.33	2.44	2.29	1.62	.66	1.72	1.57

CAL YR 1970 TOTAL 669,792 MEAN 1,835 MAX 16,100 MIN 249 CFSM 2.06 IN 28.03
WTR YR 1971 TOTAL 692,777 MEAN 1,898 MAX 11,600 MIN 249 CFSM 2.14 IN 28.99

DELAWARE RIVER BASIN

01451500 Little Lehigh Creek near Allentown, Pa.

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

DRAINAGE AREA.--80.8 sq mi.

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

GAGE.--Water-stage recorder and, since September 1958, masonry control. Datum of gage is 253.41 ft above mean sea level.

AVERAGE DISCHARGE.--26 years, 85.7 cfs (14.40 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,550 cfs Feb. 13 (gage height 7.56 ft), from rating curve extended above 980 cfs; minimum, 33 cfs Oct. 11 (gage height, 2.13 ft).

Period of record: Maximum discharge 5,550 cfs Feb. 13, 1971, from rating curve extended above 980 cfs; maximum gage height, 7.67 ft July 28, 1969; minimum discharge, 17 cfs Feb. 4, 1965 (gage height, 1.84 ft), result of upstream shutoff; minimum gage height, 1.39 ft June 17, 18, 22, 1949.

Flood of July 9, 1935 reached a stage of 9.5 ft, from information furnished by city of Allentown.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	42	71	58	55	172	124	95	200	86	302	132
2	36	42	68	58	53	159	127	95	220	98	405	127
3	36	43	66	57	52	156	132	98	300	86	501	124
4	36	48	71	68	53	188	124	95	260	81	650	119
5	36	105	66	153	60	153	119	91	240	79	260	116
6	36	64	64	116	75	162	124	95	220	79	175	113
7	36	53	60	88	75	240	214	95	400	79	150	110
8	36	50	60	77	129	225	162	119	300	77	135	108
9	35	48	60	79	199	182	138	116	240	79	127	108
10	35	48	58	75	110	169	127	103	190	93	121	105
11	35	64	58	75	86	165	121	95	170	88	124	113
12	35	260	73	75	91	159	119	91	150	81	121	202
13	35	188	73	73	1,320	159	119	165	140	79	113	421
14	36	147	66	73	1,100	153	116	169	200	79	110	298
15	46	172	64	73	192	147	110	124	140	75	110	195
16	43	132	62	68	141	147	110	132	120	75	105	153
17	39	103	110	68	127	141	110	129	110	75	103	138
18	37	88	103	66	141	135	105	108	105	73	100	132
19	39	81	83	64	185	179	103	103	100	95	103	127
20	37	79	75	60	182	268	105	98	98	116	103	124
21	39	91	71	62	188	195	105	105	98	83	100	129
22	150	79	71	62	256	169	103	103	95	77	103	121
23	124	75	68	64	410	162	103	95	93	75	98	119
24	71	71	71	62	256	156	100	93	91	71	95	116
25	55	71	66	64	182	147	100	98	91	105	93	110
26	50	71	66	68	162	144	100	105	88	83	93	110
27	48	68	62	64	264	141	100	95	86	77	232	110
28	46	68	62	58	217	138	100	93	83	73	657	110
29	45	66	60	60	-----	138	103	91	83	73	268	108
30	43	75	58	60	-----	132	98	95	86	79	162	108
31	43	-----	58	60	-----	129	-----	220	-----	91	141	-----
TOTAL	1,455	2,592	2,124	2,208	6,361	5,110	3,521	3,409	4,797	2,560	5,960	4,206
MEAN	46.9	86.4	68.5	71.2	227	165	117	110	160	82.6	192	140
MAX	150	260	110	153	1,320	268	214	220	400	116	657	421
MIN	35	42	58	57	52	129	98	91	83	71	93	105
CFSM	.58	1.07	.85	.88	2.81	2.04	1.45	1.36	1.98	1.02	2.38	1.73
IN.	.67	1.19	.98	1.02	2.93	2.35	1.62	1.57	2.21	1.18	2.74	1.94

CAL YR 1970 TOTAL 28,192 MEAN 77.2 MAX 579 MIN 33 CFSM .96 IN 12.98
 WTR YR 1971 TOTAL 44,303 MEAN 121 MAX 1,320 MIN 35 CFSM 1.50 IN 20.40

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	2145	7.56	5,550	8-28	0915	4.50	1,320
8-3	2245	4.86	1,690	9-13	1715	4.21	1,050

DELAWARE RIVER BASIN

45

01451800 Jordan Creek near Schnecksville, Pa.

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, on upstream side of wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mile downstream from Mill Creek, and 1.1 miles southwest of Schnecksville.

DRAINAGE AREA.--53.0 sq mi.

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

GAGE.--Nonrecording gage. Altitude of gage is 400 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 76.8 cfs (19.68 inches per year).

EXTREMES.--Current year: Maximum discharge observed, 4,850 cfs Feb. 13 (gage height, 9.35 ft); minimum observed, 6.9 cfs Oct. 5-14 (gage height, 1.88 ft).

Period of record: Maximum discharge observed, 4,850 cfs Feb. 13, 1971 (gage height, 9.35 ft); minimum observed, 0.4 cfs July 26, 1966; minimum gage height observed, 1.74 ft July 19, 26, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	64	76	48	30	211	62	28	218	24	22	96
2	7.9	61	64	46	28	172	64	28	160	26	24	76
3	7.6	61	61	44	25	157	69	32	461	20	124	65
4	7.4	76	66	50	27	168	57	27	192	18	194	52
5	6.9	259	62	222	30	126	51	24	158	17	119	52
6	6.9	180	59	198	37	133	54	23	240	16	80	45
7	6.9	147	51	174	45	264	126	29	433	16	61	41
8	6.9	124	54	153	60	352	57	35	227	15	49	40
9	6.9	109	54	126	282	259	52	46	170	15	40	37
10	6.9	98	51	112	129	192	51	36	128	15	35	34
11	6.9	122	49	98	128	180	46	29	108	13	32	44
12	6.9	784	69	89	135	174	44	27	92	14	33	80
13	6.9	1,120	70	72	2,020	238	44	122	86	15	26	194
14	6.9	868	61	82	605	192	42	149	174	21	22	213
15	70	1,340	61	64	245	192	40	100	108	15	21	172
16	64	615	66	54	153	190	38	121	92	14	28	138
17	37	360	117	48	138	160	37	104	80	13	25	121
18	30	254	160	44	116	136	35	86	61	15	22	96
19	20	196	170	35	264	142	33	64	54	19	21	80
20	20	162	198	30	269	363	31	59	51	21	22	77
21	59	178	209	31	390	274	33	89	49	14	22	95
22	363	131	184	32	652	240	33	64	44	13	18	62
23	694	128	180	34	856	188	31	59	37	9.4	16	59
24	378	109	157	36	372	147	29	56	35	10	13	57
25	213	100	121	40	245	122	30	56	33	12	13	50
26	166	92	111	45	213	111	29	117	31	11	13	50
27	129	89	96	50	473	98	29	90	29	109	108	54
28	108	83	92	43	282	89	28	51	26	11	400	50
29	100	92	89	45	-----	83	34	49	25	9.4	220	46
30	80	90	66	46	-----	76	28	68	26	14	144	42
31	72	-----	59	42	-----	69	-----	375	-----	22	109	-----
TOTAL	2,703.2	8,092	2,983	2,233	8,249	5,498	1,337	2,243	3,628	576.8	2,076	2,318
MEAN	87.2	270	96.2	72.0	295	177	44.6	72.4	121	18.6	67.0	77.3
MAX	644	1,340	209	222	2,020	363	126	375	461	109	400	213
MIN	6.9	61	49	30	25	69	28	23	25	9.4	13	34
CFSM	1.65	5.09	1.82	1.36	5.57	3.34	.84	1.37	2.28	.35	1.26	1.46
IN.	1.90	5.68	2.09	1.57	5.79	3.86	.94	1.57	2.55	.40	1.46	1.63

CAL YR 1970 TOTAL 35,179.6 MEAN 96.4 MAX 2,040 MIN 4.6 CFSM 1.82 IN 24.69

WTR YR 1971 TOTAL 41,937.0 MEAN 115 MAX 2,020 MIN 6.9 CFSM 2.17 IN 29.44

PEAK DISCHARGE (BASE, 1,100 CFS).--Nov. 15 (0800) 1,700 cfs (6.07 ft); Feb. 13 (2135) 4,850 cfs (9.35 ft).

DELAWARE RIVER BASIN

01452000 Jordan Creek at Allentown, Pa.

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

DRAINAGE AREA.--75.8 sq mi.

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

GAGE.--Water-stage recorder, crest-stage gage and rubble masonry control (crest raised one foot in August 1958). Datum of gage is 259.82 ft above mean sea level (Pennsylvania Department of Transportation benchmark).

AVERAGE DISCHARGE.--27 years, 104 cfs (18.63 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,090 cfs Feb. 13 (gage height, 7.0 ft, from graph); minimum, 9.6 cfs July 25 (gage height, 2.56 ft).

Period of record: Maximum discharge, 9,520 cfs Aug. 19, 1955 (gage height, 6.39 ft, in gage well, 8.00 ft outside, from floodmarks), from rating curve extended above 1,900 cfs on basis of slope-area measurement of peak flow; no flow on many days.

Flood of May 23, 1942, reached a stage of approximately 7.1 ft outside, from floodmarks 650 ft downstream.

REMARKS.--Records fair. Some regulation at low flow by mills above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	82	109	70	44	285	84	31	240	29	32	115
2	16	75	101	75	39	227	84	28	185	35	101	99
3	16	71	94	80	38	199	96	32	358	25	154	82
4	16	84	106	99	37	219	77	27	271	21	445	71
5	15	310	101	310	46	171	67	26	211	20	211	62
6	15	249	89	310	58	174	64	27	195	18	141	53
7	15	199	71	253	89	330	101	32	643	17	106	51
8	15	167	64	199	115	471	82	39	347	16	87	42
9	16	141	84	192	330	347	69	71	249	15	71	39
10	15	125	79	167	174	267	64	44	188	16	58	35
11	16	144	75	147	128	235	60	34	154	15	51	37
12	16	786	91	138	120	231	54	29	128	15	53	64
13	17	1,220	104	117	746	276	54	167	117	15	41	181
14	17	1,130	89	112	601	253	54	267	174	16	35	315
15	104	963	89	115	203	244	49	167	164	14	33	231
16	106	819	87	123	219	249	48	164	131	13	29	174
17	53	538	131	84	211	219	46	154	106	13	26	178
18	39	380	203	73	227	188	42	120	91	15	25	147
19	34	295	227	65	374	203	38	106	79	16	24	123
20	29	240	253	50	458	465	37	96	73	18	23	112
21	29	280	267	52	538	385	37	94	64	19	23	120
22	300	203	262	54	608	315	37	94	60	16	22	101
23	1,170	185	227	56	891	258	34	75	53	13	20	87
24	497	160	207	60	531	207	33	64	46	13	17	87
25	290	147	171	65	347	174	32	62	42	13	17	75
26	203	138	154	79	276	154	32	120	37	13	16	73
27	157	128	131	71	465	138	32	73	34	17	60	77
28	128	123	117	58	380	123	31	62	32	17	458	71
29	112	115	109	64	-----	115	37	56	28	15	300	67
30	99	131	89	67	-----	104	35	58	29	12	192	58
31	89	-----	80	60	-----	94	-----	290	-----	15	144	-----
TOTAL	3,660	9,628	4,061	3,465	8,293	7,320	1,610	2,709	4,529	525	3,015	3,027
MEAN	118	321	131	112	296	236	53.7	87.4	151	16.9	97.3	101
MAX	1,170	1,220	267	310	891	471	101	290	643	35	458	315
MIN	15	71	64	50	37	94	31	26	28	12	16	35
CFSM	1.56	4.23	1.73	1.48	3.91	3.11	.71	1.15	1.99	.22	1.28	1.33
IN.	1.80	4.73	1.99	1.70	4.07	3.59	.79	1.33	2.22	.26	1.48	1.49

CAL YR 1970 TOTAL 47,382 MEAN 130 MAX 2,870 MIN 10 CFSM 1.72 IN 23.25
WTR YR 1971 TOTAL 51,842 MEAN 142 MAX 1,220 MIN 12 CFSM 1.87 IN 25.44

PEAK DISCHARGE (BASE, 1,300 CFS).--Nov. 14 (0230) 1,470 cfs (5.14 ft); Feb. 13 (2300) 5,090* cfs (7.0* ft)

NOTE.--Doubtful gage-height record Feb. 13-16.

* About.

DELAWARE RIVER BASIN

47

01452500 Monocacy Creek at Bethlehem, Pa.

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

DRAINAGE AREA.--44.5 sq mi.

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

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

AVERAGE DISCHARGE.--23 years, 44.7 cfs (13.64 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,500 cfs Feb. 13 (gage height, 5.97 ft), from rating curve extended as explained below: minimum, 21 cfs Oct. 6 (gage height, 2.18 ft).

Period of record: Maximum discharge, 2,340 cfs Feb. 28, 1958 (gage height, 7.63 ft), from rating curve extended above 560 cfs on basis of slope-area measurement at gage height, 9.74 ft; minimum, 3.0 cfs Jan. 9, 1966 (gage height, 1.67 ft).

Flood of July 10, 1945, reached a stage of 9.74 ft, from floodmarks (discharge, 5,200 cfs, by slope-area measurement).

REMARKS.--Records poor. Some regulation at low flow by mill above station since April 1954.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	36	66	50	35	113	72	59	70	40	43	42
2	23	35	63	57	33	115	72	60	66	39	49	41
3	23	33	60	59	33	110	72	60	87	40	42	40
4	23	34	64	62	34	108	68	60	70	40	55	42
5	23	89	60	120	38	97	64	59	67	41	48	40
6	25	54	57	90	40	96	64	58	67	42	42	48
7	26	44	55	70	41	94	64	57	68	42	39	47
8	26	41	54	58	59	94	67	58	66	41	39	47
9	25	41	54	53	121	99	66	59	64	39	38	46
10	25	40	53	50	53	108	66	59	60	40	37	44
11	24	46	56	47	47	104	66	59	57	40	36	46
12	23	108	66	45	52	103	63	59	57	40	35	52
13	23	252	70	45	554	101	63	85	57	40	34	73
14	25	238	65	44	300	101	62	89	58	40	34	78
15	48	220	60	43	108	99	60	82	64	39	34	73
16	28	222	58	42	99	99	60	78	58	38	33	63
17	27	159	100	41	94	99	60	67	55	38	33	87
18	28	123	95	40	101	99	60	62	52	38	33	78
19	29	104	80	39	97	101	62	57	49	37	31	70
20	28	96	70	37	112	136	62	57	49	38	32	66
21	28	100	64	37	117	125	62	54	47	38	31	66
22	90	90	62	35	128	119	62	58	46	37	34	60
23	166	80	70	37	153	113	60	60	43	36	33	55
24	110	75	66	37	125	110	60	59	42	34	34	55
25	68	70	62	37	112	101	60	59	41	33	39	54
26	55	66	59	41	99	92	60	59	41	32	38	53
27	49	63	55	35	136	84	60	58	40	33	58	52
28	43	61	54	34	117	79	59	58	41	34	96	50
29	40	60	54	35	-----	78	59	58	40	35	63	50
30	39	70	50	36	-----	76	59	55	40	36	52	50
31	38	-----	49	35	-----	74	-----	78	-----	37	44	-----
TOTAL	1,252	2,750	1,951	1,491	3,038	3,127	1,894	1,940	1,662	1,177	1,289	1,668
MEAN	40.4	91.7	62.9	48.1	109	101	63.1	62.6	55.4	38.0	41.6	55.6
MAX	166	252	100	120	554	136	72	89	87	42	96	87
MIN	23	33	49	34	33	74	59	54	40	32	31	40
CFSM	.91	2.06	1.41	1.08	2.45	2.27	1.42	1.41	1.24	.85	.93	1.25
IN.	1.05	2.30	1.63	1.25	2.54	2.61	1.58	1.61	1.39	.98	1.08	1.39

CAL YR 1970 TOTAL 18,064 MEAN 49.5 MAX 327 MIN 21 CFSM 1.11 IN 15.10
WTR YR 1971 TOTAL 23,239 MEAN 63.7 MAX 554 MIN 23 CFSM 1.43 IN 19.43

PEAK DISCHARGE (BASE, 300 CFS).--Nov. 13 (1000*) 315 cfs (3.60 ft); Feb. 13 (2030) 1,500 cfs (5.97 ft).

* About.

DELAWARE RIVER BASIN

01453000 Lehigh River at Bethlehem, Pa.

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, on left bank 120 ft upstream from New Street Bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek.

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

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to Oct. 1, 1913.

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

AVERAGE DISCHARGE.--64 years (1902-4, 1909-71), 2,235 cfs (23.73 inches per year), adjusted for diversion 1902-4, 1909-42 and, for recirculated water, October 1, 1959 to Sept. 30, 1962.

EXTREMES.--Current year: Maximum discharge, 23,400 cfs Feb. 14 (gage height, 11.22 ft); minimum, 392 cfs Oct. 13 (gage height, 1.75 ft).

Period of record: Maximum discharge, 92,000 cfs May 23, 1942 (gage height, about 25.9 ft, from floodmark, present site and datum), from rating curve extended above 48,000 cfs; minimum, 125 cfs June 28, 1965 (gage height, 0.94 ft).

Flood of Feb. 28, 1902, reached a stage of 24.9 ft from floodmark, present site and datum (discharge, about 88,000 cfs).

REMARKS.--Records fair. Flow regulated by Wild Creek Reservoir since January 1941, Penn Forest Reservoir since October 1958, Francis E. Walter Reservoir since February 1961, and Beltzville Lake since February 1971, (see p. 82). Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	640	2,700	2,700	1,490	1,100	9,280	2,690	1,850	4,350	1,040	2,800	1,980
2	614	2,500	2,360	1,430	1,050	8,530	2,720	1,710	3,390	1,070	4,080	1,650
3	601	2,200	2,200	1,530	1,000	7,530	3,740	1,910	3,970	1,060	5,070	1,450
4	555	1,800	2,330	1,600	1,010	6,450	4,470	1,970	2,920	992	8,930	1,350
5	568	3,210	2,290	3,500	1,100	5,980	4,170	1,900	2,300	1,000	6,300	1,220
6	542	2,640	2,110	3,700	1,320	5,200	3,980	1,770	2,300	968	4,810	1,240
7	510	2,320	1,970	3,400	1,580	5,600	4,330	1,770	5,230	876	3,360	1,210
8	484	2,120	1,820	3,000	1,780	6,300	4,170	1,930	3,140	792	2,480	1,090
9	484	2,050	1,860	2,700	3,000	5,400	3,640	2,030	2,440	737	2,070	1,120
10	484	1,970	1,900	2,500	1,960	4,850	3,270	1,860	2,040	685	1,600	1,270
11	458	2,240	1,870	2,400	1,530	4,000	3,340	1,760	1,800	685	1,340	1,340
12	438	9,760	2,030	2,300	1,580	3,740	3,300	1,670	1,540	692	1,520	1,850
13	425	17,700	2,180	2,200	7,020	4,190	3,410	2,800	1,420	718	1,350	3,410
14	438	15,000	2,030	2,100	15,100	4,270	3,090	5,570	2,500	692	1,190	5,830
15	1,630	11,000	2,040	2,200	7,330	4,570	3,060	5,010	3,160	646	1,430	4,870
16	2,740	9,000	1,940	2,000	5,110	7,450	2,900	4,120	3,230	698	1,020	3,660
17	1,640	8,000	2,180	1,800	6,000	8,180	2,360	4,020	3,060	646	984	2,940
18	1,340	7,000	2,830	1,700	5,090	7,700	2,200	3,140	2,120	1,000	939	2,700
19	1,190	5,500	2,670	1,600	4,870	6,250	2,110	2,870	1,810	862	918	2,560
20	976	5,000	2,800	1,500	4,810	7,000	2,010	2,560	1,620	953	904	2,290
21	820	5,500	2,900	1,450	5,290	6,300	1,910	2,450	1,420	799	932	2,580
22	4,550	5,000	2,800	1,400	6,480	5,600	1,640	2,560	1,390	672	925	3,480
23	12,300	4,700	2,700	1,360	9,030	5,800	1,590	2,290	1,280	627	855	3,430
24	7,450	4,300	2,600	1,330	9,030	4,670	1,570	2,140	1,150	601	778	2,580
25	4,830	4,500	2,500	1,300	7,880	4,290	1,510	2,010	1,120	737	757	2,210
26	3,900	4,500	2,320	1,200	6,280	3,640	1,500	2,750	1,080	568	757	1,960
27	3,000	4,500	2,070	1,150	7,650	3,360	1,440	2,210	1,030	640	1,820	1,930
28	2,500	3,500	1,840	1,100	9,080	3,140	1,420	1,980	1,020	799	7,000	1,780
29	2,100	2,800	1,680	1,070	-----	3,040	1,720	1,820	1,010	718	5,830	1,850
30	1,800	3,200	1,570	1,050	-----	2,950	1,910	1,810	1,020	1,080	3,410	1,840
31	2,400	-----	1,370	1,200	-----	2,820	-----	4,750	-----	1,570	2,510	-----
TOTAL	62,407	156,210	68,460	58,260	134,060	168,080	81,170	78,990	65,860	25,623	78,669	68,670
MEAN	2,013	5,207	2,208	1,879	4,788	5,422	2,706	2,548	2,195	827	2,538	2,289
MAX	12,300	17,700	2,900	3,700	15,100	9,280	4,470	5,570	5,230	1,570	8,930	5,830
MIN	425	1,800	1,370	1,050	1,000	2,820	1,420	1,670	1,010	568	757	1,090
CFSM	1.57	4.07	1.73	1.47	3.74	4.24	2.12	1.99	1.72	.65	1.98	1.79
IN.	1.82	4.54	1.99	1.69	3.90	4.89	2.36	2.30	1.92	.75	2.29	2.00

CAL YR 1970 TOTAL 884,542 MEAN 2,423 MAX 22,400 MIN 425 CFSM 1.89 IN 25.73
WTR YR 1971 TOTAL 1,046,459 MEAN 2,867 MAX 17,700 MIN 425 CFSM 2.24 IN 30.44

DELAWARE RIVER BASIN

49

01454700 Lehigh River at Glendon, Pa.

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

DRAINAGE AREA.--1,359 sq mi.

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

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

AVERAGE DISCHARGE.--5 years, 2,368 cfs (23.66 inches per year).

EXTREMES.--Current year: Maximum discharge, 22,200 cfs Feb. 14 (gage height, 16.80 ft); minimum, 624 cfs Oct. 14 (gage height, 6.71 ft).

Period of record: Maximum discharge, 31,000 cfs Apr. 3, 1970 (gage height, 19.68 ft); minimum, 526 cfs Oct. 1, 1966 (gage height, 6.59 ft).

REMARKS.--Records good. Flow regulated by Francis E. Walter, Penn Forest, and Wild Creek Reservoirs and since February 1971, Beltzville Lake about 60 miles upstream (see p. 82). Records of chemical analyses and water temperatures for the 1971 water year, collected at site 1.9 miles downstream, are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	3,100	3,120	1,690	1,100	9,460	3,140	2,070	3,970	1,310	3,100	1,980
2	780	2,800	2,790	1,580	1,050	8,240	3,140	1,950	3,280	1,340	4,150	1,690
3	780	2,200	2,640	1,670	1,000	7,280	3,780	2,040	3,840	1,360	4,450	1,550
4	740	2,000	2,710	1,820	1,100	6,920	4,320	2,110	3,030	1,260	7,530	1,450
5	750	2,400	2,710	3,910	1,480	5,540	4,180	2,060	2,580	1,250	4,980	1,330
6	730	2,300	2,540	4,120	1,670	5,310	4,050	1,960	2,430	1,240	3,880	1,330
7	720	2,200	2,410	3,660	1,780	5,940	4,450	1,950	5,150	1,150	2,890	1,340
8	710	2,100	2,240	2,880	2,210	6,680	4,180	2,110	3,430	1,050	2,350	1,190
9	710	2,000	2,200	2,880	3,170	5,730	3,930	2,160	2,860	975	2,040	1,160
10	710	1,800	2,160	2,790	2,240	5,150	3,390	1,990	2,550	953	1,740	1,300
11	701	2,000	2,110	2,740	1,850	4,570	3,400	1,900	2,370	931	1,480	1,360
12	691	8,000	2,370	2,590	1,890	4,310	3,370	1,800	2,210	931	1,620	1,740
13	663	18,000	2,410	2,390	8,170	4,620	3,430	2,670	2,070	942	1,460	2,980
14	653	17,000	2,240	2,240	16,000	4,780	3,200	4,810	2,550	964	1,360	4,790
15	1,800	12,000	2,170	2,320	7,060	4,880	3,100	4,470	3,000	865	1,520	3,910
16	2,470	9,440	2,110	2,040	5,200	7,360	3,000	3,820	3,200	964	1,190	3,200
17	1,670	9,300	2,340	1,860	5,950	8,280	2,650	3,720	2,890	887	1,130	2,710
18	1,400	6,780	2,520	1,760	5,240	7,710	2,480	3,100	2,460	1,190	1,090	2,550
19	1,300	5,920	2,370	1,730	5,240	6,390	2,420	2,840	2,020	1,100	1,060	2,470
20	1,110	5,340	2,460	1,540	5,060	7,360	2,340	2,750	1,950	1,330	1,060	2,250
21	953	6,540	2,600	1,500	5,430	6,320	2,260	2,560	1,730	1,030	1,090	2,370
22	4,390	5,470	2,610	1,470	6,560	5,840	2,080	2,600	1,700	898	1,100	2,850
23	10,200	5,060	2,560	1,440	9,340	6,160	1,990	2,390	1,620	865	1,010	2,910
24	6,160	4,660	2,470	1,400	9,200	5,110	1,960	2,260	1,500	843	942	2,430
25	4,320	4,790	2,290	1,350	7,620	4,400	1,930	2,160	1,440	1,100	920	2,160
26	3,610	4,930	2,190	1,300	6,260	3,930	1,890	2,640	1,400	843	920	1,980
27	2,930	4,780	2,020	1,200	7,860	3,660	1,860	2,290	1,340	887	2,190	1,940
28	2,340	3,660	1,900	1,150	9,320	3,480	1,810	2,110	1,320	1,040	6,330	1,840
29	2,100	3,020	1,790	1,200	-----	3,400	2,000	1,980	1,270	964	4,660	1,840
30	1,800	3,540	1,610	1,250	-----	3,330	2,110	1,950	1,310	1,270	3,060	1,850
31	3,000	-----	1,510	1,150	-----	3,240	-----	3,970	-----	1,700	2,330	-----
TOTAL	61,701	163,130	72,170	62,620	140,050	175,380	87,840	79,190	72,470	33,432	74,632	64,450
MEAN	1,990	5,438	2,328	2,020	5,002	5,657	2,928	2,555	2,416	1,078	2,407	2,148
MAX	10,200	18,000	3,120	4,120	16,000	9,460	4,450	4,810	5,150	1,700	7,530	4,790
MIN	653	1,800	1,510	1,150	1,000	3,240	1,810	1,800	1,270	843	920	1,160
CFSM	1.46	4.00	1.71	1.49	3.68	4.16	2.15	1.88	1.78	.79	1.77	1.58
IN.	1.69	4.47	1.98	1.71	3.83	4.80	2.40	2.17	1.98	.92	2.04	1.76

CAL YR 1970 TOTAL 960,017 MEAN 2,630 MAX 23,500 MIN 653 CFSM 1.94 IN 26.28
WTR YR 1971 TOTAL 1,087,065 MEAN 2,978 MAX 18,000 MIN 653 CFSM 2.19 IN 29.76

01457500 Delaware River at Riegelsville, N.J.

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, on left bank 20 ft upstream from suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River, at mile 174.8 upstream from Atlantic Ocean.

DRAINAGE AREA.--6,328 sq mi (includes that of Musconetcong River).

PERIOD OF RECORD.--July 1906 to September 1971 (discontinued). Since September 1931, flow of Musconetcong River included.

GAGE.--Water-stage recorder. Datum of gage is 125.12 ft above mean sea level. Prior to Feb. 27, 1924, nonrecording gage at bridge 20 ft downstream at same datum.

AVERAGE DISCHARGE.--65 years, 10,830 cfs (unadjusted), includes flow of Musconetcong River after Sept. 30, 1931, and excludes flow of Delaware Division Canal.

EXTREMES.--Current year: Maximum discharge, 41,400 cfs Mar. 17 (gage height, 11.83 ft); minimum, 3,100 cfs Aug. 16 (gage height, 2.73 ft); minimum daily, 3,350 cfs Aug. 16.
Period of record: Maximum discharge, 340,000 cfs Aug. 19, 1955 (gage height, 38.85 ft, from floodmark), from rating curve extended above 160,000 cfs on basis of flood-routing study and slope-area measurement of peak flow; minimum, not including flow in canal, 870 cfs Sept. 20, 1908 (gage height, 1.55 ft).
Flood of Oct. 10, 1903, reached a stage of 35.9 ft, from floodmark (discharge, 275,000 cfs, from rating curve extended above 160,000 cfs as explained above).

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Lake Hopatcong, and Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see New Jersey Annual Report) and Wild Creek Reservoir (see p. 82) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see New Jersey Annual Report) and to Delaware Division Canal (see diversion below). Results of discharge measurements, in cubic feet per second, of Delaware Division Canal at Riegelsville, Pa., are given herewith:

Dec. 10	0	July 7	79.3
Mar. 9	61.0	Aug. 13	60.8
May 3	67.2	Oct. 19, 1971	56.9

Records of water quality for the current year are published in Part 2 of the New Jersey Annual Report.

REVISIONS (WATER YEARS).--WSP 641: 1926. WSP 961: Drainage area. WSP 1432: 1918-20, 1936, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	4,090	7,810	10,200	5,930	4,400	38,900	14,100	12,300	14,200	4,480	8,000	8,110	
2	3,620	7,150	9,620	5,220	3,870	37,400	14,300	10,800	11,800	5,200	10,300	6,690	
3	3,570	6,950	8,900	5,450	4,840	32,200	18,500	10,300	12,200	4,950	10,200	5,850	
4	3,790	6,160	8,750	6,070	5,330	29,500	25,400	10,900	10,600	4,310	15,500	5,300	
5	4,010	8,770	8,790	10,700	5,770	24,600	26,700	10,700	9,530	4,360	17,800	5,020	
6	4,160	9,010	9,010	12,200	5,930	21,600	26,100	10,200	8,460	4,260	14,000	4,710	
7	4,160	8,060	8,450	11,000	5,630	22,400	25,900	10,000	9,860	4,190	9,550	5,160	
8	4,060	7,260	7,790	9,780	6,290	26,000	25,200	9,720	8,180	3,910	7,380	5,070	
9	4,210	6,700	7,050	10,300	7,470	24,100	24,300	10,400	7,840	3,770	6,350	5,070	
10	4,100	6,370	7,360	9,450	6,450	20,700	22,200	10,500	6,910	4,300	4,850	5,350	
11	4,030	7,180	7,450	8,310	6,240	17,800	25,100	10,700	6,140	4,230	4,940	5,310	
12	3,860	14,900	8,140	8,230	6,400	17,200	24,400	10,200	5,700	3,890	5,230	6,340	
13	3,910	28,400	8,280	8,190	15,300	17,100	24,400	11,500	5,220	3,900	4,400	10,200	
14	4,480	32,800	7,390	7,680	29,500	17,100	26,100	20,500	5,800	3,960	4,030	15,100	
15	6,220	30,500	7,030	8,050	19,800	17,300	30,500	26,900	6,760	3,850	4,130	14,800	
16	7,860	29,800	7,190	6,750	22,500	24,300	25,800	21,400	7,530	3,940	3,350	12,000	
17	8,200	27,700	7,870	5,960	23,500	37,400	21,700	19,800	7,490	4,000	3,730	11,000	
18	7,200	23,100	8,260	5,200	20,200	37,500	18,900	17,700	7,080	4,420	4,190	10,900	
19	5,640	19,300	7,770	5,160	18,800	30,600	17,000	15,600	6,190	4,540	3,860	9,650	
20	4,850	17,800	7,970	5,610	17,900	31,900	15,900	13,800	5,840	4,950	4,080	8,210	
21	4,430	19,400	8,260	5,970	18,600	28,100	15,600	12,900	5,290	4,300	4,140	7,940	
22	9,250	20,300	8,500	6,510	21,400	24,500	15,200	13,400	5,300	3,720	4,310	10,100	
23	26,300	19,100	8,470	6,940	26,700	23,200	14,700	12,200	5,060	3,580	4,170	9,440	
24	32,200	17,200	7,640	5,990	28,500	20,400	14,000	10,700	4,780	3,860	3,880	8,460	
25	26,400	15,900	7,580	5,400	27,200	18,500	12,700	9,900	4,670	4,180	4,020	7,710	
26	17,500	14,900	7,290	5,670	24,400	16,900	11,800	11,600	4,680	4,130	3,640	7,400	
27	13,900	13,500	6,400	6,430	27,500	15,200	11,200	10,400	5,190	4,300	5,640	6,980	
28	11,100	11,800	6,150	5,500	34,100	13,800	10,800	9,400	4,680	4,650	16,800	6,130	
29	9,530	10,100	5,880	5,770	-----	13,300	10,700	8,590	4,680	4,080	19,400	6,620	
30	8,250	10,600	5,710	6,470	-----	13,900	11,900	8,040	4,680	4,350	14,900	6,120	
31	7,830	-----	5,380	5,800	-----	14,400	-----	11,900	-----	5,790	10,400	-----	
TOTAL	262,710	458,520	240,530	221,690	444,720	727,800	581,100	392,950	212,340	132,350	237,170	236,740	
MEAN	8,475	15,280	7,759	7,151	15,880	23,480	19,370	12,680	7,078	4,269	7,651	7,891	
MAX	32,200	32,800	10,200	12,200	34,100	38,900	30,500	26,900	14,200	5,790	19,400	15,100	
MIN	3,570	6,160	5,380	5,160	3,870	13,300	10,700	8,040	4,670	3,580	3,350	4,710	
(+)	35	15	5	25	45	60	65	70	75	75	60	60	
CFSM	-	-	-	-	-	-	-	-	-	-	-	-	
IN.	-	-	-	-	-	-	-	-	-	-	-	-	
CAL YR 1970	TOTAL	3,953,500	MEAN	10,830	MAX	89,800	MIN	3,250	36	CFSM	-	IN.	-
CAL YR 1971	TOTAL	4,148,620	MEAN	11,370	MAX	38,900	MIN	3,350	49	CFSM	-	IN.	-

PEAK DISCHARGE (BASE, 48,000 CFS).--No peak above base.

÷ Diversion, in cubic feet per second, above station to Delaware Division Canal.

DELAWARE RIVER BASIN

51

01459500 Tohickon Creek near Pipersville, Pa.

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

DRAINAGE AREA.--97.4 sq mi.

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

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

AVERAGE DISCHARGE.--36 years, 135 cfs (18.82 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,750 cfs Aug. 28 (gage height, 9.36 ft), from rating curve extended above 5,000 cfs as explained below; minimum, 3.2 cfs Aug. 25, 26 (gage height, 0.69 ft).
Period of record: Maximum discharge, 16,000 cfs Aug. 18, 1955 (gage height, 11.26 ft), from rating curve extended above 3,600 cfs on basis of slope-area measurement at gage height, 10.48 ft; minimum, 0.05 cfs Sept. 29, 1941; minimum daily, 0.1 cfs Sept. 24, 29, Oct. 6, 1941.

REMARKS.--Records good. Regulation at low flow by mills above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	22	95	55	25	272	51	38	347	6.7	29	52
2	4.4	20	75	75	20	197	49	34	115	12	243	37
3	4.2	19	64	69	21	190	63	32	77	14	236	30
4	3.7	27	67	190	24	605	63	32	66	12	95	25
5	3.8	588	72	2,220	70	423	52	29	49	7.7	67	21
6	3.7	283	60	890	364	476	51	28	45	5.8	36	18
7	4.0	122	55	298	418	1,340	1,790	33	157	4.6	24	16
8	4.0	108	57	213	1,360	766	813	108	129	4.2	17	15
9	3.5	104	38	197	1,050	275	264	294	58	4.0	13	14
10	3.5	67	37	115	391	193	169	129	37	6.4	10	13
11	3.5	73	37	100	243	190	118	82	27	5.1	9.6	16
12	3.4	85	127	87	268	190	95	61	23	5.8	15	948
13	3.3	3,000	286	102	2,480	190	84	683	20	5.3	18	3,910
14	3.5	900	206	73	2,240	181	75	628	20	4.8	12	4,630
15	5.8	1,500	149	82	306	169	64	219	28	4.6	8.8	634
16	12	800	115	70	181	203	55	275	33	4.0	7.4	250
17	21	350	1,780	60	129	146	51	339	28	4.4	5.8	137
18	10	149	566	45	163	104	47	163	22	4.2	4.8	132
19	7.1	135	236	35	257	310	42	102	17	4.8	4.6	106
20	5.5	135	160	27	343	1,320	39	77	15	20	4.6	87
21	5.1	322	115	30	456	330	38	172	13	25	4.4	82
22	671	193	102	31	841	197	34	268	13	13	4.4	82
23	1,160	127	98	34	1,730	172	33	118	10	8.1	3.8	62
24	334	95	113	36	476	154	30	75	9.6	5.8	3.7	50
25	129	73	108	39	272	108	29	58	8.5	11	3.3	42
26	73	64	95	50	203	93	29	49	7.7	10	3.2	36
27	52	61	80	45	1,150	84	28	40	6.7	15	233	33
28	40	58	91	30	528	75	28	35	6.1	9.6	4,690	32
29	32	55	93	32	-----	72	38	31	5.5	6.7	1,140	32
30	28	87	115	35	-----	67	46	32	5.5	17	175	30
31	24	-----	127	30	-----	57	-----	286	-----	24	85	-----
TOTAL	2,663.5	9,622	5,419	5,395	16,009	9,149	4,368	4,550	1,398.6	285.6	7,206.4	11,572
MEAN	85.9	321	175	174	572	295	146	147	46.6	9.21	232	386
MAX	1,160	3,000	1,780	2,220	2,480	1,340	1,790	683	347	25	4,690	4,630
MIN	3.3	19	37	27	20	57	28	28	5.5	4.0	3.2	13
CFSM	.88	3.30	1.80	1.79	5.87	3.03	1.50	1.51	.48	.09	2.38	3.96
IN.	1.02	3.67	2.07	2.06	6.11	3.49	1.67	1.74	.53	.11	2.75	4.42

CAL YR 1970 TOTAL 56,755.0 MEAN 155 MAX 4,730 MIN 3.3 CFSM 1.59 IN 21.68
WTR YR 1971 TOTAL 77,638.1 MEAN 213 MAX 4,690 MIN 3.2 CFSM 2.19 IN 29.65

PEAK DISCHARGE (BASE, 3,100 CFS)

* About.

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-5	0500	6.38	3,900	8-28	0615	9.36	9,750
2-13	1445	8.33	7,290	9-13	1900*	9.03	8,920

DELAWARE RIVER BASIN

01463500 Delaware River at Trenton, N. J.
(International Hydrologic Decade River Station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mile upstream from Assumpink Creek, and at mile 134.5 upstream from Atlantic Ocean.

DRAINAGE AREA.--6,780 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.

AVERAGE DISCHARGE.--59 years, 11,350 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 66,400 cfs Aug. 28 (elevation, 15.38 ft); minimum, 3,010 cfs Aug. 17 (elevation, 8.07 ft). Flow in Delaware and Raritan Canal not included.

Period of record: Maximum discharge, 329,000 cfs Aug. 20, 1955 (gage height, 20.83 ft, datum then in use, from highwater mark in gage house), from rating curve extended above 230,000 cfs; minimum, 1,180 cfs Oct. 31, 1963 (gage height, -0.51 ft, datum then in use). Flow in Trenton power race and Delaware and Raritan Canal not included.

Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above mean sea level (discharge estimated, 295,000 cfs). Maximum elevation known, 30.6 ft above mean sea level Mar. 8, 1904, from floodmark (ice jam).

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 82) and by Lake Hopatcong and Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see New Jersey Annual Report), and Wild Creek Reservoir (see p. 82) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see New Jersey Annual Report). Water diverted just above station by borough of Morrisville, Pa., and city of Trenton for municipal supply (see New Jersey Annual Report). Records of water quality for the current year are published in Part 2 of the New Jersey Annual Report.

REVISIONS (WATER YEARS).--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,300	8,000	10,400	5,690	5,200	38,800	13,800	12,200	14,800	4,500	6,620	9,750
2	3,690	7,570	9,910	5,930	4,100	37,700	13,700	11,200	12,500	4,780	11,500	7,570
3	3,390	7,110	9,210	5,420	4,900	33,400	15,700	10,200	11,800	5,190	9,880	6,460
4	3,460	6,660	8,700	5,650	5,700	32,200	22,800	10,200	11,000	4,580	14,300	5,760
5	3,580	9,350	8,790	13,500	6,000	26,600	25,900	10,800	10,000	4,250	16,700	5,410
6	3,970	9,910	8,810	15,500	6,200	23,300	25,900	10,200	8,990	4,250	15,700	5,020
7	4,070	8,840	8,710	12,300	6,400	25,800	31,700	9,930	9,240	4,130	11,300	5,110
8	3,930	7,890	8,070	10,700	7,000	28,100	28,000	9,740	9,160	4,050	8,570	5,210
9	3,930	7,150	7,330	10,700	8,000	24,900	25,000	10,600	8,170	3,710	6,800	5,350
10	4,080	6,580	7,180	10,200	7,000	21,700	22,200	10,500	7,330	3,920	5,740	5,280
11	3,850	6,960	7,280	8,780	6,600	18,200	23,500	10,700	6,530	4,160	5,040	5,620
12	3,770	14,500	7,880	8,380	6,970	17,100	24,600	10,300	5,870	4,110	5,110	9,350
13	3,670	29,600	9,040	8,610	15,800	16,800	23,500	11,600	5,560	3,740	4,830	20,500
14	4,090	35,000	8,260	7,960	37,400	16,900	24,600	17,300	5,350	3,790	4,230	27,300
15	4,440	34,400	7,330	8,010	21,200	16,700	28,700	26,600	6,500	3,830	3,930	18,700
16	7,750	32,000	7,490	7,710	20,600	21,300	26,600	23,200	7,110	3,670	4,040	14,500
17	7,760	28,200	12,300	6,680	23,100	34,600	21,900	20,600	7,800	3,890	3,250	11,700
18	7,700	24,900	10,600	5,860	20,500	38,000	18,900	18,100	7,410	3,900	3,790	11,700
19	6,490	20,000	8,790	5,400	19,600	30,800	16,800	15,800	6,470	4,500	4,000	10,600
20	5,200	18,100	8,450	5,700	17,600	34,400	15,500	14,100	6,070	4,820	3,930	8,950
21	4,740	19,100	8,420	6,200	19,200	28,800	14,900	12,900	5,630	4,770	4,030	8,170
22	6,110	19,800	8,610	6,600	21,800	24,900	14,700	13,000	5,300	4,030	4,280	9,260
23	24,900	19,700	9,060	7,200	30,100	23,200	14,300	12,800	5,250	3,550	4,250	9,950
24	31,200	18,000	8,270	6,300	29,600	20,600	13,800	11,100	4,920	3,530	4,110	9,070
25	30,000	15,700	7,820	5,800	27,500	18,300	12,600	10,100	4,700	3,970	3,920	8,110
26	19,200	14,800	7,640	5,700	25,300	16,700	11,700	10,500	4,640	4,180	3,870	7,600
27	14,600	13,700	7,090	6,600	28,000	15,200	11,000	11,000	4,920	4,140	7,820	7,210
28	12,200	12,200	6,400	5,800	33,500	14,200	10,800	9,570	4,820	4,330	36,800	6,770
29	9,980	10,500	6,160	6,000	-----	13,100	10,700	8,930	4,580	4,510	22,700	6,650
30	8,990	10,400	5,870	6,600	-----	13,000	10,800	8,320	4,720	4,980	17,800	6,640
31	7,860	-----	6,190	6,000	-----	13,900	-----	9,240	-----	5,420	12,300	-----
TOTAL	262,890	476,620	256,060	237,480	464,870	739,200	574,600	391,330	217,140	131,180	271,140	278,970
MEAN	8,480	15,890	8,260	7,661	16,600	23,850	19,150	12,620	7,238	4,232	8,746	9,299
MAX	31,200	35,000	12,300	15,500	37,400	38,800	31,700	26,600	14,800	5,420	36,800	27,300
MIN	3,390	6,580	5,870	5,400	4,100	13,000	10,700	8,320	4,580	3,530	3,250	5,020
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1970 TOTAL 4,073,560 MEAN 11,160 MAX 91,700 MIN 3,020 CFSM - IN. -
WTR YR 1971 TOTAL 4,301,480 MEAN 11,780 MAX 38,800 MIN 3,250 CFSM - IN. -

PEAK DISCHARGE (BASE, 50,000 CFS).--Aug. 28 (0830) 66,400 cfs (15.38 ft).

01465500 Neshaminy Creek near Langhorne, Pa.

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, on left bank at bridge on State Highway 213, 0.3 mile downstream from Mill Creek, and 1.7 miles west of Langhorne.

DRAINAGE AREA.--210 sq mi.

PERIOD OF RECORD.--October 1914 to current year.

GAGE.--Water stage recorder. Datum of gage is 20.57 ft above mean sea level.

AVERAGE DISCHARGE.--37 years, 270 cfs (17.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 21,200 cfs Aug. 28 (gage height, 14.80 ft), from rating curve extended as explained below; minimum 9.9 cfs Oct. 6, 8 (gage height, 0.54 ft).
 Period of record: Maximum discharge, 49,300 cfs Aug. 19, 1955 (gage height, 22.84 ft, from floodmarks), from rating curve extended above 4,700 cfs on basis of contracted-opening measurement at gage height, 15.94 ft, and slope-area measurement of peak flow; minimum, 1.9 cfs Sept. 8, 1957; minimum gage height, 0.35 ft Sept. 1, 2, 1963.
 Flood of Aug. 23, 1933, reached a stage of 17.3 ft, from floodmark (discharge, 30,000 cfs, from rating curve extended as explained above).

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station. Occasional regulation by Springfield Lake (capacity, 650,000,000 gal), completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, September, October 1961. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report. Interceptor sewer installed along left bank in May, June 1966.

REVISIONS (WATER YEARS).--WSP 1332: 1949. WSP 1432: 1936-37.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	58	209	168	90	454	177	125	243	44	187	254
2	24	58	177	187	80	383	174	115	150	45	723	216
3	17	58	165	203	90	383	183	123	131	47	240	190
4	24	75	168	257	110	1,940	171	115	125	44	535	174
5	24	530	159	3,440	371	882	153	103	108	42	324	156
6	12	250	144	1,400	613	924	168	115	98	39	180	142
7	19	139	128	520	560	2,400	3,760	147	128	37	113	131
8	12	113	115	351	4,950	1,050	1,510	144	115	35	84	125
9	17	95	125	328	2,310	520	545	236	93	33	69	118
10	18	93	125	290	379	431	413	159	80	120	62	110
11	20	125	123	265	243	409	336	128	71	98	65	798
12	19	2,980	150	261	247	379	294	115	67	54	229	2,630
13	22	2,270	243	247	4,110	351	272	786	67	47	84	6,540
14	38	1,070	196	232	3,140	336	257	894	73	41	62	8,470
15	42	2,250	168	239	379	320	219	328	136	37	51	1,750
16	131	876	159	195	275	351	206	798	105	33	45	673
17	58	472	3,330	170	243	305	193	712	84	33	44	476
18	34	359	774	150	216	257	187	339	71	32	42	404
19	27	363	418	120	272	367	168	257	64	32	88	347
20	24	347	339	100	336	1,390	162	212	64	32	65	312
21	24	575	279	110	662	490	156	209	56	33	56	467
22	870	343	275	130	640	359	150	233	64	33	95	355
23	1,700	286	312	140	2,670	371	139	183	73	28	73	272
24	298	247	510	150	679	359	136	159	60	21	44	250
25	156	212	371	152	413	286	130	147	51	29	37	219
26	115	196	305	130	343	261	125	147	48	32	34	203
27	95	190	250	110	1,620	247	120	128	45	53	3,220	203
28	82	183	223	90	768	229	115	120	44	39	15,400	196
29	75	174	199	100	-----	223	110	113	44	32	1,200	187
30	69	212	209	110	-----	209	139	118	42	668	445	174
31	64	-----	219	100	-----	196	-----	223	-----	629	320	-----
TOTAL	4,156	15,199	10,567	10,445	26,809	17,062	10,868	7,731	2,600	2,522	24,216	26,542
MEAN	134	507	341	337	957	550	362	249	86.7	81.4	781	885
MAX	1,700	2,980	3,330	3,440	4,950	2,400	3,760	894	243	668	15,400	8,470
MIN	12	58	115	90	80	196	110	103	42	21	34	110
CFSM	.64	2.41	1.62	1.60	4.56	2.62	1.72	1.19	.41	.39	3.72	4.21
IN.	.74	2.69	1.87	1.85	4.75	3.02	1.93	1.37	.46	.45	4.29	4.70

CAL YR 1970 TOTAL 113,792 MEAN 312 MAX 7,440 MIN 12 CFSM 1.49 IN 20.16
 WTR YR 1971 TOTAL 158,717 MEAN 435 MAX 15,400 MIN 12 CFSM 2.07 IN 28.12

PEAK DISCHARGE (BASE, 3,600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-12	1130	7.34	5,250	2-23	0830	6.26	3,830
12-17	1100	8.01	6,240	4- 7	1830	8.36	6,800
1- 5	1630	6.83	4,550	8-28	0800	14.80	21,200
2- 8	0830	9.83	9,440	9-14	0630	14.32	19,900
2-14	0030	10.94	11,700				

DELAWARE RIVER BASIN

01465770 Poquessing Creek at Trevose Road, Philadelphia, Pa.

LOCATION.--Lat 40°07'55", long 74°59'40", Bucks County, on right bank 30 ft downstream from Trevose Road Bridge, 1 mile southwest of Trevose.

DAINAGE AREA.--5.08 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 120 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 6.03 cfs (16.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,200 cfs Aug. 28 (gage height, 9.10 ft from floodmark), from rating curve extended above 435 cfs; minimum, 0.43 cfs July 27, 28 (gage height 1.22 ft).

Period of record: Maximum discharge, 1,200 cfs Aug. 28, 1971 (gage height, 9.10 ft from floodmark), from rating curve extended above 435 cfs; minimum daily, 0.1 cfs Aug. 31, 1966.

REMARKS.--Records fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.1	2.5	3.8	1.7	7.4	3.2	3.2	3.8	2.6	7.4	7.0
2	.85	1.4	2.5	2.8	1.5	6.6	2.8	3.4	3.0	1.9	7.4	6.0
3	1.7	1.3	2.3	2.6	1.7	11	2.5	3.6	4.2	1.3	3.2	6.5
4	1.2	8.4	2.6	18	2.0	44	2.0	3.6	3.0	1.1	4.0	5.5
5	.73	11	2.5	43	25	5.5	1.7	3.6	2.6	1.1	26	5.0
6	.73	2.8	3.4	6.6	4.2	4.8	1.9	9.1	4.2	.99	3.8	5.2
7	.79	2.0	2.5	4.0	14	11	53	4.8	3.0	.92	3.0	5.0
8	.73	2.0	2.3	3.8	54	6.3	30	11	1.7	.85	2.8	5.0
9	.61	1.9	2.5	3.0	15	5.8	10	5.1	1.6	1.4	2.8	5.0
10	.61	2.2	2.5	2.8	5.1	6.0	6.0	2.8	1.6	1.2	2.6	8.4
11	.73	4.8	2.6	2.8	3.8	6.6	5.0	2.5	1.4	1.2	3.8	104
12	.73	30	6.9	2.8	3.2	6.0	4.7	2.3	1.8	.99	2.0	118
13	.67	22	3.6	2.6	39	5.0	4.5	12	1.8	.85	1.6	66
14	.85	7.8	2.6	3.8	10	4.0	4.4	6.6	6.8	.73	1.6	20
15	4.6	24	2.2	3.2	5.3	4.8	4.4	2.6	3.0	.67	1.5	14
16	.99	6.9	10	2.5	4.4	4.4	4.3	25	4.2	.67	1.4	7.4
17	.73	3.8	42	2.0	4.2	4.0	4.2	8.4	2.2	1.4	1.1	6.0
18	.73	3.4	5.1	1.7	4.0	5.0	4.0	5.1	3.2	.92	1.1	5.5
19	.73	5.8	3.8	1.5	3.8	25	3.9	4.4	1.9	2.0	46	5.1
20	.67	11	3.2	1.7	5.1	9.1	3.8	4.2	1.7	2.0	4.8	4.8
21	5.3	5.3	3.0	1.8	5.8	7.1	3.7	5.8	4.8	1.9	9.8	34
22	55	3.4	7.4	2.3	11	6.9	3.6	4.4	2.2	2.0	4.2	4.6
23	6.0	3.2	13	4.0	28	8.1	3.6	4.0	2.0	1.9	2.0	5.1
24	2.0	2.8	7.8	2.2	8.7	5.5	4.0	3.6	1.7	1.9	1.4	5.3
25	1.6	2.6	4.4	3.0	6.6	5.8	4.5	4.6	1.5	3.2	1.3	5.8
26	1.6	2.6	3.8	10	5.5	5.5	4.0	5.5	1.9	1.5	1.3	7.1
27	1.1	2.5	3.4	2.5	29	5.3	3.8	3.4	2.6	.79	177	8.4
28	1.1	2.5	3.0	2.0	8.7	5.3	3.6	3.4	2.6	.56	220	8.7
29	1.1	3.4	2.8	2.1	-----	5.1	8.0	3.0	2.2	5.8	25	8.1
30	1.1	4.0	2.6	2.2	-----	4.0	3.6	7.1	1.3	82	10	7.1
31	1.1	-----	2.6	2.0	-----	3.2	-----	6.3	-----	24	8.0	-----
TOTAL	98.38	185.9	161.4	149.1	310.3	244.1	198.7	174.4	79.5	150.34	587.9	503.6
MEAN	3.17	6.20	5.21	4.81	11.1	7.87	6.62	5.63	2.65	4.85	19.0	16.8
MAX	55	30	42	43	54	44	53	25	6.8	82	220	118
MIN	.61	1.1	2.2	1.5	1.5	3.2	1.7	2.3	1.3	.56	1.1	4.6
CFSM	.62	1.22	1.03	.95	2.19	1.55	1.30	1.11	.52	.95	3.74	3.31
IN.	.72	1.36	1.18	1.09	2.27	1.79	1.46	1.28	.58	1.10	4.31	3.69

CAL YR 1970 TOTAL 2,103.28 MEAN 5.76 MAX 125 MIN .50 CFSM 1.13 IN 15.40
 WTR YR 1971 TOTAL 2,843.62 MEAN 7.79 MAX 220 MIN .56 CFSM 1.53 IN 20.82

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7-30	1215	5.24	434	9-11	1245	6.15	572
8-28	0500	9.10	1,200	9-13	0630	4.38	307

DELAWARE RIVER BASIN

55

01465785 Walton Run at Philadelphia, Pa.

LOCATION.--Lat 40°05'22", long 74°59'37", Philadelphia County, on right bank 110 ft downstream from bridge on Decatur Road, 1 mile upstream from mouth, Philadelphia.

DRAINAGE AREA.--2.17 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 77.63 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 3.02 cfs (18.90 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,130 cfs Aug. 28 (gage height, 8.71 ft); minimum, 0.18 cfs Dec. 7 (gage height, 2.25 ft).

Period of record: Maximum discharge, 1,430 cfs (revised) Aug. 27, 1967 (gage height, 9.46 ft), from rating curve extended above 740 cfs on basis of step-backwater analysis; minimum, 0.07 cfs Dec. 24, 25, 1966 (gage height, 2.18 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	.81	.82	.59	.35	1.1	.95	.59	4.9	6.0	2.3	1.1
2	.61	.68	.77	.60	.30	1.1	1.2	3.0	4.9	1.7	.61	1.0
3	1.4	1.1	.79	.73	.40	12	1.2	.92	8.4	.54	1.0	1.1
4	.48	17	.93	18	.80	24	1.2	.80	5.2	.48	6.0	.76
5	.54	1.8	.52	23	16	3.6	1.4	.78	4.0	.43	14	.68
6	.54	.75	.36	1.8	1.4	1.6	7.4	5.7	2.3	.61	.84	.61
7	.61	.47	.51	1.1	33	13	54	1.4	.74	.61	.76	.76
8	.54	.32	.69	1.1	30	1.6	2.7	6.7	.78	.61	.76	.84
9	.61	.53	.72	.89	4.5	1.2	1.3	.94	.79	.68	.68	.80
10	.34	3.1	.67	.68	1.1	1.2	.98	.77	.75	.76	.48	.80
11	.27	15	.67	.85	1.0	1.8	.88	.74	.80	1.0	.48	80
12	.54	18	4.6	.99	1.0	1.2	.98	.77	1.1	.68	.48	28
13	.68	12	.75	.96	37	.96	1.1	6.6	.44	.68	.43	55
14	.54	1.3	.68	2.7	3.8	.80	1.3	1.6	5.5	.61	.34	7.7
15	.92	24	.73	1.1	1.2	1.6	1.1	.60	.92	.61	.54	2.7
16	.61	1.5	10	.68	.92	1.1	1.1	27	1.6	.61	.48	1.6
17	.34	1.3	23	.54	1.2	.99	.82	1.6	.72	1.3	.48	1.5
18	.24	1.1	1.3	.45	.92	.92	.80	.96	.73	1.3	.54	1.2
19	.48	3.9	.78	.40	.76	15	1.2	.87	.65	2.4	54	1.9
20	.54	7.4	.54	.45	5.7	2.1	.97	.83	.82	.66	2.7	1.4
21	6.2	1.3	.85	.50	1.4	.94	.86	3.1	4.4	.69	12	20
22	37	.58	8.9	.90	8.5	1.3	.82	1.8	1.2	.60	2.0	1.6
23	2.3	.78	9.2	3.0	17	4.6	.81	4.9	1.2	.69	1.3	1.6
24	.68	.91	3.7	.62	1.5	1.1	.61	5.2	1.3	.74	1.2	1.4
25	.88	.80	.77	2.4	1.2	1.0	.55	7.1	1.1	.62	1.2	1.1
26	.90	.61	.65	7.6	1.1	1.0	.71	6.6	2.1	.90	1.2	1.1
27	.78	.65	.54	.93	19	.82	.72	4.8	2.1	.82	173	1.4
28	.70	.53	.50	.60	1.4	.71	1.4	4.7	1.6	.64	145	1.3
29	.74	2.1	.40	.65	-----	.93	4.5	4.3	1.8	16	2.0	1.3
30	.66	1.5	.40	.70	-----	.90	.76	12	2.0	97	1.5	1.3
31	.53	-----	.50	.40	-----	.91	-----	7.0	-----	27	1.4	-----
TOTAL	63.04	121.82	76.24	75.91	192.45	101.08	94.32	124.67	64.84	167.97	429.70	221.55
MEAN	2.03	4.06	2.46	2.45	6.87	3.26	3.14	4.02	2.16	5.42	13.9	7.39
MAX	37	24	23	23	37	24	54	27	8.4	97	173	80
MIN	.24	.32	.36	.40	.30	.71	.55	.59	.44	.43	.34	.61
CFSM	.94	1.87	1.13	1.13	3.17	1.50	1.45	1.85	1.00	2.50	6.41	3.41
IN.	1.08	2.09	1.31	1.30	3.30	1.73	1.62	2.14	1.11	2.88	7.37	3.80

CAL YR 1970 TOTAL 1,063.99 MEAN 2.92 MAX 71 MIN .24 CFSM 1.35 IN 18.24
WTR YR 1971 TOTAL 1,733.59 MEAN 4.75 MAX 173 MIN .24 CFSM 2.19 IN 29.72

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-7	2145	5.37	274	8-27	1030	7.40	701
7-30	1315	7.06	609	8-28	0415	8.71	1,130
8-19	1800	7.77	811	9-11	1115	7.73	799
8-21	1845	5.31	266	9-13	0345	6.43	458

DELAWARE RIVER BASIN

01465790 Byberry Creek at Chalfont Road, Philadelphia, Pa.

LOCATION.--Lat 40°05'01", long 74°58'57", Philadelphia County, on right bank 200 ft downstream from Chalfont Road bridge, 0.2 mile downstream from Walton Run, Philadelphia.

DRAINAGE AREA.--5.34 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 48.98 ft above mean sea level.

AVERAGE DISCHARGE.--6 years 7.64 cfs (19.43 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,930 cfs Aug. 28 (gage height, 12.47 ft, from floodmark, from rating curve extended above 950 cfs; minimum, 0.61 cfs Oct. 17 (gage height, 1.52 ft).
Period of record: Maximum discharge, 1,930 cfs Aug. 28, 1971 (gage height, 12.47 ft, from floodmark), from rating curve extended above 950 cfs; minimum, 0.4 cfs Aug. 4, 1965; minimum gage height, 1.27 ft June 4, 1965, before completion of control.

REMARKS.--Records good except those for winter months, which are fair. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	2.0	2.6	1.6	3.5	2.4	2.6	2.4	16	8.6	6.0
2	1.7	1.8	1.8	2.3	1.5	3.3	2.8	5.7	2.4	5.0	4.5	5.0
3	2.1	3.3	1.8	2.4	1.7	22	3.1	3.5	6.0	1.8	8.6	5.4
4	1.6	42	2.0	39	2.5	56	2.6	2.8	2.8	1.7	15	4.8
5	1.2	6.0	1.6	53	49	8.2	2.4	2.6	3.1	1.6	45	4.5
6	1.4	2.1	1.4	6.0	5.1	5.7	11	6.7	6.3	1.7	2.9	4.8
7	1.3	2.1	1.4	3.5	80	29	106	4.3	2.4	1.8	2.3	4.5
8	1.3	1.7	1.7	3.1	90	5.4	8.2	7.0	2.4	1.9	2.0	4.3
9	1.3	1.6	1.7	2.8	15	4.3	4.8	4.3	2.3	2.0	2.0	4.3
10	1.1	4.8	1.7	2.4	5.4	3.8	4.0	3.1	2.1	2.2	1.8	4.3
11	.94	29	1.7	2.4	3.5	5.1	3.5	2.8	2.3	2.8	1.7	166
12	1.1	48	8.6	2.8	2.9	3.8	3.5	2.6	2.9	1.8	1.7	125
13	1.3	28	2.1	2.6	89	3.5	3.5	4.3	3.5	1.8	1.6	77
14	1.8	4.0	1.7	5.7	12	3.1	3.5	5.7	21	1.7	1.4	22
15	1.7	57	1.7	2.9	4.8	4.0	3.3	6.0	2.6	1.6	1.7	14
16	1.3	4.8	19	2.3	3.8	3.5	3.3	55	3.5	1.6	1.6	7.8
17	1.1	2.9	59	2.0	3.3	3.1	3.1	4.8	2.1	2.9	1.4	5.7
18	1.0	2.6	3.3	1.7	3.3	3.1	3.1	3.3	2.1	2.8	1.6	5.4
19	1.6	7.4	2.3	1.5	2.6	39	3.1	2.9	2.3	6.0	84	7.4
20	1.3	15	1.8	1.6	16	7.0	3.3	2.8	2.8	1.8	4.2	5.4
21	17	3.8	2.1	1.8	5.4	3.5	4.5	6.7	7.0	2.4	24	45
22	99	2.1	17	2.0	15	3.8	4.5	2.8	3.5	1.6	2.9	5.4
23	5.4	2.1	19	6.3	45	11	4.3	2.9	3.5	1.7	1.9	5.1
24	2.0	2.1	8.2	2.1	4.8	3.8	3.8	3.1	3.8	2.9	8.3	4.8
25	2.1	2.0	2.6	4.8	3.5	3.3	4.0	4.3	3.5	1.7	13	4.3
26	2.0	1.8	2.3	15	3.3	3.3	4.8	5.1	5.0	4.5	17	4.3
27	1.7	1.7	2.1	2.5	43	3.3	5.4	3.1	6.0	2.3	392	4.8
28	1.6	1.7	2.1	2.0	4.5	3.5	7.0	2.9	5.2	2.0	450	4.3
29	1.6	3.3	2.3	2.1	-----	3.3	8.6	2.6	5.4	49	15	4.3
30	1.4	4.0	2.1	2.2	-----	3.1	2.8	8.6	6.0	211	8.0	4.3
31	1.2	-----	2.1	1.7	-----	2.8	-----	4.5	-----	69	7.0	-----
TOTAL	162.94	290.7	180.2	185.1	517.5	261.1	230.2	179.4	126.2	408.6	1,132.7	570.2
MEAN	5.26	9.69	5.81	5.97	18.5	8.42	7.67	5.79	4.21	13.2	36.5	19.0
MAX	.99	57	59	53	90	56	106	55	21	211	450	166
MIN	.94	1.6	1.4	1.5	1.5	2.8	2.4	2.6	2.1	1.6	1.4	4.3
CFSM	.99	1.81	1.09	1.12	3.46	1.58	1.44	1.08	.79	2.47	6.84	3.56
IN.	1.14	2.03	1.26	1.29	3.61	1.82	1.60	1.25	.88	2.85	7.89	3.97

CAL YR 1970 TOTAL 2,637.14 MEAN 7.23 MAX 176 MIN .94 CFSM 1.35 IN 18.37
WTR YR 1971 TOTAL 4,244.84 MEAN 11.6 MAX 450 MIN .94 CFSM 2.17 IN 29.57

PEAK DISCHARGE (BASE, 400 CFS)

* About.

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-7	2300	7.13	569	8-28	0500*	12.47	1,930
7-30	1315	9.76	1,100	9-11	1230	9.33	992
8-27	1145	10.49	1,600	9-13	0500*	8.33	786

01469500 Little Schuylkill River at Tamaqua, Pa.

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, on left bank at pumping plant of Panther Valley Water Co., 0.6 mile upstream from Tamaqua, and 0.8 mile upstream from Panther Creek.

DRAINAGE AREA.--42.9 sq mi.

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. June 1916 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft above mean sea level. Prior to June 21, 1929, nonrecording gage at site 3,600 ft downstream at datum 28.64 ft lower.

AVERAGE DISCHARGE.--52 years, 90.6 cfs (28.68 inches per year), adjusted for diversion and, since February 1933, for storage.

EXTREMES.--Current year: Maximum discharge, 810 cfs Feb. 14 (gage height, 4.92 ft); minimum daily, 11 cfs Oct. 13, 14.

Period of record: Maximum discharge, 7,790 cfs Aug. 18, 1955 (gage height, 11.10 ft), from rating curve extended above 3,200 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 2.9 cfs Sept. 2, 1966.

REMARKS.--Records fair. Flow regulated by Still Creek Reservoir 6.5 miles upstream (see p. 83). Figures of daily discharge do not include water diverted from reservoir.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	43	97	33	28	419	88	36	70	24	36	24
2	14	34	71	33	25	348	84	39	63	23	48	23
3	14	31	66	34	23	286	98	40	87	19	228	22
4	16	32	77	38	24	264	90	37	52	18	305	22
5	15	73	67	58	27	199	82	35	40	17	183	22
6	14	47	64	62	32	168	72	36	50	16	132	22
7	13	41	57	57	34	201	78	36	54	16	104	28
8	13	38	52	54	36	189	70	37	45	15	86	33
9	13	38	49	50	41	156	66	39	36	14	71	20
10	12	37	47	58	45	139	64	37	32	20	62	22
11	14	50	46	72	35	133	60	35	29	19	58	19
12	13	231	62	73	30	137	56	35	28	18	52	44
13	11	504	57	66	180	153	54	63	27	14	44	265
14	11	450	52	68	587	168	52	81	35	16	40	272
15	180	400	38	63	314	228	48	73	41	14	37	167
16	140	330	40	59	213	308	46	90	39	13	34	127
17	70	260	49	52	162	314	46	93	32	13	32	116
18	48	210	44	46	139	269	45	78	28	17	30	92
19	37	170	41	43	133	243	44	73	26	20	28	79
20	28	160	50	40	141	236	44	73	24	27	28	75
21	28	230	52	36	187	194	45	93	24	17	27	116
22	300	180	50	38	228	173	43	104	27	14	27	86
23	250	160	49	38	409	162	41	101	24	13	23	79
24	140	140	48	35	391	149	43	96	23	13	22	73
25	110	130	46	32	300	133	45	99	21	17	21	64
26	84	110	47	36	272	125	43	102	20	15	20	62
27	70	100	46	39	452	114	40	90	20	40	47	66
28	60	96	44	34	479	111	36	88	19	18	99	71
29	52	92	40	31	-----	107	40	72	18	45	46	64
30	47	110	38	33	-----	101	37	57	20	41	33	58
31	47	-----	35	31	-----	91	-----	81	-----	42	27	-----
TOTAL	1,879	4,527	1,621	1,442	4,967	6,018	1,700	2,049	1,054	628	2,030	2,233
MEAN	60.6	151	52.3	46.5	177	194	56.7	66.1	35.1	20.3	65.5	74.4
MAX	300	504	97	73	587	419	98	104	87	45	305	272
MIN	11	31	35	31	23	91	36	35	18	13	20	19
(%)	11.6	11.1	11.0	11.2	11.9	12.0	11.2	11.1	10.8	9.6	11.1	10.6
MEAN [†]	65.5	188	63.3	57.2	190	205	66.9	78.2	43.9	25.7	79.9	85.7
CFSM [‡]	1.53	4.38	1.48	1.33	4.43	4.78	1.56	1.82	1.02	.60	1.86	2.00
IN. [§]	1.76	4.89	1.71	1.53	4.61	5.51	1.74	2.10	1.14	.69	2.14	2.23

CAL YR 1970 TOTAL 31,147 MEAN 85.3 MAX 887 MIN 11 MEAN[†] 98.1 CFSM[‡] 2.29 IN.[§] 31.06
 CAL YR 1971 TOTAL 30,148 MEAN 82.6 MAX 587 MIN 11 MEAN[†] 95.1 CFSM[‡] 2.22 IN.[§] 30.05

PEAK DISCHARGE (BASE, 700 CFS).--Feb. 14 (0230) 810 cfs (4.92 ft).

[†] Diversion from Still Creek Reservoir, equivalent in cubic feet per second, furnished by Panther Valley Water Company.

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

DELAWARE RIVER BASIN

01470500 Schuylkill River at Berne, Pa.

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, on right bank 50 ft upstream from highway bridge at Berne, 0.5 mile upstream from Mill Creek, and 6.5 miles downstream from Little Schuylkill River.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--August 1947 to current year. Monthly discharge only for August 1947, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 654 cfs (25.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 15,600 cfs Feb. 13 (gage height, 11.57 ft); minimum, 114 cfs Oct. 10, 14, 15; minimum gage height, 4.52 ft July 24.

Period of record: Maximum discharge, 29,400 cfs Aug. 19, 1955 (gage height, 15.73 ft), from rating curve extended above 17,000 cfs; minimum, 31 cfs Sept. 2, 1949.

Flood in May 1942, reached a stage of 15.0 ft, from floodmarks (discharge, 26,900 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mine pumpage and by Still Creek Reservoir about 25 miles upstream from station (see p. 83).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	437	752	420	280	2,790	690	298	746	195	568	328
2	147	407	676	410	240	2,390	684	327	632	234	987	309
3	142	385	616	430	220	2,090	771	394	705	189	2,130	294
4	161	425	762	520	250	1,980	690	303	583	190	3,490	291
5	142	988	675	1,220	300	1,580	630	286	504	173	1,830	285
6	128	758	648	1,190	360	1,440	582	311	550	151	1,210	271
7	123	634	604	1,000	460	1,870	636	337	519	154	926	270
8	123	588	540	864	505	1,940	562	376	435	153	755	235
9	123	530	538	797	823	1,590	537	410	388	142	636	227
10	119	484	524	741	560	1,380	526	375	350	196	524	206
11	142	558	507	697	432	1,290	501	334	328	182	498	219
12	133	2,540	640	642	389	1,270	475	352	324	175	515	335
13	119	6,560	651	584	4,740	1,500	450	830	336	143	404	1,030
14	119	4,710	591	565	4,000	1,480	427	1,350	379	157	382	1,430
15	1,770	4,240	539	538	2,800	1,650	396	1,110	395	148	368	893
16	1,330	3,450	523	493	1,700	2,050	383	1,150	361	137	340	683
17	642	2,600	692	430	1,300	1,980	381	1,000	299	136	296	765
18	481	2,050	788	400	1,100	1,720	383	843	277	170	279	634
19	371	1,690	802	380	1,400	1,690	360	756	265	171	266	566
20	304	1,590	900	360	1,550	2,170	361	701	238	285	273	511
21	309	2,270	912	330	1,900	1,820	365	688	240	163	279	773
22	3,440	1,800	883	360	2,550	1,630	352	685	238	138	297	593
23	2,550	1,630	827	370	3,990	1,500	348	641	221	134	279	526
24	1,510	1,390	786	340	3,260	1,370	351	596	208	131	232	501
25	1,130	1,230	669	350	2,530	1,210	362	566	206	177	230	467
26	880	1,120	624	370	2,180	1,100	348	885	197	151	224	454
27	738	1,020	560	380	2,980	1,020	333	603	214	406	506	461
28	600	943	520	320	3,170	963	304	542	197	209	1,200	448
29	519	897	480	300	-----	999	345	517	191	162	602	437
30	459	1,000	440	320	-----	796	298	533	199	603	445	387
31	454	-----	410	320	-----	727	-----	955	-----	420	358	-----
TOTAL	19,364	48,924	20,079	16,441	45,969	48,885	13,831	19,054	10,725	6,175	21,329	14,829
MEAN	625	1,631	648	530	1,642	1,577	461	615	358	199	688	494
MAX	3,440	6,560	912	1,220	4,740	2,790	771	1,350	746	603	3,490	1,430
MIN	119	385	410	300	220	727	298	286	191	131	224	206
CFSM	1.76	4.59	1.83	1.49	4.63	4.44	1.30	1.73	1.01	.56	1.94	1.39
IN.	2.03	5.13	2.10	1.72	4.82	5.12	1.45	2.00	1.12	.65	2.24	1.55

CAL YR 1970 TOTAL 282,214 MEAN 773 MAX 11,500 MIN 119 CFSM 2.18 IN 29.57
WTR YR 1971 TOTAL 285,605 MEAN 782 MAX 6,560 MIN 119 CFSM 2.20 IN 29.93

PEAK DISCHARGE (BASE, 4,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1630	7.95	4,840	2-23	1230	7.96	4,870
11-13	0900	8.85	7,280	8- 3	2200	8.53	6,360
2-13	2330	11.57	15,600				

01470720 Maiden Creek tributary at Lenhartsville, Pa.

LOCATION.--Lat 40°34'23", long 75°52'34", Berks County, on left bank 60 ft downstream from culvert on Interstate Highway 78, 0.5 mile upstream from mouth, and 0.5 mile east of Lenhartsville.

DRAINAGE AREA.--7.46 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1962-65. October 1965 to current year.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 368.78 ft above mean sea level. July 12, 1961 to Sept. 15, 1965 crest-stage gage at site 60 ft upstream at same datum.

AVERAGE DISCHARGE.--6 years, 9.19 cfs (16.73 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,090 cfs Feb. 13 (gage height, 5.09 ft), from rating curve extended above 280 cfs; maximum gage height, 5.49 ft Feb. 13 (ice jam); minimum discharge, 0.75 cfs Oct. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15; minimum gage height, 2.22 ft July 8, 18, 19.

Period of record: Maximum discharge, 1,090 cfs Feb. 13, 1971 (gage height, 5.09 ft), from rating curve extended above 280 cfs; maximum gage height, 6.7 ft, from floodmark, Feb. 8, 1965; no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.0	6.4	5.4	2.6	29	5.3	2.2	18	1.8	10	6.8
2	1.1	2.8	5.6	5.2	2.4	21	5.6	2.6	17	1.8	17	5.7
3	.99	3.2	5.6	4.8	2.3	19	5.6	2.4	25	1.4	27	4.8
4	.87	4.4	7.2	19	2.7	20	4.4	2.0	15	1.4	30	4.2
5	.87	23	5.6	35	3.1	19	4.1	1.9	13	1.2	21	3.7
6	.87	14	5.3	38	4.3	17	4.4	2.6	13	1.4	14	3.3
7	.75	12	4.7	30	6.0	41	5.6	2.2	11	1.2	9.6	3.0
8	.75	9.7	6.4	22	17	50	4.1	6.4	8.6	1.1	7.2	2.8
9	.75	8.0	5.0	17	48	40	3.9	4.1	6.8	1.2	5.7	2.8
10	.75	6.8	5.0	14	21	28	3.9	3.7	5.7	1.4	5.1	2.7
11	.75	11	4.7	12	10	21	3.7	3.0	5.1	1.5	5.4	3.3
12	.75	35	10	11	12	19	3.4	3.2	4.8	1.5	4.2	4.8
13	.75	83	7.2	8.1	300	18	3.7	29	4.5	1.1	3.5	97
14	.75	79	7.2	7.6	91	16	3.2	28	11	1.4	3.3	84
15	11	95	7.2	6.8	34	17	3.0	21	6.4	1.1	2.8	57
16	3.4	78	7.6	6.0	29	15	3.0	23	5.1	1.1	2.7	45
17	2.2	53	18	5.0	17	13	2.8	15	4.2	1.5	2.5	33
18	1.7	35	23	4.5	43	12	2.6	13	3.7	1.2	2.3	26
19	1.6	24	29	4.1	32	26	2.4	11	3.5	2.8	2.3	21
20	1.4	24	28	3.9	44	38	2.4	10	3.3	3.5	2.3	17
21	4.1	21	24	3.6	53	37	2.4	11	3.0	1.7	2.1	21
22	21	17	21	4.0	85	29	2.4	8.1	2.8	1.4	2.0	13
23	16	15	19	4.0	87	21	2.2	6.8	2.7	1.2	1.8	13
24	12	13	16	3.5	55	17	2.2	6.0	2.5	1.2	1.7	11
25	9.7	12	13	3.6	37	13	2.2	6.4	2.5	1.7	1.5	9.1
26	7.6	10	11	3.9	26	11	2.4	6.0	2.3	1.2	1.5	9.1
27	6.0	9.0	9.5	3.9	50	9.5	2.2	4.7	2.1	3.3	13	8.6
28	5.0	7.6	8.5	3.2	38	8.5	2.6	4.4	2.0	1.4	40	7.7
29	4.1	7.6	7.2	3.3	-----	7.6	3.0	3.9	2.1	1.7	17	6.4
30	3.7	9.5	6.6	3.3	-----	6.8	2.4	5.6	2.3	2.5	12	5.7
31	3.4	-----	6.0	2.9	-----	6.0	-----	34	-----	2.8	8.6	-----
TOTAL	125.90	725.6	340.5	298.6	1,152.4	645.4	101.1	283.2	209.0	50.7	279.1	532.5
MEAN	4.06	24.2	11.0	9.63	41.2	20.8	3.37	9.14	6.97	1.64	9.00	17.8
MAX	21	95	29	38	300	50	5.6	34	25	3.5	40	97
MIN	.75	2.8	4.7	2.9	2.3	6.0	2.2	1.9	2.0	1.1	1.5	2.7
CFSM	.54	3.24	1.47	1.29	5.52	2.79	.45	1.23	.93	.22	1.21	2.39
IN.	.63	3.62	1.70	1.49	5.75	3.22	.50	1.41	1.04	.25	1.39	2.66

CAL YR 1970 TOTAL 4,085.57 MEAN 11.2 MAX 333 MIN .45 CFSM 1.50 IN 20.37
WTR YR 1971 TOTAL 4,744.00 MEAN 13.0 MAX 300 MIN .75 CFSM 1.74 IN 23.66

PEAK DISCHARGE (BASE, 90 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-15	0530	3.38	127	2-22	1500	3.72	227
2-13	1930	5.09	1,090	8-28	0545	3.22	93
2-18	1615	3.38	127	9-13	1200	3.96	325

DELAWARE RIVER BASIN

01470960 Tulpehocken Creek at Blue Marsh damsite near Reading, Pa.

LOCATION.--Lat 40°22'00", long 76°01'16", Berks County, on right bank 1 mile upstream from Rebers Bridge and Plum Creek, 1 mile east of Blue Marsh, 3 miles north of Sinking Spring and 5.5 miles northwest of Reading.

DRAINAGE AREA.--175 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 207 cfs (16.06 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,000 cfs Feb. 13 (gage height, 11.68 ft), from rating curve extended above 2,000 cfs; minimum, 62 cfs Oct. 9, 10, 11, 12, 13, 14, 15 (gage height, 1.55 ft).
Period of record: Maximum discharge, 11,000 cfs Feb. 13, 1971 (gage height, 11.68 ft), from rating curve extended above 2,000 cfs; minimum, 22 cfs Sept. 11, 12, 13, 1966; minimum gage height, 1.45 ft July 29, 30, 31, 1965.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	95	219	180	110	567	235	129	294	104	387	170
2	77	89	204	180	92	495	235	132	243	132	633	163
3	74	95	192	190	96	469	248	156	311	101	1,040	152
4	69	119	211	281	110	567	215	136	231	95	1,900	145
5	67	373	184	591	130	464	208	126	196	95	760	136
6	67	227	177	480	160	511	204	142	188	89	511	136
7	69	184	163	401	220	760	272	149	208	89	401	136
8	67	163	177	392	340	701	215	181	174	87	333	122
9	64	149	159	315	1,280	579	200	196	156	87	285	119
10	64	139	159	294	392	506	192	163	142	122	252	113
11	64	159	156	272	307	480	184	149	132	98	231	126
12	62	682	200	260	320	435	177	139	125	101	227	163
13	62	1,510	204	239	4,180	415	177	469	125	89	196	152
14	82	831	188	231	4,010	387	170	495	170	89	181	163
15	140	989	177	219	695	373	163	337	180	84	170	139
16	84	779	170	200	517	373	159	369	170	79	156	122
17	74	567	324	180	435	337	159	320	140	87	145	126
18	72	454	364	170	573	311	156	268	130	89	139	139
19	70	378	346	160	695	420	145	243	120	101	139	122
20	66	378	324	150	682	708	142	223	116	163	142	122
21	240	539	298	150	714	517	142	215	119	101	132	152
22	350	392	294	160	1,190	464	142	208	116	89	126	129
23	200	360	281	150	1,350	425	139	184	110	84	119	119
24	160	311	294	130	805	378	136	170	110	84	113	119
25	140	281	256	140	621	342	132	174	107	142	110	110
26	136	260	243	150	528	324	132	211	107	104	107	113
27	119	248	219	150	877	307	132	163	104	223	252	132
28	110	231	210	130	682	290	142	152	104	126	561	119
29	104	215	190	140	-----	281	170	145	101	107	264	116
30	101	281	180	130	-----	264	139	174	107	142	211	107
31	101	-----	180	120	-----	248	-----	464	-----	139	184	-----
TOTAL	3,237	11,478	6,943	6,935	22,111	13,698	5,262	6,782	4,636	3,322	10,407	3,982
MEAN	104	383	224	224	790	442	175	219	155	107	336	133
MAX	350	1,510	364	591	4,180	760	272	495	311	223	1,900	170
MIN	62	89	156	120	92	248	132	126	101	79	107	107
CFSM	.59	2.19	1.28	1.28	4.51	2.53	1.00	1.25	.89	.61	1.92	.76
IN.	.69	2.44	1.48	1.47	4.70	2.91	1.12	1.44	.99	.71	2.21	.85

CAL YR 1970 TOTAL 103,803 MEAN 284 MAX 3,750 MIN 62 CFSM 1.62 IN 22.07
WTR YR 1971 TOTAL 98,793 MEAN 271 MAX 4,180 MIN 62 CFSM 1.55 IN 21.00

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-12	2330	4.85	2,230	2-22	1830	5.40	2,780
2-13	2245	11.68	11,000	8- 4	0045	6.58	4,040

DELAWARE RIVER BASIN

61

01471000 Tulpehocken Creek near Reading, Pa.

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, on right bank 15 ft upstream from covered bridge, 1 mile downstream from Cacoosing Creek, 2.5 miles upstream from mouth, and 3.5 miles northwest of square at Reading.

DRAINAGE AREA.--211 sq mi.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October, November 1950, published in WSP 1722.

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft above mean sea level.

AVERAGE DISCHARGE.--21 years, 281 cfs (18.09 inches per year).

EXTREMES.--Current year: Maximum discharge, about 12,000 cfs Feb. 13, from rating curve extended above 3,500 cfs; minimum daily, 80 cfs Oct. 5, 6.

Period of record: Maximum discharge, about 12,000 cfs Feb. 13, 1971, from rating curve extended above 3,500 cfs; minimum, 23 cfs Dec. 1, 1964 (gage height, 0.94 ft), result of upstream shutoff.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above the station.

REVISIONS (WATER YEARS).--WSP 1382: 1951-53, 1954(M).

DISCHARGE, IN CUBIC FEET PER SECND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	116	262	214	125	725	310	187	397	132	414	237
2	92	113	241	216	120	633	310	191	339	164	843	224
3	90	119	228	217	110	606	324	216	436	132	1,090	212
4	84	150	248	283	130	761	286	191	329	122	2,080	199
5	80	408	222	685	150	613	277	180	286	119	925	187
6	80	263	214	564	200	675	277	203	277	119	626	183
7	84	215	198	477	260	948	365	207	296	116	478	183
8	83	190	190	420	600	895	291	255	255	116	392	172
9	83	174	196	381	960	753	268	264	233	110	334	164
10	83	164	195	352	429	661	259	224	216	146	296	157
11	83	181	190	329	339	620	250	203	203	125	282	172
12	83	579	237	314	408	566	246	199	195	132	277	216
13	83	1,700	248	291	4,900	534	241	647	195	119	237	207
14	83	950	228	283	4,800	496	237	620	228	119	220	220
15	150	1,090	216	271	805	478	228	448	237	113	207	183
16	136	898	210	233	606	478	224	490	233	107	195	164
17	99	658	382	223	515	431	220	425	195	116	187	164
18	93	524	422	200	682	397	216	355	183	119	180	183
19	90	442	401	190	813	521	207	324	168	136	180	164
20	88	406	380	180	798	888	203	300	164	199	183	160
21	96	636	347	170	820	668	203	291	164	129	172	195
22	450	451	346	190	1,260	600	199	282	160	116	164	172
23	290	415	333	190	1,490	553	195	255	150	110	157	157
24	212	362	350	170	970	490	195	237	150	107	146	157
25	176	330	305	180	783	448	191	241	143	183	143	146
26	157	306	293	190	675	420	191	282	139	132	139	150
27	143	292	265	190	1,070	397	191	228	136	246	339	172
28	133	272	253	160	858	381	203	212	136	157	805	160
29	126	257	230	160	-----	365	233	203	132	132	360	153
30	122	325	219	160	-----	344	195	241	136	176	291	143
31	122	-----	220	140	-----	324	-----	620	-----	172	255	-----
TOTAL	3,872	12,986	8,269	8,223	25,676	17,669	7,235	9,221	6,511	4,221	12,597	5,356
MEAN	125	433	267	265	917	570	241	297	217	136	406	179
MAX	450	1,700	422	685	4,900	948	365	647	436	246	2,080	237
MIN	80	113	190	140	110	324	191	180	132	107	139	143
CFSM	.59	2.05	1.27	1.26	4.35	2.70	1.14	1.41	1.03	.64	1.92	.85
IN.	.68	2.29	1.46	1.45	4.53	3.12	1.28	1.63	1.15	.74	2.22	.94

CAL YR 1970 TOTAL 121,831 MEAN 334 MAX 3,790 MIN 74 CFSM 1.58 IN 21.48
WTR YR 1971 TOTAL 121,836 MEAN 334 MAX 4,900 MIN 80 CFSM 1.58 IN 21.48

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0100	4.33	2,290	2-22	1900	4.79	2,790
2-13	*	*	a12,000	8- 4	0200	5.72	3,860

* Unknown.
a About.

DELAWARE RIVER BASIN

01472000 Schuylkill River at Pottstown, Pa.

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

DRAINAGE AREA.--1,147 sq mi.

RECORDS AVAILABLE.--October 1926 to current year. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft above mean sea level. Prior to Nov. 23, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--45 years, 1,800 cfs (21.31 inches per year).

EXTREMES.--Current year: Maximum discharge, 38,100 cfs Feb. 14 (gage height, 17.04 ft); minimum, 390 cfs Oct. 4 (gage height, 1.31 ft).

Period of record: Maximum discharge, 50,800 cfs May 23, 1942 (gage height, 20.15 ft); minimum, 87 cfs Aug. 13, 1930 (gage height, 0.43 ft); minimum daily, 175 cfs Sept. 19, 1932.

Maximum stage known, 21.0 ft Feb. 28, 1902, from floodmarks (discharge, 53,900 cfs).

REMARKS.--Records good. Some regulation at low flow by mill above station. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	891	1,970	1,350	803	5,660	1,990	1,070	3,260	720	1,430	1,370
2	491	864	1,650	1,310	720	4,990	1,950	1,050	2,380	778	4,570	1,250
3	463	847	1,550	1,270	679	4,560	2,110	1,180	2,790	761	4,240	1,150
4	463	1,000	1,570	1,780	778	5,560	1,980	1,130	2,510	664	10,500	1,080
5	450	2,070	1,670	5,050	993	4,240	1,850	1,010	2,060	648	5,580	1,020
6	457	2,200	1,490	4,220	1,300	4,150	1,830	1,060	1,870	632	3,580	974
7	429	1,640	1,380	3,400	1,670	5,180	3,740	1,150	1,890	609	2,660	946
8	416	1,420	1,290	2,790	3,540	5,750	2,270	1,460	1,760	594	2,210	918
9	409	1,290	1,290	2,570	5,820	4,830	1,920	1,660	1,590	602	1,880	856
10	409	1,160	1,280	2,330	2,830	4,140	1,790	1,420	1,360	648	1,610	830
11	409	1,320	1,270	2,150	1,790	3,780	1,700	1,240	1,270	671	1,520	909
12	423	3,910	1,510	2,010	1,700	3,560	1,640	1,140	1,190	664	1,680	1,400
13	423	10,300	1,810	1,870	9,410	3,550	1,580	2,840	1,170	632	1,320	4,640
14	409	9,900	1,560	1,750	30,900	3,600	1,520	4,160	1,310	594	1,170	5,390
15	556	9,140	1,460	1,700	7,700	3,520	1,430	3,250	1,490	586	1,110	3,500
16	2,500	8,090	1,450	1,520	4,440	3,820	1,360	3,190	1,380	556	1,040	2,380
17	1,270	5,970	3,120	1,360	3,720	3,800	1,320	3,170	1,230	616	974	2,040
18	900	4,670	2,640	1,280	3,040	3,460	1,310	2,520	1,100	602	918	1,950
19	761	3,800	2,550	1,220	4,380	3,620	1,260	2,240	993	761	882	1,670
20	664	3,220	2,520	1,100	4,440	5,820	1,220	2,040	955	1,030	900	1,480
21	671	4,410	2,470	1,060	4,810	4,750	1,210	2,030	974	803	856	1,600
22	3,050	3,720	2,430	1,160	6,020	4,150	1,200	2,010	909	616	847	1,680
23	5,230	3,280	2,350	1,200	10,000	3,880	1,170	1,820	864	572	821	1,330
24	3,460	2,890	2,440	1,060	7,880	3,490	1,150	1,660	821	549	761	1,270
25	2,430	2,560	2,110	1,160	5,820	3,120	1,150	1,580	786	983	679	1,170
26	1,860	2,330	1,910	1,200	4,920	2,870	1,140	1,880	769	736	671	1,140
27	1,520	2,200	1,700	1,280	6,560	2,660	1,130	1,810	753	720	1,830	1,190
28	1,310	2,030	1,650	964	6,600	2,530	1,120	1,550	761	1,000	6,850	1,140
29	1,130	1,930	1,490	937	-----	2,420	1,270	1,440	728	720	3,310	1,120
30	1,020	2,160	1,370	1,010	-----	2,260	1,180	1,480	728	1,240	2,030	1,060
31	937	-----	1,300	983	-----	2,120	-----	3,430	-----	1,260	1,600	-----
TOTAL	35,440	101,212	56,250	54,064	143,263	121,840	47,490	58,670	41,651	22,567	70,029	48,453
MEAN	1,143	3,374	1,815	1,744	5,117	3,930	1,583	1,893	1,388	728	2,259	1,615
MAX	5,230	10,300	3,120	5,050	30,900	5,820	3,740	4,160	3,260	1,260	10,500	5,390
MIN	409	847	1,270	937	679	2,120	1,120	1,010	728	549	671	830
CFSM	1.00	2.94	1.58	1.52	4.46	3.43	1.38	1.65	1.21	.63	1.97	1.41
IN.	1.15	3.28	1.62	1.75	4.65	3.95	1.54	1.90	1.35	.73	2.27	1.57

CAL YR 1970 TOTAL 722,359 MEAN 1,979 MAX 25,700 MIN 409 CFSM 1.73 IN 23.43
 WTR YR 1971 TOTAL 400,929 MEAN 2,194 MAX 30,900 MIN 409 CFSM 1.91 IN 25.98

PEAK DISCHARGE (BASE, CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	2100	8.56	11,400	8- 4	0700	9.46	13,400
2- 9	2030	6.60	7,660	8-28	0800	7.69	9,690
2-14	1100	17.04	38,100	9-13	2200*	7.00	8,380

01472157 French Creek near Phoenixville, Pa.

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 miles northwest of Phoenixville, and 7.3 miles upstream from mouth.

DRAINAGE AREA.--59.1 sq mi.

PERIOD OF RECORD.- October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (from topographic map). Prior to Nov. 7, 1968, nonrecording gage at site 70 ft upstream at same datum.

EXTREMES.--Current year: Maximum discharge, 3,330 cfs Sept. 13 (gage height, 9.66 ft); minimum, 14 cfs Oct. 9, 10 (gage height, 4.14 ft).

Period of record: Maximum discharge, 3,330 cfs Sept. 13, 1971 (gage height, 9.66 ft); minimum, 11 cfs July 4, 5, 1969 (gage height, 4.11 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	21	52	59	45	147	77	62	137	34	111	59
2	16	21	45	75	40	127	80	61	83	40	288	55
3	16	22	42	74	45	137	89	65	78	33	132	50
4	16	81	46	137	50	340	78	61	69	30	88	46
5	15	267	43	486	195	204	74	55	62	29	83	43
6	15	71	41	225	270	213	86	78	59	28	48	41
7	15	47	38	117	295	312	337	80	55	28	37	40
8	15	39	48	109	746	213	140	198	58	26	33	39
9	15	35	37	104	361	147	100	153	54	25	30	37
10	15	34	39	77	104	132	91	91	50	27	27	36
11	15	56	39	72	88	132	84	72	48	27	29	52
12	15	326	56	74	95	120	80	65	46	31	34	240
13	15	430	78	69	1,360	122	80	309	44	27	27	1,160
14	15	142	58	71	733	115	77	228	50	25	25	450
15	31	319	48	74	165	111	72	109	70	24	25	186
16	34	165	47	69	115	113	71	207	60	23	24	115
17	20	88	382	60	98	98	69	147	50	25	23	97
18	17	72	127	55	106	89	68	97	46	25	22	145
19	16	64	83	50	137	201	65	83	43	30	23	91
20	16	62	69	45	186	330	63	75	40	34	25	81
21	24	72	62	50	207	147	63	93	39	28	23	93
22	180	58	69	60	231	120	63	91	38	25	22	77
23	102	53	97	70	403	134	62	72	37	25	22	69
24	43	47	132	93	192	113	59	67	36	26	20	68
25	30	44	84	63	142	98	59	64	34	33	19	61
26	27	43	75	75	124	95	59	62	32	30	19	65
27	25	44	67	60	393	91	59	58	30	27	570	77
28	23	43	69	45	204	88	61	56	28	25	1,250	67
29	22	44	69	50	-----	88	93	56	30	24	189	64
30	21	63	88	55	-----	84	69	69	32	80	86	60
31	21	-----	78	50	-----	80	-----	337	-----	63	67	-----
TOTAL	866	2,873	2,308	2,773	7,130	4,541	2,528	3,321	1,538	957	3,421	3,764
MEAN	27.9	95.8	74.5	89.5	255	146	84.3	107	51.3	30.9	110	125
MAX	180	430	382	486	1,360	340	337	337	137	80	1,250	1,160
MIN	15	21	37	45	40	80	59	55	28	23	19	36
CFSM	.47	1.62	1.26	1.51	4.31	2.47	1.43	1.81	.87	.52	1.86	2.12
IN.	.55	1.81	1.45	1.75	4.49	2.86	1.59	2.09	.97	.60	2.15	2.37

CAL YR 1970 TOTAL 26,821 MEAN 73.5 MAX 1,010 MIN 14 CFSM 1.24 IN 16.88
WTR YR 1971 TOTAL 36,020 MEAN 98.7 MAX 1,360 MIN 15 CFSM 1.67 IN 22.67

PEAK DISCHARGE (BASE, 750 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-17	0630	6.68	788	8-28	0600	8.80	2,440
2-8	0445	8.06	1,770	9-13	1300	9.66	3,330
2-13	1800	9.63	3,290				

DELAWARE RIVER BASIN

01472174 Pickering Creek near Chester Springs, Pa.

LOCATION.--Lat 40°05'22", long 75°37'50", Chester County, on left bank 30 ft downstream from bridge on Horseshoe Trail Road, 0.45 mile downstream from unnamed tributary, and 0.75 mile southwest of Chester Springs.

DRAINAGE AREA.--5.98 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 280 ft (from topographic map). Prior to Aug. 11, 1967, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 1,640 cfs Sept. 13 (gage height, 4.99 ft), from rating curve extended above 700 cfs; minimum, 1.7 cfs Oct. 5, 7, 8, 9 (gage height, 1.00 ft).

Period of record: Maximum discharge, 1,640 cfs Sept. 13, 1971 (gage height, 4.99 ft), from rating curve extended above 700 cfs; minimum, 0.87 cfs Sept. 1, 2, 1969 (gage height, 0.94 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.4	6.3	10	5.0	10	7.8	7.8	11	4.3	5.1	7.2
2	1.7	3.4	6.2	7.2	4.5	10	8.2	7.8	9.4	4.8	15	6.9
3	1.7	4.0	5.8	7.4	5.0	12	8.6	8.2	11	4.2	12	6.7
4	1.8	30	6.2	22	6.0	34	8.0	7.6	8.6	3.8	12	6.7
5	1.7	22	5.6	50	37	14	7.8	7.1	7.4	3.7	37	6.2
6	1.7	7.4	5.3	13	16	16	12	10	6.9	3.5	6.5	6.0
7	1.6	6.2	5.0	9.0	38	22	57	8.8	6.5	3.4	5.0	5.8
8	1.6	5.5	5.0	9.6	98	13	12	14	6.2	3.4	4.0	5.8
9	1.7	5.0	5.5	8.0	28	11	10	12	5.8	3.4	3.2	5.6
10	1.7	5.0	5.5	8.0	14	10	9.6	10	5.6	3.5	3.5	5.6
11	1.8	8.3	5.3	8.2	10	10	9.4	8.8	5.6	3.7	4.3	7.6
12	1.8	35	8.2	8.6	11	9.8	9.0	7.6	5.5	3.5	4.2	80
13	1.8	34	7.1	7.8	122	10	8.6	40	5.6	3.2	3.8	252
14	1.8	10	6.2	8.8	25	9.6	8.2	14	6.3	3.1	3.8	56
15	10	32	5.6	8.3	11	9.8	8.0	11	6.2	2.9	3.5	18
16	4.5	10	7.1	7.8	9.4	9.6	8.0	30	6.3	2.9	3.4	13
17	3.2	8.8	35	6.7	8.6	9.0	7.8	12	5.6	3.1	3.4	11
18	3.1	7.8	8.6	6.0	9.4	8.6	7.6	9.6	5.1	3.1	3.2	11
19	2.9	7.6	7.6	5.5	9.6	25	7.4	8.8	5.0	3.4	3.8	11
20	2.9	7.8	7.1	5.0	13	14	7.4	8.0	5.0	3.1	3.7	10
21	10	8.0	6.7	5.4	12	10	7.4	11	5.0	2.8	3.2	19
22	32	7.1	9.2	6.0	27	9.6	7.2	9.4	4.6	2.7	3.1	10
23	12	6.7	13	7.6	35	11	7.1	8.3	4.6	2.5	2.9	9.8
24	6.3	6.3	11	6.7	11	9.4	7.2	7.8	4.6	2.5	2.7	9.6
25	5.3	6.2	8.6	7.1	10	8.8	7.1	7.6	4.5	3.5	2.7	9.0
26	5.1	6.3	7.8	15	9.8	9.0	7.2	7.4	4.3	2.7	2.7	9.6
27	4.6	6.3	6.9	9.6	43	8.6	7.2	7.1	4.2	2.5	109	10
28	4.0	6.2	6.5	7.0	12	8.6	7.6	6.9	4.0	2.4	102	9.4
29	3.5	6.3	6.2	5.0	-----	8.6	12	6.9	4.2	2.7	11	9.2
30	3.5	8.2	7.1	6.0	-----	8.2	8.3	11	4.2	24	9.0	9.0
31	3.4	-----	5.8	5.5	-----	8.0	-----	45	-----	11	7.8	-----
TOTAL	140.5	320.8	243.0	297.8	640.3	367.2	300.7	371.5	178.8	129.3	396.5	636.7
MEAN	4.53	10.7	7.84	9.61	22.9	11.8	10.0	12.0	5.96	4.17	12.8	21.2
MAX	32	35	35	50	122	34	57	45	11	24	109	252
MIN	1.6	3.4	5.0	5.0	4.5	8.0	7.1	6.9	4.0	2.4	2.7	5.6
CFSM	.76	1.79	1.31	1.61	3.83	1.97	1.67	2.01	1.00	.70	2.14	3.55
IN.	.87	2.00	1.51	1.85	3.98	2.28	1.87	2.31	1.11	.80	2.47	3.96

CAL YR 1970 TOTAL 2,946.1 MEAN 8.07 MAX 127 MIN 1.6 CFSM 1.35 IN 18.33
WTR YR 1971 TOTAL 4,023.1 MEAN 11.0 MAX 252 MIN 1.6 CFSM 1.84 IN 25.03

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-7	2345	4.56	752	8-28	0500	4.58	752
2-13	1330	4.46	628	9-13	1200	4.99	1,640

01473000 Perkiomen Creek at Graterford, Pa.

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, on left bank 1,650 ft upstream from highway bridge at Graterford, 0.5 mile upstream from Landis Brook and 2.5 miles north of Collegeville.

DRAINAGE AREA.--279 sq mi.

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford."

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft above mean sea level. June 1914 to Sept. 6, 1921, nonrecording gage at site 1,650 ft downstream at datum, 3.29 ft lower. Sept. 7, 1921 to Sept. 13, 1927, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--57 years, 370 cfs (18.01 inches per year), adjusted for storage since December 1956.

EXTREMES.--Current year: Maximum discharge, 25,600 cfs Sept. 14 (gage height, 14.67 ft); minimum daily, 31 cfs July 8.

Period of record: Maximum discharge, 39,900 cfs July 9, 1935 (gage height, 18.26 ft) from rating table extended above 12,000 cfs on basis of slope-area measurement at gage height, 16.23 ft; minimum, 4.7 cfs Oct. 5, 1941; minimum daily, 5.6 cfs Oct. 5, 1941.

REMARKS.--Records fair. Some regulation by Green Lane Reservoir 10.5 miles upstream since December 21, 1956 (see p. 83).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	88	234	247	90	695	206	180	626	70	200	250
2	62	66	202	273	80	540	206	160	292	70	320	200
3	64	79	183	273	90	540	242	160	259	79	250	190
4	66	117	194	533	112	2,190	234	190	242	62	250	180
5	62	626	186	4,880	206	1,170	202	170	183	42	800	170
6	62	306	179	1,840	618	1,390	186	270	172	35	250	150
7	62	194	132	939	626	2,920	4,950	200	264	32	165	100
8	64	162	123	668	3,700	1,500	1,980	300	213	31	136	80
9	64	148	115	482	2,350	695	790	230	151	45	117	60
10	64	136	126	376	503	540	540	170	132	70	104	51
11	66	406	132	321	306	533	400	140	112	80	107	64
12	66	5,410	332	292	302	518	338	120	104	65	292	3,150
13	66	3,050	510	287	6,810	489	311	1,500	101	60	151	11,400
14	66	1,650	354	259	3,440	489	297	800	148	55	109	10,300
15	84	3,330	268	251	578	469	259	400	321	50	93	1,810
16	148	1,450	343	247	359	518	220	1,000	206	50	88	1,120
17	104	642	3,120	190	297	424	210	600	162	55	84	1,000
18	82	443	961	160	278	370	200	412	132	60	79	1,140
19	75	365	548	130	540	906	200	292	112	70	77	634
20	64	321	412	100	740	2,550	190	242	101	65	75	327
21	62	668	327	110	895	873	190	686	98	60	77	365
22	1,080	388	327	120	1,890	548	180	533	93	55	82	306
23	1,850	311	406	145	3,410	533	170	302	93	50	86	251
24	382	251	525	221	1,150	469	170	229	88	48	70	234
25	198	209	382	158	642	359	180	194	84	90	60	206
26	148	198	338	140	503	316	170	179	82	75	60	198
27	120	194	259	110	2,960	297	170	162	77	60	300	209
28	104	190	259	100	1,270	273	180	151	62	50	9,000	202
29	93	179	251	110	-----	264	250	129	70	60	1,000	194
30	93	242	287	140	-----	255	200	136	68	1,500	500	338
31	93	-----	217	100	-----	229	-----	961	-----	400	300	-----
TOTAL	5,678	21,819	12,232	14,202	34,745	23,862	14,021	11,198	4,848	3,594	15,282	34,879
MEAN	183	727	395	458	1,241	770	467	361	162	116	493	1,163
MAX	1,850	5,410	3,120	4,880	6,810	2,920	4,950	1,500	626	1,500	9,000	11,400
MIN	62	66	115	100	80	229	170	120	62	31	60	51
MEAN [≠]	202	743	394	458	1,246	767	466	363	153	115	502	1,156
CFSM [≠]	.72	2.66	1.41	1.64	4.47	2.75	1.67	1.30	.55	.41	1.80	4.14
IN. [≠]	.83	2.97	1.63	1.89	4.66	3.17	1.86	1.50	.61	.47	2.08	4.62
CAL YR 1970	TOTAL 141,975	MEAN 389	MAX 11,400	MIN 45	MEAN [≠] 389	CFSM [≠] 1.39	IN. [≠] 18.91					
WTR YR 1971	TOTAL 196,360	MEAN 538	MAX 11,400	MIN 31	MEAN [≠] 541	CFSM [≠] 1.94	IN. [≠] 26.29					

[≠] Adjusted for change in contents in Green Lane Reservoir.

DELAWARE RIVER BASIN

01473120 Skippack Creek near Collegeville, Pa.

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, on right bank 60 ft downstream from two-span highway bridge, 1.5 miles upstream from mouth, and 2 miles southeast of Collegeville.

DRAINAGE AREA.--53.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft above mean sea level. Prior to June 15, 1967, non-recording gage at site 60 ft upstream at same datum.

AVERAGE DISCHARGE.--5 years, 67.4 cfs (17.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 40,400 cfs Sept. 13 (gage height, 22.5 ft, from floodmark), from rating curve extended above 8,400 cfs on basis of clope-area measurement of peak flow; minimum, 1.6 cfs Oct. 11, 12 (gage height, 0.89 ft).

Period of record: Maximum discharge, 40,400 cfs Sept. 13, 1971 (gage height, 22.5 ft, from floodmark), from rating curve extended as explained above; minimum, 0.1 cfs Sept. 12, 13, 1966; minimum gage height, 0.79 ft Oct. 3, 1968.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	13	37	43	14	58	28	13	82	5.3	120	54
2	3.1	11	35	53	12	41	28	12	54	5.6	323	43
3	2.9	12	31	49	13	54	31	13	52	5.3	110	36
4	3.6	101	34	201	18	522	24	11	40	4.4	345	30
5	3.1	269	27	1,130	249	253	21	9.5	30	3.6	128	26
6	2.0	76	26	263	201	308	30	18	49	3.4	66	24
7	2.7	55	21	133	261	516	1,150	19	66	3.6	45	21
8	2.6	43	20	105	1,050	203	225	45	34	3.2	34	19
9	2.4	36	21	81	325	120	126	40	24	3.1	25	17
10	2.0	33	22	64	57	95	90	24	20	16	21	15
11	2.0	104	19	58	48	91	69	18	17	5.3	19	23
12	2.0	1,100	35	57	36	81	60	15	15	4.1	24	1,040
13	1.7	581	46	49	1,750	77	53	387	13	4.1	13	6,600
14	2.2	245	32	49	219	69	46	179	48	3.6	11	500
15	4.6	725	28	49	67	68	38	85	43	3.2	9.5	200
16	15	233	32	43	49	72	35	259	22	3.1	8.4	98
17	5.6	134	681	35	37	55	31	151	16	3.1	7.6	84
18	3.6	102	153	27	32	47	28	90	12	2.9	7.3	71
19	2.9	89	101	22	35	114	24	68	9.5	2.6	7.3	57
20	2.9	89	77	20	125	237	22	54	8.4	4.8	8.8	51
21	4.6	136	63	20	129	102	21	116	8.8	4.4	7.6	73
22	471	80	72	24	241	78	20	80	24	3.4	17	47
23	363	71	122	26	441	94	18	54	8.4	3.1	6.2	41
24	75	57	187	37	100	75	16	44	7.3	2.9	5.6	37
25	46	51	105	21	61	60	15	40	6.9	3.9	5.1	53
26	34	45	93	17	45	54	14	33	6.2	6.5	4.8	34
27	27	43	69	16	450	49	14	27	5.6	34	875	37
28	23	38	60	15	114	44	13	24	5.1	5.6	2,810	33
29	18	34	55	17	-----	43	28	21	5.1	4.1	189	26
30	16	53	58	20	-----	37	18	37	5.3	353	98	33
31	14	-----	54	17	-----	32	-----	201	-----	89	67	-----
TOTAL	1,203.1	4,659	2,416	2,761	6,179	3,749	2,336	2,187.5	737.6	600.2	5,418.2	9,423
MEAN	38.8	155	77.9	89.1	221	121	77.9	70.6	24.6	19.4	175	314
MAX	471	1,100	681	1,130	1,750	522	1,150	387	82	353	2,810	6,600
MIN	1.7	11	19	15	12	32	13	9.5	5.1	2.6	4.8	15
CFSM	.72	2.89	1.45	1.66	4.12	2.25	1.45	1.31	.46	.36	3.26	5.85
IN.	.83	3.23	1.67	1.91	4.28	2.60	1.62	1.52	.51	.42	3.75	6.53

CAL YR 1970 TOTAL 26,308.6 MEAN 72.1 MAX 2,720 MIN 1.3 CFSM 1.34 IN 18.22
WTR YR 1971 TOTAL 41,669.6 MEAN 114 MAX 6,600 MIN 1.7 CFSM 2.12 IN 28.87

PEAK DISCHARGE (BASE, 2,000 CFS)

* About.

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-12	0400	7.80	2,790	4-7	0630	7.58	2,600
2-8	0215	9.59	4,610	8-28	0830	13.02	9,740
2-13	1645	10.42	5,630	9-13	2300*	22.5	40,400

01474500 Schuylkill River at Philadelphia, Pa.

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 miles upstream from mouth.

DRAINAGE AREA.--1,893 sq mi.

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 281, 301, 381, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above mean sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

AVERAGE DISCHARGE.--40 years, 2,780 cfs (19.94 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 70,300 cfs Sept. 13 (gage height, 13.28 ft); minimum, 283 cfs Oct. 10 (gage height, 5.75); minimum daily discharge, 302 cfs Oct. 10.
Period of record: Maximum discharge, 96,200 cfs Aug. 24, 1933 (gage height, 14.7 ft, from floodmark), from rating curve extended above 46,000 cfs; no flow over dam at times; minimum daily, 0.6 cfs Sept. 2, 1966. Maximum stage known, 17.0 ft Oct. 4, 1896 (discharge, 135,000 cfs from rating curve extended above 46,000 cfs). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (discharge, 98,000 cfs).

REMARKS.--Records good except those below 1,000 cfs, which are fair. Some regulation by reservoirs above station. Records of daily discharge do not include diversion above station by city of Philadelphia for municipal water supply. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	911	2,400	1,510	973	7,180	2,130	1,130	5,350	587	1,440	1,910
2	403	853	1,910	1,480	664	6,130	2,090	1,070	3,150	718	6,730	1,590
3	426	799	1,710	1,440	691	5,530	2,180	1,100	2,650	691	5,950	1,440
4	426	1,230	1,630	1,790	799	9,570	2,270	1,160	3,050	637	10,300	1,260
5	403	3,620	1,710	11,500	1,410	7,050	2,000	1,000	2,360	541	8,540	1,160
6	360	3,200	1,630	9,290	2,500	6,250	2,000	1,100	1,950	472	4,670	1,070
7	380	2,180	1,440	5,410	2,400	8,610	10,800	1,190	1,910	426	3,250	1,000
8	340	1,710	1,300	3,950	12,400	8,870	6,920	1,370	1,950	360	2,500	942
9	340	1,480	1,260	3,400	11,100	6,550	3,510	2,550	1,550	340	1,950	880
10	302	1,300	1,260	3,000	5,170	5,410	2,750	1,870	1,370	403	1,630	942
11	321	1,750	1,260	2,700	2,550	4,720	2,400	1,480	1,160	518	1,410	3,200
12	321	9,990	1,410	2,500	2,000	4,390	2,180	1,230	1,070	564	1,670	8,610
13	321	14,200	2,310	2,360	11,600	4,170	2,000	3,350	1,070	518	1,480	30,000
14	321	13,500	2,130	2,180	34,500	4,230	1,910	7,050	1,300	449	1,160	27,600
15	610	14,000	1,750	2,040	14,900	4,060	1,750	4,560	1,670	403	1,040	8,150
16	1,710	11,900	1,630	1,870	6,010	4,230	1,630	4,940	1,590	426	942	5,050
17	1,790	8,020	7,960	1,630	4,450	4,340	1,550	5,110	1,370	403	880	3,730
18	1,000	6,070	5,170	1,440	3,730	4,010	1,480	5,170	1,160	472	826	3,950
19	745	4,890	3,680	1,330	4,280	4,010	1,440	2,750	973	518	772	3,050
20	637	4,170	3,200	1,230	5,000	9,080	1,370	2,310	911	691	772	2,550
21	664	4,720	3,000	1,160	6,310	6,550	1,330	2,550	880	826	745	3,510
22	4,670	4,940	3,050	1,190	6,370	5,170	1,260	3,000	942	564	691	2,800
23	9,500	3,950	3,250	1,330	14,700	4,890	1,260	2,220	826	426	664	2,270
24	5,110	3,460	3,900	1,370	11,100	4,390	1,230	1,830	799	380	610	2,000
25	3,250	2,950	3,200	1,330	7,570	3,790	1,160	1,710	718	449	564	1,830
26	2,310	2,650	2,700	1,510	6,010	3,300	1,160	1,630	664	853	518	1,670
27	1,790	2,450	2,310	1,870	9,570	3,100	1,130	2,000	587	564	6,310	1,790
28	1,480	2,270	2,000	1,160	9,430	2,850	1,100	1,670	564	610	31,900	1,750
29	1,230	2,090	1,830	911	-----	2,700	1,330	1,410	541	691	8,870	1,630
30	1,070	2,220	1,590	1,230	-----	2,550	1,330	1,510	564	2,850	3,730	1,590
31	1,000	-----	1,480	1,230	-----	2,310	-----	3,300	-----	1,870	2,450	-----
TOTAL	43,656	137,473	75,100	76,341	198,187	159,990	66,650	74,320	44,649	20,220	114,964	128,924
MEAN	1,408	4,582	2,423	2,463	7,078	5,161	2,222	2,397	1,488	652	3,709	4,297
MAX	9,500	14,200	7,960	11,500	34,500	9,570	10,800	7,050	5,350	2,850	31,900	30,000
MIN	302	799	1,260	911	664	2,310	1,100	1,000	541	340	518	880
(\bar{x})	271	239	242	249	254	247	248	245	304	314	301	283
MEAN \neq	1,679	4,821	2,665	2,712	7,332	5,408	2,470	2,642	1,792	966	4,010	4,580
CFSM \neq	.89	2.55	1.41	1.43	3.87	2.86	1.30	1.39	.95	.51	2.12	2.42
IN. \neq	1.03	2.84	1.63	1.65	4.03	3.30	1.45	1.60	1.06	.59	2.44	2.70

CAL YR 1970 TOTAL 969,431 MEAN 2,656 MAX 35,000 MIN 156 MEAN \neq 2,922 CFSM \neq 1.54 IN. \neq 20.96
WTR YR 1971 TOTAL 1,140,474 MEAN 3,125 MAX 34,500 MIN 302 MEAN \neq 3,392 CFSM \neq 1.79 IN. \neq 24.32

PEAK DISCHARGE (BASE, 18,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	0630	8.85	19,200	8-28	1345	11.26	43,900
2-14	0415	10.77	38,300	9-13	2345	13.28	70,300

\neq Diversion, equivalent in cubic feet per second, for municipal water supply; furnished by city of Philadelphia.

\neq Adjusted for diversion.

DELAWARE RIVER BASIN

01475510 Darby Creek near Darby, Pa.

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, on right bank 30 ft upstream from Providence Road Bridge, Upper Darby, 2.3 miles upstream from Cobbs Creek, and 8.4 miles above mouth.

DRAINAGE AREA.--37.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 19.41 ft above mean sea level. Prior to May 9, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--7 years, 62.6 cfs (22.73 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,370 cfs Sept. 13 (gage height, 8.90 ft), from rating curve extended as explained below; minimum, 17 cfs Oct. 8, 9, 20, 21; minimum gage height, 1.29 ft Oct. 8, 9, 20, 21, Aug. 24.

Period of record: Maximum discharge, 4,610 cfs June 12, 1968 (gage height, 9.12 ft), from rating curve extended above 920 cfs on basis of step-backwater analysis; minimum, 8.8 cfs Sept. 2, 1966 (gage height, 1.16 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	56	51	35	90	64	53	61	57	59	47
2	23	31	48	51	30	86	66	56	53	99	57	45
3	25	35	45	48	35	132	68	57	73	34	39	45
4	27	70	47	121	40	329	62	54	51	32	64	47
5	24	129	45	370	80	129	61	50	48	30	143	45
6	24	42	40	121	100	127	104	83	48	30	38	44
7	24	36	37	73	200	198	438	56	48	29	35	37
8	23	34	38	62	500	127	121	109	45	27	33	39
9	23	33	39	61	300	109	86	62	44	28	32	39
10	23	36	40	59	80	104	77	53	41	29	31	42
11	23	158	40	59	60	99	73	50	41	28	30	694
12	24	333	70	59	55	94	71	48	41	30	29	382
13	23	238	75	59	1,000	90	71	208	41	28	45	1,770
14	24	71	68	64	500	75	68	99	86	27	35	498
15	53	53	58	62	150	77	68	57	47	26	30	161
16	29	53	60	56	70	73	68	350	44	25	28	116
17	23	62	362	51	60	68	66	99	41	32	26	101
18	23	59	70	45	62	68	61	71	39	38	25	92
19	23	48	57	42	64	201	62	64	38	57	24	88
20	23	48	54	40	75	149	61	59	37	32	25	88
21	61	47	53	45	99	83	61	92	62	26	24	564
22	762	47	121	48	143	79	57	68	42	25	23	106
23	200	45	121	62	238	106	57	59	37	25	23	90
24	90	45	104	50	90	79	57	57	37	25	21	81
25	45	44	62	56	81	71	57	57	36	25	21	77
26	40	44	57	104	79	71	54	68	36	25	21	77
27	35	47	54	54	256	70	53	53	33	24	789	77
28	33	45	51	40	99	68	54	53	33	23	1,090	71
29	31	47	50	35	-----	68	68	53	32	34	81	70
30	30	83	48	37	-----	64	54	73	33	315	57	66
31	32	-----	47	40	-----	62	-----	116	-----	99	48	-----
TOTAL	1,867	2,095	2,117	2,125	4,581	3,246	2,388	2,487	1,348	1,364	3,026	5,699
MEAN	60.2	69.8	68.3	68.5	164	105	79.6	80.2	44.9	44.0	97.6	190
MAX	762	333	362	370	1,000	329	438	350	86	315	1,090	1,770
MIN	23	31	37	35	30	62	53	48	32	23	21	37
CFSM	1.61	1.87	1.83	1.83	4.39	2.81	2.13	2.14	1.20	1.18	2.61	5.08
IN.	1.86	2.08	2.11	2.11	4.56	3.23	2.38	2.47	1.34	1.36	3.01	5.67

CAL YR 1970 TOTAL 26,002 MEAN 71.2 MAX 810 MIN 22 CFSM 1.90 IN 25.86
WTR YR 1971 TOTAL 32,343 MEAN 88.6 MAX 1,770 MIN 21 CFSM 2.37 IN 32.17

PEAK DISCHARGE (BASE, 800 CFS)

* About.

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1330	5.44	1,640	8-27	1230	6.37	2,210
12-17	0245	4.14	1,020	8-28	0500	7.48	3,040
2-8	0100*	-	1,500*	9-11	1100	6.98	2,640
2-13	1500*	-	1,100*	9-13	1415	8.90	4,370
5-16	1200	3.72	829	9-21	0500	5.66	1,770
7-30	1300	4.78	1,310				

01475530 Cobbs Creek at U.S. Highway No. 1 near Philadelphia, Pa.

LOCATION.--Lat 39°59'29", long 75°16'49", Philadelphia County, on left bank 30 ft downstream from bridge on U.S. Highway No. 1 and 50 ft upstream from unnamed tributary at west city limits of Philadelphia.

DRAINAGE AREA.--4.78 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 121.76 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 5.78 cfs (16.42 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,040 cfs Sept. 11 (gage height, 6.97 ft), from rating curve extended above 160 cfs; minimum, 1.3 cfs July 27, 28, Aug. 24, 25, 26; minimum gage height, 2.14 ft Aug. 24, 25, 26.

Period of record: Maximum discharge, 1,040 cfs Sept. 11, 1971 (gage height, 6.97 ft), from rating curve extended above 160 cfs; minimum, 0.3 cfs Oct. 13, Nov. 24, 25, 1965; minimum gage height, 2.03 ft Nov. 25, 1965.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.5	3.8	4.2	3.1	5.5	4.6	4.2	3.9	11	11	3.4
2	2.0	2.5	3.8	4.0	3.0	5.5	5.1	5.6	3.8	4.2	4.2	3.3
3	2.5	2.7	3.8	4.0	3.0	15	4.8	4.1	5.3	2.6	5.5	3.0
4	3.4	25	3.8	24	3.3	33	4.6	3.9	3.7	2.5	5.8	3.0
5	2.7	7.0	3.6	35	25	7.8	4.6	3.8	3.6	2.4	8.0	3.0
6	1.9	3.6	3.6	6.7	5.6	7.0	13	10	4.5	2.3	2.5	3.0
7	2.0	3.2	3.4	5.3	54	13	50	4.0	3.6	2.3	2.3	3.0
8	1.9	3.0	3.2	4.6	33	7.0	6.5	12	3.3	2.3	2.3	3.0
9	2.0	3.0	3.4	4.4	11	5.5	4.8	5.2	3.4	7.2	2.2	2.6
10	2.0	6.0	3.4	4.4	5.8	5.5	4.4	4.5	3.0	4.5	2.0	12
11	2.2	28	3.6	4.2	4.4	5.5	4.2	4.3	3.0	2.4	2.2	153
12	2.2	24	9.6	4.2	4.2	5.3	4.2	3.9	3.3	2.5	2.3	26
13	2.2	18	4.2	4.0	56	5.5	4.2	23	4.2	2.2	2.0	182
14	2.2	5.3	3.8	5.8	11	5.1	4.0	5.8	11	1.9	2.2	19
15	3.2	37	3.6	4.2	6.0	6.7	4.4	4.1	3.6	2.2	2.0	10
16	2.0	5.8	17	4.0	5.0	5.5	4.4	45	3.6	2.0	2.0	7.5
17	2.0	4.6	37	4.0	4.4	5.1	3.8	6.1	3.2	7.2	2.0	6.7
18	2.0	4.0	5.3	3.8	4.4	4.8	4.0	5.5	3.0	2.6	1.9	6.0
19	2.0	5.3	4.6	3.4	4.4	29	4.6	5.0	3.0	8.0	1.9	5.8
20	1.8	7.3	4.2	3.1	5.3	7.5	4.6	4.4	2.9	2.4	1.9	5.5
21	13	4.8	4.2	3.1	5.3	5.8	4.8	8.8	4.6	2.0	1.8	99
22	126	4.2	15	3.5	11	5.8	4.3	4.3	3.3	1.9	2.0	7.3
23	27	4.2	13	6.7	18	9.0	4.2	4.0	3.0	1.9	1.9	6.0
24	7.8	4.0	7.0	4.2	6.0	5.3	4.2	3.8	2.9	1.9	1.6	5.5
25	4.6	3.8	4.8	6.0	5.3	5.1	4.2	5.8	2.9	1.9	1.7	4.8
26	3.6	3.8	4.6	12	5.1	5.1	4.2	4.8	2.7	1.9	1.6	5.3
27	3.0	3.8	4.4	4.5	19	5.1	4.1	3.5	2.6	1.8	127	5.1
28	2.7	3.8	4.0	3.6	6.5	5.1	4.4	3.4	2.5	1.7	116	4.4
29	2.5	5.3	4.0	3.3	-----	5.1	6.0	3.6	2.5	3.8	5.3	4.4
30	2.5	5.3	4.4	3.6	-----	4.8	4.2	9.1	2.5	30	3.8	4.0
31	2.5	-----	4.0	3.4	-----	4.6	-----	7.0	-----	11	3.4	-----
TOTAL	239.4	240.8	198.1	191.2	328.1	245.6	189.4	222.5	108.4	134.5	332.3	606.6
MEAN	7.72	8.03	6.39	6.17	11.7	7.92	6.31	7.18	3.61	4.34	10.7	20.2
MAX	126	37	37	35	56	33	50	45	11	30	127	182
MIN	1.8	2.5	3.2	3.1	3.0	4.6	3.8	3.4	2.5	1.7	1.6	2.6
CFSM	1.62	1.68	1.34	1.29	2.45	1.66	1.32	1.50	.76	.91	2.24	4.23
IN.	1.86	1.87	1.54	1.49	2.55	1.91	1.47	1.73	.84	1.05	2.59	4.72

CAL YR 1970 TOTAL 2,197.7 MEAN 6.02 MAX 126 MIN 1.5 CFSM 1.26 IN 17.10
WTR YR 1971 TOTAL 3,036.9 MEAN 8.32 MAX 182 MIN 1.6 CFSM 1.74 IN 23.63

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7-30	1230	4.70	253	9-11	1045	6.97	1040
8-27	1230	6.00	620	9-13	1300	6.37	768
8-28	0345	6.32	748	9-21	0400	6.76	937

DELAWARE RIVER BASIN

01475540 Cobbs Creek below Indian Creek near Upper Darby, Pa.

LOCATION.--Lat 39°58'09", long 75°15'31", Philadelphia County, on left bank 1,000 ft downstream from Indian Creek and 1,200 ft upstream from Naylor Creek, Philadelphia.

DRAINAGE AREA.--9.65 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 73.69 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 12.7 cfs (17.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,920 cfs Sept. 11 (gage height, 11.12 ft, from floodmark), from rating curve extended as explained below; minimum, 3.8 cfs Oct. 16, 20, 21; minimum gage height, 2.36 ft Oct. 16, 20.

Period of record: Maximum discharge, 2,920 cfs Sept. 11, 1971 gage height, 11.12 ft, from floodmark), from rating curve extended above 200 cfs on basis of slope-area measurement at gage height, 7.46 ft; minimum, 0.4 cfs Sept. 24, 1965 (gage height, 2.31 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.5	9.1	9.8	7.0	14	12	9.8	11	34	34	11
2	4.7	6.2	8.5	9.5	6.6	12	13	14	11	14	14	9.8
3	6.0	7.8	8.8	9.5	6.6	35	12	11	21	7.8	19	9.5
4	6.8	53	8.5	52	7.2	61	11	9.5	11	7.5	22	9.1
5	6.0	22	8.5	63	55	20	11	9.1	10	7.2	28	9.1
6	4.5	7.5	8.2	18	13	17	34	29	13	7.2	8.2	8.8
7	4.5	6.5	8.5	13	126	33	83	11	11	7.2	7.5	9.5
8	4.5	6.2	8.2	16	76	17	17	31	11	7.2	7.2	8.8
9	4.5	6.0	7.5	11	25	14	13	12	10	22	6.8	8.8
10	4.7	14	7.2	11	13	14	12	10	9.1	15	6.2	42
11	4.5	63	7.2	11	9.8	14	11	10	8.8	7.5	6.5	478
12	4.7	55	25	11	9.5	14	11	9.8	8.8	7.5	6.8	79
13	4.7	39	9.8	10	128	14	10	50	10	6.8	6.2	326
14	4.7	14	8.2	16	23	13	9.8	16	33	6.5	6.5	48
15	6.8	72	7.8	11	13	19	9.8	11	11	6.5	6.8	27
16	4.5	16	38	10	12	13	9.8	87	11	6.2	6.8	20
17	4.0	13	76	9.8	12	12	9.1	18	9.1	23	6.2	18
18	4.0	12	13	9.1	11	12	10	14	8.8	7.8	6.0	16
19	4.0	14	11	8.6	11	56	12	13	8.5	24	6.0	15
20	4.0	33	9.8	8.2	12	19	12	13	8.5	6.8	6.2	15
21	46	14	9.8	8.0	12	14	12	25	21	6.2	6.0	164
22	211	11	38	8.8	26	14	11	13	9.8	6.2	6.0	17
23	19	10	32	16	21	24	11	12	8.8	6.0	6.0	14
24	7.5	9.8	20	9.1	15	13	11	12	8.2	6.2	5.5	13
25	8.2	10	12	14	13	13	10	21	8.2	6.8	5.5	12
26	6.8	11	11	28	11	12	11	17	7.8	7.5	5.5	13
27	6.0	11	10	11	44	12	10	11	8.5	6.5	284	13
28	6.0	9.5	10	7.4	16	12	12	11	8.2	5.7	261	12
29	5.7	16	9.8	7.8	-----	12	18	11	7.2	25	17	12
30	5.7	18	10	8.4	-----	12	10	23	7.5	92	13	12
31	5.7	-----	9.5	7.6	-----	12	-----	22	-----	32	11	-----
TOTAL	424.4	586.0	460.9	443.6	734.7	573	438.5	566.2	330.8	431.8	837.4	1,450.4
MEAN	13.7	19.5	14.9	14.3	26.2	18.5	14.6	18.3	11.0	13.9	27.0	48.3
MAX	211	72	76	63	128	61	83	87	33	92	284	478
MIN	4.0	5.5	7.2	7.4	6.6	12	9.1	9.1	7.2	5.7	5.5	8.8
CFSM	1.42	2.02	1.54	1.48	2.72	1.92	1.51	1.90	1.14	1.44	2.80	5.01
IN.	1.64	2.26	1.78	1.71	2.83	2.21	1.69	2.18	1.28	1.66	3.23	5.59

CAL YR 1970 TOTAL 5,276.3 MEAN 14.5 MAX 400 MIN 3.8 CFSM 1.50 IN 20.34
WTR YR 1971 TOTAL 7,277.7 MEAN 19.9 MAX 478 MIN 4.0 CFSM 2.06 IN 28.05

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1200	7.21	884	9-11	1100	11.12	2,920
2-7	2215	7.52	998	9-13	1515	9.63	2,000
7-30	1030	7.57	1,020	9-21	0415	9.64	2,000
8-28	0415	9.64	2,000				

DELAWARE RIVER BASIN

71

01475550 Cobbs Creek at Darby, Pa.

LOCATION.--Lat 39°55'02", long 75°14'22", Delaware County, on right bank at Darby, 60 ft upstream from dam, 200 ft upstream from bridge on Woodland Avenue, and 1.1 miles upstream from mouth.

DRAINAGE AREA.--22.0 sq mi.

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

GAGE.--Water-stage recorder and masonry control. Datum of gage is 11.93 ft above mean sea level. Prior to Apr. 29, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--7 years, 23.9 cfs (14.75 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,390 cfs Sept. 11 (gage height, 7.21 ft), from rating curve extended above 850 cfs; minimum, 0.24 cfs Oct. 9, 11 (gage height, 0.74 ft).
Period of record: Maximum discharge, 4,390 cfs Sept. 11, 1971 (gage height, 7.21 ft), from rating curve extended above 850 cfs; no flow on many days during 1964-66.

REMARKS.--Records good. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	7.3	13	13	10	39	34	16	15	41	88	13
2	1.1	7.7	12	14	10	39	39	18	15	34	31	12
3	.64	7.7	12	14	11	105	39	17	51	11	17	12
4	.99	142	12	153	12	200	34	16	15	10	44	11
5	.70	31	11	163	125	53	34	15	15	9.9	48	10
6	.52	4.7	10	21	18	48	108	53	17	10	11	10
7	.37	3.7	11	17	200	98	337	16	16	9.9	9.7	10
8	.32	3.0	10	16	226	46	61	85	17	10	9.3	11
9	.28	2.6	11	15	46	41	46	17	15	11	10	10
10	.28	7.2	11	15	16	39	44	15	14	27	9.7	64
11	.24	163	12	15	16	36	39	16	13	9.7	14	933
12	.64	139	51	15	15	36	41	15	14	10	9.7	333
13	1.2	85	16	14	298	36	41	101	13	9.3	8.8	730
14	.58	15	12	19	41	34	39	41	76	8.8	8.8	121
15	.42	215	12	16	29	39	39	17	16	8.8	8.6	48
16	.47	17	67	12	34	39	39	242	15	8.6	8.6	27
17	.37	17	242	13	34	34	39	23	13	19	8.8	21
18	.32	16	17	13	31	34	39	17	14	16	8.5	20
19	.28	18	15	11	27	142	39	17	14	25	8.1	19
20	.32	70	14	11	46	51	34	16	14	9.7	8.3	19
21	79	20	15	13	34	34	20	41	48	8.8	8.6	282
22	665	14	88	13	111	34	34	17	16	8.6	8.3	25
23	21	14	64	20	142	61	21	15	14	8.5	7.7	20
24	5.5	13	34	14	39	34	15	15	15	8.5	7.5	18
25	1.2	12	16	19	36	31	14	16	17	8.5	6.8	17
26	2.3	14	15	48	34	34	15	29	15	11	7.0	18
27	.64	14	15	15	200	34	15	15	16	9.3	808	18
28	.42	12	15	11	44	34	18	15	17	8.1	610	17
29	.37	18	14	12	-----	20	31	14	16	44	21	18
30	.52	31	13	15	-----	29	16	36	15	369	17	36
31	6.6	-----	13	12	-----	34	-----	29	-----	108	15	-----
TOTAL	794.49	1,133.9	873	772	1,885	1,568	1,364	1,015	581	891.0	1,886.8	2,903
MEAN	25.6	37.8	28.2	24.9	67.3	50.6	45.5	32.7	19.4	28.7	60.9	96.8
MAX	665	215	242	163	298	200	337	242	76	369	808	933
MIN	.24	2.6	10	11	10	20	14	14	13	8.1	6.8	10
CFSM	1.16	1.72	1.28	1.13	3.06	2.30	2.07	1.49	.88	1.30	2.77	4.40
IN.	1.34	1.92	1.48	1.31	3.19	2.65	2.31	1.72	.98	1.51	3.19	4.91

CAL YR 1970 TOTAL 9,297.17 MEAN 25.5 MAX 665 MIN .24 CFSM 1.16 IN 15.72
WTR YR 1971 TOTAL 15,667.19 MEAN 42.9 MAX 933 MIN .24 CFSM 1.95 IN 26.49

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1230	4.84	1,730	8-28	0530	6.34	3,270
2-7	2400	4.67	1,580	9-11	1245	7.21	4,390
7-30	1300	5.32	2,130	9-13	1615	6.08	2,970
8-27	1330	5.69	2,540	9-21	0545	5.10	1,960

DELAWARE RIVER BASIN

01477000 Chester Creek near Chester, Pa.

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, on right bank 30 ft downstream from Dutton Mill Bridge and 3 miles northwest of Chester.

DRAINAGE AREA.--61.1 sq mi.

PERIOD OF RECORD.--August 1931 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft above mean sea level (Penn Central Railroad benchmark). Prior to June 27, 1966 water-stage recorder at site 50 ft upstream and June 28, 1966 to Oct. 4, 1967, nonrecording gage, 150 ft upstream, all at same datum.

AVERAGE DISCHARGE.--40 years, 80.4 cfs (17.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 33,700 cfs Sept. 13 (gage height, 24.59 ft, from floodmark), from rating curve extended above 2,400 cfs on basis of contracted-opening measurement at gage height, 13.57 ft and slope-area measurement of peak flow; minimum, 14 cfs Oct. 18, 19, 20; minimum gage height, 1.80 cfs Aug. 25.

Period of record: Maximum discharge, 33,700 cfs Sept. 13, 1971 (gage height, 24.59 ft from floodmark), from rating curve extended above 2,400 cfs on basis of contracted-opening measurement at gage height, 13.57 ft and slope-area measurement of peak flow; minimum, 0.3 cfs Aug. 7, 1934 (gage height, 0.28 ft); minimum daily, 6.5 cfs Sept. 25, 1941.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	36	61	68	50	111	68	60	92	43	61	43
2	25	36	59	79	44	100	70	60	75	68	151	40
3	25	37	58	79	45	133	75	69	86	43	50	38
4	26	115	59	170	50	405	70	69	81	38	75	36
5	23	233	56	571	260	180	66	60	68	38	94	35
6	23	63	53	182	144	168	94	85	70	37	47	33
7	24	53	50	109	158	218	656	78	68	36	38	33
8	24	52	50	96	906	144	230	142	66	33	35	32
9	23	46	52	86	362	115	131	102	61	35	33	31
10	24	46	53	84	92	107	113	81	59	33	31	29
11	23	94	53	84	75	107	100	71	59	33	31	543
12	20	303	84	86	68	100	96	67	59	38	36	673
13	20	506	79	83	838	103	86	277	65	33	33	8,990
14	23	122	63	88	334	100	86	188	66	32	32	4,140
15	28	432	58	90	109	100	80	87	70	31	31	386
16	26	126	63	79	88	98	80	408	68	28	31	344
17	17	88	462	70	81	88	76	173	63	29	32	250
18	15	79	117	64	79	83	76	100	58	29	31	191
19	17	77	90	58	79	211	74	85	55	35	31	170
20	18	86	83	52	94	250	71	77	55	35	32	150
21	44	109	77	54	111	117	72	130	66	29	32	966
22	561	73	170	58	399	103	70	108	73	28	28	210
23	233	70	189	73	477	128	68	80	55	28	28	153
24	63	63	180	73	149	103	67	72	52	31	26	141
25	50	63	103	75	115	90	60	71	49	28	26	117
26	46	63	92	153	103	86	60	89	47	26	26	115
27	41	63	83	96	321	84	58	70	45	25	886	144
28	38	61	79	70	147	81	62	65	43	23	2,000	120
29	38	65	77	52	-----	81	88	63	41	24	124	110
30	38	79	64	54	-----	77	68	92	43	204	65	105
31	37	-----	66	58	-----	71	-----	176	-----	116	49	-----
TOTAL	1,640	3,339	2,883	3,094	5,778	3,942	3,071	3,355	1,858	1,289	4,225	18,368
MEAN	52.9	111	93.0	99.8	206	127	102	108	61.9	41.6	136	612
MAX	561	506	462	571	906	405	656	408	92	204	2,000	8,990
MIN	15	36	50	52	44	71	58	60	41	23	26	29
CFSM	.87	1.82	1.52	1.63	3.37	2.08	1.67	1.77	1.01	.68	2.23	10.0
IN.	1.00	2.03	1.76	1.88	3.52	2.40	1.87	2.04	1.13	.78	2.57	11.18

CAL YR 1970 TOTAL 33,951 MEAN 93.0 MAX 1,230 MIN 15 CFSM 1.52 IN 20.67
WTR YR 1971 TOTAL 52,842 MEAN 145 MAX 8,990 MIN 15 CFSM 2.37 IN 32.17

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	0400	6.70	1,780	9-13	2300	24.59	33,700
2-13	1915	7.09	2,040	9-21	1030	8.12	2,230
8-28	0730	10.16	4,750				

01480000 Red Clay Creek at Wooddale, Del.

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, on right bank 12 ft upstream from bridge on State Highway 48, 0.3 mile south of Wooddale, 2.3 miles north of Marshallton, and 4.9 miles upstream from mouth.

DRAINAGE AREA.--47.0 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft above mean sea level. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft downstream at same datum.

AVERAGE DISCHARGE.--28 years, 60.4 cfs (17.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,520 cfs Sept. 13 (gage height, 8.10 ft); minimum, 3.8 cfs July 8, result of regulation; minimum daily, 16 cfs Oct. 18, Aug. 24, 25.

Period of record: Maximum discharge, 4,780 cfs Sept. 1, 1960 (gage height, 9.93 ft); minimum, 2.9 cfs Sept. 4, 1966; minimum daily, 4.5 cfs Sept. 4, 1966.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Records of water temperatures for the water year 1971 are published in Part 2 of the Maryland-Delaware Annual Report.

REVISIONS (WATER YEARS).--WSP 1141: 1948. WSP 1272: 1951(M). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WRD Penna. 1969: 1960(M), 1964(M), 1966-67(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	37	46	33	79	55	53	72	30	44	49
2	18	21	35	42	39	72	55	51	58	43	162	46
3	19	25	34	41	49	86	60	53	72	31	48	43
4	19	76	35	87	60	250	55	48	67	28	94	39
5	17	190	31	381	220	119	52	45	53	28	101	37
6	18	44	30	162	53	113	60	65	49	26	43	36
7	17	34	28	85	201	119	402	56	55	33	32	34
8	17	29	28	65	982	95	190	90	49	25	27	34
9	17	28	30	64	277	79	103	66	46	27	26	32
10	17	27	31	61	65	76	87	55	44	23	24	32
11	17	34	30	60	54	76	77	49	42	24	26	273
12	17	81	51	61	52	72	72	47	41	33	27	538
13	18	191	50	60	1,130	76	69	215	41	24	22	1,450
14	18	66	37	63	265	69	68	115	44	24	22	715
15	23	308	33	75	88	67	63	65	46	23	21	212
16	21	76	35	61	72	69	62	354	55	23	22	137
17	17	53	284	54	65	60	60	125	42	23	21	145
18	16	46	68	49	63	58	60	82	39	23	20	129
19	17	43	53	48	64	145	59	70	36	25	20	106
20	17	46	44	47	72	174	57	62	36	27	22	101
21	30	57	42	49	86	81	57	92	41	24	19	438
22	139	42	58	50	201	69	56	81	42	23	18	112
23	54	39	111	55	426	84	54	64	36	22	18	97
24	31	35	123	57	107	72	54	58	35	22	16	89
25	26	34	64	56	86	64	53	59	34	22	16	80
26	26	34	56	111	76	63	52	76	32	21	17	81
27	24	34	49	86	186	63	52	56	31	21	668	93
28	23	34	46	37	98	60	52	54	30	19	1,020	80
29	22	34	42	40	-----	60	64	52	30	20	113	75
30	22	50	40	44	-----	59	60	69	32	108	71	72
31	21	-----	39	40	-----	56	-----	158	-----	80	56	-----
TOTAL	777	1,832	1,714	2,237	5,210	2,685	2,320	2,585	1,330	925	2,856	5,405
MEAN	25.1	61.1	55.3	72.2	186	86.6	77.3	83.4	44.3	29.8	92.1	180
MAX	139	308	284	381	1,130	250	402	354	72	108	1,020	1,450
MIN	16	21	28	37	33	56	52	45	30	19	16	32
CFSM	.53	1.30	1.18	1.54	3.96	1.84	1.64	1.77	.94	.63	1.96	3.83
IN.	.61	1.45	1.36	1.77	4.12	2.13	1.84	2.05	1.05	.73	2.26	4.28
CAL YR 1970	TOTAL 22,730	MEAN 62.3	MAX 784	MIN 16	CFSM 1.33	IN 17.99						
WTR YR 1971	TOTAL 29,876	MEAN 81.9	MAX 1,450	MIN 16	CFSM 1.74	IN 23.65						

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	0315	6.61	2,430	9-13	2230	8.10	3,520
2-13	1830	7.05	2,770	9-21	0945	5.28	1,500
8-28	0800	6.47	2,330				

DELAWARE RIVER BASIN

01480300 West Branch Brandywine Creek near Honey Brook, Pa.

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, at right upstream end of bridge on Legislative Route 15185, at Birdell, 0.4 mile downstream from Two Log Run, and 3.0 miles southeast of Honey Brook.

DRAINAGE AREA.--18.7 sq mi.

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 591.20 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 20.1 cfs (14.60 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,820 cfs Feb. 13 (gage height, 8.54 ft); minimum daily, 4.7 cfs Oct. 8, 9.

Period of record: Maximum discharge, 1,870 cfs Sept. 12, 1960 (gage height, 8.60 ft); minimum, 1.7 cfs Aug. 15, 16, 17, 18, 19, 1963 (gage height 1.09 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	7.6	16	16	9.0	25	16	16	21	10	9.6	13
2	5.3	7.6	15	24	8.0	22	16	15	16	11	62	13
3	5.7	9.6	14	27	9.0	23	21	17	17	9.2	27	13
4	6.1	33	17	48	10	50	20	16	15	8.4	20	12
5	5.0	111	13	281	38	36	18	14	14	8.0	30	12
6	5.0	18	13	56	60	60	24	24	18	8.0	12	11
7	5.0	13	12	25	32	76	198	21	20	7.6	10	11
8	4.7	11	12	23	310	34	50	71	15	8.4	8.8	11
9	4.7	10	13	20	113	20	27	35	13	7.3	8.0	11
10	5.0	10	13	19	24	21	24	23	12	7.6	7.6	11
11	5.3	16	13	20	13	23	22	19	12	8.0	8.4	16
12	5.7	157	29	21	19	22	20	17	12	8.8	12	136
13	6.9	248	27	19	691	24	18	107	12	9.2	8.8	115
14	8.4	37	21	20	173	25	18	45	13	8.4	8.8	49
15	21	143	16	20	23	24	16	24	14	7.6	8.4	64
16	15	40	17	16	19	25	16	53	14	7.3	7.6	22
17	6.9	22	153	14	17	20	16	33	13	8.0	7.6	19
18	6.5	19	31	12	23	18	15	23	12	8.8	7.6	21
19	6.5	17	23	11	26	64	14	20	11	9.2	7.6	18
20	6.5	17	20	10	42	85	14	18	10	8.8	8.4	19
21	8.8	26	18	10	44	27	14	19	10	7.6	7.6	28
22	61	17	30	12	96	24	14	22	10	7.3	7.6	19
23	35	15	54	16	118	25	14	18	10	6.9	7.3	17
24	14	13	55	15	31	22	14	16	9.6	6.9	6.9	17
25	9.6	13	30	14	24	19	13	16	9.6	7.3	6.9	15
26	8.8	13	27	33	22	19	14	15	9.2	6.9	6.9	16
27	7.3	14	21	21	126	19	14	13	9.2	6.9	98	20
28	7.6	14	19	13	34	19	15	13	8.8	6.5	309	17
29	7.6	13	16	11	-----	18	26	13	9.2	6.9	23	16
30	7.6	28	16	12	-----	18	17	15	9.6	21	16	16
31	7.6	-----	15	13	-----	17	-----	75	-----	18	14	-----
TOTAL	315.4	1,112.8	789	872	2,154.0	924	738	846	379.2	271.8	783.4	778
MEAN	10.2	37.1	25.5	28.1	76.9	29.8	24.6	27.3	12.6	8.77	25.3	25.9
MAX	61	248	153	281	691	85	198	107	21	21	309	136
MIN	4.7	7.6	12	10	8.0	17	13	13	8.8	6.5	6.9	11
CFSM	.55	1.98	1.36	1.50	4.11	1.59	1.32	1.46	.67	.47	1.35	1.39
IN.	.63	2.21	1.57	1.73	4.28	1.84	1.47	1.68	.75	.54	1.56	1.55

CAL YR 1970 TOTAL 8,337.5 MEAN 22.8 MAX 347 MIN 4.7 CFSM 1.22 IN 16.59
WTR YR 1971 TOTAL 9,963.6 MEAN 27.3 MAX 691 MIN 4.7 CFSM 1.46 IN 19.82

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0330	6.03	528	2-13	1645	8.54	1,820
2-8	0315	6.61	715	8-28	1000	6.55	698

01480500 West Branch Brandywine Creek at Coatesville, Pa.

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, on right bank at city limits of Coatesville, 1,200 ft upstream from bridge on old Lincoln Highway, and 0.6 mile downstream from Rock Run.

DRAINAGE AREA.--45.8 sq mi.

PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 305 ft (from topographic map). Sept. 10, 1943 to Dec. 31, 1951, nonrecording gage at site 1,100 ft downstream at different datum.

AVERAGE DISCHARGE.--9 years (1943-51, 1971), 67.5 cfs (20.00 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 2,850 Feb. 13 (gage height, 7.30 ft); minimum 8.7 cfs July 27 (gage height, 3.39 ft).

Period of record: Maximum discharge, 3,670 cfs Sept. 18, 1945 (gage height, 7.30 ft, site and datum then in use), from rating curve extended above 390 cfs on basis of slope-area measurement at gage height, 12.3 ft; minimum observed, 4.6 cfs Sept. 10, 1944 (gage height, 0.70 ft, site and datum then in use); minimum daily, 9.6 cfs Sept. 12, 1949.

Flood of Aug. 9, 1942 reached a stage of 12.3 ft, site and datum then in use (discharge, 8,600 cfs by slope-area measurement).

REMARKS.--Records good. Diversion above station from Rock Run Reservoir (capacity, 320,000,000 gallons), 2.6 miles upstream, for municipal supply of city of Coatesville.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	18	50	49	32	81	52	50	81	35	40	45
2	13	17	46	50	26	70	56	49	56	46	173	44
3	13	20	44	47	28	78	64	54	56	31	125	43
4	13	62	49	113	31	173	54	49	50	22	107	40
5	14	194	44	435	92	104	52	45	46	23	250	38
6	12	56	43	194	107	139	67	75	52	20	50	37
7	12	40	31	78	198	198	378	67	52	18	38	35
8	11	32	35	59	578	122	180	159	46	20	32	35
9	11	29	37	61	274	81	84	101	42	15	26	32
10	11	28	40	59	57	78	70	62	39	26	24	32
11	12	36	39	59	49	81	62	52	37	19	24	46
12	11	250	59	61	50	75	61	50	38	24	35	266
13	12	475	72	57	1,180	81	59	242	38	19	23	405
14	11	113	56	59	548	78	57	148	42	21	20	187
15	43	266	46	62	89	78	54	70	43	17	20	159
16	43	125	47	54	64	78	54	162	46	15	19	72
17	17	70	286	49	59	64	52	107	42	15	18	61
18	12	59	89	43	61	61	52	67	37	18	17	62
19	13	54	62	40	78	159	49	57	34	20	17	56
20	12	54	56	40	122	226	49	54	32	23	18	56
21	29	64	50	42	135	89	50	62	32	16	19	81
22	119	52	70	45	180	72	47	62	32	14	16	57
23	70	49	110	50	315	84	47	52	28	16	16	52
24	46	44	135	49	110	70	46	49	30	12	14	52
25	25	39	75	49	81	61	46	50	24	14	14	47
26	22	42	67	70	70	59	49	50	26	15	13	47
27	20	44	56	78	294	57	46	46	24	12	405	57
28	18	45	50	45	116	59	49	45	25	12	788	50
29	19	45	47	39	-----	57	95	45	20	13	104	49
30	16	67	45	44	-----	56	56	52	26	64	57	46
31	19	-----	46	40	-----	52	-----	202	-----	52	47	-----
TOTAL	711	2,489	1,982	2,220	5,024	2,821	2,137	2,435	1,176	687	2,569	2,289
MEAN	22.9	83.0	63.9	71.6	179	91.0	71.2	78.5	39.2	22.2	82.9	76.3
MAX	119	475	286	435	1,180	226	378	242	81	64	788	405
MIN	11	17	31	39	26	52	46	45	20	12	13	32
(\neq)	6.18	2.24	3.67	4.17	4.63	4.06	3.82	3.59	3.90	3.76	3.58	0
MEAN \neq	29.1	85.2	67.6	75.8	184	95.1	75.0	82.1	43.1	26.0	86.5	76.3
CFSM \neq	.64	1.86	1.48	1.66	4.02	2.08	1.64	1.79	.94	.57	1.89	1.67
IN \neq	.74	2.08	1.71	1.91	4.19	2.40	1.83	2.06	1.05	.66	2.18	1.86
CAL YR 1970	TOTAL 21,630	MEAN 59.3	MAX 716	MIN 11	MEAN \neq 62.9	CFSM \neq 1.37	IN \neq 18.66					
WTR YR 1971	TOTAL 26,540	MEAN 72.7	MAX 1,180	MIN 11	MEAN \neq 76.3	CFSM \neq 1.67	IN \neq 22.67					

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0100	5.60	760	8- 5	0245	5.54	718
2- 8	0015	6.28	1,360	8-28	0545	6.89	2,180
2-13	2100	7.30	2,850	9-13	1245	5.56	732

\neq Diversion for municipal supply and change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by city of Coatesville.
 \neq Adjusted for diversion and change in reservoir contents.

DELAWARE RIVER BASIN

01480617 West Branch Brandywine Creek at Modena, Pa.

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, on left bank at bridge on Legislative Route 15068 at Modena and 300 ft upstream from Dennis Run.

DRAINAGE AREA.--55.0 sq mi.

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 2,530 cfs Feb. 13 (gage height, 8.17 ft), from rating curve extended above 730 cfs; minimum, 4.1 cfs Oct. 14 (gage height, 2.27 ft).

Period of record: Maximum discharge, 2,530 cfs Feb. 13, 1971 (gage height, 8.17 ft), from rating curve extended above 730 cfs; minimum, 4.1 cfs Oct. 14, 1970 (gage height, 2.27 ft).

REMARKS.--Records good. Flow regulated by Rock Run Reservoir (capacity, 320,000,000 gallons) 5.6 miles upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	29	65	62	38	108	81	67	119	60	58	72
2	28	31	60	62	40	98	73	69	79	67	249	66
3	24	35	55	60	35	113	79	73	90	42	179	64
4	25	98	60	151	41	245	69	69	73	38	158	60
5	31	224	54	540	108	137	65	58	67	38	357	56
6	24	62	50	242	128	175	98	105	73	35	73	54
7	23	47	37	100	298	259	476	93	75	34	51	52
8	21	37	40	77	799	161	235	214	65	34	45	52
9	26	37	43	75	371	100	119	137	58	33	41	51
10	23	35	45	75	79	98	95	85	55	38	38	54
11	25	60	44	75	63	95	88	75	53	37	38	97
12	25	200	83	77	63	93	85	65	53	38	45	448
13	27	580	88	71	1,440	95	81	329	53	35	38	608
14	23	200	67	75	763	95	81	207	58	35	35	284
15	63	350	58	77	125	93	75	98	60	32	38	230
16	48	170	65	65	98	93	77	238	65	31	34	120
17	28	90	357	60	83	77	75	154	57	34	37	102
18	25	80	108	53	83	73	73	103	50	33	29	102
19	26	75	71	53	95	200	69	88	48	38	40	90
20	27	70	67	48	144	294	69	81	51	37	21	88
21	50	80	63	53	182	116	69	98	40	32	38	154
22	134	74	93	55	221	98	67	93	48	31	38	92
23	77	65	144	62	403	110	65	77	48	31	28	86
24	51	55	168	60	151	93	65	71	40	27	28	83
25	37	50	90	62	108	79	63	79	42	29	29	74
26	34	53	83	83	95	81	67	73	40	31	31	76
27	31	56	69	73	364	77	63	67	38	27	652	90
28	29	58	63	48	161	73	69	63	40	27	1,040	80
29	29	60	60	45	-----	77	128	65	40	33	163	76
30	31	90	55	50	-----	73	75	103	38	151	95	72
31	28	-----	57	48	-----	67	-----	308	-----	81	79	-----
TOTAL	1,097	3,151	2,462	2,737	6,579	3,646	2,894	3,505	1,716	1,269	3,825	3,633
MEAN	35.4	105	79.4	88.3	235	118	96.5	113	57.2	40.9	123	121
MAX	134	580	357	540	1,440	294	476	329	119	151	1,040	608
MIN	21	29	37	45	35	67	63	58	38	27	21	51
(%)	+2.50	-1.55	0	+5.0	+5.5	+5.0	0	0	0	0	0	0
MEAN#	37.9	103	79.4	88.8	236	118	96.5	113	57.2	40.9	123	121
CFSM#	.69	1.87	1.44	1.61	4.29	2.15	1.75	2.05	1.04	.74	2.24	2.20
IN.#	.80	2.09	1.66	1.86	4.47	2.48	1.95	2.36	1.16	.85	2.58	2.46
CAL YR 1970	TOTAL 29,402	MEAN 80.6	MAX 854	MIN 21	MEAN# 80.6	CFSM# 1.47	IN.# 19.87					
WTR YR 1971	TOTAL 36,514	MEAN 100	MAX 1,440	MIN 21	MEAN# 100	CFSM# 1.82	IN.# 24.72					

PEAK DISCHARGE (BASE, 840 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2- 8	0030	6.91	1,780	8- 5	0615	8.04	2,450
2-13	1345	8.17	2,530	9-13	1715	5.22	929

Change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by city of Coatesville.
 # Adjusted for change in reservoir contents.

DELAWARE RIVER BASIN

77

01480675 Marsh Creek near Glenmoore, Pa.

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, on left bank 1.2 miles downstream from Lyons Run, 1.8 miles upstream from Black Horse Creek, and 3 miles northeast of Glenmoore.

DRAINAGE AREA.--8.57 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 450 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 10.4 cfs (16.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 884 cfs Feb. 13 (gage height, 3.73 ft), from rating curve extended above 220 cfs; minimum daily, 1.3 cfs Oct. 9, 11, 12.

Period of record: Maximum discharge, 884 cfs Feb. 13, 1971 (gage height, 3.73 ft), from rating curve extended above 220 cfs; minimum, 0.3 cfs Aug. 31, 1966 (gage height, 0.98 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.3	9.0	5.0	2.5	23	9.4	9.0	34	3.4	21	6.0
2	1.7	2.3	6.5	5.0	2.0	18	10	8.7	12	4.3	48	5.4
3	1.8	2.7	5.6	5.6	2.3	18	12	9.8	10	3.6	50	5.0
4	1.8	15	6.7	19	3.0	39	11	8.7	8.7	3.0	28	4.6
5	1.5	52	5.6	61	5.0	35	9.4	7.0	7.0	2.8	21	4.3
6	1.5	27	5.0	59	19	35	15	13	6.5	2.6	11	4.0
7	1.4	8.7	3.6	21	25	46	70	15	6.0	2.6	6.0	3.9
8	1.4	5.2	3.8	12	137	34	35	34	5.6	2.4	4.0	3.8
9	1.3	4.3	3.9	9.4	85	18	15	34	5.0	2.3	3.2	3.7
10	1.4	4.0	4.6	9.0	24	16	12	15	4.6	2.6	2.9	3.7
11	1.3	9.0	4.9	9.4	10	17	11	10	4.4	2.7	3.2	6.0
12	1.3	34	8.7	10	12	16	10	8.7	4.4	3.0	3.6	44
13	1.4	75	14	9.8	276	17	10	44	4.7	2.7	2.8	122
14	1.4	41	11	9.4	198	16	9.8	50	6.0	2.4	2.5	117
15	5.2	41	7.9	9.8	32	16	9.0	16	7.0	2.2	2.4	39
16	4.7	39	7.0	8.2	15	17	9.0	28	7.6	2.0	2.3	15
17	3.2	15	52	6.0	12	14	8.7	27	6.0	2.1	2.2	12
18	2.2	9.4	37	5.0	15	12	8.7	14	4.9	2.4	2.1	11
19	1.8	7.9	12	4.4	24	27	8.2	10	4.4	2.6	2.2	11
20	1.6	7.3	9.0	4.2	28	63	7.9	9.0	4.2	2.7	2.3	10
21	3.9	9.4	7.3	4.2	43	25	7.9	12	4.2	2.8	2.2	11
22	21	7.9	9.4	4.4	35	16	7.9	12	4.2	2.3	2.1	10
23	19	6.7	16	5.6	70	18	7.6	9.8	3.9	1.9	1.9	9.4
24	8.7	5.0	23	6.0	37	16	7.3	8.2	3.7	1.8	1.7	8.7
25	4.7	4.6	15	6.2	20	13	7.0	7.9	3.6	2.5	1.5	7.6
26	3.6	4.6	11	9.0	17	12	7.6	7.6	3.4	2.3	1.6	8.7
27	2.9	5.2	7.9	6.0	61	12	7.6	7.0	3.3	2.1	59	11
28	2.6	5.6	6.7	4.0	44	12	8.2	6.5	3.2	1.8	276	10
29	2.5	5.8	5.6	3.0	-----	12	15	6.5	3.2	2.0	93	9.0
30	2.3	11	4.7	3.2	-----	11	12	8.7	3.4	8.2	17	7.9
31	2.3	-----	4.4	3.5	-----	11	-----	44	-----	9.8	8.2	-----
TOTAL	113.2	467.9	328.8	337.3	1,253.8	655	379.2	501.1	189.1	91.9	684.9	524.7
MEAN	3.65	15.6	10.6	10.9	44.8	21.1	12.6	16.2	6.30	2.96	22.1	17.5
MAX	21	75	52	61	276	63	70	50	34	9.8	276	122
MIN	1.3	2.3	3.6	3.0	2.0	11	7.0	6.5	3.2	1.8	1.5	3.7
CFSM	.43	1.82	1.24	1.27	5.23	2.46	1.47	1.89	.74	.35	2.58	2.04
IN.	.49	2.03	1.43	1.46	5.44	2.84	1.65	2.18	.82	.40	2.97	2.28

CAL YR 1970 TOTAL 4,034.29 MEAN 11.1 MAX 136 MIN .91 CFSM 1.30 IN 17.51
WTR YR 1971 TOTAL 5,526.90 MEAN 15.1 MAX 276 MIN 1.3 CFSM 1.76 IN 23.99

PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	1215	2.48	178	8-28	0545	3.06	427
2-13	2115	3.73	884	9-13	1130	2.54	191

01480700 East Branch Brandywine Creek near Downingtown. Pa.

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mile downstream from Shamona Creek, 1.5 miles downstream from Marsh Creek, 2.0 miles upstream from Beaver Creek, and 2.2 miles north of Downingtown.

DRAINAGE AREA.--60.6 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map). Prior to July 30, 1966, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--6 years 71.2 cfs (15.96 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,440 cfs Feb. 13 (gage height, 8.49 ft); minimum, 16 cfs (gage height, 2.00 ft).

Period of record: Maximum discharge, 4,440 cfs Feb. 13, 1971 (gage height, 8.49 ft); minimum, 7.2 cfs Sept. 2, 3, 11, 12, 13, 1966 (gage height, 1.80 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	27	61	58	43	139	85	80	134	38	69	71
2	20	28	48	62	39	119	89	76	85	46	248	64
3	19	31	45	59	40	131	99	85	87	37	175	60
4	20	110	51	160	43	286	89	78	73	34	155	56
5	18	275	48	610	148	186	83	71	64	33	253	51
6	18	95	44	227	161	216	112	110	63	34	66	50
7	17	54	40	108	336	294	630	108	62	31	47	50
8	17	43	39	82	1,030	192	207	217	58	30	40	47
9	16	39	43	82	410	131	134	169	54	29	37	46
10	16	36	44	75	131	121	117	105	51	34	34	46
11	17	56	44	73	99	124	108	85	49	32	34	64
12	18	302	66	77	110	114	99	78	49	38	38	392
13	18	527	92	73	1,990	117	95	364	50	36	32	1,360
14	18	155	71	78	731	114	87	225	58	32	29	445
15	58	342	58	80	160	112	85	117	62	30	28	210
16	45	158	54	64	108	112	83	225	63	28	29	136
17	26	95	396	69	93	95	83	160	57	29	27	110
18	23	75	136	56	101	91	81	105	50	32	26	103
19	22	69	84	54	134	257	80	91	47	34	27	95
20	22	64	69	50	177	305	78	81	45	34	28	93
21	31	78	62	51	186	149	76	93	45	29	26	121
22	184	61	82	54	264	121	76	95	44	26	26	91
23	97	54	131	64	430	139	74	80	43	24	25	85
24	53	50	164	61	183	114	73	71	41	24	24	83
25	36	45	99	64	131	101	71	69	40	28	23	78
26	32	45	86	95	119	99	74	68	39	27	24	80
27	30	47	69	73	420	97	73	62	38	25	870	97
28	31	48	61	54	195	93	74	60	36	23	1,660	87
29	30	48	58	54	-----	97	131	58	37	24	246	83
30	28	78	56	56	-----	93	89	82	39	116	119	76
31	27	-----	56	51	-----	89	-----	298	-----	78	91	-----
TOTAL	1,027	3,135	2,457	2,874	8,012	4,448	3,335	3,666	1,663	1,095	4,556	4,430
MEAN	33.1	105	79.3	92.7	286	143	111	118	55.4	35.3	147	148
MAX	184	527	396	610	1,990	305	630	364	134	116	1,660	1,360
MIN	16	27	39	50	39	89	71	58	36	23	23	46
CFSM	.55	1.73	1.31	1.53	4.72	2.36	1.83	1.95	.91	.58	2.43	2.44
IN.	.63	1.92	1.51	1.56	4.92	2.73	2.05	2.25	1.02	.67	2.80	2.72

CAL YR 1970 TOTAL 29,782 MEAN 81.6 MAX 1,190 MIN 15 CFSM 1.35 IN 18.28
WTR YR 1971 TOTAL 40,698 MEAN 112 MAX 1,990 MIN 16 CFSM 1.85 IN 24.98

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0200	4.59	1,020	4-7	0500	4.74	1,090
1-4	2330	4.46	936	8-28	0630	8.15	4,050
2-13	1730	8.49	4,440	9-13	1200	6.62	2,610

DELAWARE RIVER BASIN

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01481000 Brandywine Creek at Chadds Ford, Pa.

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run and 1,200 ft downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 sq mi, including that of Harvey Run.

PERIOD OF RECORD.--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 150.45 ft above mean sea level. Prior to May 21, 1927, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--51 years, 376 cfs (17.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,300 cfs Sept. 13 (gage height, 14.39 ft), from rating curve extended as explained below; minimum, 102 cfs Oct. 6, 7, 8, 10, 11, 14 (gage height, 1.14 ft).

Period of record: Maximum discharge, 17,200 cfs Mar. 5, 1920 (gage height, 15.0 ft, from floodmark), from rating curve extended above 7,000 cfs on basis of area-depth study; minimum, 4.9 cfs Oct. 2, 1941 (gage height, 0.28 ft); minimum daily, 42 cfs Sept. 12, 1966.

REMARKS.--Records good except those for winter periods which are fair. Records of chemical analyses, water temperature, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	149	315	328	210	632	404	365	695	256	336	448
2	127	143	283	361	210	569	408	374	497	369	860	408
3	127	149	272	357	200	614	448	395	502	249	664	386
4	130	276	280	493	256	1,280	408	365	461	230	709	361
5	124	1,130	268	2,110	722	808	382	336	412	223	1,220	340
6	121	412	260	1,150	826	830	434	434	408	220	382	328
7	118	283	242	587	812	1,090	2,250	497	452	220	276	315
8	116	245	230	452	4,620	845	1,140	744	365	209	242	307
9	121	230	245	448	2,350	628	686	654	340	209	220	299
10	116	227	253	425	560	587	578	443	324	216	206	287
11	118	260	249	416	421	587	542	408	311	213	199	722
12	118	731	344	421	395	565	515	369	307	230	213	2,060
13	118	2,350	408	399	3,560	565	520	1,320	307	213	195	6,780
14	116	2,300	315	408	4,890	551	510	948	320	206	185	5,080
15	223	1,740	283	425	812	538	488	502	340	199	188	1,560
16	238	722	283	369	601	533	470	1,190	344	192	178	1,100
17	149	448	1,410	340	515	484	450	872	348	195	168	960
18	127	378	605	300	488	448	430	569	307	209	168	850
19	124	353	408	290	542	623	425	502	283	223	181	754
20	118	348	361	280	619	1,360	404	452	287	220	175	704
21	165	395	336	270	885	650	399	479	264	199	168	1,730
22	808	340	461	320	910	547	399	515	291	188	172	785
23	484	311	610	340	1,890	601	404	438	283	181	162	700
24	260	287	763	336	830	533	399	408	256	178	146	668
25	195	272	488	336	628	470	399	404	260	181	149	610
26	175	280	434	524	560	475	395	452	245	181	143	596
27	162	280	378	400	1,460	457	374	374	249	172	2,160	659
28	152	280	357	320	860	443	378	361	238	165	6,910	601
29	143	276	328	260	-----	448	528	348	238	165	1,310	565
30	149	361	315	270	-----	434	412	506	242	925	659	542
31	143	-----	332	260	-----	412	-----	1,530	-----	560	511	-----
TOTAL	5,509	15,956	12,116	13,995	31,632	19,607	15,979	17,554	10,176	7,596	19,455	31,505
MEAN	178	532	391	451	1,130	632	533	566	339	245	628	1,050
MAX	808	2,350	1,410	2,110	4,890	1,360	2,250	1,530	695	925	6,910	6,780
MIN	116	143	230	260	200	412	374	336	238	165	143	287
CFSM	.62	1.85	1.36	1.57	3.94	2.20	1.86	1.97	1.18	.85	2.19	3.66
IN.	.71	2.07	1.57	1.81	4.10	2.54	2.07	2.28	1.32	.98	2.52	4.08

CAL YR 1970 TOTAL 151,347 MEAN 415 MAX 3,290 MIN 115 CFSM 1.45 IN 19.62
WTR YR 1971 TOTAL 201,080 MEAN 551 MAX 6,910 MIN 116 CFSM 1.92 IN 26.06

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	0945	10.61	7,360	8-28	1715	11.47	8,700
2-13	2345	12.84	11,200	9-13	2045	14.39	14,300

DELAWARE RIVER BASIN

01481500 Brandywine Creek at Wilmington, Del.

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, on right bank in Rockford Park, 0.2 mile downstream from Henry Clay Bridge, in Wilmington, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--314 sq mi.

PERIOD OF RECORD.--October 1946 to current year. Prior to December 1946, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft above mean sea level.

AVERAGE DISCHARGE.--25 years, 440 cfs (19.03 inches per year).

EXTREMES.--Water year 1970: Maximum discharge, 7,120 cfs Aug. 1 (gage height, 8.61 ft); minimum, 115 cfs Sept. 26; minimum daily, 128 cfs Sept. 25, 26.

Water year 1971: Maximum discharge, 21,300 cfs Sept. 13 (gage height, 13.83 ft); minimum, 120 cfs Oct. 8, 9, 10, 11; minimum daily, 137 cfs Oct. 8, 9.

Period of record: Maximum discharge, 21,300 cfs Sept. 13, 1971; maximum gage height, 13.89 ft Aug. 19, 1955; minimum discharge, about 30 cfs Dec. 26, 1948, during period of ice effect; minimum daily, 56 cfs Aug. 23, 24, 1957.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. No diversion just above station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960. Records of chemical analyses and suspended sediment loads for the water year 1971 are published in Part 2 of the Maryland-Delaware Annual Report.

REVISIONS (WATER YEARS).--WSP 1432: 1948, 1950. Complete table of revised figures of discharge, in cubic feet per second, for water year 1970, superseding those published in 1970 annual report, are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	145	154	739	434	390	775	642	360	265	2,390	182
2	154	154	148	469	910	390	3,530	634	350	310	506	161
3	229	201	148	396	3,720	396	3,250	634	340	315	325	168
4	182	175	148	315	1,690	402	1,260	674	506	288	283	171
5	154	158	139	270	739	506	950	618	462	270	253	161
6	148	209	134	310	634	469	892	586	1,110	249	229	154
7	148	201	151	283	586	420	838	554	498	233	233	145
8	178	178	469	249	562	408	739	538	390	225	221	151
9	189	233	408	241	530	378	706	530	360	229	225	154
10	161	245	506	253	1,540	366	674	514	310	434	217	182
11	151	193	2,090	292	1,520	360	626	483	310	384	209	165
12	151	175	546	261	802	366	618	483	355	288	193	148
13	151	189	325	253	650	476	594	562	514	245	201	145
14	151	182	274	237	546	448	1,250	498	306	225	193	142
15	148	185	265	221	554	390	3,040	602	297	237	185	142
16	145	178	241	217	554	355	1,430	490	325	829	189	139
17	142	165	205	229	522	340	960	642	396	306	297	139
18	139	158	189	340	570	360	883	722	366	241	209	134
19	139	175	205	345	634	476	811	514	748	225	185	154
20	139	427	193	270	578	498	1,340	476	384	217	193	148
21	249	283	168	245	462	722	1,140	427	706	462	197	142
22	189	201	706	229	462	602	874	402	1,440	315	175	139
23	151	182	674	229	483	1,090	820	414	522	241	1,260	131
24	142	175	360	217	498	650	1,130	420	384	340	784	131
25	142	168	249	213	462	522	1,390	427	325	306	315	128
26	148	161	586	233	420	490	901	434	320	253	237	128
27	148	154	408	257	408	690	793	940	335	229	225	142
28	142	154	330	245	420	530	748	469	301	213	205	189
29	139	151	297	434	-----	838	714	408	274	237	189	161
30	142	151	345	739	-----	960	674	378	270	274	185	148
31	142	-----	1,110	522	-----	883	-----	372	-----	578	197	-----
TOTAL	4,881	5,706	12,171	9,753	21,890	16,171	34,350	16,487	13,564	9,463	10,905	4,524
MEAN	157	190	393	315	782	522	1,145	532	452	305	352	151
MAX	249	427	2,090	739	3,720	1,090	3,530	940	1,440	829	2,390	189
MIN	139	145	134	213	408	340	594	372	270	213	175	128
CFSM	.50	.61	1.25	1.00	2.49	1.66	3.65	1.69	1.44	.97	1.12	.48
IN.	.58	.68	1.44	1.16	2.59	1.92	4.07	1.95	1.61	1.12	1.29	.54

CAL YR 1969 TOTAL 105,058 MEAN 288 MAX 4,210 MIN 134 CFSM .92 IN 12.45
WTR YR 1970 TOTAL 159,865 MEAN 438 MAX 3,720 MIN 128 CFSM 1.39 IN 18.94

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2- 3	0600	7.29	4,340	8- 1	0215	8.61	7,120
4- 2	1530	8.36	6,500				

DELAWARE RIVER BASIN

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01481500 Brandywine Creek at Wilmington, Del.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	171	378	355	230	835	478	478	898	260	407	449
2	142	171	330	370	255	750	486	463	598	414	1,020	406
3	151	175	310	360	274	782	542	494	614	296	782	380
4	148	610	315	522	288	1,570	502	478	566	245	835	353
5	145	1,400	306	2,560	838	1,040	478	421	486	235	1,320	327
6	145	522	292	1,530	1,010	1,020	534	510	486	231	518	313
7	139	320	274	775	870	1,260	2,750	630	502	231	340	296
8	137	270	253	578	5,820	1,080	1,520	726	456	215	280	284
9	137	245	270	554	3,180	799	988	880	407	211	250	281
10	139	233	288	498	817	734	826	574	394	215	227	263
11	139	274	279	476	606	726	742	486	376	215	215	1,560
12	139	757	366	483	542	686	686	435	370	245	240	2,970
13	139	2,330	514	455	3,830	678	662	1,350	370	215	215	9,770
14	139	883	378	469	7,640	662	630	1,260	376	203	199	8,840
15	213	1,690	330	490	1,050	638	590	662	421	191	195	1,930
16	315	980	320	420	817	630	574	1,570	428	184	195	1,290
17	185	586	1,770	384	670	574	550	1,200	394	184	180	1,110
18	148	483	802	330	614	534	542	880	346	195	184	1,000
19	142	455	506	310	638	694	510	726	329	207	184	939
20	139	414	434	290	670	1,610	502	638	324	215	191	832
21	201	483	390	325	1,010	790	494	678	307	191	173	1,940
22	1,210	408	538	372	1,090	654	494	678	335	177	184	922
23	739	366	757	390	2,500	710	478	558	296	169	177	796
24	350	330	1,010	384	1,090	638	470	502	291	165	152	762
25	257	306	674	378	871	574	456	494	285	165	152	694
26	221	315	562	514	766	558	456	598	270	173	155	677
27	201	315	483	530	1,660	542	463	478	270	162	2,320	741
28	185	315	434	275	1,080	534	449	449	250	148	7,300	690
29	178	310	384	355	-----	534	630	449	240	148	2,240	647
30	175	414	350	372	-----	518	542	502	260	970	678	622
31	171	-----	360	340	-----	494	-----	1,670	-----	742	518	-----
TOTAL	7,014	16,531	14,657	16,444	40,726	23,848	20,024	21,917	11,945	7,817	22,026	42,084
MEAN	226	551	473	530	1,455	769	667	707	398	252	711	1,403
MAX	1,210	2,330	1,770	2,560	7,640	1,610	2,750	1,670	898	970	7,300	9,770
MIN	137	171	253	275	230	494	449	421	240	148	152	263
CFSM	.72	1.75	1.51	1.69	4.63	2.45	2.12	2.25	1.27	.80	2.26	4.47
IN.	.83	1.96	1.74	1.95	4.82	2.83	2.37	2.60	1.42	.93	2.61	4.99

CAL YR 1970 TOTAL 175,309 PEAK 480 MAX 3,720 MIN 128 CFSM 1.53 IN 20.77
WTR YR 1971 TOTAL 245,033 MEAN 671 MAX 9,770 MIN 137 CFSM 2.14 IN 29.03

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-8	1245	9.41	7,820	8-28	2115	9.85	8,700
2-14	0345	11.86	14,100	9-13	2315	13.83	21,300

DELAWARE RIVER BASIN

Reservoirs in Delaware River basin

- 01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, at dam on West Branch Lackawaxen River, 0.3 mile north of Prompton, 0.4 mile upstream from highway bridge, and 0.5 mile upstream from Van Auken Creek. Drainage area, 59.6 sq mi. Period of record, December 1960 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 5,000 acre-ft Mar. 17 (elevation, 1,130.20 ft); minimum, 3,500 acre-ft July 28, 29 (elevation, 1,125.30 ft). Extremes for period of record: Maximum contents, 6,120 acre-ft Mar. 10, 1964 (elevation, 1,133.40 ft); minimum (after first filling), 2,920 acre-ft Sept. 27, 1964 (elevation, 1,123.20 ft). Reservoir formed by an earth and rockfill dam with ungated bed rock spillway at elevation 1,205.00 ft. Storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool elevation, 1,125.00 ft (capacity, 3,420 acre-ft). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.
- 01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, at dam on Dyberry Creek, 0.45 mile upstream from unnamed tributary, 2.4 miles north of Honesdale, and 2.9 miles upstream from mouth. Drainage area, 64.5 sq mi. Period of record, October 1959 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 1,820 acre-ft Feb. 14 (elevation, 999.50 ft); minimum, no storage many times. Extremes for period of record: Maximum contents, 4,000 acre-ft Apr. 1, 1962 (elevation, 1,009.0 ft); minimum, no storage many times. Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft. Storage began in October 1959. Capacity at elevation 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.
- 01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, at dam on Wallenpaupack Creek at Wilsonville, 1.2 miles south of Hawley and 1.5 miles upstream from mouth. Drainage area, 228 sq mi. Period of record, January 1926 to current year. Gage, vertical staff. Datum of gage is at mean sea level (levels by Pennsylvania Power and Light Co.). Extremes for current year: Maximum contents, 142,780 acre-ft May 16, 17 (elevation, 1,187.40 ft); minimum, 70,640 acre-ft Feb. 12, 13 (elevation, 1,174.20 ft). Extremes for period of record: Maximum contents, 178,200 acre-ft Aug. 19-21, 1955 (elevation, 1,193.45 ft); minimum (after first filling), 12,280 acre-ft Mar. 28, 1958 (elevation, 1,162.60 ft). Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway in two sections, at elevation, 1,176.00 ft. Spillway equipped with roller gate, 14 ft high, on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation, 1,190.00 ft (top of gates) is 209,300 acre-ft of which 157,800 acre-ft is controlled storage above elevation, 1,160.0 ft (minimum pool). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.
- 01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir)--Lat 41°06'45", long 75°43'15", Luzerne County, at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 miles northwest of White Haven. Drainage area, 289 sq mi. Period of record, February 1961 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 14,910 acre-ft Oct. 10 (elevation, 1,357.20 ft); minimum, 1,850 acre-ft Oct. 20 (elevation, 1,298.60 ft). Extremes for period of record: Maximum contents, 36,920 acre-ft May 30, 1966 (elevation, 1,391.70 ft); minimum (after establishment of conservation pool), 1,510 acre-ft Apr. 23, 1962 (elevation, 1,295.10 ft). Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation, 1,450.0 ft. Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft (conservation pool). Dead storage is 2,000 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.
- 01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, at dam on Wild Creek near Hatchery, 0.7 mile upstream from Hatchery, 2.6 miles upstream from Wild Creek Dam, 4.4 miles upstream from mouth, and 10 miles northeast of Palmerton. Drainage area, 16.5 sq mi. Period of record, October 1958 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by city of Bethlehem). Extremes for current year: Maximum contents, 20,290 acre-ft Mar. 3 (elevation, 1,000.53 ft); minimum, 15,650 acre-ft Oct. 10 (elevation, 990.01 ft). Extremes for period of record: Maximum contents, 20,460 acre-ft Apr. 2, 1970 (elevation, 1,000.83 ft); minimum, 176 acre-ft Oct. 6, 1965 (elevation, 902.40 ft). Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation, 1,000.00 ft. Storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.
- 01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, at dam on Wild Creek near Hatchery, 1.6 miles upstream from mouth, 2.4 miles south of Hatchery, and 7.5 miles northeast of Palmerton. Drainage area, 22.2 sq mi. Period of record, January 1941 to current year. Gage, nonrecording. Datum of gage is at mean sea level (levels by city of Bethlehem). Extremes for current year: Maximum contents, 12,210 acre-ft Mar. 1 (elevation, 820.70 ft); minimum, 7,560 acre-ft Oct. 1 (elevation, 802.33 ft). Extremes for period of record: Maximum contents, 12,880 acre-ft May 23, 1942 (elevation, 822.93 ft); minimum (after first filling), 2,680 acre-ft Nov. 15, 1966 (elevation, 774.10 ft). Reservoir formed by earthfill dam, with concrete ungated spillway at elevation, 820.00 ft. Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem.

Reservoirs in Delaware River basin--Continued

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, at dam on Pohopoco Creek, 0.45 mile upstream from gaging station on Pohopoco Creek, 0.55 mile upstream from Sawmill Run, and 2.3 miles northeast of Parryville. Drainage area, 96.3 sq mi. Period of record, February to September 1971. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents during period February to September, 28,480 acre-ft Sept. 30 (elevation, 612.40 ft); minimum, 136 acre-ft Feb. 8 (elevation, 516.20 ft).

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

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, at dam on Still Creek, 1 mile upstream from mouth, and 2.3 miles north of Hometown. Drainage area, 8.5 sq mi. Period of record, January 1933 to current year. Staff gage. Datum of gage is at mean sea level (levels by Panther Valley Water Co.). Extremes for current year: Maximum contents, 8,380 acre-ft Mar. 3 (elevation, 1,182.29 ft); minimum, 6,600 acre-ft Oct. 21, 22 (elevation, 1,176.00 ft). Extremes for period of record: Maximum contents, 8,570 acre-ft Oct. 15, 1955 (elevation, 1,182.92 ft), but may have been greater during 1950 and 1951 water years; minimum, 390 acre-ft Feb. 26, 1933 (elevation, 1,132.00 ft).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft. Storage began in February 1933. Capacity at elevation 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by Panther Valley Water Co.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, at dam on Perkiomen Creek at Green Lane, 0.4 mile west of Green Lane and 2.1 miles upstream from Unami Creek. Drainage area, 70.9 sq mi. Period of record, December 1956 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Philadelphia Suburban Water Co.). Extremes for current year: Maximum contents, 14,940 acre-ft Aug. 28 (elevation, 287.70 ft); minimum, 10,530 acre-ft Oct. 21 (elevation, 282.25 ft). Extremes for period of record: Maximum contents, 15,430 acre-ft Nov. 27, 1961 (elevation, 288.25 ft); minimum (after first filling), 1,270 acre-ft Aug. 25, 1957 (elevation, 251.60 ft).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft. Storage began December 21, 1956. Capacity at spillway level (elevation, 286.00 ft), 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

NORTHARD ELEVATION AND CONTENTS AT 2400', WHICH YEAR OCTOBER 1970 TO SEPTEMBER 1971						
Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01428900 PROMPTON RESERVOIR				01429400 GENERAL EDGAR JADWIN RESERVOIR		
Sept. 30.....	1,125.55	3,570	-	975.21	0	-
Oct. 31.....	1,125.70	3,620	+0.8	975.02	0	0
Nov. 30.....	1,126.10	3,730	+1.8	976.43	0	0
Dec. 31.....	1,125.80	3,640	-1.5	976.27	0	0
CAL YR 1970.....	-	-	-1.1	-	-	0
Jan. 31.....	1,125.70	3,620	-3	975.44	0	0
Feb. 28.....	1,128.10	4,330	+12.8	983.23	169	+3.0
Mar. 31.....	1,126.60	3,870	-7.5	977.70	0	-2.7
Apr. 30.....	1,128.70	4,520	+10.9	977.16	0	0
May 31.....	1,125.90	3,670	-13.8	975.86	0	0
June 30.....	1,125.40	3,530	-2.4	974.82	0	0
July 31.....	1,125.80	3,640	+1.8	976.56	0	0
Aug. 31.....	1,125.80	3,640	0	975.41	0	0
Sept. 30.....	1,125.60	3,590	-8	975.41	0	0
WTR YR 1971.....	-	-	0	-	-	0

DELAWARE RIVER BASIN

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<hr/>						
01431700 LAKE WALLENPAUPACK						
Sept. 30.....	1,176.00	80,100	-	1,300.28	2,030	-
Oct. 31.....	1,175.70	78,510	-25.9	1,323.70	5,140	+50.6
Nov. 30.....	1,180.00	101,600	+388	1,300.60	2,060	-51.8
Dec. 31.....	1,180.70	105,380	+61.5	1,301.10	2,110	+8
CAL YR 1970.....	-	-	-22.8	-	-	-3
Jan. 31.....	1,177.10	85,940	-316	1,300.10	2,010	-1.6
Feb. 28.....	1,178.20	91,880	+107	1,304.80	2,490	+8.6
Mar. 31.....	1,183.50	120,800	+470	1,300.50	2,050	-7.2
Apr. 30.....	1,186.20	135,940	+254	1,302.00	2,200	+2.5
May 31.....	1,187.20	141,640	+92.7	1,302.90	2,290	+1.5
June 30.....	1,186.40	137,080	-76.6	1,298.80	1,870	-7.1
July 31.....	1,186.30	136,510	-25.5	1,303.80	2,380	+8.3
Aug. 31.....	1,181.20	108,100	-462	1,300.10	2,010	-6.0
Sept. 30.....	1,178.00	90,800	-291	1,300.70	2,070	+1.0
WTR YR 1971.....	-	-	+14.8	-	-	+1
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01449400 PENN FOREST RESERVOIR						
Sept. 30.....	996.50	18,400	-	802.33	7,560	-
Oct. 31.....	990.02	15,650	-44.7	812.07	9,890	+37.9
Nov. 30.....	996.48	18,390	+46.1	818.32	11,620	+29.1
Dec. 31.....	1,000.17	20,080	+27.5	815.21	10,760	-14.0
CAL YR 1970.....	-	-	0	-	-	+4
Jan. 31.....	1,000.12	20,050	-5	815.61	10,870	+1.8
Feb. 28.....	1,000.49	20,260	+3.8	820.68	12,200	+23.9
Mar. 31.....	1,000.16	20,070	-3.1	820.13	12,040	-2.6
Apr. 30.....	1,000.17	20,080	+2	819.94	11,990	-8
May 31.....	1,000.31	20,160	+3.1	820.37	12,110	+2.0
June 30.....	1,000.12	20,050	-1.8	818.64	11,710	-6.7
July 31.....	1,000.09	20,030	-3	813.62	10,320	-22.6
Aug. 31.....	1,000.00	19,980	-8	810.81	9,540	-12.7
Sept. 30.....	997.12	18,680	-21.8	815.60	10,870	+22.4
WTR YR 1971.....	-	-	+4	-	-	+4.6
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01449790 BELTZVILLE LAKE						
Sept. 30.....	-	-	-	1,178.00	7,150	-
Oct. 31.....	-	-	-	1,176.50	6,740	-6.7
Nov. 30.....	-	-	-	1,182.02	8,290	+26.1
Dec. 31.....	-	-	-	1,182.01	8,290	0
CAL YR 1970.....	-	-	-	-	-	+2.1
Jan. 31.....	-	-	-	1,181.92	8,260	-5
Feb. 28.....	534.40	1,120	+20.2	1,182.17	8,340	+1.4
Mar. 31.....	560.10	5,480	+70.9	1,182.04	8,300	-7
Apr. 30.....	579.00	11,120	+94.8	1,181.83	8,240	-1.0
May 31.....	595.60	18,380	+118	1,182.04	8,300	+1.0
June 30.....	601.70	21,650	+55.0	1,181.62	8,180	-2.0
July 31.....	602.50	22,110	+7.5	1,180.75	7,920	-4.2
Aug. 31.....	606.10	24,260	+35.0	1,181.42	8,120	+3.3
Sept. 30.....	612.40	28,480	+70.9	1,181.58	8,160	+7
WTR YR 1971.....	-	-	+39.3	-	-	+1.4
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01469200 STILL CREEK RESERVOIR						
Sept. 30.....	-	-	-	1,178.00	7,150	-
Oct. 31.....	-	-	-	1,176.50	6,740	-6.7
Nov. 30.....	-	-	-	1,182.02	8,290	+26.1
Dec. 31.....	-	-	-	1,182.01	8,290	0
CAL YR 1970.....	-	-	-	-	-	+2.1
Jan. 31.....	-	-	-	1,181.92	8,260	-5
Feb. 28.....	534.40	1,120	+20.2	1,182.17	8,340	+1.4
Mar. 31.....	560.10	5,480	+70.9	1,182.04	8,300	-7
Apr. 30.....	579.00	11,120	+94.8	1,181.83	8,240	-1.0
May 31.....	595.60	18,380	+118	1,182.04	8,300	+1.0
June 30.....	601.70	21,650	+55.0	1,181.62	8,180	-2.0
July 31.....	602.50	22,110	+7.5	1,180.75	7,920	-4.2
Aug. 31.....	606.10	24,260	+35.0	1,181.42	8,120	+3.3
Sept. 30.....	612.40	28,480	+70.9	1,181.58	8,160	+7
WTR YR 1971.....	-	-	+39.3	-	-	+1.4

DELAWARE RIVER BASIN

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Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01472200 GREEN LANE RESERVOIR			
Sept. 30.....	283.32	11,260	-
Oct. 31.....	284.90	12,460	+19.5
Nov. 30.....	285.99	13,420	+16.1
Dec. 31.....	285.90	13,340	-1.3
CAL YR 1970.....	-	-	- .2
Jan. 31.....	285.93	13,370	+ .5
Feb. 28.....	286.24	13,640	+4.9
Mar. 31.....	286.04	13,470	-2.8
Apr. 30.....	286.00	13,430	- .7
May 31.....	286.16	13,570	+2.3
June 30.....	285.55	13,030	-9.1
July 31.....	285.47	12,960	-1.1
Aug. 31.....	286.09	13,510	+8.9
Sept. 30.....	285.64	13,110	-6.7
WTR YR 1971.....	-	-	+2.6

SUSQUEHANNA RIVER BASIN

01516500 Corey Creek near Mainesburg, Pa.

LOCATION.--Lat 41°47'27", long 77°00'54", Tioga County, on right bank 30 ft upstream from township bridge, 500 ft upstream from small tributary, 1.1 miles west of Mainesburg, 3.5 miles east of Mansfield, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--12.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,337.50 ft above mean sea level. Prior to June 28, 1954 nonrecording gage at site 30 ft downstream at same datum.

AVERAGE DISCHARGE.--17 years, 11.0 cfs (12.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 532 cfs Feb. 27 (gage height, 4.67 ft); maximum gage height, 4.90 ft Feb. 23 (ice jam); minimum discharge, 0.02 cfs Aug. 18, 19, 20, 22 (gage height, 1.04 ft).
Period of record: Maximum discharge, 2,210 cfs Oct. 14, 1955 (gage height, 7.88 ft), from rating curve extended above 490 cfs on basis of slope-area measurement of peak flow; no flow for many days.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	23	9.9	2.7	1.5	56	11	15	3.4	3.4	.72	.37
2	.73	16	9.2	2.5	1.4	37	24	20	2.8	2.8	.40	.29
3	1.2	14	8.6	2.4	1.4	27	22	36	2.8	1.3	.29	.22
4	.90	25	15	2.6	1.4	23	21	25	2.4	1.1	.35	.19
5	.81	16	11	3.3	1.4	29	20	18	2.1	.82	.35	.25
6	.73	12	10	5.6	1.5	28	17	18	2.1	.66	.28	.37
7	.66	9.2	8.2	4.7	1.6	28	16	16	1.8	.53	.22	1.1
8	.59	8.0	7.4	4.0	1.6	27	14	20	1.5	.42	.19	1.9
9	.52	7.2	7.0	3.5	1.5	28	17	25	1.3	.42	.13	.66
10	.52	7.0	8.9	3.2	1.3	27	30	20	1.2	.33	.09	.42
11	3.2	21	8.6	2.9	1.3	25	25	16	1.1	.42	.06	.42
12	3.2	46	14	2.7	1.3	26	26	15	1.5	.47	.07	15
13	4.2	110	14	2.5	12	29	37	34	2.8	.37	.06	13
14	2.8	57	12	2.4	76	75	57	26	3.8	1.8	.04	7.1
15	4.0	89	9.9	2.7	60	213	30	19	9.9	.66	.04	4.6
16	4.6	43	8.9	2.5	46	95	24	17	4.2	.47	.05	7.1
17	3.2	30	11	2.1	37	50	20	14	2.7	.37	.04	9.5
18	2.8	24	9.5	1.8	32	35	15	12	2.2	.33	.03	5.3
19	2.0	20	20	1.6	34	28	12	9.9	1.8	.42	.03	5.1
20	1.6	30	26	1.6	36	26	11	13	1.4	.47	.03	8.3
21	2.3	27	16	1.5	66	23	10	14	1.2	.33	.05	7.4
22	80	20	15	1.5	62	20	8.4	9.2	1.1	.42	.06	5.1
23	34	17	15	1.5	98	18	7.2	7.4	.91	.22	.37	4.4
24	24	15	15	1.6	116	16	6.6	6.3	.91	.25	.19	3.8
25	13	12	12	1.7	75	27	6.6	8.3	.82	.53	.13	3.0
26	8.0	11	8.4	1.9	101	18	7.2	7.1	1.0	.38	.11	2.8
27	6.0	11	6.2	1.7	281	15	6.8	6.3	.74	.30	.13	2.5
28	4.8	11	4.9	1.7	92	11	18	5.5	1.2	.25	1.9	2.5
29	4.0	11	3.9	1.6	-----	9.6	37	5.1	.91	.22	1.1	2.4
30	7.0	13	3.3	1.5	-----	9.0	17	4.2	.66	.23	.66	1.9
31	23	-----	2.9	1.5	-----	9.8	-----	3.8	-----	.60	.42	-----
TOTAL	245.26	755.4	331.7	75.0	1,241.2	1,088.4	573.8	466.1	62.25	21.29	8.59	116.99
MEAN	7.91	25.2	10.7	2.42	44.3	35.1	19.1	15.0	2.08	.69	.28	3.90
MAX	80	110	26	5.6	281	213	57	36	9.9	3.4	1.9	15
MIN	.52	7.0	2.9	1.5	1.3	9.0	6.6	3.8	.66	.22	.03	.19
CFSM	.65	2.07	.88	.20	3.63	2.88	1.57	1.23	.17	.06	.02	.32
IN.	.75	2.30	1.01	.23	3.78	3.32	1.75	1.42	.19	.06	.03	.36

CAL YR 1970 TOTAL 4,409.81 MEAN 12.1 MAX 151 MIN .35 CFSM .99 IN 13.45
WTR YR 1971 TOTAL 4,985.98 MEAN 13.7 MAX 281 MIN .03 CFSM 1.12 IN 15.20

PEAK DISCHARGE (BASE, 280 CFS).--Feb. 27 (1500) 532 cfs (4.67 ft); Mar. 15 (1430) 343 cfs (4.05 ft).

SUSQUEHANNA RIVER BASIN

87

01517000 Elk Run near Mainesburg, Pa.

LOCATION.--Lat 41°48'54", long 76°57'55", Tioga County, on left bank 250 ft downstream from highway bridge, 0.5 mile upstream from small tributary, 2.8 miles northeast of Mainesburg, 5.5 miles upstream from mouth, and 5.8 miles east of Mansfield.

DRAINAGE AREA.--10.2 sq mi.

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

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,385.05 ft above mean sea level. Prior to Aug. 29, 1956, nonrecording gage and crest-stage gage at bridge 250 ft upstream at same datum.

AVERAGE DISCHARGE.--17 years, 10.1 cfs (13.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 602 cfs Feb. 27 (gage height, 2.95 ft), from rating curve extended above 300 cfs; no flow on many days.

Period of record: Maximum discharge, 1,240 cfs Oct. 14, 1955 (gage height, 6.77 ft, site then in use), from rating curve extended above 230 cfs on basis of slope-area measurement of peak flow; no flow for many days.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	17	6.9	3.4	1.6	62	9.1	12	2.5	3.8	.46	.06
2	.60	11	6.6	3.1	1.5	40	20	17	2.5	4.5	.25	.06
3	.81	12	6.0	3.1	1.5	28	18	32	2.3	2.0	.16	.05
4	.66	15	11	3.4	1.4	13	18	20	2.0	1.0	.22	.02
5	.60	9.1	7.2	4.4	1.5	17	16	15	1.9	.66	.21	0
6	.55	8.0	6.6	6.6	1.6	22	14	15	1.7	.23	.16	.26
7	.46	7.2	5.7	5.2	1.7	25	13	12	1.5	.08	.08	1.2
8	.30	5.7	5.4	4.3	1.8	20	12	16	1.3	.04	.04	3.3
9	.23	5.2	6.3	3.7	1.7	16	16	22	1.1	.03	0	.34
10	.34	5.0	6.6	3.4	1.5	14	29	17	.90	.03	0	.23
11	2.3	10	6.0	3.1	1.4	12	23	12	.73	.04	0	.23
12	2.3	45	8.7	2.8	1.5	11	24	12	.86	.14	0	5.8
13	2.8	112	9.6	2.6	40	17	38	34	2.3	.08	0	8.5
14	2.3	61	8.7	2.5	67	82	52	24	3.0	3.7	0	5.0
15	4.0	81	7.2	3.0	61	256	28	16	14	1.1	0	2.8
16	4.0	44	6.6	2.6	48	104	20	15	5.2	.66	0	5.0
17	2.8	30	7.2	2.2	43	52	16	12	3.6	.23	0	7.5
18	2.3	22	7.6	2.0	41	37	13	9.1	2.5	.17	0	3.8
19	2.0	16	18	1.8	44	27	10	7.2	1.9	.23	0	3.4
20	1.7	29	24	1.7	54	23	9.1	8.0	1.5	.46	0	5.4
21	3.2	27	13	1.6	92	18	8.3	9.6	1.2	.14	0	4.7
22	120	17	12	1.6	45	17	6.9	6.6	1.1	.06	0	3.4
23	34	15	13	1.6	90	15	6.0	5.2	.66	.08	.16	2.7
24	19	11	13	1.7	48	14	5.4	4.5	.46	.12	0	2.3
25	9.6	9.1	11	1.8	30	23	5.4	5.4	.60	.47	0	1.7
26	7.6	8.0	9.0	2.0	50	14	6.0	5.0	1.7	.25	0	1.5
27	6.0	8.3	6.6	1.9	292	12	5.4	4.5	.55	.18	0	1.3
28	5.2	8.3	5.6	1.8	97	8.0	14	4.2	1.3	.10	3.7	1.1
29	4.5	8.3	4.7	1.7	-----	8.0	29	3.6	.60	.08	2.1	.90
30	9.3	9.1	4.1	1.6	-----	7.2	14	3.4	.38	.20	.88	.66
31	21	-----	3.8	1.6	-----	8.0	-----	3.0	-----	.40	.30	-----
TOTAL	271.18	666.3	267.7	83.8	1,160.7	1,022.2	498.6	382.3	61.84	21.26	8.72	73.21
MEAN	8.75	22.2	8.64	2.70	41.5	33.0	16.6	12.3	2.06	.69	.28	2.44
MAX	120	112	24	6.6	292	256	52	34	4.5	3.7	8.5	0
MIN	.23	5.0	3.8	1.6	1.4	7.2	5.4	3.0	.38	.03	0	0
CFSM	.86	2.18	.85	.26	4.07	3.24	1.63	1.21	.20	.07	.03	.24
IN.	.99	2.43	.98	.31	4.23	3.73	1.82	1.39	.23	.08	.03	.27

CAL YR 1970 TOTAL 4,242.02 MEAN 11.6 MAX 180 MIN 0 CFSM 1.14 IN 15.47
WTR YR 1971 TOTAL 4,517.81 MEAN 12.4 MAX 292 MIN 0 CFSM 1.22 IN 16.48

PEAK DISCHARGE (BASE, 230 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	0800	2.23	300	3-15	1430	2.72	508
2-27	1600	2.95	602				

NOTE.--No gage-height record July 22 to Aug. 31.

SUSQUEHANNA RIVER BASIN

01518000 Tioga River at Tioga, Pa.

LOCATION.--Lat 41°54'30", long 77°07'47", Tioga County, on left bank 130 ft upstream from highway bridge at Tioga, 0.8 mile upstream from Crooked Creek.

DRAINAGE AREA.--282 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,021.0 ft above mean sea level. 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.

AVERAGE DISCHARGE.--33 years, 318 cfs (15.31 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,000 cfs Oct. 22 (gage height, 7.14 ft); maximum gage height, 12.19 ft Feb. 23 (ice jam); minimum discharge, 11 cfs Aug. 18 (gage height, 0.90 ft).
Period of record: Maximum discharge, 39,000 cfs May 27, 1946 (gage height, 15.47 ft, present datum), from rating curve extended above 5,800 cfs on basis of slope-area and contracted-opening measurements of peak flow; minimum, 4.5 cfs Aug. 10, 11, 1955.

REMARKS.--Records fair. Records of chemical analyses and water temperatures at Tioga Junction, 5.0 miles downstream, for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 871: 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	976	385	160	66	2,090	608	594	161	55	48	19
2	33	675	333	150	66	1,510	923	580	142	84	33	17
3	38	602	253	150	62	1,270	1,060	1,110	136	60	28	16
4	41	1,070	539	160	60	869	1,040	812	124	45	34	15
5	36	729	435	200	62	809	1,030	531	109	38	34	16
6	34	607	356	260	66	751	881	475	101	35	27	18
7	32	488	298	200	70	769	810	434	113	33	23	17
8	29	400	220	180	66	771	847	451	93	29	21	56
9	27	338	240	160	60	627	862	726	80	28	19	36
10	26	304	293	150	54	528	1,530	649	72	27	17	25
11	63	751	273	140	56	517	1,210	505	66	27	16	21
12	136	1,850	300	130	60	501	1,240	428	95	29	15	852
13	150	4,140	320	130	66	613	1,630	922	117	25	14	1,150
14	148	2,730	360	120	300	1,370	2,420	1,140	129	32	14	780
15	172	3,540	328	140	300	4,030	1,320	908	694	28	14	360
16	216	2,230	280	130	250	3,230	1,090	810	323	25	14	313
17	159	1,430	306	110	200	1,750	931	739	183	26	14	708
18	121	1,100	304	96	160	1,250	831	623	133	24	12	362
19	100	900	369	90	170	1,140	731	536	106	26	12	301
20	85	903	898	82	450	989	634	470	89	28	12	784
21	86	1,300	567	80	1,100	872	565	982	78	25	14	819
22	3,820	847	477	80	2,300	833	520	621	71	22	15	486
23	1,920	739	453	80	2,200	819	468	496	64	20	29	334
24	1,030	592	478	84	1,700	702	415	417	59	25	18	257
25	720	501	402	88	1,200	569	381	436	55	41	15	191
26	543	423	357	88	900	521	361	407	56	31	14	160
27	414	396	320	84	3,500	485	361	331	49	27	14	150
28	324	396	250	80	3,330	530	362	303	59	22	61	140
29	264	372	210	76	-----	522	921	252	57	21	45	150
30	326	496	200	76	-----	535	678	216	49	22	29	130
31	973	-----	180	70	-----	502	-----	188	-----	41	22	-----
TOTAL	12,101	31,825	11,024	3,824	18,874	32,274	26,660	18,092	3,663	1,001	697	8,683
MEAN	390	1,061	356	123	674	1,041	889	584	122	32.3	22.5	289
MAX	3,820	4,140	898	260	3,500	4,030	2,420	1,140	694	84	61	1,150
MIN	26	304	180	70	54	485	361	188	49	20	12	15
CFSM	1.38	3.76	1.26	.44	2.39	3.69	3.15	2.07	.43	.11	.08	1.02
IN.	1.60	4.20	1.45	.50	2.49	4.26	3.52	2.39	.48	.13	.09	1.15

CAL YR 1970 TOTAL 145,316 MEAN 398 MAX 4,140 MIN 17 CFSM 1.41 IN 19.17
WTR YR 1971 TOTAL 168,718 MEAN 462 MAX 4,140 MIN 12 CFSM 1.64 IN 22.26

PEAK DISCHARGE (BASE, 6,500 CFS).--Oct. 22 (1015) 7,000 cfs (7.14 ft); Mar. 15 (1930) 6,670 cfs (7.01 ft).

SUSQUEHANNA RIVER BASIN

89

01518500 Crooked Creek at Tioga, Pa.

LOCATION.--Lat 41°54'08", long 77°08'55", Tioga County, on right bank 30 ft upstream from Penn Central Railroad bridge, 1 mile southwest of Tioga, 1 mile upstream from Elkhorn Creek and, 3 miles upstream from mouth.

DRAINAGE AREA.--122 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,051.28 ft above mean sea level.

AVERAGE DISCHARGE.--18 years, 105 cfs (11.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,180 cfs Mar. 15 (gage height, 10.49 ft); maximum gage height, 10.80 ft Feb. 27 (ice jam); minimum discharge, 5.5 cfs Sept. 4, 5, 6, 7 (gage height, 1.94 ft).

Period of record: Maximum discharge, 10,900 cfs Oct. 14, 1955 (gage height, 12.73 ft), from rating curve extended above 4,600 cfs on basis of slope-area measurement of peak flow; minimum 1.8 cfs Oct. 30, 1963; minimum gage height, 1.94 ft Sept. 4, 5, 6, 7, 1971.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1332: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	161	104	56	22	808	265	130	44	21	18	6.1
2	14	130	95	52	21	577	508	132	39	40	12	6.1
3	15	119	86	52	20	388	443	198	38	24	10	5.8
4	16	276	185	54	20	340	433	170	34	17	9.7	5.8
5	15	180	138	60	20	315	395	141	31	15	9.1	5.8
6	14	157	122	86	21	269	335	136	31	14	8.5	6.1
7	13	128	102	64	22	247	298	130	30	12	7.9	5.8
8	12	106	101	62	21	229	303	153	26	12	7.6	28
9	11	89	107	58	19	193	335	227	23	11	7.0	13
10	11	81	114	54	17	168	583	203	20	10	7.0	8.5
11	19	155	105	50	18	158	433	172	19	10	6.7	7.6
12	40	508	136	47	19	148	428	172	20	10	6.4	12
13	45	1,330	143	44	21	177	556	245	36	9.7	6.1	28
14	44	787	146	43	100	418	877	224	48	10	6.1	26
15	54	1,540	120	45	100	1,760	448	172	163	9.7	6.1	16
16	76	817	108	40	76	1,680	323	156	89	9.4	6.1	11
17	45	490	116	36	62	745	261	144	60	9.1	6.1	19
18	34	350	114	32	50	480	229	124	44	8.8	6.1	16
19	28	265	144	28	56	420	200	108	35	9.1	6.1	13
20	22	267	340	26	150	348	178	105	30	12	6.1	48
21	21	353	209	25	250	275	166	229	26	9.1	6.7	51
22	1,310	216	182	25	450	251	148	136	24	8.2	7.0	28
23	661	193	175	25	700	243	127	114	20	7.6	8.8	18
24	288	155	187	26	520	216	111	98	20	7.6	7.6	14
25	182	135	158	27	390	170	104	98	20	9.4	6.7	12
26	137	117	141	28	290	158	98	94	21	8.5	6.7	10
27	110	114	135	27	1,100	148	89	84	18	7.3	6.7	9.7
28	85	117	127	26	1,100	173	102	72	21	7.0	14	10
29	69	111	111	24	-----	182	222	63	21	6.7	11	12
30	78	127	86	23	-----	189	148	56	18	7.0	7.6	10
31	167	-----	66	23	-----	180	-----	51	-----	17	6.7	-----
TOTAL	3,651	9,574	4,203	1,268	5,655	12,053	9,146	4,337	1,069	369.2	248.2	462.3
MEAN	118	319	136	40.9	202	389	305	140	35.6	11.9	8.01	15.4
MAX	1,310	1,540	340	86	1,100	1,760	877	245	163	40	18	51
MIN	11	81	66	23	17	148	89	51	18	6.7	6.1	5.8
CFSM	.97	2.61	1.11	.34	1.66	3.19	2.50	1.15	.29	.10	.07	.13
IN.	1.11	2.92	1.28	.39	1.72	3.68	2.79	1.32	.33	.11	.08	.14

CAL YR 1970 TOTAL 49,430.7 MEAN 135 MAX 1,540 MIN 7.9 CFSM 1.11 IN 15.07
WTR YR 1971 TOTAL 52,035.7 MEAN 143 MAX 1,760 MIN 5.8 CFSM 1.17 IN 15.87

PEAK DISCHARGE (BASE, 2,400 CFS).--Mar. 15 (2345) 3,180 cfs (10.49 ft).

SUSQUEHANNA RIVER BASIN

01520000 Cowanesque River near Lawrenceville, Pa.

LOCATION.--Lat 41°59'04", long 77°09'06", Tioga County, on left bank 0.8 mile downstream from Cook Creek, 1.8 miles southwest of Lawrenceville, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--298 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 998.03 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 266 cfs, 12.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,800 cfs Mar. 15 (gage height, 9.80 ft), from rating curve extended above 6,000 cfs; maximum gage height, 9.98 ft Feb. 27 (ice jam); minimum discharge, 2.7 cfs Aug. 22 (gage height, 2.54 ft).

Period of record: Maximum discharge, 25,400 cfs Mar. 5, 1964 (gage height, 11.89 ft); minimum, 0.8 cfs Aug. 31, Sept. 1, 1964, Sept. 27, 1964; minimum gage height, 1.77 ft Sept. 13, 1957.

REMARKS.--Records fair. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	520	221	120	46	1,800	830	376	79	51	38	5.0
2	20	350	200	110	45	1,320	1,840	370	72	139	28	4.3
3	22	280	183	110	43	860	1,480	523	74	72	23	4.1
4	28	580	487	110	42	570	1,380	414	72	51	21	3.7
5	22	400	389	120	43	460	1,250	313	60	42	19	5.0
6	20	266	300	160	45	538	1,000	272	54	35	16	9.0
7	21	230	240	150	47	516	848	257	53	32	14	5.8
8	19	196	220	140	45	500	938	277	47	26	12	20
9	18	169	262	130	41	380	1,110	568	44	24	11	26
10	18	156	288	120	36	320	2,030	481	38	20	8.6	14
11	37	215	257	110	35	342	1,320	353	35	20	7.4	11
12	174	958	267	96	40	303	1,380	330	33	18	6.1	14
13	225	2,340	262	90	50	336	1,750	508	42	18	5.0	21
14	255	1,280	272	86	100	723	2,640	402	96	18	4.5	25
15	165	2,860	244	96	100	4,970	1,360	308	424	15	4.8	25
16	145	1,700	225	84	90	4,750	965	262	200	14	4.5	23
17	112	983	248	74	86	2,060	785	244	127	13	4.0	24
18	90	689	230	66	86	1,370	664	208	100	12	3.5	24
19	74	516	282	60	120	1,170	560	179	81	14	3.2	25
20	59	501	893	56	290	929	494	239	67	18	2.9	72
21	54	992	501	54	700	740	447	655	56	29	3.1	124
22	1,600	523	395	54	1,500	655	389	293	49	20	3.4	74
23	1,200	433	383	54	1,400	631	324	225	58	14	7.7	49
24	700	330	414	56	1,000	531	272	183	67	13	5.3	38
25	450	288	359	60	700	395	257	187	49	21	7.0	30
26	320	248	290	60	600	364	239	200	51	25	6.7	26
27	250	239	240	58	2,800	364	212	153	45	45	5.5	24
28	200	248	210	54	3,090	474	248	139	45	33	14	24
29	160	239	170	52	-----	487	866	124	45	23	11	24
30	190	253	150	52	-----	531	460	105	38	18	8.6	25
31	400	-----	130	49	-----	453	-----	92	-----	44	6.4	-----
TOTAL	7,073	18,982	9,212	2,691	13,220	29,842	28,338	9,240	2,301	937	315.2	798.9
MEAN	228	633	297	86.8	472	963	945	298	76.7	30.2	10.2	26.6
MAX	1,600	2,860	893	160	3,090	4,970	2,640	655	424	139	38	124
MIN	18	156	130	49	35	303	212	92	33	12	2.9	3.7
CFSM	.77	2.12	1.00	.29	1.58	3.23	3.17	1.00	.26	.10	.03	.09
IN.	.88	2.37	1.15	.34	1.65	3.73	3.54	1.15	.29	.12	.04	.10

CAL YR 1970 TOTAL 107,862.1 MEAN 296 MAX 3,370 MIN 4.4 CFSM .99 IN 13.46
WTR YR 1971 TOTAL 122,950.1 MEAN 337 MAX 4,970 MIN 2.9 CFSM 1.13 IN 15.35

PEAK DISCHARGE (BASE, 6,300 CFS).--Mar. 15 (2230) 11,800 cfs (9.80 ft).

SUSQUEHANNA RIVER BASIN

91

01531500 Susquehanna River at Towanda, Pa.

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

DRAINAGE AREA.--7,797 sq mi.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since October 1892 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 694.38 ft above mean sea level. Prior to Oct. 18, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--58 years, 10,310 cfs (17.96 inches per year).

EXTREMES.--Current year: Maximum discharge, 94,200 cfs Mar. 16 (gage height, 15.90 ft); minimum, 794 cfs Aug. 22 (gage height, -0.12 ft).

Period of record: Maximum discharge, 191,000 cfs May 29, 1946 (gage height, 25.08 ft); minimum, 334 cfs Sept. 23, 24, 1964; minimum gage height, -0.56 ft Aug. 17, 1965.

Maximum stage known prior to 1892, 25.0 ft Mar. 17, 1865 (discharge, about 188,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1922, 1929.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,380	6,780	9,330	6,300	3,600	67,200	14,100	20,300	4,790	1,650	4,180	2,430
2	3,100	7,120	8,870	6,370	3,400	53,000	20,000	17,800	4,320	1,720	4,970	1,980
3	2,880	6,110	8,310	6,880	3,300	38,100	33,000	22,300	3,960	2,210	4,340	1,660
4	2,880	5,630	8,170	7,120	3,300	28,700	36,100	22,700	3,760	2,560	3,860	1,440
5	2,900	6,010	10,800	9,290	3,400	21,800	35,900	21,000	3,690	2,310	3,710	1,300
6	2,750	5,410	10,800	13,900	3,400	18,600	32,200	20,800	3,530	2,020	3,480	1,190
7	2,500	4,940	9,620	13,300	3,500	19,100	28,100	19,500	3,430	1,720	3,060	1,130
8	2,280	4,460	8,170	11,400	3,500	23,400	26,500	17,000	3,220	1,530	2,560	1,130
9	2,110	4,070	7,650	9,260	3,500	22,100	26,500	18,800	2,940	1,410	2,090	1,130
10	1,980	3,780	7,960	7,890	3,500	18,400	34,700	22,000	2,710	1,290	1,770	1,020
11	1,930	3,710	8,380	8,210	3,400	16,000	45,700	20,700	2,520	1,210	1,580	960
12	2,260	5,720	8,590	8,910	3,700	15,100	41,400	17,600	2,410	1,140	1,410	1,010
13	2,630	15,400	8,630	7,860	4,300	14,400	41,900	16,200	2,370	1,070	1,290	1,080
14	3,780	29,600	8,420	6,850	11,000	15,900	52,000	19,500	2,730	1,040	1,210	1,540
15	4,680	27,100	8,310	6,210	30,000	33,300	56,600	17,700	3,170	1,050	1,140	1,850
16	5,420	41,100	8,030	5,750	26,300	82,000	45,600	14,800	4,100	1,010	1,080	1,680
17	5,770	28,300	7,860	4,990	22,700	75,200	35,600	12,600	3,910	1,010	1,040	1,540
18	5,450	20,200	7,610	4,290	19,400	51,700	28,700	11,300	3,310	1,040	975	1,540
19	5,010	15,300	7,960	3,830	17,500	39,800	24,700	9,940	2,830	1,070	918	1,720
20	4,290	12,600	10,900	3,830	17,300	33,400	23,100	8,800	2,500	1,080	876	1,610
21	3,730	14,100	13,900	3,800	21,600	27,300	23,500	12,900	2,270	1,110	834	1,750
22	7,900	17,900	12,300	3,900	24,800	23,000	23,400	12,600	2,090	1,290	820	2,210
23	23,300	15,600	11,100	4,000	29,800	21,000	22,300	9,980	1,960	1,440	890	2,130
24	14,800	12,900	10,400	4,200	34,600	18,700	19,900	8,590	1,900	1,410	932	1,890
25	10,600	10,800	10,500	4,600	30,100	16,200	17,300	7,050	1,900	1,410	904	1,750
26	5,080	9,330	10,100	4,400	26,000	14,500	15,700	7,370	1,810	1,340	904	1,680
27	7,650	8,210	9,190	4,100	35,500	13,200	15,000	7,090	1,740	1,320	975	1,560
28	6,170	7,790	8,590	3,900	72,400	12,700	14,500	6,880	1,750	1,370	1,040	1,460
29	5,410	7,960	8,030	3,800	-----	13,100	22,200	6,470	1,740	1,440	1,190	1,390
30	4,850	8,770	7,440	3,800	-----	13,700	23,700	5,850	1,700	1,460	1,300	1,340
31	4,790	-----	6,300	3,700	-----	13,700	-----	5,290	-----	1,980	2,040	-----
TOTAL	166,260	366,700	282,220	196,640	464,800	874,300	879,900	441,410	85,050	44,710	57,368	46,100
MEAN	5,363	12,220	9,104	6,343	16,600	28,200	29,330	14,240	2,835	1,442	1,851	1,537
MAX	23,300	41,100	13,900	13,900	72,400	82,000	56,600	22,700	4,790	2,560	4,970	2,430
MIN	1,930	3,710	6,300	3,700	3,300	12,700	14,100	5,290	1,700	1,010	820	960
CFSM	.69	1.57	1.17	.81	2.13	3.62	3.76	1.83	.36	.18	.24	.20
IN.	.79	1.75	1.35	.94	2.22	4.17	4.20	2.11	.41	.21	.27	.22

CAL YR 1970 TOTAL 3,741,804 MEAN 10,250 MAX 86,800 MIN 744 CFSM 1.31 IN 17.85
WTR YR 1971 TOTAL 3,905,458 MEAN 10,700 MAX 82,000 MIN 820 CFSM 1.37 IN 18.63

PEAK DISCHARGE (BASE, 68,000 CFS).--Feb. 28 (2300) 76,600 cfs (13.89 ft); Mar. 16 (2200) 94,200 cfs (15.90 ft).

SUSQUEHANNA RIVER BASIN

01532000 Towanda Creek near Monroeton, Pa.

LOCATION.--Lat 41°42'27", long 76°28'20", Bradford County, on left bank 10 ft upstream from Lehigh Valley Railroad Bridge, 1,000 ft upstream from South Branch Towanda Creek, and 0.5 mile south of Monroeton.

DRAINAGE AREA.--215 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 753.70 ft above mean sea level. Prior to Oct. 1, 1942, nonrecording gage at site 1 mile upstream at datum 20.44 ft higher.

AVERAGE DISCHARGE.--57 years, 279 cfs (17.62 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,700 cfs Feb. 27 (gage height, 5.92 ft); minimum, 6.0 cfs July 24 (gage height, -0.23 ft).

Period of record: Maximum discharge, 31,300 cfs May 28, 1946 (gage height, 12.53 ft), from rating curve extended above 9,500 cfs on basis of slope-area and contracted-opening measurements at gage height, 10.33 ft; minimum observed, 0.7 cfs Sept. 15, 17, 21, 22, 1932.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1051: 1943-44(M). WSP 1302: 1922(M), 1924, 1925-26(M), 1928, 1929(M), 1930-31. WSP 1432: 1921(M), 1932(M), 1933, 1934-35(M), 1936, 1938(M), 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	359	227	105	52	1,600	286	304	96	20	210	11
2	23	256	197	100	50	1,150	487	280	85	42	112	10
3	22	216	175	100	48	782	689	559	80	26	270	9.5
4	30	355	222	110	46	565	685	450	73	19	281	8.5
5	28	272	222	120	54	506	679	357	65	16	179	11
6	26	233	190	210	60	477	540	321	58	14	112	11
7	22	196	156	160	66	559	473	291	59	13	71	8.0
8	21	168	127	140	60	595	488	283	55	12	53	9.0
9	18	149	148	130	56	432	525	494	45	11	45	7.5
10	16	137	143	120	54	360	1,140	471	40	10	40	8.5
11	16	276	144	110	60	347	848	383	36	9.5	35	10
12	23	1,200	209	100	74	351	828	341	33	9.5	30	12
13	40	3,320	223	94	600	439	1,060	590	33	9.0	24	45
14	49	1,990	254	90	1,570	911	1,390	818	60	12	20	129
15	123	1,980	206	100	820	2,850	827	523	207	12	16	73
16	107	1,330	182	90	560	2,670	594	437	168	10	15	43
17	76	827	176	80	436	1,500	483	378	124	9.5	12	78
18	59	603	184	70	431	950	413	301	95	9.0	10	73
19	51	474	183	64	471	796	352	250	60	8.5	8.0	49
20	43	474	357	60	643	724	315	217	45	10	7.0	56
21	42	898	300	58	1,190	599	280	657	42	9.5	7.5	210
22	2,430	509	245	58	827	540	246	417	40	8.5	9.5	159
23	1,430	420	235	58	2,050	500	222	303	35	7.0	23	108
24	586	331	230	62	1,340	411	198	247	30	6.5	15	86
25	368	276	224	68	890	317	174	222	29	12	11	67
26	274	240	204	72	911	285	171	199	28	11	8.0	55
27	212	220	158	68	3,360	263	171	173	24	9.0	24	48
28	169	215	158	64	2,560	272	159	160	22	7.0	49	49
29	143	205	143	58	-----	280	526	138	21	12	53	78
30	131	267	125	62	-----	298	362	121	19	29	28	60
31	273	-----	111	56	-----	260	-----	110	-----	485	16	-----
TOTAL	6,879	18,396	6,098	2,837	19,339	22,589	15,611	10,795	1,807	878.5	1,794.0	1,582.0
MEAN	222	613	197	91.5	691	729	520	348	60.2	28.3	57.9	52.7
MAX	2,430	3,320	357	210	3,360	2,850	1,390	818	207	485	281	210
MIN	16	137	111	56	46	260	159	110	19	6.5	7.0	7.5
CFSM	1.03	2.85	.92	.43	3.21	3.39	2.42	1.62	.28	.13	.27	.25
IN.	1.19	3.18	1.06	.49	3.35	3.91	2.70	1.87	.31	.15	.31	.27

CAL YR 1970 TOTAL 109,736.0 MEAN 301 MAX 3,380 MIN 7.5 CFSM 1.40 IN 18.99
WTR YR 1971 TOTAL 108,605.5 MEAN 298 MAX 3,360 MIN 6.5 CFSM 1.39 IN 18.79

PEAK DISCHARGE (BASE, 4,300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1330	5.71	5,320	2-27	1930	5.92	5,700
11-13	1100	5.12	4,320	3-15	2100	5.24	4,510

01532850 Middle Branch Wyalusing Creek tributary near Birchardville, Pa.

LOCATION.--Lat 41°51'45", long 76°00'26", Susquehanna County, on left bank 60 ft upstream from bridge on State Highway 267, 1,000 ft upstream from mouth, and 1.2 miles north of Birchardville.

DRAINAGE AREA.--5.67 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-65. August 1965 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,077.51 ft above mean sea level. Oct. 7, 1959 to Aug. 12, 1965, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--6 years, 7.05 cfs (16.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 140 cfs Mar. 15 (gage height, 5.31 ft), from rating curve extended above 65 cfs; maximum gage height, 6.14 ft Feb. 13 (ice jam); minimum daily discharge, 0.23 cfs July 23.

Period of record: Maximum discharge, 640 cfs Nov. 2, 1967 (gage height, 6.20 ft), from rating curve extended above 90 cfs on basis of contracted-opening measurement at gage height, 5.98 ft; minimum daily, 0.1 cfs on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	2.0	5.4	5.8	1.3	36	15	9.8	2.3	8.7	6.0	.37
2	2.4	1.7	4.8	5.8	1.2	23	36	9.4	1.9	4.3	7.0	.33
3	2.0	1.7	4.8	5.8	1.2	16	40	9.1	2.1	1.5	34	.31
4	1.2	1.7	12	13	1.1	16	33	9.1	1.6	.90	17	.29
5	.85	1.7	7.3	38	1.1	16	25	7.1	1.2	.69	11	1.9
6	.74	1.5	6.6	17	1.1	9.8	18	6.6	1.1	.60	5.4	1.1
7	.69	1.2	6.0	13	1.1	15	17	5.8	1.1	.54	2.5	.57
8	.65	1.0	11	11	1.2	13	15	5.6	.90	.48	1.7	.48
9	.57	1.0	5.4	9.0	1.5	10	15	8.0	.75	.45	1.4	.43
10	.61	1.2	5.7	7.6	1.4	12	24	8.0	.64	.43	1.0	.41
11	.69	1.7	5.7	6.6	1.5	7.7	18	6.1	.60	.43	.90	.37
12	.79	3.1	7.3	5.6	1.6	8.7	16	5.6	.57	.43	.62	.41
13	6.6	8.0	6.6	7.0	13	9.8	18	18	2.9	.37	.52	.45
14	22	5.4	6.0	5.6	50	18	20	13	1.5	.33	.44	.45
15	8.0	15	5.7	4.6	35	67	13	10	3.9	.33	.38	.43
16	6.0	11	5.4	3.9	15	54	9.8	9.8	2.1	.31	.35	.43
17	4.5	8.0	6.6	3.5	10	32	8.4	8.4	1.2	.29	.32	.57
18	3.3	7.0	6.6	3.1	9.0	22	7.4	6.8	.82	.27	.29	.45
19	2.8	6.3	7.3	2.7	8.0	17	6.6	5.8	.69	.39	.27	.43
20	5.1	14	10	2.3	7.6	15	5.8	8.4	.60	.41	.29	.51
21	12	17	8.4	2.1	14	11	5.6	18	.75	.31	.29	3.1
22	6.6	11	8.0	1.9	12	9.8	4.9	10	.75	.27	.35	.75
23	5.4	9.2	8.0	1.7	29	8.7	4.3	8.0	.57	.23	.57	.60
24	4.5	7.7	8.4	1.7	17	7.4	4.1	6.8	.51	.25	.39	.54
25	3.6	6.3	8.0	1.8	13	7.7	3.9	6.3	.51	.54	.35	.48
26	3.1	5.7	7.2	2.1	12	8.0	4.7	5.6	.54	.51	.33	.45
27	2.6	5.7	7.0	1.7	58	7.7	4.3	5.1	.45	.82	.51	.45
28	2.5	5.7	6.6	1.4	47	7.4	7.4	4.7	.45	.41	1.4	.48
29	2.4	5.7	6.4	1.3	-----	9.4	20	3.9	.41	1.7	.64	.45
30	2.3	7.0	6.2	1.5	-----	9.8	11	3.3	.39	2.8	.51	.43
31	2.2	-----	5.8	1.4	-----	10	-----	2.9	-----	9.2	.41	-----
TOTAL	117.38	175.2	216.2	189.5	364.9	514.9	431.2	245.0	33.80	39.19	97.13	18.42
MEAN	3.79	5.84	6.97	6.11	13.0	16.6	14.4	7.90	1.13	1.26	3.13	.61
MAX	22	17	12	38	58	67	40	18	3.9	9.2	34	3.1
MIN	.57	1.0	4.8	1.3	1.1	7.4	3.9	2.9	.39	.23	.27	.29
CFSM	.67	1.03	1.23	1.08	2.29	2.93	2.54	1.39	.20	.22	.55	.11
IN.	.77	1.15	1.42	1.24	2.39	3.38	2.83	1.61	.22	.26	.64	.12

CAL YR 1970 TOTAL 2,842.90 MEAN 7.79 MAX 159 MIN .16 CFSM 1.37 IN 18.65
WTR YR 1971 TOTAL 2,442.82 MEAN 6.69 MAX 67 MIN .23 CFSM 1.18 IN 16.03

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

SUSQUEHANNA RIVER BASIN

01533950 South Branch Tunkhannock Creek near Montdale, Pa.

LOCATION.--Lat 41°34'29", long 75°38'32", Lackawanna County, on right bank 70 ft upstream from highway bridge, 0.6 miles downstream from Scott, 1.0 mile upstream from East Benton, 3.5 miles northwest of Montdale, 7.5 miles west of Carbondale, and 16 miles upstream from mouth.

DRAINAGE AREA.--12.6 sq mi.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,090 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 13.1 cfs (14.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 473 cfs Feb. 27 (gage height, 4.30 ft); maximum gage height, 4.49 ft Feb. 13 (ice jam); minimum discharge, 1.0 cfs on many days (gage height, 1.00 ft).
Period of record: Maximum discharge, 960 cfs Apr. 2, 1970 (gage height, 5.73 ft), from rating curve extended above 350 cfs; minimum, 0.08 cfs July 23, 1968; minimum gage height, 0.95 ft Mar. 16, 1969.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.9	8.7	6.4	5.4	127	21	7.5	4.6	1.4	25	2.9
2	2.0	2.7	7.9	6.4	5.0	71	47	12	4.1	1.5	29	2.6
3	2.9	2.7	7.6	6.6	4.8	48	57	14	4.1	1.4	136	2.4
4	2.9	2.7	12	10	4.8	35	42	14	3.6	1.3	73	2.3
5	2.3	2.7	9.0	51	5.0	42	34	11	3.2	1.1	51	2.3
6	2.1	2.7	8.4	24	5.2	28	28	11	2.9	1.1	20	2.4
7	2.0	2.6	7.1	18	5.0	61	27	9.8	2.9	1.1	9.0	2.0
8	1.7	2.5	7.4	15	5.4	44	22	10	2.7	1.0	6.0	1.8
9	1.7	2.3	7.1	12	5.8	31	19	11	2.7	1.1	4.9	1.7
10	1.6	2.3	7.6	10	5.6	33	31	12	2.6	1.1	3.7	1.6
11	1.7	3.2	7.4	9.2	6.0	21	25	9.1	2.4	1.6	3.0	1.6
12	1.8	9.0	9.0	8.6	6.8	21	20	8.2	2.4	1.3	2.6	1.7
13	1.8	17	7.9	9.6	46	31	20	83	4.3	1.1	2.3	2.9
14	2.1	14	7.6	9.2	200	94	22	53	3.2	1.1	2.2	3.6
15	12	38	7.4	8.6	120	239	17	31	7.2	1.1	2.0	4.1
16	5.4	22	6.6	8.0	64	189	14	25	4.8	1.0	1.9	2.9
17	3.9	15	9.0	7.6	40	100	12	20	3.2	1.0	1.8	4.6
18	3.2	12	8.1	7.2	32	59	11	16	2.7	1.2	1.6	3.0
19	2.7	11	8.1	6.8	30	45	9.4	14	2.6	1.3	1.5	2.6
20	2.5	21	11	6.4	28	39	8.8	11	2.3	1.6	1.6	2.4
21	2.6	25	9.3	6.0	47	32	8.5	15	2.1	1.6	1.8	3.4
22	18	15	8.7	5.8	37	28	8.2	12	2.1	1.3	1.6	2.7
23	18	13	8.4	5.8	68	26	7.2	9.8	2.1	1.1	1.7	2.3
24	9.9	10	8.7	6.0	42	21	6.6	8.2	2.0	1.0	1.4	2.3
25	6.9	9.0	8.1	6.2	30	21	6.6	7.9	1.8	3.2	1.3	2.0
26	5.4	8.4	8.1	6.6	39	20	7.9	7.2	1.8	3.2	1.2	2.0
27	4.7	8.7	7.6	5.8	275	18	7.9	7.2	1.7	2.8	11	2.0
28	3.9	8.4	7.4	5.4	175	17	7.9	7.2	1.7	2.9	23	2.1
29	3.6	8.4	7.2	5.6	-----	20	12	6.3	1.6	5.8	9.1	2.0
30	3.4	11	6.8	6.2	-----	19	8.8	5.8	1.5	7.2	5.3	1.8
31	3.2	-----	6.6	5.8	-----	17	-----	5.6	-----	37	3.6	-----
TOTAL	138.0	305.2	251.8	305.8	1,337.8	1,597	568.8	474.8	86.9	91.5	439.1	74.0
MEAN	4.45	10.2	8.12	9.86	47.8	51.5	19.0	15.3	2.90	2.95	14.2	2.47
MAX	18	38	12	51	275	239	57	83	7.2	37	136	4.6
MIN	1.6	2.3	6.6	5.4	4.8	17	6.6	5.6	1.5	1.0	1.2	1.6
CFSM	.35	.81	.64	.78	3.79	4.09	1.51	1.21	.23	.23	1.13	.20
IN.	.41	.90	.74	.90	3.95	4.71	1.68	1.40	.26	.27	1.30	.22

CAL YR 1970 TOTAL 5,047.0 MEAN 13.8 MAX 398 MIN 1.2 CFSM 1.10 IN 14.90
WTR YR 1971 TOTAL 5,670.7 MEAN 15.5 MAX 275 MIN 1.0 CFSM 1.23 IN 16.74

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-27	1715	4.30	473	8-3	1530	4.20	443
3-15	1815	4.26	461				

01534000 Tunkhannock Creek near Tunkhannock, Pa.

LOCATION.--Lat 41°33'29", long 75°53'42", Wyoming County, on left bank 300 ft upstream from bridge on U.S. Highway 6 at Dixon, 3 miles northeast of Tunkhannock, and 4 miles upstream from mouth.

DRAINAGE AREA.--383 sq mi.

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1965, published as "at Dixon."

GAGE.--Water-stage recorder. Datum of gage is 610.50 ft above mean sea level (Pennsylvania Department of Transportation bench mark). Prior to Aug. 10, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--57 years, 524 cfs (18.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,380 cfs Mar. 16 (gage height, 7.92 ft), from rating curve extended as explained below; maximum gage height, 8.22 ft Feb. 13 (ice jam); minimum discharge, 19 cfs Oct. 13; minimum gage height, 1.36 ft July 24, Aug. 26.

Period of record: Maximum discharge, 33,600 cfs Mar. 10, 1964 (gage height, 14.26 ft), from rating curve extended above 4,700 cfs on basis of contracted-opening measurement at gage height, 13.96 ft; minimum, 6.2 cfs Sept. 24, 1964; minimum gage height, 0.73 ft Aug. 12, 1930.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1051: 1921(M), 1932, 1934-35(M), 1936, 1938(M), 1939-40, 1942-44, 1945(M). WSP 1302: 1922, 1923(M), 1924-25, 1927-28. WSP 1432: 1919(M), 1920, 1933, 1943(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	116	277	160	130	3,990	709	374	171	59	335	96
2	34	113	249	160	120	2,980	1,220	374	152	85	212	83
3	36	108	222	170	110	1,710	2,240	571	145	76	548	78
4	42	106	338	219	110	1,260	1,770	499	139	62	948	72
5	38	103	352	592	120	1,020	1,470	430	126	54	430	67
6	32	99	286	815	130	921	1,140	384	112	50	267	80
7	28	94	240	450	120	1,070	1,000	360	107	46	190	76
8	26	90	200	360	130	1,270	918	335	158	45	149	68
9	24	97	257	300	140	837	801	369	128	49	120	62
10	23	92	233	250	130	668	1,100	440	105	48	98	59
11	22	101	233	230	140	636	996	355	91	46	85	57
12	23	150	277	210	160	617	844	307	85	45	78	60
13	20	253	277	200	1,100	682	858	1,140	98	44	68	89
14	21	277	257	220	4,700	1,180	925	1,880	136	44	64	128
15	116	352	245	220	2,400	4,020	728	1,000	284	44	59	115
16	169	478	215	200	1,500	5,790	599	808	284	41	54	87
17	103	338	220	190	1,000	3,800	515	703	175	40	53	110
18	76	273	249	170	900	2,200	456	571	134	48	49	98
19	61	241	241	160	840	1,710	404	488	110	50	48	80
20	50	390	307	150	800	1,440	369	425	96	60	45	72
21	45	1,670	299	150	1,300	1,200	355	467	89	60	46	78
22	222	695	265	140	1,200	1,030	331	467	85	49	45	85
23	563	516	269	140	2,100	940	298	374	80	41	45	74
24	381	405	269	140	2,000	815	267	317	70	38	48	65
25	277	334	261	160	1,400	684	253	293	67	81	44	59
26	226	294	220	150	1,210	617	258	302	68	89	38	54
27	186	281	200	140	4,050	599	289	275	70	67	84	51
28	163	273	190	130	5,130	623	271	267	64	62	340	57
29	144	269	180	130	-----	678	537	237	60	67	267	60
30	130	311	180	150	-----	722	440	208	57	201	168	57
31	124	-----	170	140	-----	647	-----	197	-----	425	123	-----
TOTAL	3,446	8,919	7,678	6,996	33,170	46,356	22,361	15,217	3,546	2,216	5,148	2,277
MEAN	111	297	248	226	1,185	1,495	745	491	118	71.5	166	75.9
MAX	563	1,670	352	815	5,130	5,790	2,240	1,880	284	425	948	128
MIN	20	90	170	130	110	599	253	197	57	38	38	51
CFSM	.29	.78	.65	.59	3.09	3.90	1.95	1.28	.31	.19	.43	.20
IN.	.33	.87	.75	.68	3.22	4.50	2.17	1.48	.34	.22	.50	.22

CAL YR 1970 TOTAL 161,406 MEAN 442 MAX 7,870 MIN 20 CFSM 1.15 IN 15.68
WTR YR 1971 TOTAL 157,330 MEAN 431 MAX 5,790 MIN 20 CFSM 1.13 IN 15.28

PEAK DISCHARGE (BASE, 5,700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-14	0200	6.75	5,720	3-16	0100	7.92	8,380
2-27	2300	7.45	7,260				

SUSQUEHANNA RIVER BASIN

01534300 Lackawanna River near Forest City, Pa.

LOCATION.--Lat 41°40'47", long 75°28'20", Susquehanna County, on left bank 400 ft downstream from bridge on State Highway 171, 1.3 miles downstream from new Stillwater Dam, 1.7 miles below confluence of East and West Branches, and 2.2 miles north of Forest City.

DRAINAGE AREA.--38.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,551.28 ft above mean sea level. Prior to Dec. 11, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 62.8 cfs (21.98 inches per year), adjusted for storage since December 1959.

EXTREMES.--Current year: Maximum discharge, 696 cfs Mar. 17 (gage height, 4.19 ft); minimum, 4.5 cfs July 18, 19, (gage height, 1.46 ft).

Period of record: Maximum discharge, 1,390 cfs Jan. 22, 1959 (gage height, 6.41 ft), from rating curve extended above 600 cfs; minimum daily, 2.0 cfs Oct. 27, 28, Nov. 2-5, 1964; minimum gage height, 1.35 ft Oct. 13, 1964.

Maximum discharge known, 2,530 cfs May 22, 1942, from computation of flow over dam.

REMARKS.--Records good. Flow regulated by Stillwater Reservoir 1.3 miles upstream since December 1959 (see p. 178).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	57	33	23	201	110	98	32	11	31	23
2	21	30	53	32	22	198	180	92	29	12	34	19
3	19	27	47	32	22	183	300	104	27	12	41	16
4	19	25	57	32	21	148	340	110	25	13	116	13
5	18	19	63	44	20	102	320	108	22	13	98	11
6	17	15	60	62	20	106	280	100	21	13	68	10
7	16	15	59	63	20	114	260	92	20	11	47	10
8	15	15	42	59	22	116	250	87	18	11	33	9.8
9	14	16	44	53	23	102	250	87	15	10	26	9.3
10	13	16	44	50	24	94	360	89	14	8.9	22	8.9
11	12	16	44	47	26	94	330	89	13	8.0	20	8.4
12	12	21	45	44	27	90	380	87	11	7.6	16	8.0
13	12	50	44	38	35	89	469	90	11	6.8	15	8.0
14	12	69	44	38	81	89	494	164	11	6.4	14	9.3
15	14	72	42	38	85	123	455	171	12	5.6	12	9.8
16	20	80	38	35	85	50	338	143	14	4.9	11	9.8
17	33	80	40	32	112	325	253	118	15	4.9	11	9.3
18	36	79	39	31	118	598	186	98	15	4.9	10	11
19	34	74	42	30	104	450	150	90	17	4.9	9.8	11
20	31	71	46	28	96	320	134	85	18	4.9	8.9	11
21	28	82	44	26	94	260	129	74	17	5.6	8.0	10
22	42	84	42	26	96	200	125	68	15	7.2	7.6	11
23	177	83	39	27	98	160	112	62	14	7.6	6.8	11
24	200	83	41	26	98	140	98	57	13	7.6	6.4	11
25	163	80	40	26	94	120	92	53	12	8.0	6.4	11
26	110	68	40	27	90	110	89	52	12	8.4	6.4	10
27	80	60	36	27	106	100	87	49	11	8.4	8.0	10
28	62	57	35	25	178	96	85	45	12	8.0	22	9.8
29	48	56	34	25	-----	100	96	42	12	8.0	40	9.3
30	39	59	33	24	-----	100	106	40	12	9.3	36	9.3
31	34	-----	31	23	-----	100	-----	35	-----	15	29	-----
TOTAL	1,375	1,534	1,365	1,103	1,840	5,078	6,858	2,679	490	266.9	820.3	328.0
MEAN	44.4	51.1	44.0	35.6	65.7	164	229	86.4	16.3	8.61	26.5	10.9
MAX	200	84	63	63	178	598	494	171	32	15	116	23
MIN	12	15	31	23	20	50	85	35	11	4.9	6.4	8.0
MEAN [≠]	44.8	51.8	43.2	35.3	71.3	160	230	84.4	15.4	9.31	26.5	10.5
CFSM [≠]	1.15	1.34	1.11	.91	1.84	4.12	5.93	2.18	.40	.24	.68	.27
IN. [≠]	1.33	1.50	1.28	1.05	1.92	4.75	6.62	2.51	.45	.28	.78	.30

CAL YR 1970 TOTAL 23,109.8 MEAN 63.3 MAX 678 MIN 3.3 MEAN[≠] 63.3 CFSM[≠] 1.63 IN.[≠] 22.17
WTR YR 1971 TCTAL 23,737.2 MEAN 65.0 MAX 598 MIN 4.9 MEAN[≠] 65.0 CFSM[≠] 1.68 IN.[≠] 22.77

[≠] Adjusted for change in contents in Stillwater Reservoir.

SUSQUEHANNA RIVER BASIN

97

01534500 Lackawanna River at Archbald, Pa.

LOCATION.--Lat 41°30'16", long 75°32'33", Lackawanna County, on right bank in Archbald, 0.5 mile upstream from White Oak Run and Gilmartin Street Bridge.

DRAINAGE AREA.--108 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 889.33 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 194 cfs (24.39 inches per year), adjusted for storage since December 1959.

EXTREMES.--Current year: Maximum discharge, 1,390 cfs Mar. 17 (gage height, 4.46 ft); minimum, 27 cfs July 19, 21, 22 (gage height, 1.50 ft).

Period of record: Maximum discharge, 9,510 cfs May 22, 1942 (gage height, 10.58 ft), from rating curve extended above 2,200 cfs on basis of slope-area measurement of peak flow; minimum, 3.0 cfs Oct. 9, 11, 1943; minimum daily, 13 cfs Nov. 1, 1964.

REMARKS.--Records good. Regulation at low flow by mine pumps above station. Flow regulated by Stillwater Reservoir about 17 miles upstream since December 1959 (see p.178). Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	102	142	92	53	733	248	203	102	44	75	77
2	57	96	135	88	53	666	414	209	92	48	104	70
3	65	92	126	80	51	560	672	240	86	42	260	65
4	50	88	154	88	53	475	746	245	77	41	295	59
5	51	82	149	147	54	348	727	228	75	41	234	56
6	54	65	142	149	57	315	624	217	71	41	173	52
7	51	60	128	147	54	371	583	201	90	39	138	50
8	47	57	113	144	56	363	543	193	73	38	108	47
9	39	56	108	128	65	308	560	203	66	39	90	46
10	38	56	113	128	56	273	805	206	60	36	77	45
11	36	63	117	122	60	257	746	191	60	35	73	42
12	35	94	122	117	68	240	818	183	66	34	66	40
13	39	173	117	113	140	234	976	428	65	33	60	39
14	45	201	113	113	302	282	998	560	70	35	57	45
15	98	279	111	111	302	684	824	475	77	31	54	47
16	73	298	102	100	311	1,030	642	388	66	29	53	47
17	77	263	96	92	292	1,010	495	325	63	34	48	47
18	77	225	96	86	270	1,220	384	276	59	30	46	53
19	75	198	106	79	242	969	322	242	57	35	45	53
20	71	201	117	82	228	714	292	214	56	33	45	52
21	75	318	113	80	251	532	276	217	56	29	45	52
22	154	325	108	77	251	423	260	203	53	28	42	53
23	333	292	106	75	308	351	237	183	53	30	41	53
24	308	237	104	70	288	295	214	171	50	30	37	53
25	248	193	96	71	260	257	196	166	47	47	36	50
26	203	168	94	73	248	234	188	159	46	36	35	47
27	171	156	88	63	527	222	181	149	43	37	75	47
28	147	149	88	70	733	220	176	142	43	31	168	53
29	131	144	90	71	-----	225	220	131	42	41	135	50
30	117	154	86	66	-----	228	217	122	42	41	108	47
31	108	-----	86	59	-----	225	-----	117	-----	100	88	-----
TOTAL	3,133	4,885	3,468	2,981	5,633	14,264	14,584	7,187	1,906	1,188	2,911	1,537
MEAN	101	163	112	96.2	201	460	486	232	63.5	38.3	93.9	51.2
MAX	333	325	154	149	733	1,220	998	560	102	100	295	77
MIN	35	56	86	59	51	220	176	117	42	28	35	39
MEAN [‡]	101	164	111	95.9	207	456	487	230	62.6	39.0	93.9	50.8
CFSM [‡]	.94	1.52	1.03	.89	1.92	4.22	4.51	2.13	.58	.36	.87	.47
IN [‡]	1.08	1.70	1.19	1.03	2.00	4.86	5.03	2.46	.65	.42	1.00	.52
CAL YR 1970	TOTAL 66,453	MEAN 182	MAX 1,340	MIN 27	MEAN [‡] 182	CFSM [‡] 1.69	IN [‡] 22.91					
WTR YR 1971	TOTAL 63,677	MEAN 174	MAX 1,220	MIN 28	MEAN [‡] 174	CFSM [‡] 1.61	IN [‡] 21.94					

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

SUSQUEHANNA RIVER BASIN

01536000 Lackawanna River at Old Forge, Pa.

LOCATION.--Lat 41°21'33", long 75°44'41", Lackawanna County, on right bank 150 ft upstream from Delaware, Lackawanna and Western Railroad Bridge in Old Forge, and 0.5 mile upstream from St. Johns Creek.

DRAINAGE AREA.--332 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 595.26 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 495 cfs (20.25 inches per year), adjusted for storage since December 1959.

EXTREMES.--Current year: Maximum discharge, 3,470 cfs Aug. 3 (gage height, 5.47 ft); minimum, 34 cfs July 23 (gage height, 1.59 ft).

Period of record: Maximum discharge, 31,000 cfs Aug. 19, 1955 (gage height, 20.05 ft, from floodmark), from rating curve extended above 5,000 cfs on basis of slope-area measurement at gage height, 15.30 ft and of peak flow; minimum, 20 cfs Sept. 21, 1964 (gage height, 1.28 ft).

REMARKS.--Records good, except those for winter periods, which are fair. Flow regulated by Stillwater Reservoir about 33 miles upstream since December 1959 (see p.178). Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1432: 1939(M), 1940, 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	100	220	132	90	1,730	589	366	230	88	215	114
2	78	107	198	146	88	1,580	832	432	191	86	376	99
3	90	129	198	132	86	1,390	1,500	562	186	68	1,380	92
4	70	121	253	152	84	1,290	1,530	541	170	62	1,740	86
5	72	110	248	389	90	1,020	1,450	488	146	58	1,010	79
6	76	100	216	444	96	934	1,270	450	135	59	643	79
7	70	87	198	349	90	1,110	1,200	419	132	62	443	78
8	64	82	170	294	98	1,170	1,150	419	138	60	338	68
9	58	80	162	263	110	900	1,030	444	124	68	252	66
10	56	82	159	268	94	729	1,330	463	105	60	194	63
11	49	93	182	274	100	691	1,300	407	94	55	169	64
12	56	139	220	243	120	647	1,230	384	93	59	154	73
13	55	274	207	202	660	661	1,350	1,220	170	51	132	110
14	62	372	194	220	1,030	800	1,410	1,810	167	56	119	113
15	348	521	186	211	874	1,660	1,230	1,280	397	53	109	133
16	200	541	170	182	722	2,870	1,020	1,080	303	51	101	133
17	150	463	178	155	603	2,350	866	931	193	81	89	128
18	150	384	166	152	576	1,990	729	767	148	58	85	100
19	150	316	166	139	528	1,700	603	626	120	83	78	81
20	142	332	154	140	548	1,510	534	518	99	64	75	75
21	142	548	194	140	683	1,300	501	562	108	53	81	192
22	253	508	182	140	698	1,090	469	552	105	46	73	155
23	482	456	170	130	1,190	970	419	451	83	45	71	110
24	432	372	170	129	1,090	808	384	387	78	46	94	97
25	338	299	155	130	840	668	366	353	90	199	96	88
26	268	253	146	120	722	603	366	325	105	66	66	83
27	211	225	132	113	1,490	555	354	303	73	92	221	80
28	174	202	132	105	1,940	548	327	280	82	54	542	90
29	146	194	129	120	-----	576	407	255	89	174	366	89
30	124	258	136	120	-----	596	395	238	84	165	205	77
31	107	-----	126	100	-----	562	-----	244	-----	539	138	-----
TOTAL	4,751	7,748	5,557	5,834	15,340	35,008	26,141	17,557	4,238	2,761	9,655	2,895
MEAN	153	258	179	188	548	1,129	871	566	141	89.1	311	96.5
MAX	482	548	253	444	1,940	2,870	1,530	1,810	397	539	1,740	192
MIN	49	80	126	100	84	548	327	238	73	45	66	63
MEAN [‡]	153	259	178	188	554	1,125	872	564	140	89.8	311	96.1
CFSM [‡]	.46	.78	.54	.57	1.67	3.39	2.63	1.70	.42	.27	.94	.29
IN. [‡]	.53	.87	.62	.66	1.74	3.91	2.93	1.96	.47	.31	1.08	.32

CAL YR 1970 TOTAL 139,108 MEAN 381 MAX 4,300 MIN 41 MEAN[‡] 381 CFSM[‡] 1.15 IN.[‡] 15.59
 WTR YR 1971 TOTAL 137,485 MEAN 377 MAX 2,870 MIN 45 MEAN[‡] 377 CFSM[‡] 1.14 IN.[‡] 15.40

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

SUSQUEHANNA RIVER BASIN

99

01536500 Susquehanna River at Wilkes-Barre, Pa.

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

DRAINAGE AREA.--9,960 sq mi, approximately.

PERIOD OF RECORD.--April 1899 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since November 1890 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 512.07 ft above mean sea level. See WSP 1722 for history of changes prior to Mar. 23, 1949.

AVERAGE DISCHARGE.--72 years, 13,000 cfs (17.72 inches per year).

EXTREMES.--Current year: Maximum discharge, 110,000 cfs Mar. 17 (gage height, 20.28 ft); minimum, 1,410 cfs July 19; minimum gage height, -0.23 ft Aug. 24.

Period of record: Maximum discharge, 232,000 cfs Mar. 20, 1936 (gage height, 33.07 ft); minimum, 528 cfs Sept. 27, 1964 (gage height, -1.78 ft).

Maximum stage known, 33.1 ft Mar. 18, 1865, from floodmarks (discharge, about 232,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).-- WSP 109: 1900-1905. WSP 351: Drainage area. WSP 781: 1902(M), WSP 1302: 1916. WSP 1432: 1901-5, 1907, 1909, 1913, 1937(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,320	5,320	10,900	7,720	4,600	90,800	18,300	26,300	6,490	2,110	4,420	2,090
2	3,280	6,940	11,300	6,800	4,400	77,300	20,500	23,200	5,750	2,130	4,930	2,830
3	3,350	7,810	10,500	7,520	3,800	59,100	33,600	22,000	5,240	2,140	6,550	2,830
4	3,080	6,800	10,000	8,040	4,000	45,000	44,400	28,100	4,790	2,200	10,700	2,480
5	2,910	6,350	10,300	11,300	4,000	34,600	45,000	26,100	4,450	2,540	8,260	2,220
6	2,940	6,490	13,000	15,000	4,100	27,900	42,400	24,100	4,310	2,670	6,420	2,060
7	2,910	6,000	12,800	15,000	4,100	25,400	37,300	23,900	4,510	2,400	5,440	1,960
8	2,730	5,440	11,200	14,000	4,000	28,400	33,600	22,000	4,340	2,170	4,840	1,880
9	2,550	4,930	9,550	13,000	4,000	30,500	32,500	20,300	4,140	1,990	4,060	1,810
10	2,370	4,510	8,920	11,000	3,900	27,100	34,000	23,400	3,630	1,840	3,410	1,750
11	2,250	4,290	9,200	10,000	3,800	23,000	48,300	25,700	3,300	1,730	2,960	1,710
12	2,180	4,450	9,940	11,000	3,700	21,000	50,200	23,200	3,080	1,660	2,630	1,750
13	2,200	9,100	10,600	11,000	4,700	20,200	47,500	22,000	3,040	1,590	2,380	1,760
14	2,540	25,700	10,600	9,400	13,000	20,800	51,900	28,200	3,100	1,560	2,190	1,890
15	3,490	33,600	10,300	8,600	25,000	31,200	63,100	27,400	3,670	1,490	2,060	2,090
16	5,420	36,800	9,900	7,600	37,000	75,000	57,000	23,300	4,930	1,460	1,940	2,470
17	5,390	43,300	9,730	6,400	30,400	105,000	46,700	20,000	5,070	1,490	1,860	2,710
18	5,840	30,400	9,480	5,600	26,400	78,900	37,300	17,300	4,880	1,470	1,790	2,510
19	5,440	22,800	9,170	4,600	23,300	57,700	31,300	15,200	4,140	1,450	1,720	2,330
20	5,020	18,400	9,550	4,500	21,700	47,600	27,900	13,200	3,530	1,500	1,690	2,320
21	4,490	19,800	13,000	4,600	24,000	40,000	26,900	13,100	3,150	1,480	1,640	2,590
22	4,650	20,700	16,800	4,600	30,300	33,400	27,200	18,700	2,940	1,480	1,590	2,620
23	13,300	21,900	15,300	4,800	35,100	29,400	26,600	16,000	2,640	1,470	1,540	2,860
24	24,500	19,200	14,100	5,000	45,000	26,800	24,800	13,100	2,470	1,540	1,510	3,050
25	16,900	16,100	13,000	5,400	41,500	23,300	22,000	11,300	2,330	1,980	1,540	2,810
26	12,600	13,500	12,700	5,400	36,300	20,600	19,700	10,100	2,380	1,870	1,560	2,570
27	10,500	11,700	12,200	5,000	38,300	18,700	18,400	9,450	2,300	1,880	1,840	2,450
28	8,700	10,100	11,200	4,800	72,200	17,500	17,700	8,920	2,170	1,750	2,390	2,380
29	7,140	9,520	10,100	4,500	-----	17,500	18,800	8,490	2,120	1,800	2,590	2,270
30	6,160	9,830	9,130	4,300	-----	18,100	29,000	7,950	2,090	2,220	2,260	2,170
31	5,520	-----	8,310	4,300	-----	18,600	-----	7,250	-----	3,190	2,130	-----
TOTAL	183,670	441,780	342,780	240,780	552,600	1,190,400	1,033,900	579,260	110,980	58,250	100,840	69,220
MEAN	5,925	14,730	11,060	7,767	19,740	38,400	34,460	18,690	3,699	1,879	3,253	2,307
MAX	24,500	43,300	16,800	15,000	72,200	105,000	63,100	28,200	6,490	3,190	10,700	3,050
MIN	2,180	4,290	8,310	4,300	3,700	17,500	17,700	7,250	2,090	1,450	1,510	1,710
CFSM	.59	1.48	1.11	.78	1.98	3.86	3.46	1.88	.37	.19	.33	.23
IN.	.69	1.65	1.28	.90	2.06	4.45	3.86	2.16	.41	.22	.38	.26

CAL YR 1970 TOTAL 4,684,220 MEAN 12,830 MAX 107,000 MIN 1,330 CFSM 1.29 IN 17.50
WTR YR 1971 TOTAL 4,904,460 MEAN 13,440 MAX 105,000 MIN 1,450 CFSM 1.35 IN 18.32

PEAK DISCHARGE (BASE, 82,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-16	0700	16.99	83,400	3-17	1100	20.28	110,000
3-1	1000	18.20	93,100				

SUSQUEHANNA RIVER BASIN

01537000 Toby Creek at Luzerne, Pa.

LOCATION.--Lat 41°16'57", long 75°53'46", Luzerne County, on right bank at Luzerne, 150 ft upstream from bridge on U.S. Highway 309, 0.5 mile upstream from inlet works of flood basin, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--32.4 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 574.60 ft above mean sea level.

AVERAGE DISCHARGE.--30 years, 42.9 cfs (17.98 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 475 cfs July 31 (gage height, 2.28 ft); maximum gage height, 3.12 ft Feb. 13 (ice jam); minimum discharge, 2.2 cfs Aug. 26; minimum gage height, 0.21 ft June 28, July 8, 22. Period of record: Maximum discharge, 3,010 cfs Dec. 30, 1942, from rating curve extended above 1,200 cfs; maximum gage height, 5.01 ft July 31, 1946; minimum discharge, 0.1 cfs Sept. 12, 1944; minimum daily, 0.5 cfs Sept. 20, Oct. 8, 1946.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by Huntsville Reservoir 5.9 miles upstream (usable capacity, 256,900,000 cu ft). Diversion from reservoir for municipal supply.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	7.9	22	17	10	219	48	19	12	12	31	8.3
2	6.7	7.5	20	16	9.6	195	60	39	14	11	75	7.9
3	17	8.7	20	16	9.0	170	80	40	16	7.9	86	6.6
4	11	9.1	31	24	9.0	147	66	27	14	8.7	69	6.9
5	7.9	8.3	24	62	9.0	126	58	22	11	6.9	39	7.9
6	7.1	7.5	22	40	9.6	111	56	23	32	6.3	23	7.5
7	6.0	7.1	18	36	11	149	58	21	33	5.4	16	6.3
8	6.7	7.5	21	35	12	131	50	24	15	4.8	13	6.3
9	5.4	6.3	18	30	11	103	46	28	21	5.1	10	7.2
10	5.7	7.1	18	34	10	88	68	24	15	6.9	13	6.9
11	6.3	9.9	20	31	11	91	60	19	13	8.3	11	8.3
12	6.3	37	43	28	13	93	60	21	8.3	7.2	10	15
13	6.0	120	35	24	54	103	78	162	12	6.6	9.1	24
14	5.7	52	30	25	230	152	98	159	15	8.3	9.5	15
15	34	99	29	21	160	280	70	103	32	6.0	9.9	9.9
16	18	59	26	16	120	296	50	91	18	5.7	8.3	13
17	11	37	30	18	90	213	40	75	12	7.9	7.5	15
18	9.1	35	26	17	78	159	31	58	10	8.3	6.9	10
19	7.1	28	27	16	72	147	25	47	10	10	6.6	11
20	6.7	51	35	15	78	126	22	41	10	8.3	6.3	16
21	8.3	77	30	14	96	107	22	42	9.5	6.9	6.6	28
22	48	41	29	15	110	91	22	39	8.7	6.6	7.2	16
23	24	33	28	16	210	72	19	33	7.9	6.3	6.6	12
24	14	28	29	15	200	70	19	26	7.5	6.9	6.6	8.7
25	12	24	28	14	170	64	19	23	8.7	34	6.3	9.9
26	10	23	24	14	150	60	19	22	7.9	9.9	5.7	10
27	9.1	22	24	13	301	58	18	19	7.9	16	20	9.5
28	8.7	22	24	12	261	56	19	18	6.6	9.1	61	10
29	8.7	22	22	12	-----	56	26	17	6.0	34	14	8.3
30	8.3	29	21	12	-----	50	20	19	6.9	24	8.3	6.9
31	8.7	-----	18	11	-----	48	-----	17	-----	111	9.5	-----
TOTAL	350.2	925.9	792	669	2,504.2	3,831	1,327	1,318	400.9	416.3	611.9	328.3
MEAN	11.3	30.9	25.5	21.6	89.4	124	44.2	42.5	13.4	13.4	19.7	10.9
MAX	48	120	43	62	301	296	98	162	33	111	86	28
MIN	5.4	6.3	18	11	9.0	48	18	17	6.0	4.8	5.7	6.3
(\bar{x})	5.39	5.47	5.24	5.54	5.64	6.04	6.60	6.59	6.96	7.64	7.04	6.34
MEAN \neq	16.7	36.4	30.7	27.1	95.0	130	50.8	49.1	20.4	21.0	26.7	17.2
CFSM \neq	.52	1.12	.95	.84	2.93	4.01	1.57	1.52	.63	.65	.82	.53
IN. \neq	.60	1.25	1.10	.97	3.05	4.62	1.75	1.75	.70	.75	.95	.59

CAL YR 1970 TOTAL 12,671.1 MEAN 34.7 MAX 792 MIN 4.8 MEAN \neq 40.4 CFSM \neq 1.25 IN. \neq 16.92
 WTR YR 1971 TOTAL 13,474.7 MEAN 36.9 MAX 301 MIN 4.8 MEAN \neq 43.1 CFSM \neq 1.33 IN. \neq 18.08

PEAK DISCHARGE (BASE, 630 CFS).--No peak above base.

NOTE.--No gage-height record Feb. 6-26.

\neq Diversion, equivalent in cubic feet per second, for municipal supply; furnished by Pennsylvania Gas and Water Company.

\neq Adjusted for diversion.

SUSQUEHANNA RIVER BASIN

101

01537500 Solomon Creek at Wilkes-Barre, Pa.

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

DRAINAGE AREA.--15.7 sq mi.

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

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 548.31 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 20.4 cfs (17.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 313 cfs July 29 (gage height, 3.82 ft); minimum daily, 0.85 cfs July 24.

Period of record: Maximum discharge, 2,450 cfs Aug. 18, 1955 (gage height, 9.83 ft), from rating curve extended above 380 cfs on basis of computation of peak flow through culvert; minimum, 0.13 cfs Sept. 16, Oct. 20, 1969; minimum daily, 0.50 cfs Sept. 23, 1969; minimum gage height, 0.14 ft Aug. 16, 25, 1940.

Maximum stage known, 11.4 ft Sept. 16, 1933, from floodmark.

REMARKS.--Records poor. Regulation by mine pumps above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.8	6.7	2.7	2.6	64	6.9	3.3	4.0	2.8	13	2.8
2	1.4	1.2	5.7	2.6	2.8	52	8.4	9.0	2.4	2.7	43	2.5
3	2.8	1.4	5.5	2.5	3.0	43	10	18	2.1	1.3	74	2.5
4	2.1	1.4	8.7	6.0	2.6	35	8.6	9.0	1.9	1.2	80	3.4
5	1.8	1.2	7.5	28	3.3	31	7.0	6.0	2.0	1.2	30	3.6
6	1.7	1.2	7.5	27	3.7	25	6.6	4.6	12	1.4	20	43
7	1.5	1.6	5.2	20	2.9	39	7.0	4.4	10	1.1	15	42
8	1.6	1.7	4.7	19	3.7	25	9.2	3.8	5.0	1.0	12	25
9	1.4	1.4	4.3	21	3.5	19	7.0	4.4	3.3	1.0	9.0	19
10	1.6	1.1	3.5	16	3.3	16	6.0	4.3	2.5	1.7	7.4	15
11	2.0	2.0	2.7	13	3.1	16	5.4	3.4	2.1	1.2	6.6	14
12	1.7	21	10	11	7.0	15	4.8	3.1	1.8	1.0	5.8	25
13	1.8	43	9.8	9.0	103	18	4.2	65	1.7	1.0	5.2	35
14	2.0	35	5.7	12	70	25	3.9	105	8.1	1.9	6.2	34
15	3.7	48	3.4	7.5	56	59	3.4	61	14	1.5	5.5	27
16	1.4	37	3.2	6.4	35	92	3.1	52	5.3	1.2	3.7	26
17	1.2	31	3.0	9.0	27	70	2.9	39	5.9	.90	3.0	24
18	1.4	28	3.3	5.5	30	48	2.6	33	3.3	1.0	3.4	20
19	1.2	24	3.3	5.0	23	47	2.4	28	4.6	1.2	3.9	17
20	.90	34	5.6	4.5	29	41	2.2	20	4.5	1.5	2.7	16
21	1.3	35	5.0	4.0	32	32	2.0	21	3.0	1.2	4.0	39
22	13	27	4.7	3.6	43	24	1.8	22	3.0	1.0	3.6	30
23	2.3	22	4.2	3.4	75	21	1.7	18	3.3	.90	2.2	24
24	2.4	17	4.4	3.6	53	17	1.9	12	3.2	.85	2.0	22
25	2.1	14	4.0	3.7	43	14	2.1	9.7	3.3	1.0	2.1	18
26	1.3	14	3.6	3.9	36	12	2.5	8.1	4.6	2.4	2.1	15
27	1.2	10	3.4	3.5	79	11	3.0	6.9	3.0	7.5	11	11
28	1.2	11	3.2	3.2	83	11	2.5	5.7	2.8	1.9	44	11
29	2.1	9.8	3.0	2.9	-----	10	6.0	6.6	2.0	38	7.5	9.0
30	1.4	8.1	2.9	2.7	-----	9.0	4.0	7.5	1.8	7.5	4.0	7.5
31	1.6	-----	2.8	2.6	-----	6.6	-----	7.5	-----	50	3.0	-----
TOTAL	64.50	484.9	150.5	264.8	858.5	947.6	139.1	601.3	126.5	140.05	434.9	583.3
MEAN	2.08	16.2	4.85	8.54	30.7	30.6	4.64	19.4	4.22	4.52	14.0	19.4
MAX	13	48	10	28	103	92	10	105	14	50	80	43
MIN	.90	1.1	2.7	2.5	2.6	6.6	1.7	3.1	1.7	.85	2.0	2.5
CFSM	.13	1.03	.31	.54	1.96	1.95	.30	1.24	.27	.29	.89	1.24
IN.	.15	1.15	.36	.63	2.03	2.25	.33	1.42	.30	.33	1.03	1.38

CAL YR 1970 TOTAL 4,739.75 MEAN 13.0 MAX 280 MIN .85 CFSM .83 IN 11.23

WTR YR 1971 TOTAL 4,795.95 MEAN 13.1 MAX 105 MIN .85 CFSM .83 IN 11.36

PEAK DISCHARGE (BASE, 320 CFS).--No peak above base.

SUSQUEHANNA RIVER BASIN

01538000 Wapwallopen Creek near Wapwallopen, Pa.

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

DRAINAGE AREA.--43.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 752.41 ft above mean sea level (Penn Central Railroad bench-mark). Prior to Mar. 15, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--52 years, 62.1 cfs (19.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,300 cfs Aug. 3 (gage height, 6.08 ft); maximum gage height, 7.97 ft Feb. 14 (ice jam); minimum discharge, 7.1 cfs Oct. 11, 12, 13 (gage height, 0.68 ft).
Period of record: Maximum discharge, 3,140 cfs Aug. 18, 1955 (gage height, 9.23 ft), from rating curve extended above 1,300 cfs; minimum, 1.1 cfs Aug. 4, 1955 (gage height, 0.44 ft); minimum daily, 1.5 cfs Aug. 31, 1953, Aug. 5, 1955.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1302: 1926(M), 1929(M), 1938(M). WSP 1432: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	14	43	38	25	310	63	39	39	17	60	20
2	8.8	13	40	36	25	251	68	52	36	41	85	19
3	10	14	36	34	23	197	86	80	39	20	357	18
4	10	17	55	43	23	167	70	58	34	15	392	17
5	8.9	16	47	88	27	147	64	51	31	13	150	15
6	8.9	15	41	92	31	120	62	52	29	13	93	16
7	8.9	14	39	86	28	165	70	52	101	13	68	67
8	8.1	14	38	76	32	148	75	49	47	12	54	30
9	7.7	13	37	68	36	116	61	52	36	12	45	24
10	7.7	13	35	60	32	99	58	51	31	18	39	22
11	7.4	15	33	50	29	100	54	45	28	13	35	20
12	7.4	134	53	45	58	108	52	45	27	13	31	33
13	7.4	164	51	54	260	127	50	288	26	11	27	65
14	8.1	136	47	50	210	160	50	275	37	20	25	98
15	45	127	43	47	170	263	45	165	42	17	23	53
16	28	113	40	43	130	333	44	158	38	12	22	40
17	14	84	48	41	110	247	42	132	30	10	21	50
18	10	71	45	40	100	186	40	107	27	11	20	38
19	9.7	60	44	39	110	172	38	94	24	12	20	31
20	8.9	69	58	38	120	188	37	83	22	15	19	31
21	9.3	152	54	36	150	150	36	94	21	12	18	117
22	86	87	51	35	180	136	36	85	22	11	17	63
23	53	75	50	33	270	123	35	69	20	10	15	49
24	28	64	52	33	230	109	33	62	19	9.9	14	45
25	22	56	46	34	191	94	32	60	20	11	14	38
26	19	50	44	35	197	88	35	55	18	12	14	36
27	17	47	42	31	477	81	39	51	16	22	31	35
28	15	44	40	28	400	79	37	47	15	14	148	37
29	15	42	39	27	-----	78	55	44	15	55	43	36
30	14	52	37	27	-----	75	45	42	15	83	28	31
31	14	-----	39	26	-----	67	-----	47	-----	127	24	-----
TOTAL	527.2	1,785	1,367	1,413	3,674	4,684	1,512	2,584	905	674.9	1,952	1,194
MEAN	17.0	59.5	44.1	45.6	131	151	50.4	83.4	30.2	21.8	63.0	39.8
MAX	86	164	58	92	477	333	86	288	101	127	392	117
MIN	7.4	13	33	26	23	67	32	39	15	9.9	14	15
CFSM	.39	1.36	1.01	1.04	2.99	3.45	1.15	1.90	.69	.50	1.44	.91
IN.	.45	1.52	1.16	1.20	3.12	3.98	1.28	2.19	.77	.57	1.66	1.01

CAL YR 1970 TOTAL 23,314.5 MEAN 63.9 MAX 926 MIN 6.0 CFSM 1.46 IN 19.80
WTR YR 1971 TOTAL 22,272.1 MEAN 61.0 MAX 477 MIN 7.4 CFSM 1.39 IN 18.92

PEAK DISCHARGE (BASE, 580 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-27	2100	4.21	610	8- 3	2200	6.08	1,300
5-13	2100	4.12	583				

SUSQUEHANNA RIVER BASIN

103

01539000 Fishing Creek near Bloomsburg, Pa.

LOCATION.--Lat 41°04'41", long 76°25'53", Columbia County, on left bank 25 ft downstream from highway bridge, 0.8 mile downstream from Green Creek, 0.9 mile west of Orangeville, and 5.5 miles north of Bloomsburg.

DRAINAGE AREA.--274 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 540.68 ft above mean sea level (Reading Company benchmark).

AVERAGE DISCHARGE.--33 years, 455 cfs (22.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,650 cfs Feb. 27 (gage height, 6.23 ft); minimum, 36 cfs July 23, 24, 25 (gage height, 1.78 ft).

Period of record: Maximum discharge, 18,100 cfs Mar. 31, 1940 (gage height, 12.08 ft. from floodmark in gage well), from rating curve extended above 9,500 cfs on basis of contracted-opening measurement of peak flow; minimum, 7.6 cfs July 19, 1939; minimum gage height, 1.54 ft Aug. 11, 1966; minimum daily discharge, 8.4 cfs Sept. 12, 13, 18, 19, 1964.

REMARKS.--Records good except those for winter periods, which are fair. Some diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 1202: 1939-42, 1948(P), 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	255	443	230	140	2,480	443	253	196	59	615	66
2	77	234	388	220	130	1,990	545	307	182	132	589	63
3	104	226	347	210	120	1,550	789	545	207	93	1,020	59
4	158	281	489	250	120	1,280	745	427	189	71	1,400	54
5	117	255	454	610	120	1,010	716	377	162	63	851	51
6	104	234	415	551	130	851	647	362	165	57	545	51
7	95	211	357	477	140	1,090	595	344	189	53	391	93
8	86	196	313	460	160	1,090	582	325	147	47	307	62
9	80	182	330	454	150	858	570	348	127	47	253	54
10	75	175	330	409	140	738	866	330	114	95	215	48
11	73	185	320	388	150	709	782	290	104	62	189	47
12	84	630	370	357	170	688	804	273	97	60	165	60
13	84	2,020	400	281	700	709	1,050	723	93	54	141	93
14	82	1,750	390	295	3,080	774	1,360	1,410	135	68	127	162
15	304	2,010	300	299	2,140	1,260	939	1,050	211	56	114	138
16	342	1,970	280	255	1,560	2,170	716	866	229	48	106	111
17	260	1,420	340	251	1,180	2,020	602	702	159	47	97	141
18	222	1,070	350	230	1,010	1,470	533	552	124	46	88	129
19	196	846	330	215	947	1,260	470	470	106	47	84	109
20	175	838	400	200	964	1,170	432	411	95	57	82	106
21	168	1,560	470	190	1,230	981	396	504	99	50	79	165
22	1,020	1,180	460	203	1,350	858	362	464	144	43	75	150
23	1,160	1,000	448	207	2,560	760	321	387	91	39	70	122
24	763	808	437	203	2,380	675	290	348	80	37	63	109
25	571	677	393	185	1,880	582	269	334	77	111	59	97
26	454	584	362	196	1,560	552	261	330	71	127	56	91
27	382	526	322	185	2,830	510	257	295	66	106	91	91
28	332	483	313	171	3,050	493	245	269	63	88	150	124
29	299	443	286	160	-----	493	339	249	59	156	122	165
30	272	532	251	160	-----	493	286	233	56	362	91	138
31	272	-----	240	150	-----	453	-----	222	-----	789	75	-----
TOTAL	8,495	22,781	11,328	8,652	30,091	32,017	17,212	14,000	3,837	3,170	8,310	2,949
MEAN	274	759	365	279	1,075	1,033	574	452	128	102	268	98.3
MAX	1,160	2,020	489	610	3,080	2,480	1,360	1,410	229	789	1,400	165
MIN	73	175	240	150	120	453	245	222	56	37	56	47
CFSM	1.00	2.77	1.33	1.02	3.92	3.77	2.09	1.65	.47	.37	.98	.36
IN.	1.15	3.09	1.54	1.07	4.09	4.35	2.34	1.90	.52	.43	1.13	.40

CAL YR 1970 TOTAL 169,497 MEAN 464 MAX 6,050 MIN 46 CFSM 1.69 IN 23.01
WTR YR 1971 TOTAL 162,842 MEAN 446 MAX 3,080 MIN 37 CFSM 1.63 IN 22.11

PEAK DISCHARGE (BASE, 4,000 CFS).--No peak above base.

SUSQUEHANNA RIVER BASIN

01540200 Trexler Run near Ringtown, Pa.

LOCATION.--Lat 40°51'10", long 76°16'48", Schuylkill County, at bridge on Legislative Route 53064, 1.9 miles upstream from mouth, and 2.5 miles west of Ringtown.

DRAINAGE AREA.--1.77 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1959-63. August 1963 to current year.

GAGE.--Water-stage recorder and masonry control. Altitude of gage is 1,110 ft (from topographic map). Oct. 6, 1958 to Aug. 20, 1963, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--8 years, 1.58 cfs (12.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 31 cfs Feb. 13 (gage height, 2.37 ft), from rating curve extended above 16 cfs; minimum 0.22 cfs on many days; minimum gage height, 1.19 ft Oct. 7, 9, 10, 11, 12, 13, 14. Period of record: Maximum discharge, 178 cfs Feb. 25, 1961 (gage height, 3.11 ft), from rating curve extended above 35 cfs; no flow for many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.42	1.5	1.0	.58	11	2.8	1.2	1.9	.46	2.2	.38
2	.26	.38	1.3	.94	.56	9.4	3.4	1.7	1.5	.42	1.8	.38
3	.32	.42	1.3	.88	.56	8.3	3.4	1.6	1.3	.38	2.5	.35
4	.29	.42	1.6	1.5	.60	7.3	3.3	1.4	1.2	.35	2.2	.35
5	.26	.46	1.2	2.7	.64	5.8	3.0	1.2	1.1	.35	1.8	.35
6	.26	.42	1.1	1.8	.74	5.3	3.0	1.5	1.1	.35	1.4	.32
7	.24	.38	1.1	1.7	.70	6.9	3.1	1.4	1.1	.32	1.2	.32
8	.24	.38	1.1	1.6	.76	5.4	2.7	1.4	.99	.32	1.1	.32
9	.24	.35	1.1	1.5	.84	4.4	2.5	1.7	.92	.32	.92	.32
10	.24	.35	1.1	1.5	.80	4.0	2.4	1.4	.85	.29	.79	.29
11	.24	.51	.99	1.4	.74	4.5	2.1	1.4	.79	.32	.79	.32
12	.24	5.3	1.6	1.1	2.5	4.9	2.1	1.5	.79	.32	.67	.46
13	.24	4.4	1.4	1.4	12	5.8	2.0	5.6	.79	.29	.61	.56
14	.24	3.6	1.3	1.3	10	6.7	2.0	5.1	1.1	.32	.56	.46
15	.85	5.1	1.1	1.2	5.3	8.5	1.9	5.1	1.3	.29	.54	.38
16	.46	4.0	1.1	1.1	4.4	9.4	1.8	5.3	1.1	.29	.52	.35
17	.42	3.6	1.2	1.0	3.7	9.4	1.8	4.5	.85	.29	.50	.35
18	.35	3.1	1.2	1.0	3.4	8.0	1.7	3.7	.79	.26	.48	.35
19	.31	2.7	1.4	.96	3.7	7.8	1.6	3.4	.73	.35	.43	.35
20	.30	4.9	1.9	.94	4.7	7.3	1.6	3.1	.67	.32	.46	.85
21	.30	4.0	1.6	.90	6.0	6.2	1.6	3.1	.61	.29	.45	1.6
22	2.2	3.6	1.6	.86	7.6	6.0	1.6	2.7	.61	.26	.43	.73
23	1.3	3.4	1.6	.80	12	5.6	1.5	2.4	.56	.26	.38	.56
24	.85	3.0	1.7	.82	7.6	4.7	1.4	2.0	.51	.24	.36	.51
25	.67	2.5	1.5	.84	7.3	4.2	1.3	2.1	.51	.26	.35	.46
26	.56	2.0	1.4	.88	8.5	3.9	1.4	2.0	.51	.46	.35	.46
27	.51	1.9	1.2	.78	17	3.7	1.3	1.8	.46	.67	.79	.46
28	.46	1.8	1.1	.68	13	3.6	1.4	1.7	.42	.29	.92	.42
29	.42	1.7	1.1	.64	-----	3.4	1.4	1.6	.42	.73	.51	.38
30	.42	1.7	1.0	.66	-----	3.3	1.3	1.5	.42	.61	.42	.38
31	.42	-----	1.1	.60	-----	3.1	-----	2.4	-----	5.4	.38	-----
TOTAL	14.40	66.79	40.49	34.98	136.22	187.8	62.4	76.5	25.90	16.08	26.81	13.77
MEAN	.46	2.23	1.31	1.13	4.87	6.06	2.08	2.47	.86	.52	.86	.46
MAX	2.2	5.3	1.9	2.7	17	11	3.4	5.6	1.9	5.4	2.5	1.6
MIN	.24	.35	.99	.60	.56	3.1	1.3	1.2	.42	.24	.35	.29
CFSM	.26	1.26	.74	.64	2.75	3.42	1.18	1.40	.49	.29	.49	.26
IN.	.30	1.40	.85	.74	2.86	3.95	1.31	1.61	.54	.34	.56	.29

CAL YR 1970 TOTAL 824.21 MEAN 2.26 MAX 36 MIN .20 CFSM 1.28 IN 17.32
WTR YR 1971 TOTAL 702.14 MEAN 1.92 MAX 17 MIN .24 CFSM 1.08 IN 14.76

PEAK DISCHARGE (BASE, 25 CFS).--Feb. 13 (2025) 31 cfs (2.37 ft); July 31 (0745) 26 cfs (2.28 ft).

SUSQUEHANNA RIVER BASIN

105

01540500 Susquehanna River at Danville, Pa.

LOCATION.--Lat 40°57'29", long 76°37'10", Montour County, on right bank 200 ft upstream from Mill Street Bridge at Danville and 0.8 mile upstream from Mahoning Creek.

DRAINAGE AREA.--11,220 sq mi, approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 431.29 ft above mean sea level. Prior to June 29, 1939, nonrecording gage at or near Mill Street Bridge at same datum.

AVERAGE DISCHARGE.--72 years, 14,970 cfs (18.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 111,000 cfs Mar. 17 (gage height, 17.34 ft); minimum, 1,710 cfs Aug. 25 (gage height, 2.27 ft).

Period of record: Maximum discharge, 250,000 cfs Mar. 20, 1936; maximum gage height, 30.7 ft Mar. 9, 1904, from floodmarks (ice jam); minimum discharge, 508 cfs Sept. 27, 1964 (gage height, 1.51 ft).

Maximum stage known prior to 1899, 28 ft Mar. 18, 1865.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1904, 1914-17, 1923. WSP 1432: 1900-03, 1905-6, 1908-10, 1912-13, 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,480	6,460	11,900	8,900	5,400	95,300	19,900	29,300	8,660	2,530	6,540	2,580
2	3,930	6,340	12,500	7,860	5,200	89,300	20,100	25,700	7,820	2,680	7,220	2,490
3	4,000	8,340	12,500	8,300	4,800	70,100	26,900	24,300	7,220	2,730	8,780	3,030
4	4,090	8,780	12,100	9,260	4,600	54,200	41,600	25,800	6,700	2,580	14,500	3,250
5	3,630	7,900	11,700	11,400	5,200	42,100	45,600	28,500	6,100	2,580	13,400	2,910
6	3,430	7,500	12,300	14,300	5,600	33,600	44,700	26,400	5,740	2,900	9,660	2,600
7	3,430	7,580	14,500	17,500	5,400	30,000	40,800	25,200	5,900	3,030	7,700	2,510
8	3,400	6,980	13,100	17,700	5,600	30,800	36,500	24,500	6,020	2,760	6,460	2,480
9	3,200	6,380	11,900	16,200	5,400	33,300	33,700	22,200	5,540	2,500	5,460	2,270
10	3,000	5,860	10,600	14,700	5,200	31,900	33,900	22,300	5,150	2,430	4,630	2,160
11	2,790	5,500	10,500	12,600	4,800	27,900	41,100	26,100	4,600	2,230	3,930	2,110
12	2,660	6,100	11,500	12,300	4,600	25,000	51,900	25,700	4,190	2,030	3,480	2,170
13	2,580	10,600	12,600	12,300	6,200	23,900	48,800	25,200	3,960	1,870	3,060	2,420
14	2,580	20,000	12,700	11,700	32,000	23,800	50,000	31,700	4,000	1,850	2,760	2,870
15	3,430	36,100	12,400	10,700	43,000	27,900	57,900	32,600	4,530	1,830	2,580	2,930
16	5,030	36,400	12,000	10,200	42,500	57,000	62,200	28,700	5,110	1,650	2,430	2,820
17	6,460	44,500	12,000	9,020	37,700	102,000	51,600	24,800	6,180	1,580	2,300	3,200
18	6,340	37,300	11,900	7,460	30,200	96,600	42,400	20,900	6,220	1,630	2,230	3,460
19	6,540	27,900	11,500	5,380	27,800	68,800	34,900	18,400	5,820	1,650	2,150	3,160
20	6,140	22,300	11,400	5,070	25,900	55,500	30,400	16,200	5,000	1,760	2,080	2,910
21	5,740	22,100	12,700	4,700	27,200	47,000	28,200	14,900	4,290	1,710	2,050	3,440
22	6,420	22,900	17,100	4,740	32,600	39,100	27,900	16,700	4,060	1,600	1,980	3,940
23	8,260	24,100	17,100	5,200	42,500	34,000	27,800	20,000	3,690	1,560	1,910	3,550
24	20,600	22,500	15,900	5,800	49,100	30,700	26,800	16,100	3,310	1,540	1,790	3,670
25	21,600	19,300	14,700	6,400	48,600	27,600	24,700	13,900	3,090	1,670	1,730	3,710
26	15,500	16,400	14,100	6,600	42,800	24,400	21,900	12,500	2,920	2,380	1,750	3,430
27	12,500	14,400	13,800	6,200	43,900	21,800	20,100	11,500	2,920	2,330	1,980	3,170
28	10,800	12,800	13,000	5,800	65,100	20,100	19,000	10,900	2,840	2,300	2,790	3,080
29	9,260	11,700	12,400	5,200	-----	19,300	18,800	10,400	2,660	2,400	3,720	3,080
30	7,940	11,500	11,100	4,800	-----	19,600	24,000	9,930	2,580	4,160	3,290	2,920
31	7,100	-----	10,100	4,600	-----	19,900	-----	9,380	-----	4,780	2,840	-----
TOTAL	205,860	496,520	393,600	282,890	658,900	1,322,5M	1,054.1M	650,710	146,820	71,230	137,180	88,320
MEAN	6,641	16,550	12,700	9,125	23,530	42,660	35,140	20,990	4,894	2,298	4,425	2,944
MAX	21,600	44,500	17,100	17,700	65,100	102,000	62,200	32,600	8,660	4,780	14,500	3,940
MIN	2,580	5,500	10,100	4,600	4,600	19,300	18,800	9,380	2,580	1,540	1,730	2,110
CFSM	.59	1.48	1.13	.81	2.10	3.80	3.13	1.87	.44	.20	.39	.26
IN.	.68	1.65	1.30	.94	2.18	4.38	3.49	2.16	.49	.24	.45	.29

CAL YR 1970 TOTAL 5,287,390 MEAN 14,490 MAX 121,000 MIN 1,580 CFSM 1.29 IN 17.53
WTR YR 1971 TOTAL 5,508,630 MEAN 15,090 MAX 102,000 MIN 1,540 CFSM 1.34 IN 18.26

SUSQUEHANNA RIVER BASIN

01541000 West Branch Susquehanna River at Bower, Pa.

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

DRAINAGE AREA.--315 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,207.14 ft above mean sea level. Prior to Oct. 17, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--58 years, 540 cfs (23.28 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,920 cfs Feb. 21 (gage height, 10.86 ft); maximum gage height, 14.39 ft Feb. 14 (ice jam); minimum discharge, 54 cfs July 9 (gage height, 4.13 ft).
Period of record: Maximum discharge, 31,500 cfs Mar. 18, 1936 (gage height, 19.74 ft, from floodmark in gage shelter), from rating curve extended above 7,200 cfs on basis of slope-area measurement of peak flow; minimum, 14 cfs Aug. 29, 1939; minimum daily, 16 cfs Sept. 29, Oct. 1, 6, 13, 1930, Aug. 29, Aug. 31 to Sept. 2, 1939.

Maximum stage known prior to 1913, about 18.5 ft May 13, 1889 (discharge, about 27,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation at low flow by mills above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	1,030	1,280	483	230	2,680	839	204	122	117	165	100
2	135	839	1,020	457	220	1,980	1,180	197	139	120	116	96
3	177	1,670	881	416	220	1,520	1,150	217	172	87	172	93
4	164	2,280	1,840	1,140	220	1,220	983	226	158	75	365	91
5	131	1,440	1,450	3,130	230	1,000	838	200	138	69	378	83
6	123	1,160	1,180	1,940	230	857	718	1,290	138	66	247	77
7	118	869	957	1,220	230	984	638	1,330	168	62	172	105
8	114	689	779	925	220	984	591	1,360	146	58	137	131
9	108	574	690	820	220	802	565	1,130	123	64	116	136
10	110	509	648	700	210	694	683	843	111	156	102	94
11	453	481	585	617	210	689	606	665	103	265	93	88
12	820	510	2,680	579	220	637	527	569	100	548	90	85
13	510	792	3,440	496	1,200	1,820	493	626	122	197	84	372
14	389	838	2,240	543	3,000	4,020	594	665	129	255	75	1,840
15	396	1,130	1,540	761	2,300	3,660	523	504	197	156	74	968
16	365	1,130	1,170	500	1,800	4,020	453	441	167	121	134	588
17	306	916	1,030	420	1,200	2,520	419	398	132	107	110	1,230
18	271	773	971	360	1,300	1,680	437	345	117	95	79	729
19	241	661	886	330	1,800	1,390	382	304	103	96	70	571
20	216	603	1,160	300	3,000	1,390	348	298	98	244	68	1,280
21	238	697	956	310	4,800	1,090	328	256	92	148	107	1,330
22	925	572	985	320	3,810	958	317	221	88	108	435	902
23	647	588	1,300	320	4,170	869	298	196	85	93	315	672
24	510	502	1,550	310	2,600	767	279	179	78	89	193	551
25	424	449	1,330	290	1,760	621	267	178	83	130	132	439
26	369	424	1,120	280	1,710	599	258	169	78	103	114	397
27	321	419	925	290	3,960	560	241	152	75	103	102	650
28	285	414	785	280	4,170	613	227	140	72	88	243	555
29	257	484	647	260	-----	871	226	131	128	80	190	436
30	425	1,910	540	250	-----	932	216	124	245	99	131	383
31	851	-----	496	240	-----	830	-----	117	-----	178	109	-----
TOTAL	10,545	25,353	37,061	19,287	45,240	43,257	15,624	13,675	3,707	4,177	4,918	15,072
MEAN	340	845	1,196	622	1,616	1,395	521	441	124	135	159	502
MAX	925	2,280	3,440	3,130	4,800	4,020	1,180	1,360	245	548	435	1,840
MIN	108	414	496	240	210	560	216	117	72	58	68	77
CFSM	1.08	2.68	3.80	1.97	5.13	4.43	1.65	1.40	.39	.43	.50	1.59
IN.	1.25	2.99	4.38	2.28	5.34	5.11	1.85	1.61	.44	.49	.58	1.78

CAL YR 1970 TOTAL 257,329 MEAN 705 MAX 7,330 MIN 78 CFSM 2.24 IN 30.39
WTR YR 1971 TOTAL 237,916 MEAN 652 MAX 4,800 MIN 58 CFSM 2.07 IN 28.10

PEAK DISCHARGE (BASE, 4,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-21	0300	10.86	5,920	3-15	2400	10.26	4,980
2-27	2300	10.37	5,140				

SUSQUEHANNA RIVER BASIN

107

01541200 West Branch Susquehanna River near Curwensville, Pa.

LOCATION.--Lat 40°57'41", long 78°31'10", Clearfield County, on left bank 30 ft downstream from bridge on State Highway 453, 0.85 mile downstream from Curwensville Reservoir, 1.1 miles south of Curwensville and 1.8 miles upstream from Anderson Creek.

DRAINAGE AREA.--367 sq mi.

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

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

AVERAGE DISCHARGE.--16 years, 599 cfs (22.16 inches per year), adjusted for storage since November 1965.

EXTREMES.--Current year: Maximum discharge, 5,280 cfs Feb. 23 (gage height, 7.59 ft); minimum daily, 47 cfs Aug. 13, Sept. 1, 2.
Period of record: Maximum discharge, 15,700 cfs Mar. 10, 1964 (gage height, 14.19 ft); no flow at times; minimum daily, 19 cfs Aug. 16, 17, 1966.

REMARKS.--Records good except those below 150 cfs, which are poor. Flow regulated by Curwensville Reservoir 0.85 mile upstream (see p. 178).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	1,080	1,750	405	220	3,900	1,060	186	186	386	224	47
2	137	1,310	1,740	436	220	3,540	1,320	192	183	206	231	47
3	146	1,230	1,160	470	224	2,990	1,600	150	180	138	180	49
4	171	2,370	1,610	553	220	2,250	1,470	125	180	84	342	52
5	179	2,620	2,110	1,440	220	1,430	1,220	88	180	89	478	60
6	116	1,780	1,560	3,090	224	1,180	980	312	180	87	312	66
7	110	1,190	1,280	2,850	386	1,160	815	970	173	88	183	67
8	107	645	805	1,240	521	1,180	825	1,850	170	83	186	167
9	163	795	699	949	442	1,160	737	2,010	176	161	167	176
10	137	709	775	1,150	321	1,000	805	1,410	167	209	144	131
11	146	601	766	1,050	234	775	970	1,230	138	234	138	107
12	480	560	1,470	737	209	775	825	845	120	601	102	107
13	960	835	2,990	576	220	1,000	680	737	144	529	47	267
14	402	1,090	3,200	560	880	2,110	690	855	250	326	50	835
15	521	1,240	2,770	654	2,010	2,870	709	825	242	298	51	1,380
16	1,010	1,560	1,810	775	2,040	3,450	654	959	267	206	73	1,420
17	354	1,410	1,290	568	2,000	3,580	492	470	180	183	183	1,680
18	293	970	1,280	348	1,690	3,200	470	478	141	147	138	1,790
19	267	855	1,010	307	1,920	2,740	499	449	144	120	102	1,470
20	151	690	1,190	271	2,390	2,180	442	386	144	337	76	1,780
21	243	690	1,410	242	3,020	1,430	364	353	147	231	64	1,270
22	408	709	1,210	288	4,230	991	364	321	133	147	369	60
23	1,020	709	1,370	375	5,220	1,080	337	279	85	120	369	1,670
24	930	699	747	411	4,900	1,000	307	254	97	123	238	1,040
25	504	428	238	405	4,090	766	307	254	101	231	115	584
26	286	654	1,320	375	3,290	699	307	267	123	173	99	449
27	150	545	1,840	331	3,010	690	206	267	144	147	107	369
28	292	478	1,900	231	3,780	690	99	206	125	147	108	499
29	215	430	1,480	173	-----	865	67	176	120	125	176	506
30	115	980	865	170	-----	1,150	150	216	317	118	353	369
31	552	-----	568	160	-----	1,210	-----	206	-----	138	144	-----
TOTAL	10,765	29,862	44,213	21,590	48,131	53,041	19,771	17,326	4,937	6,212	5,549	18,514
MEAN	347	995	1,426	696	1,719	1,711	659	559	165	200	179	617
MAX	1,020	2,620	3,200	3,090	5,220	3,900	1,600	2,010	317	601	478	1,790
MIN	107	428	238	160	209	690	67	88	85	83	47	47
MEAN [‡]	367	1,009	1,394	707	1,859	1,615	678	614	172	197	175	546
CFSM [‡]	1.00	2.75	3.80	1.93	5.07	4.40	1.85	1.67	.47	.54	.48	1.49
IN. [‡]	1.15	3.07	4.38	2.22	5.28	5.07	2.06	1.92	.52	.62	.55	1.66

CAL YR 1970 TOTAL 307,328 MEAN 842 MAX 5,040 MIN 26 MEAN[‡] 838 CFSM[‡] 2.28 IN.[‡] 31.00
WTR YR 1971 TOTAL 279,911 MEAN 767 MAX 5,220 MIN 47 MEAN[‡] 771 CFSM[‡] 2.10 IN.[‡] 28.50

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

SUSQUEHANNA RIVER BASIN

01541308 Bradley Run near Ashville, Pa.

LOCATION.--Lat 40°30'33", long 78°35'02", Cambria County, on right bank 200 ft downstream from bridge on State Highway 53 at Syberton, 0.2 mile upstream from mouth, and 4.5 miles southwest of Ashville.

DRAINAGE AREA.--6.77 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 558 cfs Sept. 16 (gage height, 2.68 ft), from rating curve extended above 75 cfs; minimum, 2.0 cfs Aug. 20, Sept. 10, 11 (gage height, 1.45 ft).

Period of record: Maximum discharge, 558 cfs Sept. 16, 1971 (gage height, 2.68 ft), from rating curve extended above 75 cfs; maximum gage height, 2.76 ft Aug. 31, 1970; minimum discharge, 1.2 cfs on many days in 1970 water year (gage height, 1.42 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	12	14	14	7.5	80	20	8.1	5.8	3.7	4.4	2.6
2	3.0	9.5	14	13	7.5	67	34	8.6	5.4	3.4	4.4	2.6
3	3.2	34	18	12	7.0	50	32	8.6	6.0	3.4	5.1	2.6
4	2.8	22	23	38	7.0	40	30	8.1	6.0	3.1	15	2.4
5	2.8	18	18	34	7.5	32	28	7.5	5.4	2.8	9.2	2.4
6	2.8	16	16	20	7.5	26	26	28	5.0	3.1	5.6	2.4
7	2.7	14	15	17	7.0	26	23	15	5.4	2.8	4.7	3.1
8	2.6	12	14	16	7.0	26	22	25	5.2	2.6	4.0	2.8
9	2.6	11	14	15	7.0	20	23	18	4.5	3.1	3.7	2.4
10	3.6	10	14	14	6.5	19	28	16	4.0	2.6	3.4	2.2
11	6.5	12	14	13	6.5	17	22	14	3.7	14	3.7	2.2
12	3.8	27	38	14	7.5	17	19	14	3.5	4.7	3.1	16
13	3.2	73	32	12	45	55	18	22	4.0	3.4	2.8	76
14	5.9	42	26	14	38	64	18	17	5.4	3.1	2.6	84
15	5.0	47	22	13	23	118	15	14	8.0	3.1	2.8	20
16	3.7	32	20	12	18	108	14	13	6.6	2.8	2.6	38
17	3.4	26	19	11	16	67	14	13	5.4	2.8	2.4	38
18	3.4	22	18	10	20	47	14	12	4.8	2.6	2.4	22
19	3.2	18	26	9.8	32	40	12	11	4.4	4.4	2.2	45
20	3.1	18	26	9.8	64	34	12	10	4.0	6.0	2.2	92
21	10	16	20	9.8	70	28	11	10	4.0	3.4	23	52
22	11	14	25	9.2	76	25	10	9.8	4.0	3.1	13	34
23	6.8	14	32	9.8	80	22	10	9.2	3.7	2.8	5.6	23
24	5.8	12	42	8.6	52	19	9.8	8.6	3.7	3.1	4.0	18
25	5.3	12	28	8.6	40	17	9.2	8.6	3.4	2.8	3.7	14
26	5.1	11	25	9.8	40	16	9.2	8.1	3.4	4.0	3.4	23
27	4.7	11	22	9.2	113	16	8.6	7.5	3.4	3.4	3.4	30
28	4.4	11	18	8.6	113	18	8.6	7.5	3.1	2.8	3.4	18
29	4.6	14	16	8.1	-----	20	8.6	7.0	3.4	4.4	3.1	16
30	8.4	22	14	8.6	-----	18	8.1	6.6	3.7	7.5	2.8	14
31	13	-----	14	8.1	-----	17	-----	6.2	-----	12	2.8	-----
TOTAL	149.5	612.5	657	410.0	925.5	1,169	517.1	372.0	138.3	126.8	154.5	700.7
MEAN	4.82	20.4	21.2	13.2	33.1	37.7	17.2	12.0	4.61	4.09	4.98	23.4
MAX	13	73	42	38	113	118	34	28	8.0	14	23	92
MIN	2.6	9.5	14	8.1	6.5	16	8.1	6.2	3.1	2.6	2.2	2.2
CFSM	.71	3.01	3.13	1.95	4.89	5.57	2.54	1.77	.68	.60	.74	3.46
IN.	.82	3.37	3.61	2.25	5.09	6.42	2.84	2.04	.76	.70	.85	3.85

CAL YR 1970 TOTAL 5,685.4 MEAN 15.6 MAX 193 MIN 2.6 CFSM 2.30 IN 31.24
 WTR YR 1971 TOTAL 5,932.9 MEAN 16.3 MAX 118 MIN 2.2 CFSM 2.41 IN 32.60

PEAK DISCHARGE (BASE, 110 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-22	1420	2.12	118	9-13	2115	2.34	246
2-28	0125	2.26	193	9-16	1525	2.68	558
3-15	1820	2.25	187	9-20	0010	2.30	217
8-21	1855	2.54	412				

01541500 Clearfield Creek at Dimeling, Pa.

LOCATION.--Lat 40°58'18", long 78°24'22", Clearfield County, on right bank at downstream side of highway bridge at Dimeling, 600 ft downstream from Little Clearfield Creek, and 4 miles southeast of Clearfield.

DRAINAGE AREA.--371 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,146.08 ft above mean sea level. Prior to Oct. 17, 1928, nonrecording gage and Oct. 17, 1928 to Oct. 25, 1967, water-stage recorder at site 200 ft upstream, all at same datum.

AVERAGE DISCHARGE.--58 years, 561 cfs (20.53 inches per year), adjusted for storage since December 1960.

EXTREMES.--Current year: Maximum discharge, 5,540 cfs Feb. 28 (gage height, 8.77 ft), from rating curve extended above 3,200 cfs; maximum gage height, 10.84 ft Feb. 14 (ice jam); minimum discharge, 69 cfs July 8, 9 (gage height, 2.90 ft).

Period of record: Maximum discharge, 30,600 cfs Mar. 18, 1936 (gage height, 18.49 ft, from floodmark in gage shelter), from rating curve extended above 15,000 cfs; minimum, 6.0 cfs Oct. 1, 9, 1925; minimum daily, 7.1 cfs Oct. 1, 1925.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Glendale Lake about 25 miles upstream (see p. 178).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	547	1,040	615	220	3,560	879	227	182	131	288	87
2	112	491	853	555	210	2,780	1,150	222	171	127	191	85
3	129	763	778	552	210	2,220	1,250	247	187	105	291	83
4	129	1,860	1,440	838	220	1,850	1,120	265	187	89	447	80
5	110	1,240	1,410	2,680	220	1,510	994	230	165	82	528	78
6	102	1,030	1,160	1,950	220	1,260	882	845	159	78	402	74
7	98	842	993	1,330	220	1,210	800	1,540	164	74	264	76
8	94	707	847	1,020	220	1,210	738	1,390	161	71	208	89
9	90	610	766	950	210	990	692	1,410	141	130	175	98
10	92	543	721	836	210	844	818	1,100	127	219	154	83
11	228	514	666	744	200	808	778	913	117	249	142	74
12	471	548	1,830	692	210	754	674	804	111	577	136	77
13	310	1,490	3,130	614	800	1,640	627	818	126	281	135	101
14	221	1,570	2,270	579	2,500	2,830	674	969	164	324	115	1,090
15	226	1,670	1,760	653	2,080	3,640	617	757	222	243	109	776
16	219	1,540	1,410	545	1,540	4,590	538	663	178	169	108	413
17	187	1,200	1,250	450	1,140	3,210	490	618	148	141	109	806
18	169	985	1,160	346	1,310	2,310	488	550	129	125	107	630
19	157	834	1,050	320	1,770	1,900	447	494	118	126	93	492
20	147	751	1,350	300	3,060	1,750	400	475	109	202	91	1,590
21	160	769	1,120	300	4,510	1,430	376	422	105	189	112	1,710
22	529	670	1,060	310	3,730	1,230	359	371	100	136	364	1,060
23	534	623	1,350	300	4,720	1,110	338	333	95	114	434	767
24	375	558	1,870	290	3,320	960	314	306	91	113	230	616
25	313	491	1,640	280	2,460	818	301	298	87	247	157	490
26	276	448	1,380	270	2,260	764	295	286	85	150	126	422
27	249	433	1,160	280	4,260	704	276	260	92	131	111	608
28	224	422	995	260	5,070	721	261	238	84	123	123	606
29	200	436	838	250	-----	869	257	223	194	116	119	451
30	222	1,220	713	240	-----	964	241	209	211	126	103	387
31	393	-----	608	230	-----	887	-----	196	-----	245	94	-----
TOTAL	6,890	25,805	38,618	19,579	47,100	51,323	18,074	17,679	4,210	5,233	6,066	13,999
MEAN	222	860	1,246	632	1,682	1,656	602	570	140	169	196	467
MAX	534	1,860	3,130	2,680	5,070	4,590	1,250	1,540	222	577	528	1,710
MIN	90	422	608	230	200	704	241	196	84	71	91	74
MEAN [†]	232	863	1,246	623	1,727	1,623	592	568	144	156	196	485
CFSM [†]	.63	2.33	3.36	1.68	4.65	4.37	1.60	1.53	.39	.42	.53	1.31
IN. [†]	.73	2.60	3.87	1.94	4.84	5.04	1.78	1.76	.44	.48	.61	1.46

CAL YR 1970 TOTAL 267,923 MEAN 734 MAX 7,800 MIN 87 MEAN[†] 734 CFSM[†] 1.98 IN.[†] 26.89
WTR YR 1971 TOTAL 254,576 MEAN 697 MAX 5,070 MIN 71 MEAN[†] 698 CFSM[†] 1.88 IN.[†] 25.55

[†] Adjusted for change in contents in Glendale Lake.

SUSQUEHANNA RIVER BASIN

01542000 Moshannon Creek at Osceola Mills, Pa.

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

DRAINAGE AREA.--68.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,446.98 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 107 cfs (21.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,120 cfs Feb. 27 (gage height, 5.35 ft); minimum, 13 cfs Sept. 10, 11 (gage height, 1.75 ft).

Period of record: Maximum discharge, 2,930 cfs Mar. 10, 1964 (gage height, 9.34 ft), from rating curve extended above 1,500 cfs on basis of contracted-opening measurements at gage heights, 7.58 ft and 9.00 ft; minimum, 6.9 cfs Dec. 5, 1957; minimum gage height, 1.58 ft Oct. 11, 1943; minimum daily discharge, 7.8 cfs Sept. 21, 1955.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1232: 1941-46, 1948, 1950-51, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	81	130	124	52	677	160	63	57	30	38	17
2	26	75	126	115	50	531	186	68	56	30	38	16
3	35	169	132	108	48	440	205	72	65	25	57	16
4	27	193	195	179	48	373	215	65	54	24	59	15
5	25	169	162	266	48	309	212	59	50	23	49	15
6	24	161	156	179	48	266	202	193	53	22	35	15
7	24	150	151	160	47	266	190	145	49	22	30	14
8	23	135	139	149	47	235	177	170	46	21	27	15
9	22	125	137	139	46	205	177	160	42	31	25	15
10	27	117	132	136	44	188	217	153	40	28	25	14
11	88	115	128	130	41	181	207	147	39	63	25	14
12	73	137	312	128	45	181	193	145	39	45	24	40
13	44	312	306	113	230	342	188	179	47	28	22	31
14	46	228	258	113	258	397	190	166	50	65	21	46
15	55	278	233	110	215	621	160	141	63	31	24	27
16	49	246	212	96	168	737	143	139	45	27	22	32
17	44	225	205	91	153	577	132	134	41	25	20	45
18	43	205	190	82	173	440	122	124	36	24	19	27
19	41	186	205	74	217	380	112	117	34	24	19	40
20	40	181	225	70	404	331	105	112	33	39	19	124
21	62	175	188	66	500	275	100	103	32	35	31	101
22	125	149	200	66	538	249	94	98	32	27	30	66
23	78	147	217	66	657	225	89	91	32	22	24	60
24	61	130	252	64	474	193	86	88	31	25	20	53
25	65	121	202	66	390	175	85	89	29	50	18	46
26	65	113	195	75	401	164	85	81	28	36	18	50
27	62	112	181	80	843	156	77	77	29	41	18	47
28	59	108	166	74	870	160	75	72	28	25	19	42
29	52	115	149	68	-----	166	72	69	40	29	17	40
30	61	173	136	62	-----	160	68	66	39	31	17	38
31	90	-----	124	56	-----	153	-----	62	-----	77	17	-----
TOTAL	1,563	4,831	5,744	3,305	7,055	9,753	4,324	3,448	1,259	1,025	827	1,121
MEAN	50.4	161	185	107	252	315	144	111	42.0	33.1	26.7	37.4
MAX	125	312	312	266	870	737	217	193	65	77	59	124
MIN	22	75	124	56	41	153	68	59	28	21	17	14
CFSM	.73	2.34	2.69	1.56	3.66	4.58	2.09	1.61	.61	.48	.39	.54
IN.	.85	2.61	3.11	1.79	3.81	5.27	2.34	1.86	.68	.55	.45	.61

CAL YR 1970 TOTAL 48,087 MEAN 132 MAX 1,180 MIN 22 CFSM 1.92 IN 26.00
WTR YR 1971 TOTAL 44,255 MEAN 121 MAX 870 MIN 14 CFSM 1.76 IN 23.93

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-20	2230	4.20	625	2-27	2015	5.35	1,120
2-23	0045	4.57	773	3-15	2145	4.84	888

01542500 West Branch Susquehanna River at Karthaus, Pa.

LOCATION.--Lat 41°06'56", long 78°06'43", Clearfield County, on left bank 900 ft upstream from bridge on State Highway 879 at Karthaus, 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, includes that of Mosquito Creek.

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

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

AVERAGE DISCHARGE.--31 years (1940-71), 2,380 cfs (22.11 inches per year), adjusted for storage since December 1960.

EXTREMES.--Current year: Maximum discharge, 18,400 cfs Feb. 28 (gage height, 8.79 ft); minimum, 302 cfs Sept. 7 (gage height, 1.07 ft).

Period of record: Maximum discharge, 63,500 cfs Mar. 10, 1964 (gage height, 15.98 ft); minimum, 100 cfs Sept. 26, 27, 1964 (gage height, 0.43 ft).

Maximum stage known, about 24.5 ft Mar. 18, 1936, from floodmarks at highway bridge (discharge, about 135,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Curwensville Reservoir about 50 miles upstream and Glendale Lake (see p. 178).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	2,400	4,510	2,490	960	15,400	3,870	1,040	1,020	1,350	682	542
2	445	5,600	4,340	2,200	960	12,800	4,470	1,130	940	1,230	689	386
3	396	3,800	4,010	2,160	960	10,500	5,840	1,150	970	933	757	336
4	375	8,600	4,340	2,460	980	8,910	5,910	1,120	978	750	865	321
5	391	7,200	5,910	5,280	980	6,740	5,530	1,030	918	610	1,130	321
6	365	5,600	5,300	7,100	1,000	5,530	4,980	1,210	888	548	1,400	321
7	370	4,730	4,490	6,890	1,400	5,050	4,300	3,150	888	507	1,070	321
8	303	3,520	3,830	5,440	1,600	4,930	4,010	4,200	858	472	792	336
9	312	2,930	3,150	3,440	1,400	4,430	3,930	6,110	799	536	715	341
10	316	2,900	3,080	3,690	1,100	3,910	4,600	5,050	743	682	655	445
11	567	2,620	2,960	3,460	900	3,560	4,840	4,280	682	903	591	467
12	1,590	2,960	3,990	3,120	1,100	3,260	4,450	3,770	623	1,120	554	579
13	2,230	5,720	9,110	2,570	2,100	3,690	4,010	3,500	591	1,610	518	579
14	2,370	7,610	8,850	2,290	6,600	6,630	3,890	3,810	642	1,160	472	623
15	1,440	7,910	7,690	2,410	8,200	9,920	3,540	3,590	963	1,010	417	2,550
16	1,800	7,940	6,460	2,340	6,600	14,700	3,100	3,170	1,090	843	401	2,290
17	1,810	6,940	4,980	2,080	5,800	13,400	2,740	3,190	948	617	391	2,370
18	1,280	5,650	4,650	1,770	5,200	10,700	2,430	2,580	807	507	396	3,080
19	1,150	4,600	4,340	1,410	5,620	9,080	2,280	2,400	655	456	507	2,660
20	900	4,220	4,390	1,350	8,050	7,990	2,110	2,280	662	536	428	2,930
21	1,100	4,160	4,760	1,480	13,800	6,380	1,940	2,080	629	689	439	5,050
22	2,000	3,730	4,470	1,480	12,800	5,230	1,780	1,870	579	629	456	2,730
23	2,700	3,480	4,620	1,590	16,800	4,620	1,700	1,690	554	461	865	2,130
24	2,400	3,210	5,550	1,560	14,400	4,240	1,580	1,550	524	370	1,020	2,790
25	1,500	2,860	4,760	1,500	11,500	3,710	1,510	1,490	472	456	750	1,810
26	980	2,500	4,180	1,400	10,200	3,240	1,490	1,450	461	675	554	1,450
27	820	2,550	5,070	1,300	13,600	3,030	1,450	1,400	450	585	434	1,330
28	960	2,400	4,910	1,100	18,000	2,950	1,330	1,330	472	461	434	1,450
29	840	2,260	4,560	960	-----	3,170	1,230	1,210	501	407	467	1,460
30	700	2,910	3,460	900	-----	3,690	1,130	1,070	1,800	423	445	1,340
31	2,000	-----	2,730	940	-----	3,910	-----	1,080	-----	573	662	-----
TOTAL	34,905	133,510	149,450	78,160	172,610	205,300	95,970	73,980	23,107	22,109	19,956	43,338
MEAN	1,126	4,450	4,821	2,521	6,165	6,623	3,199	2,386	770	713	644	1,445
MAX	2,700	8,600	9,110	7,100	18,000	15,400	5,910	6,110	1,800	1,610	1,400	5,050
MIN	303	2,260	2,730	900	900	2,950	1,130	1,030	450	370	391	321
MEAN#	1,156	4,466	4,790	2,523	6,350	6,493	3,209	2,439	781	697	639	1,392
CFSM#	.79	3.05	3.28	1.73	4.34	4.44	2.19	1.67	.53	.48	.44	.95
IN.#	.91	3.40	3.78	1.99	4.52	5.12	2.44	1.92	.59	.55	.51	1.06

CAL YR 1970 TOTAL 1,117,971 MEAN 3,063 MAX 21,200 MIN 298 MEAN# 3,059 CFSM# 2.09 IN.# 28.39
WTR YR 1971 TOTAL 1,052,395 MEAN 2,883 MAX 18,000 MIN 303 MEAN# 2,888 CFSM# 1.98 IN.# 26.79

Adjusted for change in contents in Glendale Lake and Curwensville Reservoir.

SUSQUEHANNA RIVER BASIN

01542810 Waldy Run near Emporium, Pa.

LOCATION.--Lat 41°34'44", long 78°17'34", Cameron County, on left bank 15 ft downstream from highway bridge at North Creek Chapel, 0.1 mile upstream from mouth, and 5.5 miles northwest of Emporium.

DRAINAGE AREA.--5.24 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,263.62 ft above mean sea level. July 25, 1963 to Aug. 27, 1964, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--7 years (1964-71), 7.51 cfs (19.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs Oct. 13 (gage height, 4.96 ft), from rating curve extended above 80 cfs as explained below; minimum, 0.07 cfs Aug. 17, 18 (gage height, 3.05 ft).

Period of record: Maximum discharge, 828 cfs Sept. 28, 1967 (gage height, 6.32 ft), from rating curve extended above 80 cfs on basis of slope-area measurements at gage height, 5.09 ft and at peak flow; no flow Sept. 14-19, 1964.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	12	26	3.8	.96	46	14	5.7	1.2	1.6	.62	.90
2	2.8	19	18	3.3	.90	33	53	6.1	1.5	1.1	.44	.90
3	2.9	56	14	2.9	.84	23	55	5.7	1.7	.71	.62	.52
4	2.4	77	25	4.2	.80	17	42	5.1	1.2	.60	.81	.18
5	2.1	36	30	9.0	.82	11	36	4.6	1.0	.56	.62	.81
6	4.5	20	23	9.3	.84	8.6	29	5.2	1.9	.56	.40	.90
7	4.7	13	14	16	.86	8.8	25	4.6	1.5	.52	.30	.40
8	4.6	9.0	9.9	7.3	.86	8.3	26	11	1.7	.61	.24	.27
9	3.9	7.2	8.5	6.7	.84	7.2	36	23	1.1	.65	.20	.20
10	4.9	6.4	7.0	5.3	.82	9.3	64	21	.86	.66	.18	.16
11	27	6.0	7.4	4.3	.80	6.4	41	15	.81	.77	.24	.12
12	83	8.4	11	3.6	.76	5.9	40	13	.81	.75	.20	.48
13	192	48	17	2.7	.74	6.0	49	11	1.1	.51	.12	1.9
14	87	50	17	2.2	6.0	7.6	46	11	2.1	.72	.10	2.9
15	41	59	13	2.5	7.0	36	24	9.2	6.3	.63	.10	1.2
16	23	54	10	2.2	3.5	83	16	8.2	3.5	.68	.10	2.4
17	15	29	9.1	1.9	2.5	45	13	7.0	2.7	.70	.08	2.6
18	11	18	7.4	1.7	2.3	27	9.8	5.7	2.2	.68	.08	1.3
19	7.9	12	7.6	1.6	3.0	21	7.9	4.8	1.9	.74	.08	3.9
20	6.4	14	13	1.5	6.0	17	6.8	4.1	1.6	.74	.16	6.1
21	6.7	25	14	1.4	22	11	6.1	3.4	1.4	.59	.48	2.2
22	16	26	13	1.5	19	8.8	5.2	2.9	1.2	.47	.30	1.1
23	24	19	13	1.4	25	7.5	4.2	2.6	1.1	.40	.74	.77
24	18	13	19	1.4	22	6.5	3.9	2.4	.95	.60	.27	.60
25	13	9.3	16	1.3	15	6.3	3.5	2.9	.93	.87	.16	.45
26	9.4	7.7	12	1.3	13	5.5	3.1	2.3	.87	.53	.20	.64
27	7.4	6.8	8.8	1.6	54	5.2	2.7	2.0	.77	.47	1.2	.62
28	6.0	6.6	6.9	1.3	78	5.9	4.1	1.8	1.0	.32	2.2	1.1
29	5.2	8.6	5.6	1.2	-----	7.0	4.8	1.6	.77	.44	.74	.85
30	5.8	24	4.9	1.1	-----	7.9	5.5	1.5	.75	.44	.40	.83
31	7.1	-----	4.5	1.0	-----	8.0	-----	1.4	-----	1.5	.52	-----
TOTAL	647.6	700.0	405.6	106.5	289.14	506.7	676.6	205.8	46.42	21.12	12.90	37.30
MEAN	20.9	23.3	13.1	3.44	10.3	16.3	22.6	6.64	1.55	.68	.42	1.24
MAX	192	77	30	16	78	83	64	23	6.3	1.6	2.2	6.1
MIN	2.1	6.0	4.5	1.0	.74	5.2	2.7	1.4	.75	.32	.08	.12
CFSM	3.99	4.45	2.50	.66	1.97	3.11	4.31	1.27	.30	.13	.08	.24
IN.	4.60	4.97	2.88	.76	2.05	3.60	4.80	1.46	.33	.15	.09	.26

CAL YR 1970 TOTAL 4,640.80 MEAN 12.7 MAX 192 MIN .61 CFSM 2.42 IN 32.95
WTR YR 1971 TOTAL 3,655.68 MEAN 10.0 MAX 192 MIN .08 CFSM 1.91 IN 25.95

PEAK DISCHARGE (BASE, 100 CFS).--Oct. 13 (0130) 248 cfs (4.96 ft).

01543000 Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.

LOCATION.--Lat 41°24'48", long 78°11'50", Cameron County, on downstream side of first pier of highway bridge at village of Sterling Run and 300 ft upstream from Sterling Run.

DRAINAGE AREA.--272 sq mi.

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

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 894.84 ft above mean sea level. Oct. 1, 1913 to Sept. 30, 1931, nonrecording gage and Oct. 1, 1931 to Sept. 30, 1932, water-stage recorder at present site and datum. Oct. 1, 1932 to Sept. 30, 1942, nonrecording gage at site 800 ft upstream at same datum.

AVERAGE DISCHARGE.--58 years, 440 cfs (21.97 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,100 cfs Oct. 13 (gage height, 6.65 ft, from floodmark); minimum, 4.2 cfs Aug. 19, 20 (gage height, -0.25 ft).

Period of record: Maximum discharge, 47,800 cfs July 18, 1942 (gage height, 14.70 ft, from floodmarks at highway bridge), from rating curve extended above 11,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.4 cfs Sept. 7, 12-14, 1930.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1272: Drainage area. WSP 1502: 1933(M), 1934-38, 1939(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	481	839	230	86	2,250	567	288	95	73	38	15
2	85	609	801	220	82	1,710	1,330	302	89	147	32	14
3	88	1,510	702	210	80	1,270	1,780	302	127	83	30	12
4	85	3,200	1,230	270	78	992	1,480	279	118	63	28	12
5	85	2,010	1,230	586	82	756	1,310	251	92	53	30	11
6	117	1,230	1,150	524	84	625	1,160	297	104	53	30	9.8
7	130	886	886	430	84	632	1,010	297	127	50	24	12
8	110	684	684	370	82	602	992	560	108	45	18	11
9	107	532	593	390	80	499	1,090	889	92	40	15	9.8
10	104	448	517	350	76	442	1,840	880	71	40	14	7.7
11	810	410	455	300	74	442	1,630	742	63	40	12	6.0
12	1,570	539	702	230	72	396	1,470	686	58	45	11	8.7
13	6,400	1,850	488	189	250	407	1,660	686	77	48	8.7	28
14	3,800	2,080	886	245	700	525	1,900	602	160	48	7.7	85
15	1,620	2,340	773	253	920	1,350	1,270	546	589	42	6.8	87
16	1,050	2,290	659	159	820	3,110	925	492	407	50	6.8	40
17	737	1,570	625	150	700	2,080	750	442	302	53	6.0	192
18	554	1,110	532	140	660	1,410	625	363	243	48	5.3	87
19	429	839	474	130	900	1,130	525	302	197	50	4.7	67
20	349	839	684	120	1,300	982	448	307	166	61	4.2	341
21	330	1,090	710	120	1,400	767	407	251	148	48	5.3	190
22	737	1,050	737	130	1,300	640	358	205	127	35	7.7	114
23	820	955	728	140	1,500	567	302	178	108	28	18	80
24	755	755	995	120	1,250	492	269	159	92	38	22	63
25	625	617	895	110	975	407	251	182	83	61	17	50
26	517	517	773	110	905	374	213	170	77	53	12	45
27	416	455	634	110	2,480	347	186	156	74	35	11	48
28	344	429	517	110	3,370	374	238	141	71	30	44	192
29	295	416	416	100	-----	436	337	127	68	26	62	187
30	287	773	344	94	-----	466	288	114	61	26	30	166
31	410	-----	250	90	-----	448	-----	104	-----	32	20	-----
TOTAL	23,871	32,514	22,349	6,730	20,390	26,930	26,611	11,300	4,194	1,544	581.2	2,191.0
MEAN	770	1,084	721	217	728	869	887	365	140	49.8	18.7	73.0
MAX	6,400	3,200	1,230	586	3,370	3,110	1,900	889	589	147	62	341
MIN	85	410	250	90	72	347	186	104	58	26	4.2	6.0
CFSM	2.83	3.99	2.65	.80	2.68	3.19	3.26	1.34	.51	.18	.07	.27
IN.	3.26	4.45	3.06	.92	2.79	3.68	3.64	1.55	.57	.21	.08	.30

CAL YR 1970 TOTAL 204,449.0 MEAN 560 MAX 6,400 MIN 30 CFSM 2.06 IN 27.96
 WTR YR 1971 TOTAL 179,205.2 MEAN 491 MAX 6,400 MIN 4.2 CFSM 1.81 IN 24.51

PEAK DISCHARGE (BASE, 4,700 CFS).--Oct. 13 (*0600) 10,100 cfs (6.65 ft).

NOTE.--No gage-height record Oct. 13.

* About.

SUSQUEHANNA RIVER BASIN

01543500 Sinnemahoning Creek at Sinnemahoning, Pa.

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

DRAINAGE AREA.--685 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 769.36 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 1,074 cfs (21.29 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,700 cfs Feb. 28 (gage height, 7.94 ft); maximum gage height, 8.96 ft Feb. 20 (ice jam); minimum discharge, 17 cfs Aug. 20 (gage height, 1.38 ft).

Period of record: Maximum discharge, 59,800 cfs July 18, 1942 (gage height, 21.58 ft), from rating curve extended above 31,000 cfs on basis of slope-area measurement of peak flow; minimum, 1.2 cfs Sept. 4, 1939 (gage height, 1.18 ft); minimum daily, 1.4 cfs Sept. 3, 1939.

Maximum stage known, 21.94 ft Mar. 18, 1936, from floodmark (discharge, 61,200 cfs, from rating curve extended as explained above).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, suspended sediment loads, and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	1,090	1,840	780	260	5,970	1,340	582	288	276	93	39
2	150	1,270	1,790	720	250	4,590	2,430	582	265	401	83	34
3	179	2,540	1,610	680	250	3,590	3,960	608	305	231	75	31
4	200	5,890	2,860	793	240	2,920	3,660	582	294	160	75	29
5	157	4,310	3,070	1,870	250	2,290	3,300	522	241	130	88	27
6	154	2,990	2,860	1,750	260	1,840	2,890	644	260	116	81	27
7	236	2,230	2,320	1,400	260	1,810	2,490	903	294	103	64	34
8	196	1,730	1,870	1,210	250	1,700	2,380	1,320	260	93	51	40
9	196	1,380	1,630	1,110	250	1,420	2,440	2,270	241	85	43	31
10	182	1,150	1,460	1,190	240	1,210	3,640	2,200	195	113	39	26
11	1,110	1,060	1,280	1,010	230	1,220	3,300	1,880	171	95	34	21
12	2,680	1,280	2,120	847	220	1,080	2,870	1,760	157	113	31	27
13	6,030	3,690	2,890	644	430	1,140	2,990	2,050	157	105	29	64
14	4,260	4,140	2,810	740	2,000	1,560	3,270	2,110	288	116	26	136
15	2,730	4,830	2,440	804	2,700	3,490	2,440	1,870	881	108	24	160
16	1,910	4,780	2,050	804	2,200	7,640	1,850	1,690	730	95	23	108
17	1,390	3,620	1,900	616	1,900	5,420	1,490	1,490	506	116	23	282
18	1,100	2,750	1,640	514	1,800	3,860	1,260	1,230	387	93	20	212
19	894	2,170	1,450	436	2,100	3,180	1,040	1,040	311	85	19	133
20	731	2,060	1,960	400	3,600	2,760	915	996	260	119	18	590
21	665	2,870	1,930	390	4,380	2,200	836	836	226	116	23	430
22	1,640	2,510	1,960	420	3,960	1,820	772	719	203	85	40	250
23	1,730	2,320	2,050	440	5,040	1,570	691	625	182	70	55	171
24	1,540	1,930	2,570	400	4,070	1,350	616	555	164	64	62	133
25	1,330	1,600	2,410	370	3,150	1,120	582	573	150	127	55	108
26	1,130	1,350	2,180	360	2,830	1,060	547	564	139	113	40	95
27	950	1,230	1,840	350	6,100	949	499	475	136	95	34	100
28	798	1,130	1,560	330	8,830	984	514	423	133	70	36	499
29	693	1,080	1,280	310	-----	1,120	700	381	133	62	100	634
30	666	1,790	1,130	290	-----	1,220	625	348	221	66	72	437
31	936	-----	870	280	-----	1,170	-----	316	-----	90	50	-----
TOTAL	36,729	72,770	61,630	22,258	58,050	73,253	56,737	32,144	8,178	3,711	1,506	4,908
MEAN	1,185	2,426	1,988	718	2,073	2,363	1,891	1,037	273	120	48.6	164
MAX	6,030	5,890	3,070	1,870	8,830	7,640	3,960	2,270	881	401	100	634
MIN	150	1,060	870	280	220	949	499	316	133	62	18	21
CFSM	1.73	3.54	2.90	1.05	3.03	3.45	2.76	1.51	.40	.18	.07	.24
IN.	1.99	3.95	3.35	1.21	3.15	3.98	3.08	1.75	.44	.20	.08	.27

CAL YR 1970 TOTAL 501,355 MEAN 1,374 MAX 15,000 MIN 60 CFSM 2.01 IN 27.23
WTR YR 1971 TOTAL 431,874 MEAN 1,183 MAX 8,830 MIN 18 CFSM 1.73 IN 23.45

PEAK DISCHARGE (BASE, 8,400 CFS).--Feb. 28 (0030) 10,700 cfs (7.94 ft).

01544000 First Fork Sinnemahoning Creek near Sinnemahoning, Pa.

LOCATION.--Lat 41°24'06", long 78°01'28", Cameron County, on right bank 350 ft downstream from Woodrock Run, 1,500 ft upstream from Roaring Run, 0.75 mile downstream from George B. Stevenson Dam, and 7.5 miles north-east of Sinnemahoning.

DRAINAGE AREA.--245 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 878.71 ft above mean sea level. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 349 cfs (19.34 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,240 cfs Nov. 13 (gage height, 3.22 ft); minimum, 2.0 cfs Aug. 11 (gage height, -0.55 ft).

Period of record: Maximum discharge, 10,200 cfs Mar. 1, 1956 (gage height, 6.60 ft); minimum, 0.9 cfs Sept. 3, 1964; minimum daily, 2.9 cfs Sept. 3, Oct. 13-15, 1964.

Maximum discharge known, 80,000 cfs July 18, 1942, by slope-area measurement.

REMARKS.--Records good, except those for winter periods, which are fair. Flow regulated by First Fork Sinnemahoning Creek Reservoir 0.75 mile upstream since January 31, 1956 (see p.178). Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

PAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	303	540	190	76	2,380	402	375	110	83	30	27
2	162	309	608	180	76	1,580	823	387	110	167	30	32
3	154	725	608	170	80	1,220	1,630	409	100	94	34	31
4	167	1,860	820	235	72	940	1,380	384	97	65	38	23
5	123	1,610	1,070	315	66	715	1,290	318	97	61	36	24
6	113	1,110	1,040	375	62	583	1,130	331	97	53	28	35
7	176	900	830	309	64	532	1,060	338	97	46	25	33
8	154	617	652	291	66	549	995	380	97	46	32	33
9	143	524	557	309	66	446	975	687	97	46	25	32
10	158	439	485	309	66	403	1,840	919	97	46	22	35
11	860	417	395	309	64	328	1,870	900	97	43	25	34
12	1,890	557	477	273	62	341	1,620	840	94	37	34	32
13	2,530	2,310	485	180	130	375	1,930	830	94	36	31	32
14	2,990	2,750	516	158	328	375	2,490	725	94	33	22	33
15	1,720	2,450	532	208	388	897	1,610	688	199	30	31	34
16	1,060	2,710	454	185	348	2,520	1,210	679	139	38	27	36
17	791	1,910	425	127	240	2,190	980	566	135	33	27	36
18	600	1,300	410	117	250	1,440	797	439	135	31	27	37
19	591	900	368	117	291	1,120	683	403	135	40	30	29
20	403	860	425	117	388	1,010	598	403	135	43	32	32
21	361	960	532	113	910	782	528	328	135	44	29	34
22	549	950	600	127	1,030	606	445	256	135	33	31	71
23	688	940	606	135	1,210	491	408	240	131	32	34	102
24	763	782	634	113	1,080	454	328	235	56	32	30	81
25	715	652	540	113	870	372	312	235	47	31	27	68
26	643	540	485	120	763	332	262	235	47	40	30	78
27	524	461	410	117	1,370	352	215	180	47	37	31	54
28	417	410	368	94	2,320	352	217	154	107	32	31	44
29	334	368	334	86	-----	372	343	140	83	31	30	41
30	303	432	267	82	-----	419	378	130	113	30	29	41
31	303	-----	203	80	-----	414	-----	120	-----	31	25	-----
TOTAL	20,593	31,056	16,678	5,654	12,736	24,890	28,749	13,254	3,157	1,444	913	1,254
MEAN	664	1,035	538	182	455	803	958	428	105	46.6	29.5	41.8
MAX	2,990	2,750	1,070	375	2,320	2,520	2,490	919	199	167	38	102
MIN	113	303	203	80	62	328	215	120	47	30	22	23
MEAN [†]	660	1,041	536	182	475	785	958	428	106	46.1	16.2	54.4
CFSM [†]	2.69	4.25	2.19	.74	1.94	3.20	3.91	1.75	.43	.19	.07	.22
IN. [†]	3.10	4.74	2.52	.85	2.02	3.69	4.36	2.02	.48	.22	.08	.25

CAL YR 1970 TOTAL 180,597 MEAN 495 MAX 3,840 MIN 24 MEAN[†] 495 CFSM[†] 2.02 IN.[†] 27.40
WTR YR 1971 TOTAL 160,378 MEAN 439 MAX 2,990 MIN 22 MEAN[†] 439 CFSM[†] 1.79 IN.[†] 24.33

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

SUSQUEHANNA RIVER BASIN

01544500 Kettle Creek at Cross Fork, Pa.

LOCATION.--Lat 41°28'33", long 77°49'34", Potter County, on right bank just upstream from abutment of former highway bridge, 0.2 mile downstream from Potter-Clinton County Line, and 0.7 mile southwest of Cross Fork.

DRAINAGE AREA.--136 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,027.12 ft above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--31 years, 216 cfs (21.57 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,600 cfs Nov. 16 (gage height, 4.97 ft); minimum daily, 1.2 cfs Sept. 2-4.

Period of record: Maximum discharge, 12,400 cfs Nov. 25, 1950 (gage height, 11.04 ft), from rating curve extended above 4,600 cfs on basis of slope-area measurement at gage height, 10.38 ft; minimum daily, 1.2 cfs Sept. 2-4, 1971; minimum gage height observed, -0.14 ft Oct. 16, 19, 23, 26, 1963.

Maximum stage known, about 14.0 ft Mar. 18, 1936, from information by local residents (discharge, about 20,000 cfs, from rating curve extended as explained above).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	185	270	120	47	1,080	244	207	87	59	27	1.4
2	37	200	297	110	45	889	455	219	83	47	19	1.2
3	54	203	300	110	43	697	680	219	86	31	16	1.2
4	42	514	415	142	41	570	719	210	75	27	16	1.2
5	36	555	455	190	43	423	736	193	69	25	16	1.4
6	43	475	501	191	46	339	664	205	75	22	12	1.7
7	41	391	437	173	46	319	585	191	68	21	9.2	1.4
8	36	318	368	173	45	285	585	247	62	19	7.4	19
9	34	266	327	175	40	251	725	376	58	20	6.0	9.8
10	34	233	252	199	37	222	1,450	473	52	21	5.0	5.5
11	279	239	254	173	40	216	1,350	455	50	21	4.1	3.5
12	406	447	264	145	43	205	1,310	478	49	23	4.1	8.9
13	507	1,760	256	100	74	207	1,680	702	49	18	3.5	27
14	547	1,680	254	66	170	235	2,230	865	65	17	4.1	35
15	492	2,010	232	110	200	501	1,380	770	95	16	3.5	17
16	376	2,250	216	90	180	1,330	931	616	71	27	3.5	16
17	295	1,380	222	70	120	1,110	741	492	65	21	3.5	47
18	248	829	196	60	130	841	621	384	59	17	3.5	32
19	203	642	191	58	140	691	530	315	55	20	4.1	32
20	170	565	238	50	190	570	459	271	52	29	3.5	138
21	170	601	254	50	500	446	397	247	49	18	4.1	102
22	322	611	271	54	700	363	335	222	46	15	8.0	61
23	391	590	265	50	621	308	271	199	43	13	8.9	43
24	367	497	275	58	580	268	229	178	47	26	8.0	35
25	339	415	244	60	492	235	199	178	42	50	2.9	28
26	205	351	232	62	441	213	175	149	38	22	2.4	28
27	239	304	213	58	871	199	151	134	36	17	2.4	30
28	200	268	191	56	1,360	205	168	118	41	13	2.9	42
29	175	247	173	54	-----	213	205	109	35	12	4.1	35
30	172	282	149	52	-----	210	196	100	34	14	2.9	28
31	182	-----	130	50	-----	199	-----	94	-----	50	1.7	-----
TOTAL	6,892	19,358	8,385	3,153	7,287	13,840	20,401	9,616	1,736	751	219.3	832.2
MEAN	222	645	270	102	260	446	680	310	57.9	24.2	7.07	27.7
MAX	597	2,250	501	199	1,360	1,330	2,230	865	95	59	27	138
MIN	34	185	130	50	37	199	151	94	34	12	1.7	1.2
CFSM	1.63	4.74	1.99	.75	1.91	3.28	5.00	2.28	.43	.18	.05	.20
IN.	1.89	5.29	2.29	.86	1.99	3.79	5.58	2.63	.47	.21	.06	.23

CAL YR 1970 TOTAL 92,797.1 MEAN 254 MAX 2,250 MIN 7.1 CFSM 1.87 IN 25.38
 WTR YR 1971 TOTAL 92,470.5 MEAN 253 MAX 2,250 MIN 1.2 CFSM 1.86 IN 25.29

PEAK DISCHARGE (BASE, 2,400 CFS).--Nov. 16 (0030) 2,600 cfs (4.97 ft); Apr. 14 (0700) 2,470 cfs (4.78 ft).

SUSQUEHANNA RIVER BASIN

117

01545000 Kettle Creek near Westport, Pa.

LOCATION.--Lat 41°19'12", long 77°52'27", Clinton County, on left bank 0.4 mile upstream from Short Bend Run, 3.5 miles upstream from mouth and Westport, and 5 miles downstream from Kettle Creek Reservoir.

DRAINAGE AREA.--233 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 728.24 ft above mean sea level, unadjusted. Prior to Oct. 14, 1956, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--17 years, 332 cfs (19.35 inches per year), adjusted for storage since October 1961.

EXTREMES.--Current year: Maximum discharge, 3,770 cfs Nov. 13 (gage height, 7.04 ft); minimum, 8.7 cfs Sept. 7 (gage height, 1.33 ft).

Period of record: Maximum discharge, 7,970 cfs Mar. 8, 1956; maximum gage height, 13.31 ft Jan. 22, 1959 (ice jam); minimum discharge, 3.0 cfs Dec. 6, 1964 (gage height, 1.12 ft); minimum daily, 4.4 cfs Nov. 3, 6, 12, 1964.

REMARKS.--Records good except those for winter periods, which are fair. Regulation from Kettle Creek Reservoir 5 miles upstream since February 1962 (see p. 178).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	292	429	190	110	1,760	368	329	131	77	53	13
2	54	311	456	180	100	1,500	732	334	128	87	49	12
3	60	557	473	170	98	1,150	1,130	401	125	78	43	11
4	68	1,270	623	257	96	955	1,280	373	114	61	38	10
5	63	1,220	715	323	98	667	1,160	323	87	47	32	10
6	60	842	759	320	100	598	1,090	325	99	46	33	9.5
7	66	684	746	290	110	528	887	325	106	42	28	11
8	65	532	747	290	100	498	852	352	102	41	25	12
9	54	438	918	310	98	429	980	633	93	37	21	14
10	55	420	674	343	92	356	1,900	893	85	40	19	19
11	217	402	402	335	88	353	2,120	705	78	41	18	22
12	1,100	532	434	296	92	347	1,780	733	74	42	17	37
13	1,090	2,910	462	200	100	338	2,250	975	72	38	15	61
14	1,170	3,130	468	150	360	352	2,760	1,320	93	36	14	57
15	872	3,040	294	190	390	664	1,970	1,150	121	31	14	57
16	656	3,470	98	170	340	2,260	1,270	974	139	29	13	47
17	443	2,190	166	150	240	1,920	991	770	119	38	13	51
18	420	1,330	349	140	250	1,330	787	592	105	37	12	74
19	385	1,000	336	130	270	1,090	777	520	95	32	12	72
20	315	790	361	120	350	966	658	443	88	34	11	305
21	253	880	449	120	600	731	523	394	82	37	12	344
22	407	932	503	120	873	577	481	348	78	31	13	211
23	548	988	504	120	1,300	543	386	303	73	23	15	160
24	635	768	504	130	1,130	457	335	246	71	21	17	105
25	588	645	477	130	859	319	333	248	70	31	18	97
26	461	540	439	140	823	394	287	248	62	49	16	86
27	407	451	374	130	1,270	315	212	225	57	42	14	79
28	308	418	341	120	2,670	323	218	198	65	31	14	89
29	270	404	286	120	-----	369	345	166	45	25	14	92
30	270	415	223	110	-----	364	375	161	94	22	14	88
31	284	-----	200	110	-----	361	-----	144	-----	36	14	-----
TOTAL	11,772	31,801	14,210	5,904	13,007	22,814	29,237	15,151	2,751	1,262	641	2,255.5
MEAN	380	1,060	458	190	465	736	975	489	91.7	40.7	20.7	75.2
MAX	1,170	3,470	918	343	2,670	2,260	2,760	1,320	139	87	53	344
MIN	56	292	98	110	88	315	212	144	45	21	11	9.5
MEAN [†]	380	1,060	459	189	461	740	975	488	91.9	40.9	19.4	76.2
CFSM [†]	1.63	4.55	1.97	.81	1.98	3.18	4.18	2.09	.39	.18	.08	.33
IN. [†]	1.88	5.08	2.27	.93	2.06	3.67	4.66	2.41	.44	.21	.09	.37

CAL YR 1970 TOTAL 156,164.0 MEAN 428 MAX 7,200 MIN 29 MEAN[†] 428 CFSM[†] 1.84 IN.[†] 24.92
WTR YR 1971 TOTAL 150,805.5 MEAN 413 MAX 3,470 MIN 9.5 MEAN[†] 413 CFSM[†] 1.77 IN.[†] 24.07

[†] Adjusted for change in contents in Kettle Creek Reservoir.

SUSQUEHANNA RIVER BASIN

01545500 West Branch Susquehanna River at Renovo, Pa.

LOCATION.--Lat 41°19'28", long 77°45'03", Clinton County, on left bank at upstream side of Eighth Street Bridge at Renovo, 1 mile upstream from Paddy Run.

DRAINAGE AREA.--2,975 sq mi.

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height records collected July 1895 to December 1903 and October 1905 to September 1970 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 634.19 ft above mean sea level. Prior to Mar. 17, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--64 years, (1907-71), 4,850 cfs (22.14 inches per year), adjusted for storage since October 1961.

EXTREMES.--Current year: Maximum discharge, 38,400 cfs Feb. 28 (gage height, 10.92 ft); minimum daily, 375 cfs Sept. 7.

Period of record: Maximum discharge, 236,000 cfs Mar. 18, 1936 (gage height, 29.39 ft, from floodmark in gage shelter), from rating curve extended above 87,000 cfs on basis of slope-area measurement of peak flow; minimum, 80 cfs Dec. 6, 1908 (gage height, -1.10 ft).

Maximum stage known prior to 1895, 27.3 ft June 1, 1889, from floodmark (discharge, about 211,000 cfs).

REMARKS.--Records poor. Flow regulated by Glendale Lake, Curwensville, First Fork Sinnemahoning Creek and Kettle Creek Reservoirs about 15 miles upstream, (see p.178). Records of chemical analyses, suspended sediment loads, and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1908-10, 1912-13, 1914-15(M). WRD Penna. 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	5,370	7,740	4,740	1,700	30,500	6,840	2,990	2,000	2,240	1,020	867
2	1,000	6,760	8,160	4,450	1,600	23,800	9,180	3,010	1,830	1,800	1,030	712
3	900	7,980	7,830	4,180	1,600	19,200	14,800	3,160	1,750	1,720	1,050	482
4	920	16,400	9,050	4,270	1,600	15,800	15,500	3,140	1,850	1,190	1,100	394
5	860	16,200	11,500	6,200	1,600	12,200	14,400	2,870	1,680	961	1,160	388
6	800	13,000	11,400	9,080	1,700	9,680	12,800	2,840	1,580	797	1,530	381
7	980	10,000	9,900	8,980	2,000	8,610	11,100	4,230	1,620	712	1,570	375
8	880	8,100	8,580	7,980	2,300	8,610	10,200	6,350	1,620	640	1,050	381
9	820	6,600	7,830	6,380	2,100	7,860	10,200	10,600	1,500	598	836	388
10	820	6,020	7,120	5,920	1,800	6,810	13,800	11,200	1,330	721	758	381
11	800	5,860	6,540	5,840	1,600	6,410	15,600	9,460	1,180	983	702	482
12	3,100	6,140	7,150	5,400	1,500	5,790	13,600	8,510	1,050	1,080	632	787
13	10,300	14,000	11,800	4,720	2,000	5,890	13,700	8,710	994	1,560	590	994
14	12,000	21,100	13,200	4,060	8,810	8,480	15,200	9,460	1,130	1,850	558	817
15	8,130	20,400	11,500	4,360	12,600	14,500	12,600	9,010	1,860	1,250	504	1,600
16	5,640	22,700	9,640	4,000	13,000	31,100	9,220	8,200	2,720	1,300	447	2,900
17	5,520	17,800	8,200	3,600	11,000	29,000	7,860	7,590	2,080	1,040	433	2,400
18	3,890	13,700	7,590	3,100	9,360	21,800	6,620	6,330	1,720	919	413	3,500
19	3,400	10,800	7,040	2,700	8,740	17,900	5,940	5,640	1,390	797	413	3,200
20	3,000	9,320	7,320	2,200	8,480	15,600	5,420	5,230	1,170	817	519	4,100
21	3,100	10,400	7,860	2,400	18,800	12,700	4,940	4,850	1,110	919	475	6,200
22	4,000	9,610	7,950	2,500	18,700	10,000	4,450	4,270	1,030	1,130	482	4,800
23	6,600	9,180	8,010	2,700	25,000	8,540	4,140	3,820	940	888	511	2,900
24	6,400	8,230	8,880	2,600	23,400	7,710	3,760	3,500	919	730	1,200	3,300
25	5,800	7,410	8,910	2,500	17,800	6,700	3,540	3,280	797	675	1,040	2,600
26	4,200	6,440	7,680	2,400	15,000	6,070	3,360	3,240	739	888	787	2,000
27	3,500	6,270	7,800	2,300	18,300	5,560	3,100	3,010	702	1,160	590	1,700
28	3,100	5,920	7,560	2,000	35,700	5,400	2,950	2,720	758	898	485	2,000
29	2,800	5,660	6,980	1,700	-----	5,720	3,220	2,510	777	721	475	2,600
30	2,600	6,270	6,200	1,600	-----	6,350	3,300	2,260	1,160	675	573	2,100
31	3,400	-----	5,110	1,600	-----	6,700	-----	2,120	-----	898	527	-----
TOTAL	110,360	313,640	262,030	126,460	267,790	380,990	261,340	164,110	40,986	32,557	23,464	55,729
MEAN	3,560	10,450	8,453	4,079	9,564	12,290	8,711	5,294	1,366	1,050	757	1,858
MAX	12,000	22,700	13,200	9,080	35,700	31,100	15,600	11,200	2,720	2,240	1,570	6,200
MIN	800	5,370	5,110	1,600	1,500	5,400	2,950	2,120	702	598	413	375
MEAN#	3,586	10,470	8,421	4,080	9,765	12,158	8,721	5,346	1,378	1,034	738	1,818
CFSM#	1.21	3.52	2.83	1.37	3.28	4.08	2.93	1.80	.46	.35	.25	.61
IN.#	1.40	3.93	3.26	1.58	3.42	4.70	3.27	2.08	.51	.40	.29	.68

CAL YR 1970 TOTAL 2,306,890 MEAN 6,320 MAX 49,000 MIN 520 MEAN# 6,316 CFSM# 2.12 IN.# 28.82
WTR YR 1971 TOTAL 2,039,456 MEAN 5,588 MAX 35,700 MIN 375 MEAN# 5,593 CFSM# 1.88 IN.# 25.52

Adjusted for change in contents in Glendale Lake, Curwensville, First Fork Sinnemahoning Creek and Kettle Creek Reservoirs.

SUSQUEHANNA RIVER BASIN

119

01545600 Young Womans Creek near Renovo, Pa.
(Hydrologic bench-mark station)

LOCATION.--Lat 41°23'22", long 77°41'28", Clinton County, on left bank, 0.3 mile downstream from Laureilly Fork, 1.5 miles upstream from Left Branch Young Womans Creek, 3.7 miles upstream from mouth, and 5 miles northeast of Renovo.

DRAINAGE AREA.--46.2 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 780 ft (from topographic map).

AVERAGE DISCHARGE.--6 years (1965-71), 59.6 cfs (17.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 722 cfs Nov. 13 (gage height, 3.21 ft), from rating curve extended above 420 cfs; minimum, 1.1 cfs Sept. 6, 7 (gage height, 1.47 ft).

Period of record: Maximum discharge, 844 cfs Apr. 10, 1970, from rating curve extended above 420 cfs; maximum gage height, 3.33 ft Feb. 14, 1966 (ice jam), Apr. 10, 1970; minimum discharge, 1.1 cfs Sept. 6, 7, 1971; minimum gage height, 1.45 ft Aug. 30, 31, Sept. 1, 1966.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	72	74	30	20	344	82	77	34	15	9.1	1.4
2	10	72	74	30	19	284	130	79	32	14	8.0	1.7
3	10	100	74	33	18	230	182	82	32	9.7	8.5	1.7
4	12	145	100	41	17	194	212	79	26	8.5	7.5	1.4
5	11	157	103	00	18	154	226	74	25	8.0	6.6	1.3
6	14	145	109	58	19	130	212	79	28	7.5	5.4	1.3
7	13	126	103	54	20	123	190	74	24	7.0	4.4	1.4
8	11	103	93	50	18	110	182	98	22	6.6	4.1	9.1
9	11	90	90	40	17	95	221	123	20	6.2	3.5	3.2
10	10	30	90	40	15	87	411	137	18	6.6	3.2	3.5
11	58	82	78	30	18	84	392	130	17	7.5	2.9	4.1
12	50	225	84	30	17	79	386	133	17	8.0	2.7	6.6
13	69	628	83	27	18	79	450	147	17	6.2	2.5	10
14	76	559	80	26	70	92	497	162	21	6.6	2.3	8.0
15	75	619	73	36	62	182	333	166	29	5.8	2.3	5.1
16	69	623	80	33	70	328	249	158	20	9.7	2.1	4.7
17	62	379	70	28	50	295	199	144	17	8.0	2.0	9.7
18	57	294	63	25	52	239	162	123	15	6.2	1.8	5.8
19	50	217	62	24	58	212	140	104	14	7.0	1.8	6.6
20	45	154	75	23	100	178	123	92	13	5.4	2.0	40
21	50	151	74	23	141	147	110	82	12	7.5	2.5	28
22	138	142	79	22	153	126	98	74	12	5.1	2.5	15
23	139	130	80	21	204	110	84	64	16	4.4	2.9	11
24	139	116	81	22	203	98	77	59	15	6.2	2.5	9.7
25	112	103	75	23	177	87	69	59	12	15	2.0	9.1
26	95	93	71	26	165	79	62	52	12	7.0	1.8	8.5
27	82	85	66	24	324	77	54	48	11	6.6	1.8	8.5
28	72	80	60	23	424	77	64	45	12	5.4	2.3	12
29	62	77	54	22	-----	77	87	41	10	5.4	2.3	14
30	64	82	48	21	-----	74	77	40	10	6.2	1.8	10
31	72	-----	41	20	-----	72	-----	37	-----	26	1.5	-----
TOTAL	1,752	5,467	2,371	992	2,505	4,543	5,761	2,862	563	254.3	106.6	252.4
MEAN	56.5	179	76.5	32.0	89.5	147	192	92.3	18.8	8.20	3.44	8.41
MAX	138	623	109	60	424	344	497	166	34	26	9.1	40
MIN	10	72	41	20	15	72	54	37	10	4.4	1.5	1.3
CFSM	1.22	4.31	1.60	.89	1.94	3.18	4.16	2.00	.41	.18	.07	.18
IN.	1.41	4.80	1.91	.80	2.02	3.66	4.64	2.30	.45	.20	.09	.20

CAL YR 1970 TOTAL 30,803.9 MEAN 84.4 MAX 792 MIN 6.2 CFSM 1.83 IN 24.80
WTR YR 1971 TOTAL 27,929.3 MEAN 76.5 MAX 628 MIN 1.3 CFSM 1.66 IN 22.49

PEAK DISCHARGE (BASE, 460 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	1415	3.21	722	4-14	0230	3.14	569
2-27	2130	3.02	483				

SUSQUEHANNA RIVER BASIN

01546500 Spring Creek near Axemann, Pa.

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

DRAINAGE AREA.--87.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 788.81 ft above mean sea level. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 82.0 cfs (12.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 697 cfs Feb. 27 (gage height, 4.19 ft); minimum, 35 cfs Oct. 7, 9 (gage height, 2.27 ft).

Period of record: Maximum discharge, 1,670 cfs Nov. 25, 1950 (gage height, 5.44 ft), from rating curve extended above 640 cfs; minimum, 9.6 cfs Nov. 24, 1941 (gage height, 1.69 ft); minimum daily, 20 cfs Dec. 20, 30, 1963, Jan. 28, 29, 31, 1966.

Maximum stage known, 8.6 ft in March 1936, from information by local residents.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and by Rockview Penitentiary above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	50	96	115	85	406	157	85	69	61	64	44
2	40	46	92	106	91	349	160	87	69	60	63	44
3	48	92	92	104	78	308	160	85	73	57	69	44
4	42	91	104	123	74	267	157	79	69	56	67	43
5	42	74	94	147	76	229	154	79	71	56	66	43
6	40	69	94	133	76	214	149	113	71	56	60	43
7	40	66	92	123	76	226	147	98	69	54	57	43
8	40	63	91	117	76	201	142	96	69	54	56	42
9	40	61	91	117	74	181	137	91	67	54	54	42
10	43	60	89	115	71	170	137	89	67	54	54	40
11	53	61	89	113	71	165	135	85	67	66	54	40
12	45	89	119	113	73	165	139	87	66	60	51	50
13	43	160	117	106	192	256	142	119	66	54	51	46
14	45	147	108	108	176	285	139	123	74	67	50	45
15	58	160	106	104	128	324	135	108	94	56	51	43
16	46	147	106	98	111	429	130	111	71	54	50	44
17	45	133	113	96	102	379	126	104	67	53	48	53
18	44	123	113	94	104	320	119	98	66	51	48	45
19	43	115	111	91	142	304	115	94	63	61	48	53
20	43	126	126	87	204	278	111	92	61	58	48	61
21	48	123	121	87	278	239	108	92	63	53	58	63
22	69	111	128	87	312	220	108	89	61	53	48	50
23	53	111	142	87	411	210	104	85	60	51	48	49
24	49	104	157	85	316	192	102	85	63	51	45	48
25	48	100	142	83	274	181	98	83	60	76	45	45
26	46	96	142	94	285	178	96	81	58	56	45	50
27	45	94	135	85	509	167	94	78	58	54	45	49
28	45	92	128	87	536	162	94	76	60	51	48	49
29	44	92	121	81	-----	162	92	73	60	63	44	48
30	49	113	117	85	-----	157	89	73	71	60	44	48
31	49	-----	113	81	-----	154	-----	71	-----	96	44	-----
TOTAL	1,427	2,969	3,489	3,152	5,001	7,478	3,776	2,809	2,003	1,806	1,623	1,407
MEAN	46.0	99.0	113	102	179	241	126	90.6	66.8	58.3	52.4	46.9
MAX	69	160	157	147	536	429	160	123	94	96	69	63
MIN	40	46	89	81	71	154	89	71	58	51	44	40
CFSM	.53	1.14	1.30	1.17	2.05	2.76	1.45	1.04	.77	.67	.60	.54
IN.	.61	1.27	1.49	1.34	2.13	3.19	1.61	1.20	.85	.77	.69	.60

CAL YR 1970 TOTAL 33,681 MEAN 92.3 MAX 606 MIN 39 CFSM 1.06 IN 14.37
WTR YR 1971 TOTAL 36,940 MEAN 101 MAX 536 MIN 40 CFSM 1.16 IN 15.76

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	2030	3.68	420	2-27	2300	4.19	697
2-22	1900	3.79	473	3-16	0100	3.76	458

SUSQUEHANNA RIVER BASIN

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01547100 Spring Creek at Milesburg, Pa.

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

DRAINAGE AREA.--142 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,100 cfs Feb. 28 (gage height, 6.23 ft); minimum, 98 cfs Oct. 10 (gage height, 2.43 ft).

Period of record: Maximum discharge, 1,360 cfs Apr. 2, 1970 (gage height, 7.14 ft), from rating curve extended above 520 cfs; minimum, 60 cfs Sept. 30, 1969 (gage height, 2.22 ft).

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and by Rockview Penitentiary above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	125	202	225	153	790	272	187	171	143	147	117
2	107	122	197	214	147	691	282	188	171	140	143	117
3	115	208	196	208	153	622	292	188	173	135	155	116
4	107	227	218	247	151	559	292	182	168	135	155	114
5	107	194	202	281	153	486	288	180	165	131	151	116
6	107	174	201	258	151	453	286	229	163	131	146	114
7	105	165	197	243	150	470	284	211	160	131	146	116
8	105	157	192	234	153	420	274	214	159	129	143	111
9	107	153	192	232	148	346	270	207	155	132	140	113
10	111	147	189	227	141	325	272	204	154	131	138	113
11	123	150	189	221	141	316	268	200	155	147	137	111
12	115	187	239	220	144	312	270	202	151	140	134	132
13	109	312	245	211	364	423	266	256	151	132	132	128
14	115	304	236	209	400	521	262	280	160	151	131	125
15	132	338	234	204	293	580	254	260	207	134	132	117
16	115	326	232	194	258	706	247	262	165	132	131	122
17	112	294	243	191	243	619	238	249	157	131	129	131
18	108	269	239	185	245	535	230	232	154	128	128	120
19	109	250	234	179	325	509	225	225	149	144	128	134
20	107	265	254	174	450	478	220	221	146	141	126	159
21	118	267	252	172	598	418	216	216	147	132	141	152
22	159	245	262	172	685	387	214	207	144	131	123	132
23	132	241	281	172	837	370	209	202	143	129	123	128
24	121	229	306	168	664	339	207	200	144	129	122	125
25	118	218	284	148	583	318	204	199	141	159	122	122
26	118	209	282	185	595	307	202	193	141	135	120	128
27	115	206	269	166	858	293	199	190	138	132	120	126
28	112	201	256	163	963	288	200	187	143	128	125	126
29	112	202	241	162	-----	284	195	182	141	143	119	123
30	123	225	232	166	-----	280	190	178	154	144	117	122
31	125	-----	223	157	-----	272	-----	176	-----	190	119	-----
TOTAL	3,577	6,610	7,219	6,188	10,146	13,717	7,328	6,507	4,670	4,270	4,123	3,710
MEAN	115	220	233	200	362	442	244	210	156	138	133	124
MAX	159	338	306	281	963	790	292	280	207	190	155	159
MIN	105	122	189	148	141	272	190	176	138	128	117	111
CFSM	.81	1.55	1.64	1.41	2.55	3.11	1.72	1.48	1.10	.97	.94	.87
IN.	.94	1.73	1.89	1.62	2.66	3.59	1.92	1.70	1.22	1.12	1.08	.97

CAL YR 1970 TOTAL 74,750 MEAN 205 MAX 1,040 MIN 98 CFSM 1.44 IN 19.58
WTR YR 1971 TOTAL 78,065 MEAN 214 MAX 963 MIN 105 CFSM 1.51 IN 20.45

PEAK DISCHARGE (BASE, 570 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	2015	5.11	663	2-28	0045	6.23	1,100
2-22	2000	5.74	924	3-16	0200	5.16	733

SUSQUEHANNA RIVER BASIN

01547200 Bald Eagle Creek below Spring Creek at Milesburg, Pa.

LOCATION.--Lat 40°56'35", long 77°47'12", Centre County, on right bank 130 ft downstream from bridge on U. S. Highway 220 at Milesburg, 250 ft downstream from Spring Creek.

DRAINAGE AREA.--265 sq mi.

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October, November 1955, published in WSP 1722. Prior to October 1967, published as North Bald Eagle Creek below Spring Creek at Milesburg.

GAGE.--Water-stage recorder. Datum of gage is 682.49 ft above mean sea level. Prior to Aug. 31, 1956, nonrecording gage at site 130 ft upstream at same datum.

AVERAGE DISCHARGE.--16 years, 349 cfs (17.88 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,330 cfs Feb. 27 (gage height, 4.00 ft); minimum, 102 cfs Oct. 1; minimum gage height, -0.53 ft Oct. 1, 6, 7, 8, 9, 10.
Period of record: Maximum discharge, 8,950 cfs Mar. 10, 1964 (gage height, 6.60 ft); maximum gage height, prior to completion of channel improvements on Oct. 8, 1962, 8.82 ft Feb. 26, 1961; minimum discharge, 50 cfs Aug. 3, 1966 (gage height, -0.80 ft).

REMARKS.--Records good. Records of chemical analyses and water temperatures for the water year 1971, collected at Curtin 3 miles downstream, are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	325	432	372	222	2,120	684	245	222	249	195	132
2	111	290	401	367	210	1,670	903	245	218	203	177	132
3	125	1,140	387	344	214	1,320	903	257	229	184	245	132
4	115	1,080	607	632	214	1,080	811	241	225	173	282	128
5	118	613	518	1,080	218	879	718	233	214	166	265	128
6	118	458	491	774	218	767	651	582	214	166	203	128
7	118	372	437	607	218	856	588	570	214	163	177	135
8	118	316	391	513	218	796	547	796	210	156	166	132
9	121	286	372	480	210	691	541	760	203	166	159	128
10	125	261	353	447	203	626	678	613	199	170	152	125
11	169	273	344	416	203	613	613	502	199	188	152	125
12	209	818	910	411	206	626	559	458	199	214	145	163
13	173	2,360	1,130	362	753	1,130	541	739	199	170	142	173
14	152	1,470	804	362	1,430	1,400	518	804	218	199	139	173
15	177	1,710	638	357	975	1,810	453	638	427	177	142	152
16	152	1,300	541	299	684	2,300	411	595	282	163	139	145
17	142	887	535	299	564	1,690	377	518	245	156	139	184
18	135	671	541	282	535	1,270	353	437	229	152	135	163
19	135	553	530	277	753	1,150	330	396	218	173	135	191
20	132	704	664	273	1,190	1,040	316	377	210	195	132	725
21	156	804	613	273	1,780	871	307	357	206	166	156	507
22	485	638	632	277	2,010	796	303	325	203	156	139	303
23	295	576	739	269	2,660	774	290	307	199	149	135	241
24	225	485	1,050	257	1,680	678	282	295	206	149	135	210
25	199	421	774	257	1,320	601	277	290	199	218	135	184
26	188	382	678	290	1,370	576	273	273	195	170	135	184
27	181	362	570	253	3,040	541	261	261	191	156	132	191
28	166	348	496	241	3,110	559	265	253	195	149	142	181
29	163	348	437	237	-----	658	269	241	195	166	135	173
30	191	570	401	245	-----	725	253	237	222	173	132	163
31	330	-----	362	233	-----	658	-----	229	-----	286	132	-----
TOTAL	5,338	20,821	17,778	11,786	26,408	31,271	14,275	13,074	6,585	5,521	4,929	5,831
MEAN	172	694	573	380	943	1,009	476	422	220	178	159	194
MAX	485	2,360	1,130	1,080	3,110	2,300	903	804	427	286	282	725
MIN	111	261	344	233	203	541	253	229	191	149	132	125
CFSM	.65	2.62	2.16	1.43	3.56	3.81	1.80	1.59	.83	.67	.60	.73
IN.	.75	2.92	2.50	1.65	3.71	4.39	2.00	1.84	.92	.78	.69	.82

CAL YR 1970 TOTAL 155,927 MEAN 427 MAX 4,740 MIN 105 CFSM 1.61 IN 21.89
WTR YR 1971 TOTAL 163,617 MEAN 448 MAX 3,110 MIN 111 CFSM 1.69 IN 22.97

PEAK DISCHARGE (BASE, 2,700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	1045	3.02	3,000	2-27	2130	4.00	4,330
2-23	0315	3.07	3,060				

01547500 Bald Eagle Creek at Blanchard, Pa.

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

DRAINAGE AREA.--339 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 579.79 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 401 cfs (16.06 inches per year), adjusted for storage since March 1971.

EXTREMES.--Current year: Maximum discharge, 3,280 cfs Mar. 1 (gage height, 7.52 ft); no flow Nov. 10, result of shutoff at reservoir; minimum daily, 62 cfs Apr. 22. <
Period of record: Maximum discharge, 10,100 cfs Mar. 10, 1964 (gage height, 11.59 ft), from rating curve extended above 4,100 cfs; no flow June 16, Nov. 10, 1970, result of shutoff at reservoir; minimum daily discharge, 62 cfs Apr. 22, 1971.

REMARKS.--Records good. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report. Flow regulated by Foster Joseph Sayers Reservoir 0.4 mile upstream (see p. 178).

REVISIONS (WATER YEARS).--WSP 1903: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	375	575	466	269	2,660	642	109	260	345	310	104
2	140	380	539	449	252	2,660	707	112	208	330	248	99
3	143	462	504	432	244	2,060	694	112	200	189	310	99
4	145	975	581	471	244	1,330	798	104	200	141	380	99
5	138	870	661	868	248	1,070	735	112	223	141	370	99
6	138	665	635	998	252	926	611	171	269	141	292	99
7	135	494	605	896	256	889	482	360	283	141	215	99
8	130	380	551	756	260	903	599	599	244	144	196	164
9	130	297	510	654	260	903	655	668	208	147	185	164
10	130	189	482	599	244	805	629	617	150	211	185	129
11	155	276	455	563	231	674	661	444	141	211	181	112
12	195	375	569	533	240	642	545	345	129	211	154	315
13	189	1,090	1,030	498	365	661	305	681	178	211	141	545
14	168	1,710	1,090	454	1,080	903	223	1,060	196	211	141	460
15	181	1,740	982	446	1,200	1,400	189	714	350	196	141	416
16	178	1,780	840	422	1,040	2,050	171	623	400	167	141	826
17	163	1,460	749	385	847	2,060	174	623	248	141	114	466
18	153	1,130	714	360	714	1,670	174	545	204	144	104	248
19	143	882	694	340	728	1,250	132	444	211	147	107	223
20	140	742	735	330	934	1,240	82	411	178	204	99	278
21	145	861	784	325	1,390	1,050	64	411	157	196	99	355
22	328	840	798	330	1,690	742	62	416	161	185	107	340
23	425	777	798	330	2,150	742	67	310	161	181	120	320
24	332	617	934	320	2,590	749	78	223	161	167	223	278
25	261	587	998	315	2,160	700	69	185	174	150	265	248
26	218	593	926	310	1,760	575	78	164	185	174	147	248
27	198	482	826	300	1,780	335	109	178	185	196	109	248
28	183	482	707	300	1,920	340	109	274	219	196	219	248
29	173	444	617	296	-----	345	104	350	215	192	204	380
30	176	533	551	296	-----	355	109	350	215	192	132	405
31	276	-----	493	287	-----	482	-----	320	-----	325	112	-----
TOTAL	5,752	22,488	21,933	14,329	25,348	33,171	10,057	12,035	6,313	5,927	5,751	8,114
MEAN	186	750	708	462	905	1,070	335	388	210	191	186	270
MAX	425	1,780	1,090	998	2,590	2,660	798	1,060	400	345	380	826
MIN	130	189	455	287	231	335	62	104	129	141	99	99
MEAN#	186	750	708	462	905	1,275	520	472	211	190	178	248
CFSM#	.55	2.21	2.09	1.36	2.67	3.76	1.53	1.39	.62	.56	.53	.73
IN.#	.63	2.47	2.41	1.57	2.78	4.34	1.71	1.60	.69	.65	.61	.81

CAL YR 1970 TOTAL 183,169 MEAN 502 MAX 2,680 MIN 130 MEAN# 502 CFSM# 1.48 IN.# 20.10
WTR YR 1971 TOTAL 171,218 MEAN 469 MAX 2,660 MIN 62 MEAN# 506 CFSM# 1.49 IN.# 20.27

Adjusted for change in contents in Foster Joseph Sayers Reservoir.

SUSQUEHANNA RIVER BASIN

01547700 Marsh Creek at Blanchard, Pa.

LOCATION.--Lat 41°03'34", long 77°36'22", Centre County, on right bank 20 ft downstream from highway bridge, 0.5 mile southwest of Blanchard, 0.6 mile downstream from bridge on U.S. Highway 220, and 0.6 mile upstream from mouth.

DRAINAGE AREA.--44.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 586.16 ft above mean sea level. Prior to Aug. 31, 1956, nonrecording gage at site 20 ft upstream at same datum.

AVERAGE DISCHARGE.--16 years, 50.4 cfs (15.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 886 cfs Feb. 27 (gage height, 3.39 ft), from rating curve extended above 230 cfs; minimum, 1.2 cfs Aug. 23, 25, 26, 27, Sept. 5 (gage height, 1.20 ft).
Period of record: Maximum discharge, 3,300 cfs Feb. 26, 1961 (gage height, 6.63 ft), from rating curve extended above 650 cfs; no flow Aug. 30, 31, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	33	50	36	15	400	104	19	15	8.0	4.5	1.3
2	2.7	30	50	34	14	295	144	21	14	5.8	3.5	1.3
3	3.4	155	48	33	13	238	169	24	15	4.5	13	1.4
4	3.8	166	70	68	13	188	158	20	12	4.1	8.0	1.3
5	2.9	115	61	131	14	148	141	19	11	3.8	4.1	1.3
6	2.9	79	66	122	15	118	122	36	12	3.8	3.2	1.5
7	2.7	59	59	106	15	128	98	43	11	3.5	2.7	3.2
8	2.7	45	52	92	14	122	84	87	9.7	3.2	2.5	4.1
9	2.7	37	48	75	14	104	79	112	8.6	3.2	2.3	1.9
10	2.7	33	45	61	13	95	104	115	7.7	5.8	1.9	1.6
11	8.0	34	42	54	12	98	92	98	7.1	4.9	1.8	1.8
12	10	95	148	48	13	101	77	87	7.0	6.3	1.8	37
13	5.3	376	216	40	120	131	70	115	7.2	4.5	1.7	16
14	4.5	280	180	42	350	158	63	135	9.2	4.1	1.4	7.4
15	6.8	370	138	34	250	220	56	129	9.9	3.8	1.4	7.4
16	5.3	290	106	27	200	332	48	116	10	3.5	1.5	9.4
17	4.1	192	101	24	170	285	43	96	8.7	3.5	1.4	14
18	4.1	134	92	19	140	216	39	76	7.4	3.5	1.4	6.8
19	3.8	98	87	17	130	184	34	63	6.3	3.8	1.3	20
20	3.8	122	109	24	200	166	33	55	5.8	5.8	1.3	101
21	8.7	141	109	24	275	131	31	48	5.8	3.8	1.4	73
22	59	138	112	20	370	112	30	41	5.8	3.2	1.4	46
23	24	118	106	18	502	104	27	37	5.3	2.9	1.4	35
24	16	92	125	15	348	92	25	33	5.3	2.9	1.3	26
25	13	73	104	15	275	82	25	31	4.9	3.5	1.2	19
26	10	59	95	16	265	75	24	27	4.5	2.9	1.2	18
27	8.7	52	79	16	574	70	21	24	4.5	2.7	1.3	16
28	7.4	45	66	14	616	70	23	22	5.8	2.5	1.7	19
29	6.8	47	54	15	-----	79	24	20	4.9	2.9	1.7	17
30	11	61	45	16	-----	95	20	18	5.3	4.5	1.5	12
31	30	-----	40	15	-----	98	-----	17	-----	9.4	1.4	-----
TOTAL	279.7	3,569	2,703	1,271	4,950	4,735	2,008	1,784	246.7	130.6	76.2	520.7
MEAN	9.02	119	87.2	41.0	177	153	66.9	57.5	8.22	4.21	2.46	17.4
MAX	59	376	216	131	616	400	169	135	15	9.4	13	101
MIN	2.7	30	40	14	12	70	20	17	4.5	2.5	1.2	1.3
CFSM	.20	2.68	1.96	.92	3.99	3.45	1.51	1.30	.19	.09	.06	.39
IN.	.23	2.99	2.26	1.06	4.15	3.97	1.68	1.49	.21	.11	.06	.44

CAL YR 1970 TOTAL 23,667.1 MEAN 64.8 MAX 954 MIN 2.2 CFSM 1.46 IN 19.83
WTR YR 1971 TOTAL 22,273.9 MEAN 61.0 MAX 616 MIN 1.2 CFSM 1.37 IN 18.66

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-15	1230	2.77	460	2-27	1930	3.39	886
2-16	2300	3.08	700				

SUSQUEHANNA RIVER BASIN

125

01547800 South Fork Beech Creek near Snow Shoe, Pa.

LOCATION.--Lat 41°01'30", long 77°54'15", Centre County, on right bank at downstream side of bridge on State Highway 144, 0.6 mile downstream from Horsehead Run, 2.5 miles east of Snow Shoe, and 4.2 miles upstream from confluence with North Fork Beech Creek.

DRAINAGE AREA.--12.2 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years, 1959-69, May 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (from topographic map). October 1958 to May 1970, crest-stage gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 212 cfs Nov. 13 (gage height, 2.71 ft); maximum gage height, 2.93 ft Feb. 14 (ice jam); minimum discharge, 1.7 cfs Oct. 9, 10; minimum gage height, 0.83 ft Oct. 9, 10, Sept. 4, 5.

Period of record: Maximum discharge, 967 cfs Mar. 10, 1964 (gage height, 4.92 ft), result of contracted-opening measurement of peak flow; minimum, 1.7 cfs Oct. 9, 10, 1970; minimum gage height, 0.83 ft Oct. 9, 10, 1970, Sept. 4, 5, 1971.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	21	21	16	9.2	124	26	11	9.6	7.4	4.4	2.2
2	2.1	20	20	15	8.6	97	54	11	9.2	6.2	4.1	2.4
3	2.4	58	19	14	8.4	79	74	11	11	5.8	6.8	2.2
4	2.2	76	24	19	9.0	67	81	11	9.5	5.5	5.9	2.2
5	2.1	64	22	33	9.6	52	79	10	8.8	5.3	5.0	2.6
6	1.9	52	21	26	9.6	42	68	17	8.8	5.4	4.4	3.2
7	1.9	41	20	24	9.6	41	61	17	8.4	5.1	3.9	2.8
8	1.9	33	19	22	9.0	35	61	27	7.7	5.0	3.6	3.0
9	1.9	29	19	21	8.6	30	75	28	7.4	5.0	3.6	2.4
10	1.9	27	19	20	8.0	26	115	28	7.1	5.5	3.4	2.4
11	4.4	27	18	19	8.8	24	87	25	6.8	6.3	3.4	2.2
12	5.3	94	25	18	9.8	22	73	24	6.8	6.3	3.2	6.2
13	5.0	179	29	16	40	26	65	34	6.7	5.3	3.0	5.3
14	5.0	151	27	16	88	31	57	35	8.0	5.4	3.0	3.6
15	5.3	143	26	15	66	74	43	31	12	5.1	2.8	3.4
16	4.7	108	25	14	54	134	35	31	12	5.0	2.8	4.4
17	4.4	85	26	14	45	112	28	28	10	4.7	2.6	6.8
18	4.4	65	23	13	42	84	24	24	9.1	4.6	2.6	5.3
19	4.1	51	26	13	39	71	20	21	8.2	5.6	2.6	7.2
20	3.9	68	32	12	39	60	18	19	7.7	6.5	2.6	42
21	5.9	72	28	12	60	47	17	17	7.5	5.0	2.8	52
22	35	62	29	11	76	39	16	16	7.2	4.4	2.8	32
23	25	54	30	10	96	33	15	15	6.9	4.4	2.6	24
24	20	43	33	9.6	88	27	14	14	6.7	4.4	2.4	19
25	17	35	28	9.0	76	23	14	13	6.4	4.7	2.4	16
26	15	29	26	10	70	21	13	13	6.3	4.1	2.4	15
27	13	26	24	12	128	19	12	12	6.2	4.1	2.4	14
28	11	23	22	10	153	19	12	11	6.7	3.9	2.8	13
29	11	22	20	10	-----	20	12	11	6.2	4.1	2.8	12
30	13	25	18	11	-----	21	11	10	7.1	4.4	2.4	11
31	21	-----	17	10	-----	20	-----	10	-----	6.8	2.2	-----
TOTAL	253.8	1,783	736	474.6	1,268.2	1,520	1,280	585	242.0	161.3	101.7	319.8
MEAN	8.19	59.4	23.7	15.3	45.3	49.0	42.7	18.9	8.07	5.20	3.28	10.7
MAX	35	179	33	33	153	134	115	35	12	7.4	6.8	52
MIN	1.9	20	17	9.0	8.0	19	11	10	6.2	3.9	2.2	2.2
CFSM	.67	4.87	1.94	1.25	3.71	4.02	3.50	1.55	.66	.43	.27	.88
IN.	.77	5.44	2.24	1.45	3.87	4.63	3.90	1.78	.74	.49	.31	.98

CAL YR 1970 TOTAL 9,564.1 MEAN 26.2 MAX 202 MIN 1.9 CFSM 2.15 IN 29.16
WTR YR 1971 TOTAL 8,725.4 MEAN 23.9 MAX 179 MIN 1.9 CFSM 1.96 IN 26.61

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0745	2.71	212	3-16	1730	2.33	141
2-27	1815	2.49	169	4-10	0215	2.30	136

SUSQUEHANNA RIVER BASIN

01547950 Beech Creek at Monument, Pa.

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

DRAINAGE AREA.--152 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 850 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 2,030 cfs Feb. 28 (gage height, 9.42 ft); minimum, 17 cfs Sept. 4, 5 (gage height, 5.93 ft).

Period of record: Maximum discharge, 3,070 cfs Apr. 2, 1970 (gage height, 10.24 ft); minimum, 17 cfs Sept. 4, 5, 1971 (gage height, 5.93 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	310	315	259	120	1,560	413	139	120	66	56	18
2	42	340	301	241	110	1,280	593	139	110	51	45	20
3	50	617	294	217	100	1,080	770	152	120	42	60	19
4	47	972	384	273	110	916	820	133	110	39	77	18
5	42	849	366	415	120	743	825	125	99	36	59	20
6	41	689	374	386	120	622	755	163	103	35	48	25
7	38	550	359	375	120	575	662	187	96	33	42	25
8	37	453	335	372	110	509	609	253	90	31	39	31
9	35	387	322	371	110	439	625	331	81	30	36	21
10	37	342	305	318	100	389	839	367	75	38	33	18
11	79	323	285	296	110	364	757	361	72	40	33	17
12	108	559	413	275	120	343	669	363	70	46	31	52
13	94	1,290	527	245	500	361	611	441	70	35	30	108
14	99	1,420	522	237	1,060	407	569	492	81	51	28	64
15	122	1,480	504	218	815	580	461	486	96	35	27	48
16	116	1,360	468	195	694	1,090	390	475	92	32	26	51
17	113	1,110	460	188	558	1,100	343	435	79	31	25	90
18	109	888	414	175	526	948	306	378	70	31	24	64
19	103	724	389	170	492	854	270	335	62	39	22	73
20	96	719	449	160	493	759	246	304	60	54	24	274
21	110	732	416	160	776	643	230	270	57	38	26	313
22	326	644	437	150	902	558	216	243	56	31	26	231
23	295	610	447	140	1,170	499	200	220	54	27	26	189
24	283	537	485	130	1,090	441	189	203	54	27	22	157
25	260	466	433	130	927	388	181	196	51	39	20	130
26	234	411	417	130	842	357	171	179	48	31	20	120
27	207	372	387	150	1,360	331	158	166	47	27	20	113
28	184	340	354	130	1,940	328	159	157	54	24	31	125
29	166	322	318	120	-----	342	171	146	46	27	27	115
30	189	373	291	130	-----	362	152	138	52	32	21	99
31	260	-----	269	120	-----	367	-----	130	-----	85	19	-----
TOTAL	3,976	20,189	12,040	6,876	15,495	19,535	13,360	8,107	2,275	1,183	1,023	2,648
MEAN	126	673	388	222	553	630	445	262	75.8	38.2	33.0	88.3
MAX	326	1,480	527	415	1,940	1,560	839	492	120	85	77	313
MIN	35	310	269	120	100	328	152	125	46	24	19	17
CFSM	.84	4.43	2.55	1.46	3.64	4.14	2.93	1.72	.50	.25	.22	.58
IN.	.97	4.94	2.95	1.68	3.79	4.78	3.27	1.98	.56	.29	.25	.65

CAL YR 1970 TOTAL 119,462 MEAN 327 MAX 2,540 MIN 29 CFSM 2.15 IN 29.24
 WTR YR 1971 TOTAL 106,707 MEAN 292 MAX 1,940 MIN 17 CFSM 1.92 IN 26.12

PEAK DISCHARGE (BASE, 1,500 CFS).--Nov. 15 (1515) 1,550 cfs (8.94 ft); Feb. 28 (0030) 2,030 cfs (9.42 ft).

01548000 Bald Eagle Creek at Beech Creek Station, Pa.

LOCATION.--Lat 41°03'55", long 77°34'03", Clinton County, at downstream end of center pier of highway bridge just downstream from Beech Creek, at Beech Creek Station, and 3 miles downstream from Foster Joseph Sayers Reservoir.

DRAINAGE AREA.--559 sq mi.

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1967, published as North Bald Eagle Creek at Beech Creek Station.

GAGE.--Water-stage recorder. Datum of gage is 571.74 ft above mean sea level (Pennsylvania Department of Transportation bench mark). Prior to Jan. 10, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--61 years, 775 cfs (18.83 inches per year), adjusted for storage since March 1971.

EXTREMES.--Current year: Maximum discharge, 6,430 cfs Mar. 1 (gage height, 6.66 ft); minimum, 114 cfs Aug. 17, 18 (gage height, 1.46 ft).

Period of record: Maximum discharge, 25,600 cfs Mar. 18, 1936 (gage height, 14.42 ft), from rating curve extended above 12,000 cfs; minimum, 29 cfs Aug. 22, 1930 (gage height, 1.21 ft); minimum daily, 80 cfs Jan. 16, 24, 25, 1931.

REMARKS.--Records good. Flow regulated by Foster Joseph Sayers Reservoir 3 miles upstream (see p. 178).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1001: 1931(M). WSP 1111: 1936(M). WSP 1302: 1911(M), 1912-15, 1918, 1922, 1923-25(M), 1931. WSP 1502: 1919, 1920(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	728	958	768	380	5,830	1,130	288	409	399	358	138
2	169	766	908	724	370	5,370	1,470	283	354	394	292	131
3	177	1,320	875	690	360	4,200	1,690	280	349	262	358	131
4	189	2,750	1,070	820	350	2,880	1,880	250	339	208	447	131
5	177	2,310	1,120	1,550	350	2,200	1,820	266	344	208	414	127
6	169	1,760	1,100	1,650	350	1,820	1,560	344	394	204	339	141
7	169	1,320	1,040	1,470	360	1,730	1,250	531	404	204	262	141
8	169	1,020	950	1,250	368	1,660	1,290	867	368	192	240	216
9	165	814	891	1,090	368	1,540	1,370	1,070	334	189	228	204
10	173	657	844	993	344	1,350	1,620	1,070	279	249	224	166
11	237	706	790	941	329	1,160	1,550	859	270	257	224	141
12	329	1,130	1,200	916	349	1,080	1,330	738	257	266	200	358
13	300	3,330	1,980	859	630	1,180	958	1,180	297	253	181	690
14	282	4,300	1,960	805	1,910	1,550	828	1,930	334	262	181	555
15	314	4,470	1,750	775	2,050	2,370	676	1,480	463	240	181	458
16	305	4,420	1,500	710	1,750	4,220	586	1,320	491	216	177	916
17	282	3,460	1,380	656	1,400	4,250	537	1,260	344	185	159	630
18	264	2,560	1,290	592	1,220	3,460	497	1,090	297	185	127	344
19	250	1,940	1,240	549	1,320	2,670	480	1,000	297	192	131	315
20	242	1,700	1,400	460	1,750	2,490	350	940	266	270	124	624
21	255	1,960	1,420	480	2,830	2,050	315	920	244	249	127	797
22	713	1,790	1,460	502	3,510	1,490	306	940	244	220	134	643
23	797	1,650	1,450	491	4,710	1,400	292	700	240	220	148	561
24	677	1,320	1,690	458	4,950	1,330	283	500	244	204	232	485
25	578	1,170	1,680	463	4,070	1,200	288	447	249	200	288	414
26	505	1,100	1,560	485	3,450	1,010	288	404	253	216	185	399
27	454	916	1,370	452	4,580	710	301	436	253	228	138	388
28	410	875	1,190	450	5,650	704	297	491	279	228	244	394
29	379	812	1,030	430	-----	724	283	514	279	228	244	502
30	394	984	916	430	-----	768	270	508	279	236	173	526
31	591	-----	805	420	-----	899	-----	474	-----	383	145	-----
TOTAL	10,288	54,038	38,817	23,329	50,058	65,295	25,795	23,380	9,454	7,447	6,905	11,666
MEAN	332	1,801	1,252	753	1,788	2,106	860	754	315	240	223	389
MAX	797	4,470	1,980	1,650	5,650	5,830	1,880	1,930	491	399	447	916
MIN	165	657	790	420	329	704	270	250	240	185	124	127
MEAN [‡]	332	1,801	1,252	753	1,788	2,311	1,045	838	316	239	215	367
CFSM [‡]	.59	3.22	2.24	1.35	3.20	4.13	1.87	1.50	.57	.43	.38	.66
IN. [‡]	.68	3.59	2.58	1.56	3.33	4.76	2.09	1.73	.64	.50	.44	.74

CAL YR 1970 TOTAL 358,617 MEAN 983 MAX 5,220 MIN 160 MEAN[‡] 983 CFSM[‡] 1.76 IN.[‡] 23.84
WTR YR 1971 TOTAL 326,472 MEAN 894 MAX 5,830 MIN 124 MEAN[‡] 931 CFSM[‡] 1.67 IN.[‡] 22.64

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

SUSQUEHANNA RIVER BASIN

01548500 Pine Creek at Cedar Run, Pa.

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

DRAINAGE AREA.--604 sq mi.

PERIOD OF RECORD.--July 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 780.36 ft above mean sea level. Prior to Feb. 13, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--53 years, 801 cfs (18.01 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,290 cfs Nov. 13 (gage height, 6.28 ft); minimum, 37 cfs Aug. 19, 20, 21 (gage height, 1.41 ft).

Period of record: Maximum discharge, 52,000 cfs May 28, 1946 (gage height, 14.39 ft), from rating curve extended above 16,000 cfs on basis of slope-area measurement of peak flow; minimum, 8.0 cfs Sept. 1, 2, 3, 1939; minimum gage height, 0.80 ft Nov. 28, 1930.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	910	879	490	190	4,350	1,140	942	383	167	154	49
2	174	837	847	450	180	3,600	2,010	975	348	239	109	48
3	198	879	816	420	170	2,760	2,600	1,190	346	189	94	45
4	210	1,370	1,250	540	160	2,190	2,760	1,110	309	145	90	44
5	180	1,370	1,230	740	160	1,740	2,810	989	274	127	86	44
6	168	1,320	1,250	720	170	1,460	2,510	964	272	117	77	43
7	162	1,150	1,180	660	180	1,380	2,240	929	275	109	68	44
8	150	1,010	1,030	550	180	1,330	2,290	974	244	101	61	82
9	140	879	1,010	520	160	1,130	2,520	1,340	219	97	58	94
10	130	805	954	480	150	1,000	4,670	1,380	196	93	56	67
11	367	998	879	440	160	985	4,420	1,340	180	93	55	62
12	1,090	2,810	954	400	170	904	4,310	1,360	177	94	52	321
13	1,530	6,730	921	370	250	932	5,300	1,870	309	91	49	302
14	1,600	6,160	910	330	740	1,160	7,240	1,970	1,250	86	46	230
15	1,320	7,290	816	430	1,600	3,330	5,060	1,700	1,690	87	43	162
16	1,130	6,750	753	400	1,500	6,130	3,550	1,540	971	90	43	144
17	879	4,830	784	300	1,400	4,770	2,840	1,410	713	81	41	251
18	732	3,370	732	250	1,300	3,550	2,470	1,170	562	75	40	209
19	619	2,460	700	230	1,200	2,930	2,140	1,030	456	78	39	178
20	529	2,090	1,090	220	1,200	2,400	1,920	1,000	380	97	38	599
21	495	2,620	987	210	1,500	1,910	1,730	1,580	328	102	41	676
22	4,620	2,050	987	210	1,910	1,580	1,500	1,150	289	81	46	424
23	3,850	1,950	987	210	2,700	1,400	1,250	973	255	73	70	301
24	2,600	1,640	1,010	220	2,530	1,240	1,060	842	236	73	111	241
25	1,840	1,400	921	230	1,980	1,060	934	835	214	109	73	195
26	1,400	1,190	858	240	1,640	974	821	757	202	120	57	171
27	1,110	1,060	784	230	3,400	907	725	648	181	87	52	163
28	910	987	742	220	5,500	954	710	589	183	89	90	238
29	784	910	682	210	-----	982	1,170	522	200	79	89	290
30	721	1,030	619	200	-----	990	968	473	170	71	70	214
31	910	-----	540	190	-----	936	-----	429	-----	145	55	-----
TOTAL	30,734	68,855	28,162	11,350	32,380	60,964	75,668	33,981	11,812	3,285	2,053	5,931
MEAN	991	2,295	908	366	1,156	1,967	2,522	1,096	394	106	66.2	198
MAX	4,620	7,290	1,260	740	5,500	6,130	7,240	1,970	1,690	239	154	676
MIN	130	805	540	190	150	904	710	429	170	71	38	43
CFSM	1.64	3.80	1.50	.61	1.91	3.26	4.18	1.81	.65	.18	.11	.33
IN.	1.89	4.24	1.73	.70	1.99	3.75	4.66	2.09	.73	.20	.13	.37

CAL YR 1970 TOTAL 366,415 MEAN 1.004 MAX 7,290 MIN 65 CFSM 1.66 IN 22.57
 WTR YR 1971 TOTAL 365,175 MEAN 1.000 MAX 7,290 MIN 38 CFSM 1.66 IN 22.49

PEAK DISCHARGE (BASE, 5,900 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1300	5.59	6,430	3-16	0030	5.76	6,850
11-13	1400	6.28	8,290	4-14	0930	6.21	8,080
2-28	0100	5.55	6,330				

SUSQUEHANNA RIVER BASIN

129

01549500 Blockhouse Creek near English Center, Fa.

LOCATION.--Lat 41°28'25", long 77°13'52", Lycoming County, 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 northeast of English Center.

DRAINAGE AREA.--37.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,041.85 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 54.3 cfs (19.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,110 cfs Oct. 22 (gage height, 5.60 ft), from rating curve extended as explained below; minimum, 0.78 cfs Aug. 19, 20 (gage height, 1.12 ft).

Period of record: Maximum discharge, 5,480 cfs May 27, 1946 (gage height, 8.81 ft), from rating curve extended above 920 cfs on basis of contracted-opening measurement of peak flow; no flow Aug. 6, 7, 31, Sept. 1, 2, 1962.

Maximum stage known, 9.0 ft Mar. 18, 1936, from floodmark (discharge, 5,780 cfs, from rating curve extended as explained above).

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 951: 1941. WSP 1031: 1942-44(M). WSP 1502: 1942.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.5	69	48	28	11	332	80	34	21	9.6	9.4	2.6
2	4.1	51	44	25	10	223	126	38	20	9.6	7.0	2.4
3	13	77	43	23	9.8	161	141	72	20	7.6	5.6	2.2
4	11	99	78	30	9.0	130	148	55	17	6.4	6.2	1.9
5	8.1	86	56	42	9.2	113	144	49	15	5.7	5.4	1.8
6	6.9	77	55	40	9.6	84	122	51	22	5.0	4.5	1.8
7	6.2	67	49	37	10	93	111	48	17	4.7	3.6	1.7
8	5.2	58	50	33	10	81	105	62	14	4.1	3.0	4.4
9	4.9	51	47	30	9.0	75	120	83	12	4.0	2.6	4.1
10	4.9	49	45	27	8.4	61	253	75	11	3.9	2.8	2.7
11	14	100	43	25	8.8	56	201	71	9.6	4.5	2.4	2.1
12	23	424	50	23	9.4	56	198	71	20	5.0	1.9	315
13	32	1,050	49	20	13	62	290	122	36	4.6	1.6	137
14	27	527	46	19	78	93	450	118	118	4.4	1.4	60
15	55	596	41	25	96	383	213	104	130	4.2	1.3	32
16	35	332	38	23	88	387	144	95	71	5.4	1.3	24
17	28	217	41	16	80	246	115	87	52	4.8	1.1	51
18	24	153	39	14	76	176	97	69	42	4.1	.98	30
19	21	117	39	13	68	148	83	57	36	5.0	.87	28
20	19	179	52	12	74	122	72	52	30	7.4	.87	126
21	60	176	49	11	80	99	65	77	26	6.0	1.1	176
22	1,170	139	48	11	92	87	56	48	24	4.5	1.4	77
23	445	120	48	11	168	83	47	41	19	3.6	1.7	55
24	207	93	52	12	139	71	42	36	15	6.2	1.6	44
25	130	77	50	12	111	62	39	36	14	8.2	1.3	35
26	95	65	47	14	117	57	36	33	13	7.0	1.1	30
27	72	60	44	13	629	56	33	32	11	4.3	1.6	29
28	60	54	41	12	514	58	34	30	13	5.2	1.3	46
29	50	51	37	12	-----	62	57	29	12	2.8	5.0	36
30	60	65	34	12	-----	62	38	26	9.6	4.0	3.6	29
31	77	-----	30	11	-----	62	-----	24	-----	11	2.8	-----
TOTAL	2,774.9	5,299	1,433	636	2,537.2	3,841	3,660	1,825	870.2	172.8	86.32	1,387.7
MEAN	89.5	177	46.2	20.5	90.6	124	122	58.9	29.0	5.57	2.78	46.3
MAX	1,170	1,060	78	42	629	387	450	122	130	11	9.4	315
MIN	4.1	49	30	11	8.4	56	33	24	9.6	2.8	.87	1.7
CFSM	2.37	4.70	1.23	.54	2.40	3.29	3.24	1.56	.77	.15	.07	1.23
IN.	2.74	5.23	1.41	.63	2.50	3.79	3.61	1.80	.86	.17	.09	1.37

CAL YR 1970 TOTAL 26,671.90 MEAN 73.1 MAX 1,170 MIN 3.3 CFSM 1.94 IN 26.32
 WTR YR 1971 TOTAL 24,523.12 MEAN 67.2 MAX 1,170 MIN .87 CFSM 1.78 IN 24.20

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	0930	5.60	2,110	2-27	1800	4.47	1,210
11-13	0545	4.77	1,450	9-12	0600	4.46	1,200

SUSQUEHANNA RIVER BASIN

01549700 Pine Creek below Little Pine Creek near Waterville, Pa.

LOCATION.--Lat 41°16'25", long 77°19'28", Lycoming County, on downstream side of suspension bridge, 0.9 mile downstream from Ramsey Run, 4 miles downstream from Little Pine Creek, 4 miles south of Waterville, and 9.2 miles upstream from mouth.

DRAINAGE AREA.--944 sq mi.

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

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 570.62 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 1,205 cfs (17.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 15,600 cfs Nov. 13 (gage height, 8.07 ft); minimum daily, 43 cfs Aug. 19, 20.

Period of record: Maximum discharge, 53,500 cfs Mar. 5, 1964 (gage height, 13.67 ft), from rating curve extended above 22,000 cfs; maximum gage height, 16.0 ft Jan. 22, 1959 (ice jam); minimum discharge observed, 25 cfs Sept. 25, 26, 27, 1964; minimum gage height observed, 0.97 ft Sept. 13, 1964.

REMARKS.--Records good except those for winter periods, which are fair. Flood flows subject to regulation by Little Pine Creek Reservoir 8.5 miles upstream (capacity, 24,900 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	1,400	1,020	700	270	7,750	1,520	1,110	478	236	269	72
2	172	1,250	1,040	660	250	6,900	2,220	914	461	230	224	69
3	161	1,270	1,110	580	240	4,640	3,080	1,600	444	289	199	58
4	178	2,100	1,260	740	220	4,080	4,000	1,550	411	224	166	54
5	194	2,320	1,320	1,000	230	2,940	4,510	1,380	394	176	139	52
6	199	2,150	1,350	1,000	240	2,560	4,000	1,370	371	155	125	54
7	183	1,740	1,040	960	250	2,290	3,390	1,340	363	125	108	56
8	172	1,500	1,340	660	260	2,000	3,190	1,370	363	116	90	90
9	161	1,300	1,430	760	230	1,810	3,550	2,080	332	116	78	100
10	156	1,220	1,320	680	210	1,640	7,100	2,050	310	108	70	76
11	374	1,430	1,240	640	220	1,520	6,320	1,930	282	116	66	70
12	1,150	5,030	1,240	580	230	1,440	5,600	1,930	262	99	62	430
13	1,240	12,000	1,340	520	300	1,400	6,820	2,580	511	99	58	400
14	2,200	12,600	1,360	480	1,800	1,550	10,400	3,430	1,630	103	54	300
15	1,830	12,400	1,250	600	2,700	3,120	7,770	2,920	2,470	86	50	230
16	1,590	11,200	1,040	560	2,500	9,260	5,140	2,690	1,490	83	48	200
17	1,250	8,080	1,200	420	2,300	7,550	3,900	2,430	1,010	80	46	350
18	930	5,460	1,100	340	2,200	6,590	3,360	2,150	780	76	45	300
19	783	4,920	1,010	330	2,100	4,630	2,900	1,980	620	83	43	282
20	673	4,100	1,200	310	2,300	3,500	2,570	1,610	515	80	43	659
21	604	4,920	1,430	300	3,000	2,840	2,470	2,470	411	90	45	1,480
22	6,260	3,480	1,320	290	3,800	2,470	2,180	1,760	394	112	52	890
23	7,520	3,080	1,250	300	5,200	2,220	1,880	1,420	340	116	84	590
24	4,610	2,650	1,200	310	5,270	1,980	1,460	1,220	317	86	120	470
25	3,280	2,270	1,150	320	3,430	1,610	1,200	1,100	289	116	100	379
26	2,540	1,980	1,130	350	2,980	1,310	1,010	1,110	262	145	70	332
27	2,010	1,610	1,060	320	4,270	1,200	938	938	242	134	60	296
28	1,460	1,370	950	310	4,650	1,140	890	824	236	112	98	332
29	1,210	1,250	890	300	-----	1,400	1,290	670	242	103	98	515
30	1,010	1,170	846	290	-----	1,380	1,380	561	296	83	84	461
31	1,250	-----	791	280	-----	1,320	-----	515	-----	155	76	-----
TOTAL	45,528	117,250	37,267	16,090	56,650	96,240	106,668	51,002	16,526	3,932	2,870	9,647
MEAN	1,469	3,908	1,202	519	2,023	3,105	3,556	1,645	551	127	92.6	322
MAX	7,520	12,600	1,540	1,000	9,650	9,260	10,400	3,430	2,470	289	269	1,480
MIN	156	1,170	791	280	210	1,140	890	515	236	76	43	52
CFSM	1.56	4.14	1.27	.55	2.14	3.29	3.77	1.74	.58	.13	.10	.34
IN.	1.79	4.62	1.47	.63	2.23	3.79	4.20	2.01	.65	.15	.11	.38

CAL YR 1970 TOTAL 559,715 MEAN 1,632 MAX 12,700 MIN 96 CFSM 1.73 IN 23.48
 WTR YR 1971 TOTAL 559,670 MEAN 1,533 MAX 12,600 MIN 43 CFSM 1.62 IN 22.05

PEAK DISCHARGE (BASE, 9,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	2200	6.9	10,600	3-16	1000	6.9	10,600
11-13	2000	8.07	15,600	4-14	1100	7.0	11,000
2-28	1000	7.0	11,000				

SUSQUEHANNA RIVER BASIN

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01549780 Larrys Creek at Cogan House, Pa.

LOCATION.--Lat 41°25'04", long 77°09'46", Lycoming County, on right bank, attached to upstream wingwall of bridge on State Highway 184 at Cogan House, 0.7 mile upstream from Wolf Run, 2.3 miles upstream from Wendell Run, and 15 miles northwest of Williamsport.

DRAINAGE AREA.--6.80 sq mi.

PERIOD OF RECORD.--April 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 8.68 cfs (17.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 238 cfs Oct. 22 (gage height, 3.15 ft); maximum gage height, 3.48 ft Feb. 13 (ice jam); minimum discharge, 0.02 cfs Aug. 18, 19 (gage height, 1.04 ft).

Period of record: Maximum discharge, 547 cfs Mar. 10, 1964 (gage height, 4.49 ft), from rating curve extended above 180 cfs; no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow from several ponds.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	9.0	8.6	4.6	2.1	46	17	2.2	6.8	1.6	2.0	.37
2	1.2	9.0	8.1	4.3	2.0	37	28	4.2	6.4	1.6	2.0	.47
3	1.8	13	8.1	3.9	1.9	31	33	5.2	6.0	1.1	17	.37
4	1.2	14	11	5.0	1.8	25	36	3.9	5.2	1.1	4.6	.28
5	1.1	16	8.1	6.8	1.7	20	36	3.9	4.9	.95	2.8	.37
6	1.1	14	8.6	6.6	1.8	16	30	5.2	11	.95	1.8	.58
7	1.1	12	8.6	6.2	2.0	16	25	4.2	5.6	.95	1.4	1.6
8	.95	10	8.0	5.4	1.9	14	25	10	4.9	.82	1.1	3.3
9	.95	8.6	8.1	4.9	1.8	12	30	11	3.9	.95	.82	1.1
10	1.1	10	8.1	4.5	1.6	11	47	12	3.3	1.1	.70	.58
11	4.9	17	7.2	4.0	1.7	11	41	13	3.0	1.4	.70	1.6
12	3.0	58	9.0	3.7	1.8	10	40	13	4.6	1.2	.47	25
13	5.6	133	9.0	3.4	2.4	10	43	24	6.0	.95	.37	22
14	5.6	72	8.1	3.1	15	13	43	40	15	1.2	.37	8.1
15	7.6	76	8.1	3.7	19	33	26	55	7.6	.82	.37	4.2
16	6.0	57	8.1	3.5	16	53	18	52	5.2	.95	.37	3.9
17	5.2	38	8.6	2.8	14	45	25	45	3.9	.82	.20	4.6
18	4.6	27	7.6	2.6	12	36	33	33	3.3	.58	.14	3.0
19	3.9	20	6.8	2.5	11	31	27	26	3.0	1.1	.14	5.2
20	3.3	24	7.2	2.4	12	25	22	25	2.8	1.1	.20	48
21	15	24	6.4	2.3	13	21	19	31	2.5	.70	.82	33
22	171	24	7.2	2.2	16	17	15	25	2.0	.47	.58	21
23	73	21	7.2	2.3	24	14	11	23	2.0	.37	2.2	14
24	37	17	7.2	2.3	26	13	8.6	20	1.8	3.3	.37	9.5
25	24	14	6.8	2.4	24	15	6.8	19	1.8	4.6	.28	6.8
26	17	12	6.4	2.6	22	11	5.6	16	1.6	.95	.20	6.0
27	13	12	6.6	2.5	49	12	4.2	13	1.6	.70	.37	5.6
28	11	11	6.4	2.4	64	11	5.6	12	1.8	.47	6.4	12
29	9.0	10	6.0	2.3	-----	11	6.0	10	1.4	1.2	1.1	7.2
30	9.5	10	5.6	2.2	-----	12	3.3	9.0	1.6	1.1	.58	6.8
31	10	-----	5.0	2.1	-----	13	-----	8.1	-----	15	.37	-----
TOTAL	450.90	792.6	235.8	109.5	361.5	645	710.1	573.9	130.5	50.10	50.82	256.52
MEAN	14.5	26.4	7.61	3.53	12.9	20.8	23.7	18.5	4.35	1.62	1.64	8.55
MAX	171	133	11	6.8	64	53	47	55	15	15	17	48
MIN	.95	8.6	5.0	2.1	1.6	10	3.3	2.2	1.4	.37	.14	.28
CFSM	2.13	3.88	1.12	.52	1.90	3.06	3.49	2.72	.64	.24	.24	1.26
IN.	2.47	4.34	1.29	.60	1.98	3.53	3.88	3.14	.71	.27	.28	1.40

CAL YR 1970 TOTAL 4,124.15 MEAN 11.3 MAX 171 MIN .95 CFSM 1.66 IN 22.56
WTR YR 1971 TOTAL 4,367.24 MEAN 12.0 MAX 171 MIN .14 CFSM 1.76 IN 23.89

PEAK DISCHARGE (BASE, 150 CFS).--Oct. 22 (0900) 238 cfs (3.15 ft); Nov. 13 (0715) 151 cfs (2.66 ft).

SUSQUEHANNA RIVER BASIN

01550000 Lycoming Creek near Trout Run, Pa.

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, on right bank 150 ft upstream from highway bridge, 300 ft upstream from Penn Central Railroad bridge, 0.5 mile downstream from Grays Run, and 2.8 miles upstream from village of Trout Run.

DRAINAGE AREA.--173 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft above mean sea level. Prior to June 1, 1939, nonrecording gage at site 150 ft downstream at same datum.

AVERAGE DISCHARGE.--57 years (1914-71), 272 cfs (21.35 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,190 cfs Oct. 22 (gage height, 9.93 ft); minimum, 33 cfs Oct. 9, 10; minimum gage height, 2.47 ft June 11, 12.

Period of record: Maximum discharge, 21,800 cfs May 27, 1946 (gage height, 19.37 ft), from rating curve extended above 9,200 cfs; minimum, 3.2 cfs Sept. 27, 1936; minimum daily, 4.0 cfs Sept. 19-24, 27, 28, 1936, Sept. 1, 1968.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922 (M), 1923-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	444	270	110	54	1,370	365	243	107	44	47	19
2	38	351	235	100	50	1,140	618	235	96	44	38	16
3	47	356	213	100	48	898	742	413	89	43	67	15
4	51	579	342	133	44	760	802	342	81	41	85	13
5	44	449	274	206	46	629	796	286	72	41	57	16
6	41	394	246	183	48	535	662	282	70	40	44	18
7	41	333	213	170	50	574	607	266	65	37	36	15
8	37	290	183	160	52	546	640	316	62	34	31	18
9	34	250	200	140	47	449	718	444	57	34	26	17
10	33	243	193	130	43	389	1,360	394	54	34	22	15
11	41	700	190	120	46	370	1,080	347	44	35	20	15
12	77	1,540	228	110	50	347	1,130	342	53	37	18	224
13	100	2,870	228	100	250	361	1,400	579	68	33	15	486
14	107	1,810	232	100	1,000	444	1,720	684	107	36	13	312
15	197	2,240	197	110	862	1,280	1,100	546	206	32	11	146
16	146	1,560	183	100	651	1,610	838	502	123	29	9.8	98
17	111	1,100	203	78	464	1,210	700	459	92	28	8.3	163
18	94	850	235	70	384	922	612	379	77	21	6.9	111
19	81	678	187	66	365	832	524	329	68	21	4.8	96
20	72	814	250	62	370	736	459	286	62	24	4.1	365
21	76	1,010	224	60	530	612	408	486	57	19	6.9	706
22	3,130	736	206	60	486	530	361	329	53	13	8.3	370
23	1,690	656	200	60	880	475	307	274	48	7.6	12	250
24	964	530	206	62	820	423	270	235	46	6.9	11	197
25	689	433	190	64	656	351	243	220	47	28	9.0	157
26	530	356	180	68	618	324	224	203	50	22	7.6	135
27	404	320	163	64	1,660	307	203	180	46	19	12	130
28	312	290	157	62	1,790	316	203	171	48	13	35	200
29	262	266	148	60	-----	320	418	148	50	15	36	190
30	262	361	125	58	-----	329	282	133	46	19	27	157
31	404	-----	120	56	-----	307	-----	120	-----	79	22	-----
TOTAL	10,159	22,809	6,421	3,022	12,364	19,696	19,792	10,173	2,144	929.5	750.7	4,670
MEAN	328	760	207	97.5	442	635	660	328	71.5	30.0	24.2	156
MAX	3,130	2,870	342	206	1,790	1,610	1,720	684	206	79	85	706
MIN	33	243	120	56	43	307	203	120	44	6.9	4.1	13
CFSM	1.90	4.39	1.20	.56	2.55	3.67	3.82	1.90	.41	.17	.14	.90
IN.	2.18	4.90	1.38	.65	2.66	4.24	4.26	2.19	.46	.20	.16	1.00

CAL YR 1970 TOTAL 118,317.0 MEAN 324 MAX 3,130 MIN 30 CFSM 1.87 IN 25.44
WTR YR 1971 TOTAL 112,930.2 MEAN 309 MAX 3,130 MIN 4.1 CFSM 1.79 IN 24.28

PEAK DISCHARGE (BASE, 2,900 CFS).--Oct. 22 (1230) 6,190 cfs (9.93 ft); Nov. 13 (1045) 3,430 cfs (7.59 ft).

01551500 West Branch Susquehanna River at Williamsport, Pa.

LOCATION.--Lat 41°14'17", long 76°59'56", Lycoming County, on left bank at upstream edge of Market Street Bridge at Williamsport, 350 ft upstream from Hagermans Run.

DRAINAGE AREA.--5,682 sq mi.

PERIOD OF RECORD.--March 1895 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 494.98 ft above mean sea level. Mar. 1, 1895 to Sept. 30, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--76 years, 8,692 cfs (20.77 inches per year), adjusted for storage since October 1961.

EXTREMES.--Current year: Maximum discharge, 66,500 cfs Feb. 28 (gage height, 14.48 ft); minimum, 820 cfs Sept. 8 (gage height, -0.28 ft).

Period of record: Maximum discharge, 264,000 cfs Mar. 18, 1936 (gage height, 33.57 ft), from floodmark in gage shelter, from rating curve extended above 210,000 cfs on basis of slope-area measurement of peak flow; minimum, 162 cfs Sept. 17, 1943 (gage height, -0.57 ft); minimum daily, 251 cfs Sept. 13, 1932; minimum gage height, -0.67 ft Sept. 3, 1966.

Maximum stage known prior to 1895, 32.4 ft June 1, 1889 (discharge, about 252,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Glendale Lake, Curwensville, First Fork Sinnemahoning Creek, Kettle Creek, and Foster Joseph Sayers Reservoirs (see p. 178) and by Little Pine Creek Reservoir (capacity, 24,900 acre-ft) about 40 miles upstream.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1925-28. WSP 1502: 1895-1904, 1912-13, 1919.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,040	6,890	9,930	7,000	2,700	59,700	11,200	5,820	3,780	1,890	2,380	1,020
2	1,990	7,760	11,000	6,400	2,600	48,400	13,100	5,510	3,530	2,980	2,180	1,010
3	1,960	8,970	11,200	6,000	2,600	38,700	19,600	5,940	3,340	2,740	2,360	1,080
4	1,920	16,200	11,100	6,600	2,500	31,000	24,600	6,250	3,180	2,610	2,760	999
5	1,850	25,200	13,300	6,170	2,500	24,000	24,400	5,940	3,100	2,140	2,540	900
6	1,820	22,200	15,700	12,100	2,700	19,200	22,500	5,650	3,000	1,860	2,360	840
7	1,780	17,200	15,300	13,000	3,400	16,900	19,600	5,840	2,970	1,660	2,320	840
8	1,660	13,600	13,600	11,800	3,800	16,100	17,600	7,590	2,900	1,500	2,300	840
9	1,670	10,800	12,200	10,700	3,400	14,700	17,100	11,000	2,740	1,440	1,970	880
10	1,650	9,290	11,100	9,000	3,000	13,200	21,200	14,900	2,600	1,420	1,630	922
11	1,750	9,080	10,300	9,000	2,600	12,000	27,700	14,400	2,380	1,310	1,490	911
12	2,670	13,000	9,870	6,600	2,500	11,300	25,600	12,900	2,250	1,560	1,360	1,140
13	8,890	32,000	11,900	7,800	3,300	11,000	24,700	13,300	2,240	1,790	1,260	2,360
14	15,100	49,100	17,500	6,600	12,000	12,000	28,800	16,800	2,660	2,140	1,190	3,200
15	14,000	46,900	19,000	6,000	18,000	18,500	27,400	16,400	4,030	2,420	1,120	2,430
16	10,100	51,300	17,000	6,200	20,000	42,000	19,400	14,700	4,700	2,100	1,090	2,330
17	7,730	42,300	15,000	5,600	17,000	51,000	15,500	13,200	4,520	1,930	1,030	4,030
18	6,940	30,600	13,400	4,800	16,000	40,900	13,300	10,100	3,740	1,750	977	3,640
19	5,440	23,000	12,300	4,400	15,000	31,800	11,600	9,890	3,230	1,620	933	3,890
20	4,990	18,500	11,600	4,100	14,000	27,200	10,400	8,830	2,870	1,650	900	4,360
21	4,520	19,400	12,500	3,800	22,000	22,800	9,540	9,200	2,540	1,560	900	6,940
22	14,400	18,900	13,300	4,000	30,000	18,400	8,650	8,520	2,360	1,560	966	8,160
23	20,800	17,100	13,400	4,500	42,000	15,800	7,750	7,370	2,230	1,630	944	6,200
24	16,700	15,700	13,500	4,300	39,000	14,000	7,110	6,550	2,100	1,620	955	4,460
25	13,100	13,700	14,300	4,100	36,200	12,600	6,450	6,060	1,990	1,680	1,140	4,400
26	10,600	12,100	14,300	3,800	28,000	11,300	6,080	5,640	1,900	1,530	1,650	3,910
27	8,800	10,700	12,500	3,700	31,000	10,300	5,700	5,360	1,820	1,490	1,460	3,200
28	7,260	10,100	11,900	3,200	61,000	9,690	5,400	4,990	1,710	1,700	1,320	3,100
29	6,170	9,240	11,100	2,900	-----	9,750	5,700	4,680	1,740	1,820	1,200	3,320
30	5,710	9,060	10,100	2,700	-----	10,200	6,160	4,380	1,780	1,700	1,140	4,010
31	6,150	-----	8,140	2,800	-----	10,700	-----	4,060	-----	2,400	1,090	-----
TOTAL	210,160	589,890	397,440	193,670	436,800	685,140	463,840	271,770	83,930	57,200	46,915	85,322
MEAN	6,779	19,660	12,520	6,247	15,670	22,100	15,460	8,767	2,798	1,845	1,513	2,844
MAX	20,800	51,300	19,000	13,000	61,000	59,700	28,800	16,800	4,700	2,980	2,760	8,160
MIN	1,650	6,890	8,140	2,700	2,500	9,690	5,400	4,060	1,710	1,310	900	840
MEAN*	6,805	19,680	12,790	6,248	15,870	22,160	15,660	8,903	2,811	1,828	1,486	2,782
CFSM*	1.20	3.46	2.25	1.10	2.79	3.90	2.76	1.57	.49	.32	.26	.49
IN.*	1.38	3.86	2.59	1.27	2.90	4.50	3.08	1.81	.55	.37	.30	.55
CAL YR 1970	TOTAL 3,911,690	MEAN 10,720	MAX 84,300	MIN 1,390	MEAN*	10,720	CFSM*	1.89	IN.*	25.58		
WTR YR 1971	TOTAL 3,524,077	MEAN 9,655	MAX 61,000	MIN 840	MEAN*	9,697	CFSM*	1.71	IN.*	23.16		

* Adjusted for change in contents in Glendale Lake, Curwensville, First Fork Sinnemahoning Creek, Kettle Creek, and Foster Joseph Sayers Reservoirs.

01552000 Loyalsock Creek at Loyalsockville, Pa.

LOCATION.--Lat 41°19'26", long 76°54'42", Lycoming County, on left bank 500 ft downstream from highway bridge at Loyalsockville, 2.5 miles downstream from Wallis Run and 7.3 miles upstream from mouth.

DRAINAGE AREA.--443 sq mi.

PERIOD OF RECORD.--August 1925 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1969, published as "at Loyalsock."

GAGE.--Water-stage recorder. Datum of gage is 585.63 ft above mean sea level (Pennsylvania Department of Transportation benchmark). Prior to Sept. 16, 1926, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 730 cfs (22.38 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,370 cfs Oct. 22 (gage height, 7.17 ft); maximum gage height, 9.66 ft Feb. 13 (ice jam); minimum discharge, 36 cfs Sept. 5; minimum gage height, 2.22 ft July 18, 19, 24.

Period of record: Maximum discharge, 51,200 cfs Nov. 16, 1926, Nov. 26, 1950, from rating curve extended above 16,000 cfs on basis of slope-area measurement at gage height, 12.20 ft; maximum gage height, 12.32 ft Nov. 26, 1950; minimum discharge, 11 cfs Sept. 25, 26, Nov. 24, 1964; minimum gage height, 2.11 ft Aug. 12, 1966.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	625	746	330	170	3,980	856	528	346	92	930	58
2	98	553	655	310	160	3,180	1,320	498	313	88	444	51
3	98	526	603	300	150	2,360	2,120	579	299	108	671	44
4	98	688	704	380	150	1,950	2,040	593	285	96	1,260	43
5	101	655	712	640	150	1,680	2,080	532	260	80	696	41
6	94	588	625	560	160	1,350	1,720	493	243	69	444	46
7	86	526	560	500	170	1,300	1,470	475	224	64	313	61
8	84	469	462	460	200	1,560	1,470	485	216	61	232	66
9	78	422	519	420	180	1,250	1,460	566	198	56	188	55
10	74	393	512	380	170	1,060	2,590	584	168	58	158	53
11	80	640	493	360	190	1,030	2,180	534	158	59	135	51
12	122	1,780	566	330	220	930	2,030	497	149	52	110	68
13	133	6,070	603	300	660	911	2,330	840	146	55	103	143
14	165	4,210	588	320	3,300	1,010	3,120	2,240	181	52	92	209
15	313	4,110	532	350	2,960	2,680	2,080	1,520	318	55	84	177
16	351	3,580	487	330	2,200	6,070	1,540	1,240	399	46	76	143
17	273	2,360	526	270	1,600	4,130	1,260	1,090	277	46	71	130
18	220	1,780	539	240	1,300	2,660	1,080	911	216	46	68	155
19	188	1,410	506	220	1,200	2,190	927	799	181	48	62	135
20	165	1,300	633	200	1,300	1,900	819	704	152	58	58	168
21	149	2,640	671	200	1,700	1,560	745	1,050	138	49	56	410
22	3,960	1,840	625	190	1,580	1,330	682	1,100	133	56	56	332
23	2,990	1,490	603	190	2,140	1,180	611	844	130	48	64	239
24	1,560	1,200	588	200	3,440	1,040	548	712	122	44	58	195
25	1,040	1,010	566	210	2,310	889	500	655	110	74	58	162
26	790	863	520	220	1,860	827	482	625	117	105	53	155
27	640	790	480	210	2,780	768	489	553	108	130	56	155
28	532	729	460	200	5,810	774	480	512	103	112	117	181
29	462	696	420	200	-----	781	633	469	96	112	138	202
30	427	816	380	190	-----	860	623	416	88	268	94	184
31	526	-----	350	180	-----	802	-----	383	-----	1,750	74	-----
TOTAL	16,011	44,759	17,234	9,390	38,210	53,992	40,285	23,027	5,874	4,037	7,019	4,112
MEAN	516	1,492	556	303	1,365	1,742	1,343	743	196	130	226	137
MAX	3,960	6,070	746	640	5,810	6,070	3,120	2,240	399	1,750	1,260	410
MIN	74	393	350	180	150	768	480	383	88	44	53	41
CFSM	1.16	3.37	1.26	.68	3.08	3.93	3.03	1.68	.44	.29	.51	.31
IN.	1.34	3.76	1.45	.79	3.21	4.53	3.38	1.93	.49	.34	.59	.35
CAL YR 1970	TOTAL 278,806		MEAN 764	MAX 9,850	MIN 64	CFSM 1.72	IN 23.41					
WTR YR 1971	TOTAL 263,950		MEAN 723	MAX 6,070	MIN 41	CFSM 1.63	IN 22.16					

PEAK DISCHARGE (BASE, 6,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1300	7.17	8,370	2-28	0630	6.85	7,170
11-13	1530	6.84	7,130	3-16	0330	7.05	7,910

SUSQUEHANNA RIVER BASIN

135

01552500 Muncy Creek near Sonestown, Pa.

LOCATION.--Lat 41°21'25", long 76°32'06", Sullivan County, 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.

DRAINAGE AREA.--23.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,025.01 ft above mean sea level. Prior to Mar. 31, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 44.8 cfs (25.57 inches per year).

EXTREMES.--Current year: Maximum discharge, 643 cfs Mar. 15 (gage height, 4.48 ft); maximum gage height, 5.28 ft Feb. 13 (ice jam); minimum discharge 2.0 cfs July 24 (gage height, 1.85 ft).
Period of record: Maximum discharge, 7,310 cfs Mar. 11, 1952 (gage height, 8.61 ft), from rating curve extended above 3,400 cfs; minimum, 0.1 cfs Sept. 11, 12, 13, 1964; minimum gage height, 1.49 ft Sept. 20, 21, 1946.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1502: 1941-42.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	31	39	20	11	177	51	26	19	7.0	25	3.4
2	8.8	28	36	19	10	139	104	34	16	9.4	21	3.4
3	13	29	35	18	9.8	111	123	42	17	4.7	68	3.1
4	10	31	52	18	9.4	97	116	37	17	3.7	54	3.1
5	8.8	29	42	29	10	87	106	33	14	3.4	36	3.1
6	8.8	26	39	26	11	65	88	33	12	3.1	24	4.5
7	8.0	24	35	24	11	93	82	30	12	2.8	17	3.6
8	7.3	23	30	21	13	80	81	31	11	2.6	13	3.2
9	7.0	21	33	20	12	72	99	33	9.4	2.8	11	2.9
10	6.7	21	31	19	11	62	161	31	7.7	3.6	8.7	2.8
11	9.6	25	31	18	12	55	127	27	7.0	3.2	7.7	3.9
12	13	157	47	16	14	50	138	26	6.7	3.4	6.7	11
13	9.6	296	47	16	15	51	188	94	6.7	2.8	5.9	13
14	13	173	41	17	36	77	210	137	20	4.5	5.1	12
15	54	274	37	20	180	275	123	98	19	2.9	5.1	17
16	34	179	35	18	115	295	93	84	12	2.5	4.9	13
17	25	123	42	15	85	195	79	73	8.7	2.8	4.3	23
18	22	94	36	13	67	132	71	61	7.3	3.4	3.9	12
19	19	77	37	12	62	111	63	52	6.4	4.1	3.7	11
20	17	130	45	11	71	94	57	46	5.9	4.7	3.9	17
21	26	137	38	11	84	76	52	57	5.6	2.9	4.1	18
22	293	101	38	11	90	66	45	53	6.7	2.5	3.9	13
23	152	84	36	10	215	59	38	43	5.1	2.2	6.1	11
24	96	69	38	11	139	52	33	38	4.9	2.0	3.9	10
25	72	59	34	12	105	49	29	36	4.7	14	3.6	8.7
26	59	52	32	13	104	45	29	36	4.3	5.4	3.9	8.7
27	48	47	29	13	303	43	27	30	3.9	14	9.8	9.4
28	42	44	27	12	234	41	28	28	4.1	4.3	11	14
29	37	42	25	12	-----	45	36	25	3.7	23	5.9	12
30	34	47	23	11	-----	45	29	22	3.7	15	4.5	11
31	33	-----	21	11	-----	42	-----	21	-----	83	3.7	-----
TOTAL	1,196.2	2,473	1,111	457	2,039.2	2,881	2,506	1,417	281.5	245.7	389.3	281.8
MEAN	38.6	82.4	35.8	16.0	72.8	92.9	83.5	45.7	9.38	7.93	12.6	9.39
MAX	293	296	52	29	303	295	210	137	20	83	68	23
MIN	6.7	21	21	10	9.4	41	27	21	3.7	2.0	3.6	2.8
CFSM	1.62	3.46	1.50	.67	3.06	3.90	3.51	1.92	.39	.33	.53	.39
IN.	1.87	3.87	1.74	.78	3.19	4.50	3.92	2.21	.44	.38	.61	.44

CAL YR 1970 TOTAL 16,561.6 MEAN 45.4 MAX 607 MIN 5.1 CFSM 1.91 IN 25.89
WTR YR 1971 TOTAL 15,318.7 MEAN 42.0 MAX 303 MIN 2.0 CFSM 1.76 IN 23.94

PEAK DISCHARGE (BASE, 1,100 CFS).--No peak above base.

SUSQUEHANNA RIVER BASIN

01553120 White Deer Creek above Sand Spring Run near White Deer, Pa.

LOCATION.--Lat 41°03'17", long 77°04'31", Union County, on left bank 20 ft downstream from bridge on White Deer Creek Road, 1,500 ft upstream from Sand Spring Run, and 11.3 miles west of White Deer.

DRAINAGE AREA.--17.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,046.15 ft above mean sea level. Prior to May 16, 1968, nonrecording gage at bridge 30 ft upstream at same datum.

EXTREMES.--Current year: Maximum discharge, 245 cfs Sept. 13 (gage height, 4.95 ft), from rating curve extended above 130 cfs; maximum gage height, 5.87 ft Feb. 13 (ice jam); minimum discharge, 3.4 cfs Sept. 9 (gage height, 2.09 ft).

Period of record: Maximum discharge, 302 cfs Apr. 2, 1970 (gage height, 5.30 ft), from rating curve extended above 130 cfs; maximum gage height, 5.87 ft Feb. 13, 1971 (ice jam); minimum daily discharge, 3.1 cfs Oct. 17, 18, 1968.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	34	35	16	11	165	52	21	17	8.5	12	4.1
2	4.1	29	32	15	10	138	66	21	17	8.2	11	4.2
3	4.3	38	31	14	9.6	116	74	22	18	7.2	21	4.2
4	4.3	43	30	16	9.2	99	78	20	16	7.0	18	4.1
5	4.1	40	30	31	9.4	80	78	18	14	6.8	12	4.0
6	4.3	39	29	28	10	71	72	24	16	6.6	8.5	3.8
7	4.3	35	20	25	11	65	67	22	14	6.2	7.0	3.8
8	3.9	32	25	22	12	60	66	23	13	6.0	6.4	3.6
9	3.7	29	20	20	11	53	68	22	12	7.0	6.0	3.5
10	3.7	30	26	19	9.5	47	87	21	11	7.8	6.0	3.5
11	7.4	48	20	13	10	45	62	20	11	7.0	5.8	3.8
12	9.2	126	32	17	12	44	78	20	11	7.8	5.4	50
13	5.7	194	32	16	23	47	76	52	18	6.2	5.0	76
14	5.0	155	30	18	120	52	77	58	35	8.2	5.0	46
15	10	177	27	20	74	70	67	58	26	6.0	5.0	30
16	6.3	150	25	19	58	105	60	57	20	5.6	4.8	25
17	5.9	118	22	17	50	119	54	51	16	5.4	4.7	30
18	4.3	94	31	15	48	103	47	45	13	5.2	4.6	23
19	4.1	78	30	13	46	91	42	41	12	6.8	4.6	22
20	3.9	35	35	12	45	80	39	37	12	8.2	4.6	59
21	14	78	30	12	67	72	36	35	12	6.0	5.2	62
22	13.5	65	31	11	60	63	33	32	11	5.2	4.8	51
23	6.5	54	32	11	123	57	30	29	10	4.8	4.6	44
24	4.6	57	32	12	114	52	29	27	9.8	5.0	4.2	38
25	3.6	52	30	13	99	47	28	27	9.5	7.5	4.1	31
26	30	45	29	14	92	44	26	25	9.2	6.2	4.2	30
27	24	42	25	13	144	41	24	23	8.8	6.4	5.6	28
28	22	40	23	13	188	41	24	22	9.8	5.4	12	28
29	20	39	21	12	-----	44	25	21	9.0	8.3	6.2	25
30	22	45	16	12	-----	46	22	19	8.8	13	4.7	21
31	34	-----	17	11	-----	47	-----	19	-----	43	4.2	-----
TOTAL	557.2	2,103	875	507	1,495.6	2,207	1,607	932	419.9	248.5	217.2	761.6
MEAN	18.0	70.1	28.2	16.4	53.4	71.2	53.6	30.1	14.0	8.02	7.01	25.4
MAX	13.5	194	36	31	188	165	87	58	35	43	21	76
MIN	3.7	29	17	11	9.2	41	22	18	8.8	4.8	4.1	3.5
CFSM	1.01	3.94	1.56	.92	3.00	4.00	3.01	1.69	.79	.45	.39	1.43
IN.	1.16	4.40	1.63	1.06	3.13	4.61	3.36	1.95	.88	.52	.45	1.59

CAL YR 1970 TOTAL 11,733.8 MEAN 32.1 MAX 196 MIN 3.4 CFSM 1.80 IN 24.52
 APR YR 1971 TOTAL 11,931.2 MEAN 32.7 MAX 194 MIN 3.5 CFSM 1.84 IN 24.93

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-22	0800	4.70	207	2-13	Unk.	Unk.	Unk.
11-13	1000	4.69	206	9-13	1530	4.95	245

SUSQUEHANNA RIVER BASIN

137

01553130 Sand Spring Run near White Deer, Pa.

LOCATION.--Lat 41°03'31", long 77°04'37", Union County, on right bank 12 ft downstream from bridge on White Deer Creek Road, 500 ft upstream from mouth, and 11.3 miles west of White Deer.

DRAINAGE AREA.--4.93 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,037.16 ft above mean sea level. Prior to May 15, 1968 nonrecording gage at bridge 20 ft upstream at same datum.

EXTREMES.--Current year: Maximum discharge, 180 cfs Sept. 13 (gage height, 5.38 ft), from rating curve extended above 18 cfs; minimum, 1.1 cfs Sept. 9, 10, 11; minimum gage height, 2.57 ft Sept. 9, 10.

Period of record: Maximum discharge, 180 cfs Sept. 13, 1971 (gage height, 5.38 ft), from rating curve extended above 18 cfs; minimum, 0.84 cfs Sept. 25, 1970; minimum gage height, 2.57 ft Sept. 9, 10, 1971.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	18	12	5.5	3.5	28	14	5.7	5.6	2.1	3.2	1.4
2	1.3	18	11	5.5	3.5	25	15	5.9	5.6	2.0	4.4	1.4
3	1.5	20	10	5.5	3.3	23	17	5.7	5.6	2.0	6.0	1.4
4	1.4	20	11	7.1	3.1	21	17	5.4	5.0	1.9	4.1	1.3
5	1.4	20	9.2	5.5	3.2	18	17	4.9	4.6	1.8	3.0	1.3
6	1.6	20	5.6	7.5	3.4	17	15	5.7	5.1	1.8	2.4	1.2
7	1.4	19	7.5	5.0	3.6	17	15	5.1	4.5	1.8	2.1	1.2
8	1.3	18	7.5	5.4	3.9	15	15	5.6	4.1	1.7	1.9	1.2
9	1.3	17	7.1	5.2	3.5	14	16	5.1	3.9	2.2	1.9	1.2
10	1.4	17	5.8	5.2	3.3	13	16	5.0	3.7	2.0	1.8	1.2
11	2.5	23	5.6	5.9	3.4	13	17	4.8	3.4	2.0	1.8	1.3
12	2.1	41	5.0	5.9	3.5	12	16	4.8	3.8	1.9	1.7	8.8
13	1.9	45	7.5	5.5	28	13	15	12	4.2	1.7	1.7	23
14	2.1	37	5.6	4.8	30	14	14	12	6.7	2.7	1.6	8.8
15	2.7	44	5.4	5.3	24	17	13	12	7.3	1.8	1.6	5.9
16	2.1	38	5.2	4.9	22	22	12	11	5.4	1.7	1.5	5.6
17	2.0	33	5.4	4.7	20	22	12	10	4.2	1.7	1.4	5.3
18	1.9	30	5.4	4.5	20	20	10	9.5	3.6	1.6	1.3	4.4
19	1.9	27	7.1	4.5	21	19	10	9.0	3.3	2.2	1.3	4.9
20	1.9	30	7.5	4.1	23	17	9.5	8.6	3.0	2.1	1.4	10
21	5.5	23	5.6	3.9	24	16	9.0	8.4	3.0	1.6	1.4	9.8
22	4.1	21	5.6	3.6	25	16	9.5	8.0	2.8	1.5	1.4	8.2
23	24	20	5.6	3.5	35	14	9.0	7.8	2.7	1.4	1.3	7.0
24	21	18	7.1	4.0	25	13	7.6	7.6	2.5	1.5	1.3	6.2
25	18	17	5.6	4.4	20	12	7.4	7.4	2.4	2.8	1.3	5.6
26	17	15	5.6	4.7	20	12	7.0	7.0	2.4	1.9	1.4	5.4
27	15	15	5.4	4.5	30	12	6.7	6.8	2.3	2.1	2.2	5.3
28	15	14	5.4	4.5	33	12	6.5	6.5	2.2	1.5	3.2	6.0
29	15	14	5.2	4.1	-----	12	6.7	6.4	2.2	3.5	1.7	5.0
30	17	14	5.9	3.9	-----	12	6.0	6.2	2.2	2.4	1.5	4.6
31	19	-----	5.7	3.7	-----	12	-----	5.9	-----	9.9	1.4	-----
TOTAL	245.6	705	231.5	159.2	442.4	503	303.0	225.8	117.3	68.8	64.2	153.9
MEAN	7.92	23.5	7.47	5.14	15.8	16.2	12.1	7.28	3.91	2.22	2.07	5.13
MAX	41	45	12	5.3	35	25	18	12	7.3	9.9	6.0	23
MIN	1.3	14	5.7	3.7	3.1	12	6.0	4.8	2.2	1.4	1.3	1.2
CFSM	1.91	4.77	1.52	1.04	3.20	3.29	2.45	1.48	.79	.45	.42	1.04
IN	1.85	5.33	1.75	1.20	3.34	3.80	2.74	1.70	.89	.52	.48	1.16

CAL YR 1970 TOTAL 3,567.54 MEAN 9.77 MAX 55 MIN .94 CFSM 1.98 IN 26.92
 WTR YR 1971 TOTAL 3,280.70 MEAN 8.99 MAX 45 MIN 1.2 CFSM 1.82 IN 24.75

PEAK DISCHARGE (BASE, 55 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	0630	4.50	77	2-13	1700	4.70	87
11-12	0730	4.28	62	9-13	1500	5.38	180

SUSQUEHANNA RIVER BASIN

01553140 White Deer Creek near White Deer, Pa.

LOCATION.--Lat 41°04'18", long 75°56'03", Union County, on left bank 30 ft downstream from bridge on Legislative Route 59045, 2 miles downstream from White Deer Creek Dam, and 3.2 miles west of White Deer.

DRAINAGE AREA.--40.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 586.28 ft above mean sea level. Prior to May 27, 1968, nonrecording gage at bridge 30 ft upstream at same datum.

EXTREMES.--Current year: Maximum discharge, 637 cfs Oct. 22 (gage height, 6.22 ft), from rating curve extended above 360 cfs; maximum gage height, 6.84 ft Feb. 13 (ice jam); minimum discharge, 1.9 cfs Sept. 8, 9 (gage height, 2.85 ft).

Period of record: Maximum discharge, 637 cfs Oct. 22, 1970 (gage height, 6.22 ft), from rating curve extended above 360 cfs; maximum gage height, 6.84 ft Feb. 13, 1971 (ice jam); minimum discharge, 0.90 cfs Aug. 30, 1968 (gage height, 2.75 ft).

REMARKS.--Records fair. Figures of daily discharge do not include water diverted above station for public supply by White Deer Mountain Water Company.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	84	54	27	14	340	110	38	33	12	22	3.4
2	5.2	68	58	25	14	322	140	40	31	12	15	3.4
3	7.5	95	55	25	13	272	150	42	32	10	38	3.2
4	6.7	110	70	32	12	231	160	38	29	9.5	29	3.0
5	5.5	100	55	54	13	185	160	34	26	9.5	20	3.2
6	5.5	96	50	47	14	162	150	46	29	9.1	14	2.8
7	5.4	92	46	43	15	166	140	41	25	8.3	10	2.4
8	4.3	32	33	39	17	141	140	45	22	8.3	8.7	2.0
9	4.0	74	43	35	15	120	150	41	20	8.7	7.5	2.2
10	4.5	74	42	32	14	104	180	39	19	12	6.7	2.0
11	12	130	40	30	15	102	170	34	18	11	6.7	2.2
12	16	300	56	28	17	100	170	35	19	11	5.9	67
13	7.1	480	56	25	54	112	160	102	38	8.7	5.5	107
14	6.7	390	57	27	280	120	160	110	70	14	5.5	81
15	20	450	47	31	240	160	150	110	56	8.3	5.5	44
16	9.1	330	44	30	210	245	130	100	39	7.5	5.2	35
17	6.3	280	55	25	180	270	105	96	28	6.7	4.6	44
18	5.9	229	57	22	160	233	92	86	23	6.3	4.3	33
19	5.2	191	55	20	150	206	83	78	21	9.9	4.0	32
20	4.9	204	67	19	140	186	76	70	20	13	4.6	92
21	28	172	55	18	166	164	71	66	20	7.5	4.6	96
22	387	141	53	17	192	149	64	60	18	6.3	4.9	76
23	180	138	55	17	324	134	59	54	17	5.5	4.0	63
24	126	122	50	16	282	117	55	52	15	5.2	3.0	55
25	96	105	52	19	245	104	52	52	15	11	3.2	46
26	80	93	50	21	231	96	49	47	14	8.3	4.0	42
27	66	83	44	19	374	92	46	44	13	11	7.9	43
28	56	76	40	18	443	90	45	41	12	6.7	19	54
29	50	73	36	17	-----	94	49	39	14	15	8.7	43
30	55	86	32	16	-----	100	41	36	12	21	5.2	35
31	82	-----	29	15	-----	100	-----	36	-----	98	4.0	-----
TOTAL	1,355.6	4,948	1,594	812	3,845	5,056	3,307	1,752	748	391.3	291.2	1,117.8
MEAN	43.7	165	51.4	26.2	137	163	110	56.5	24.9	12.6	9.39	37.3
MAX	387	480	70	54	443	380	180	110	70	98	38	107
MIN	4.0	68	29	15	12	90	41	34	12	5.2	3.0	2.0
(\bar{x})	3.54	3.07	3.01	3.13	2.99	3.10	2.92	2.88	2.92	2.93	3.09	2.99
MEAN \bar{x}	47.2	168	54.4	29.3	140	166	113	59.4	27.8	15.5	12.5	40.3
CFSM \bar{x}	1.18	4.20	1.36	.73	3.50	4.15	2.82	1.48	.70	.39	.31	1.01
IN. \bar{x}	1.36	4.69	1.57	.84	3.64	4.78	3.15	1.71	.78	.45	.36	1.13

CAL YR 1970 TOTAL 24,888.1 MEAN 68.2 MAX 480 MIN 4.0 MEAN \bar{x} 71.5 CFSM \bar{x} 1.79 IN. \bar{x} 24.26
WTR YR 1971 TOTAL 25,217.9 MEAN 69.1 MAX 480 MIN 2.0 MEAN \bar{x} 72.2 CFSM \bar{x} 1.80 IN. \bar{x} 24.46

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-22	1000	6.22	637	2-13	Unk.	Unk.	Unk.
11-13	Unk.	5.61	452	2-28	1800	5.65	464

\bar{x} Diversion, equivalent in cubic feet per second, for public water supply; furnished by White Deer Mountain Water Company.

\bar{x} Adjusted for diversion.

SUSQUEHANNA RIVER BASIN

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01553500 West Branch Susquehanna River at Lewisburg, Pa.

LOCATION.--Lat 40°58'05", long 76°52'25", Union County, at downstream side of left abutment of Market Street bridge at Lewisburg, 0.2 mile downstream from Buffalo Creek, and 7.4 miles upstream from mouth.

DRAINAGE AREA.--6,847 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302. September 1913 to August 1923 (gage heights only) are contained in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorders. Datum of gage is 428.20 ft above mean sea level. Sept. 21, 1913 to Aug. 31, 1923, Dec. 7, 1939 to July 2, 1940, nonrecording gages at same site and datum. Since Oct. 1, 1942, water-stage recorder for station on Susquehanna River at Sunbury used as an auxiliary gage for this station.

AVERAGE DISCHARGE.--32 years (1939-71), 10,160 cfs (20.15 inches per year), adjusted for storage since October 1961.

EXTREMES.--Current year: Maximum discharge, 78,200 cfs Mar. 1, backwater from Susquehanna River; maximum gage height, 14.69 ft Mar. 1; minimum discharge, 936 cfs Sept. 8 (gage height, 1.06 ft).
Period of record: Maximum discharge, 262,000 cfs May 29, 1946 (gage height, 28.43 ft), backwater from Susquehanna River; minimum, not determined.
Maximum stage known, 32.1 ft Mar. 19, 1936, from floodmarks (discharge, 287,000 cfs, from slope-area measurement at Watsontown), backwater from Susquehanna River.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Glendale Lake and Curwensville, First Fork Sinnemahoning Creek, Kettle Creek, Foster Joseph Sayers Reservoirs (see p. 178) and Little Pine Creek Reservoir (capacity, 24,900 acre-ft) about 75 miles upstream. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,250	8,730	12,000	9,130	3,100	73,100	13,300	7,340	4,790	1,930	4,150	1,200
2	2,150	9,350	13,000	8,350	3,000	59,900	14,600	6,840	4,380	2,500	3,110	1,150
3	2,180	10,600	14,000	8,130	2,900	49,200	19,700	7,010	4,140	3,140	2,890	1,140
4	2,120	14,200	13,000	8,430	2,900	39,700	26,900	7,750	3,860	2,920	3,970	1,200
5	2,050	25,400	16,000	9,690	2,900	31,700	28,700	7,460	3,690	2,560	3,840	1,110
6	2,000	20,200	18,000	12,400	3,100	25,600	27,300	7,040	3,580	2,100	3,100	1,010
7	1,960	14,000	18,000	15,800	3,600	22,100	24,000	6,970	3,600	1,860	2,770	963
8	1,870	10,100	16,000	14,000	3,900	21,700	21,300	7,820	3,460	1,700	2,690	965
9	1,810	8,400	15,000	12,600	3,600	19,900	20,400	11,100	3,270	1,610	2,490	986
10	1,820	7,140	13,000	11,400	3,400	17,800	22,400	15,600	3,010	1,590	2,080	1,020
11	1,810	8,680	12,000	10,900	3,100	16,100	30,500	16,400	2,780	1,520	1,800	1,070
12	2,080	14,300	12,000	11,200	2,900	15,400	30,500	14,700	2,590	1,450	1,630	1,380
13	6,460	32,400	14,000	9,970	4,000	15,000	28,600	15,000	2,570	1,730	1,490	2,060
14	12,600	51,900	20,000	8,870	14,000	15,300	31,400	20,600	3,010	2,010	1,390	4,120
15	16,100	57,200	22,000	8,010	21,000	20,400	33,400	21,000	3,980	2,380	1,310	3,390
16	13,000	60,600	19,000	6,670	23,600	41,500	25,900	18,900	5,960	2,430	1,250	2,550
17	9,820	54,200	17,000	6,000	22,100	58,700	19,900	17,000	5,820	2,030	1,230	3,940
18	8,700	38,000	15,000	5,200	18,600	50,100	16,800	15,300	4,970	1,950	1,150	4,450
19	7,120	28,700	14,000	4,500	17,300	39,900	14,500	13,100	4,000	1,820	1,100	4,210
20	6,040	22,900	13,000	4,400	18,500	34,200	12,900	11,500	3,440	1,790	1,050	4,940
21	5,400	24,000	14,000	4,300	24,400	29,400	11,800	11,300	3,020	1,730	1,020	7,160
22	12,500	23,400	14,500	4,600	35,400	24,100	10,800	11,600	2,720	1,620	1,020	9,830
23	26,900	21,000	14,500	5,000	50,500	20,400	9,820	10,100	2,530	1,630	1,070	8,850
24	21,100	19,200	15,500	5,000	57,500	18,000	8,960	8,910	2,390	1,710	1,020	6,180
25	17,200	16,700	16,500	4,700	47,100	16,100	8,220	8,180	2,240	1,840	1,020	5,100
26	13,800	14,700	15,500	4,500	38,700	14,500	7,560	7,630	2,140	1,840	1,340	5,040
27	11,700	13,000	14,500	4,200	42,800	13,200	7,140	7,150	2,040	1,720	1,760	4,060
28	9,770	12,100	14,000	3,700	67,800	12,200	6,710	6,610	1,960	1,680	1,730	3,680
29	8,430	11,200	13,000	3,300	-----	12,000	6,800	6,140	1,870	1,950	1,610	3,760
30	7,310	11,200	11,600	3,000	-----	12,300	7,570	5,680	1,910	2,230	1,450	4,410
31	7,740	-----	10,600	3,200	-----	12,900	-----	5,290	-----	3,050	1,330	-----
TOTAL	245,790	663,500	460,200	231,150	541,700	852,400	548,380	337,020	99,720	62,020	58,860	100,924
MEAN	7,929	22,120	14,850	7,456	19,350	27,500	18,280	10,870	3,324	2,001	1,899	3,364
MAX	26,900	60,600	22,000	15,800	67,800	73,100	33,400	21,000	5,960	3,140	4,150	9,830
MIN	1,810	7,140	10,600	3,000	2,900	12,000	6,710	5,290	1,870	1,450	1,020	963
MEAN [#]	7,955	22,140	14,820	7,457	19,550	27,560	18,480	11,010	3,337	1,984	1,872	3,302
CFSM [#]	1.16	3.23	2.16	1.09	2.86	4.03	2.70	1.61	.49	.29	.27	.48
IN. [#]	1.34	3.60	2.49	1.26	2.98	4.65	3.01	1.86	.55	.33	.31	.54
CAL YR 1970 TOTAL	4,551,550		MEAN 12,470		MAX 95,000	MIN 1,650	MEAN [#] 12,470		CFSM [#] 1.82		IN. [#] 24.72	
WTR YR 1971 TOTAL	4,201,664		MEAN 11,510		MAX 73,100	MIN 963	MEAN [#] 11,550		CFSM [#] 1.69		IN. [#] 22.92	

[#] Adjusted for change in contents in Glendale Lake, Curwensville, First Fork Sinnemahoning Creek, Kettle Creek and Foster Joseph Sayers Reservoirs.

SUSQUEHANNA RIVER BASIN

01553600 East Branch Chillisquaque Creek near Washingtonville, Pa.

LOCATION.--Lat 41°04'57", long 76°39'17", Montour County, on right bank 30 ft upstream from highway bridge on Legislative Route 47017, 0.2 mile downstream from White Hall Creek, 0.7 mile upstream from Middle Branch Chillisquaque Creek, 2.3 miles upstream from mouth, and 2.5 miles northeast of Washingtonville.

DRAINAGE AREA.--9.48 sq mi.

PERIOD OF RECORD.--April 1960 to current year. Prior to October 1969, published as White Hall Creek near Washingtonville.

GAGE.--Water-stage recorder. Altitude of gage is 530 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 9.40 cfs (13.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 372 cfs Feb. 23 (gage height, 5.71 ft); maximum gage height, 7.45 ft Feb. 13 (ice jam); no flow for many days.

Period of record: Maximum discharge, 1,440 cfs Apr. 2, 1970 (gage height, 7.85 ft), from rating curve extended above 660 cfs; no flow for many days.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	4.2	8.5	3.7	1.9	67	5.2	1.9	1.3	0	0	0
2	.35	3.1	7.4	3.2	1.8	38	6.4	7.9	1.2	0	.02	0
3	.90	10	7.1	3.0	1.7	27	6.9	11	1.4	0	2.2	.02
4	1.0	15	13	3.0	1.6	21	5.2	8.5	1.2	0	1.1	0
5	.60	8.0	9.0	7.0	1.8	22	4.5	6.6	.87	0	.69	0
6	.42	5.5	8.7	6.0	2.0	15	4.3	6.6	1.1	0	.22	0
7	.35	4.6	7.1	5.0	2.2	49	4.9	5.4	1.3	0	.02	0
8	.35	3.9	5.6	4.2	2.3	32	3.9	5.7	.97	0	.02	0
9	.35	3.3	6.6	3.6	1.9	24	3.5	8.7	.78	0	0	0
10	.35	3.0	6.6	3.2	1.8	17	3.3	6.9	.41	0	0	0
11	.50	4.2	6.6	3.0	2.2	20	3.0	5.9	.36	0	0	.02
12	1.2	30	51	2.8	2.5	24	2.8	5.9	.36	.01	0	0
13	.90	83	38	2.5	70	35	2.7	74	.36	0	0	.74
14	1.8	37	25	3.1	220	36	2.8	59	1.5	.01	0	.54
15	20	119	19	3.7	154	55	2.4	24	1.2	0	0	.02
16	4.9	54	15	3.4	102	53	2.2	16	.87	0	0	0
17	3.1	28	47	3.0	90	31	2.2	12	.61	0	0	.08
18	2.5	18	31	2.7	79	19	2.1	8.2	.36	0	0	.08
19	2.2	13	22	2.5	97	21	1.9	6.1	.26	0	0	.04
20	1.8	47	19	2.3	121	29	1.8	4.9	.22	0	0	.06
21	2.8	35	16	2.1	131	22	1.8	4.9	.18	0	0	.26
22	40	22	16	2.0	142	20	1.8	4.1	.18	0	0	.12
23	16	17	15	1.9	257	16	1.7	3.1	.10	0	0	.08
24	8.6	12	13	2.0	99	13	1.7	2.7	.06	0	0	.08
25	6.0	10	11	2.1	86	12	1.5	2.8	.02	0	0	.06
26	4.4	8.7	9.8	2.3	108	10	1.7	2.5	.01	0	0	.03
27	3.5	7.9	8.0	2.6	227	9.0	1.7	2.2	0	0	0	.02
28	3.0	7.6	7.4	2.4	117	8.2	1.7	1.9	0	0	0	.69
29	2.5	8.7	6.1	2.2	-----	7.6	3.9	1.8	0	0	0	.31
30	2.8	13	5.4	2.1	-----	6.6	2.4	1.7	0	0	0	.22
31	3.9	-----	4.6	2.0	-----	5.7	-----	1.5	-----	.07	0	-----
TOTAL	137.42	635.7	465.5	94.6	2,123.7	765.1	91.9	314.4	17.18	.09	4.27	3.47
MEAN	4.43	21.2	15.0	3.05	75.8	24.7	3.06	10.1	.57	.003	.14	.12
MAX	40	119	51	7.0	257	67	6.9	74	1.5	.07	2.2	.74
MIN	.35	3.0	4.6	1.9	1.6	5.7	1.5	1.5	0	0	0	0
CFSM	.47	2.24	1.58	.32	8.00	2.61	.32	1.07	.06	.0003	.01	.01
IN.	.54	2.49	1.83	.37	8.33	3.00	.36	1.23	.07	0	.02	.01

CAL YR 1970 TOTAL 5,015.92 MEAN 13.7 MAX 674 MIN 0 CFSM 1.45 IN 19.68
WTR YR 1971 TOTAL 4,653.33 MEAN 12.7 MAX 257 MIN 0 CFSM 1.34 IN 18.26

PEAK DISCHARGE (BASE, 300 CFS)

* Unknown.

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2- 13	*	*	*	2- 27	1630	5.33	314
2- 23	0300	5.71	372				

SUSQUEHANNA RIVER BASIN

141

01554000 Susquehanna River at Sunbury, Pa.

LOCATION.--Lat 40°50'04", long 76°49'37", Snyder County, on right bank at borough of Shamokin Dam, on grounds of Pennsylvania Power and Light Company generating plant, 1 mile downstream from Shamokin Creek, and 1.8 miles south of Sunbury.

DRAINAGE AREA.--18,300 sq mi, approximately (excluding that of Shamokin Creek).

PERIOD OF RECORD.--October 1937 to current year. June 1918 to September 1937 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 408.61 ft above mean sea level. See WSP 1903 for history of changes prior to Dec. 13, 1937. Dec. 13, 1937 to Mar. 23, 1967, water-stage recorder at site 1.7 miles upstream at datum 11.05 ft higher.

AVERAGE DISCHARGE.--34 years, 25,080 cfs, (18.61 inches per year).

EXTREMES.--Current year: Maximum discharge, 171,000 cfs Mar. 1 (gage height, 19.77 ft); minimum, 1,870 cfs July 1 (gage height, 5.30 cfs).
Period of record: Maximum discharge, 556,000 cfs Mar. 19, 1936 (gage height, 34.65 ft, from floodmark), from rating curve extended above 210,000 cfs; minimum, 990 cfs Sept. 27, 1964.
Maximum stage known prior to 1918, 22.5 ft in March 1865, at site 2.4 miles upstream at datum 12.05 ft higher.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 891: 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,720	15,100	23,200	18,600	8,600	168,000	33,000	36,100	13,700	2,720	10,800	3,560
2	5,920	15,600	24,700	15,900	8,000	153,000	34,100	32,400	12,500	3,700	10,700	3,480
3	6,200	17,800	25,400	16,300	7,200	124,000	44,300	30,700	11,600	6,070	11,900	3,760
4	6,240	22,300	25,200	17,500	7,600	98,400	67,900	31,500	10,900	5,800	18,400	4,410
5	6,000	30,900	26,200	20,600	8,200	76,500	75,300	35,500	10,100	5,290	19,200	3,970
6	5,610	31,200	29,100	25,400	9,000	61,400	73,400	33,100	9,650	5,410	13,800	3,490
7	5,340	29,400	31,000	32,000	9,200	53,000	66,700	31,500	9,570	5,000	11,200	3,340
8	5,410	24,600	29,100	30,900	9,600	53,200	59,100	31,500	9,690	4,790	10,600	3,320
9	4,930	20,700	26,300	28,900	9,400	53,500	54,600	32,700	9,140	4,350	7,090	3,110
10	5,070	17,800	23,800	26,400	9,000	50,500	55,800	36,400	8,450	4,220	7,160	3,020
11	4,780	19,600	22,200	24,200	8,600	44,500	68,400	41,800	7,830	3,890	6,360	3,190
12	4,750	19,900	23,100	23,500	8,600	40,500	83,300	40,700	7,250	3,780	5,430	3,260
13	7,160	38,000	27,500	22,100	15,000	39,200	78,900	39,700	7,200	3,680	4,860	6,350
14	14,100	69,200	32,500	21,100	45,000	39,100	80,700	51,800	7,240	4,080	4,360	8,510
15	20,200	90,400	34,800	19,100	58,000	46,900	91,200	55,500	8,500	4,320	3,990	6,990
16	18,700	95,900	31,900	16,000	62,000	92,200	51,400	49,700	10,500	4,330	3,660	5,370
17	16,500	98,800	30,100	16,900	62,000	160,000	74,400	43,600	11,600	3,980	3,500	6,680
18	14,800	81,500	29,100	13,200	58,000	152,000	61,200	37,700	11,300	3,730	3,330	8,010
19	13,500	60,300	27,000	10,300	50,000	113,000	50,500	32,600	10,200	3,630	3,190	7,460
20	11,900	47,200	25,900	9,550	46,000	93,900	43,500	28,400	8,840	3,740	3,070	7,700
21	11,700	47,000	27,200	9,000	51,000	79,500	39,500	26,400	7,990	3,650	3,010	9,040
22	15,600	48,200	31,700	8,800	68,900	66,800	37,900	27,600	7,250	3,380	2,970	12,900
23	35,700	45,600	33,300	11,000	93,300	56,500	36,900	30,400	6,500	3,340	2,880	13,100
24	39,200	42,800	31,800	12,000	109,000	50,100	35,100	26,000	5,970	3,430	2,740	10,300
25	41,400	37,300	31,100	12,000	99,000	44,900	32,500	22,700	5,540	3,540	2,730	8,510
26	31,000	32,000	30,500	13,000	85,400	39,700	29,200	20,700	4,510	4,260	2,820	8,740
27	25,400	28,000	28,300	12,000	87,700	35,500	26,800	19,200	5,170	4,470	3,650	7,700
28	21,300	25,300	26,500	10,000	127,000	32,400	25,200	17,900	4,960	4,070	4,150	6,940
29	18,300	23,300	25,700	8,400	-----	31,000	24,700	16,800	4,910	4,850	5,380	6,930
30	15,700	22,800	22,700	9,000	-----	31,400	28,300	15,900	4,700	6,660	4,540	7,120
31	14,800	-----	20,600	8,000	-----	32,400	-----	14,900	-----	8,070	4,150	-----
TOTAL	452,930	1,198.5M	857,500	521,650	1,220.3M	2,213.0M	1,603.8M	991,400	253,260	136,230	201,620	190,260
MEAN	14,610	39,950	27,660	16,830	43,580	71,390	53,460	31,980	8,442	4,395	6,504	6,342
MAX	41,400	98,800	34,800	32,000	127,000	168,000	91,400	55,500	13,700	8,070	19,200	13,100
MIN	4,750	15,100	20,600	8,000	7,200	31,000	24,700	14,900	4,510	2,720	2,730	3,020
CFSM	.80	2.18	1.51	.92	2.38	3.90	2.92	1.75	.46	.24	.36	.35
IN.	.92	2.44	1.74	1.06	2.48	4.50	3.26	2.02	.51	.28	.41	.39

CAL YR 1970 TOTAL 10,058,900 MEAN 27,560 MAX 207,000 MIN 3,470 CFSM 1.51 IN 20.45
WTR YR 1971 TOTAL 9,840,450 MEAN 26,960 MAX 168,000 MIN 2,720 CFSM 1.47 IN 20.00

SUSQUEHANNA RIVER BASIN

01554500 Shamokin Creek near Shamokin, Pa.

LOCATION.--Lat 40°48'37", long 76°35'04", Northumberland County, on right bank at Weigh Scales, 1 mile downstream from Trout Run, 1.1 miles upstream from Bennys Run, and 2 miles northwest of Shamokin.

DRAINAGE AREA.--54.2 sq mi.

PERIOD OF RECORD.--November 1939 to current year. Published as "at Weigh Scale" 1939-63.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.28 ft above mean sea level. Nov. 14, 1939 to Jan. 9, 1967, water-stage recorder at site 0.4 mile upstream at datum 2.00 ft higher and Jan. 10 to Dec. 10, 1967, nonrecording gage at site 0.4 mile downstream at datum 11.50 ft lower.

AVERAGE DISCHARGE.--31 years (1940-70), 81.7 cfs (20.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 456 cfs Feb. 13 (gage height, 3.55 ft), minimum, 26 cfs Oct. 5, 9, 12; minimum gage height, 2.17 ft Oct. 12.

Period of record: Maximum discharge, 3,120 cfs Aug. 27, 1962 (gage height, 5.00 ft, at site and datum then in use), from rating curve extended above 640 cfs; minimum, 3.2 cfs Feb. 15, 1940 (gage height, 0.42 ft, at site and datum then in use); minimum daily, 9.8 cfs Jan. 5, 1947.

REMARKS.--Records good. Regulation by mine pumps above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	35	50	44	42	254	116	68	78	79	70	42
2	30	33	48	44	42	227	122	85	79	56	80	41
3	37	40	49	44	41	219	116	72	79	49	125	41
4	30	38	58	61	44	208	111	64	75	49	103	43
5	29	34	49	87	49	192	106	63	75	49	84	43
6	34	31	47	64	49	184	106	77	78	48	76	41
7	30	33	43	58	45	211	106	68	71	47	72	39
8	30	32	43	55	52	190	99	77	69	44	69	40
9	29	30	44	58	52	179	99	72	65	46	64	39
10	30	31	44	58	42	165	101	68	63	45	60	37
11	30	34	45	58	40	161	99	66	61	45	59	45
12	29	72	63	60	46	170	94	72	72	42	56	48
13	31	74	47	55	216	189	92	148	72	45	54	63
14	34	48	42	58	164	179	92	130	74	41	55	48
15	83	84	41	56	111	200	87	124	68	38	53	46
16	40	61	37	55	108	204	85	135	65	37	51	46
17	35	51	55	55	97	200	87	124	62	38	51	44
18	33	48	50	49	103	194	83	116	61	40	49	42
19	30	45	47	46	106	212	81	113	60	40	50	41
20	31	94	49	47	124	209	79	106	61	89	50	56
21	41	94	46	47	141	186	79	116	55	67	50	71
22	56	78	47	47	189	173	76	108	56	42	48	48
23	60	68	47	52	245	166	74	101	53	38	45	44
24	39	58	53	49	212	154	74	97	53	36	45	43
25	33	57	50	49	208	148	74	94	53	36	45	43
26	33	56	52	52	200	138	70	92	56	38	44	46
27	32	55	49	46	277	138	68	90	54	46	72	44
28	33	54	45	45	272	135	76	87	54	37	57	45
29	34	59	45	44	-----	127	70	87	50	45	47	44
30	34	56	44	46	-----	122	68	87	52	62	45	42
31	38	-----	42	45	-----	119	-----	87	-----	94	43	-----
TOTAL	1,117	1,583	1,471	1,634	3,317	5,553	2,690	2,894	1,924	1,508	1,872	1,355
MEAN	36.0	52.8	47.5	52.7	118	179	89.7	93.4	64.1	48.6	60.4	45.2
MAX	83	94	63	87	277	254	122	148	79	94	125	71
MIN	29	30	37	44	40	119	68	63	50	36	43	37
CFSM	.66	.97	.88	.97	2.18	3.30	1.66	1.72	1.18	.90	1.11	.83
IN.	.77	1.09	1.01	1.12	2.28	3.81	1.85	1.99	1.32	1.04	1.28	.93

CAL YR 1970 TOTAL 29,621 MEAN 81.2 MAX 484 MIN 29 CFSM 1.50 IN 20.33
 WTR YR 1971 TOTAL 26,918 MEAN 73.7 MAX 277 MIN 29 CFSM 1.36 IN 18.48

PEAK DISCHARGE (BASE, 700 CFS).--No peak above base.

SUSQUEHANNA RIVER BASIN

143

01555000 Penns Creek at Penns Creek, Pa.

LOCATION.--Lat 40°52'00", long 77°02'55", Snyder County, on left bank 200 ft downstream from bridge on State Highway 104, 0.8 mile northeast of Penns Creek, and 2.9 miles upstream from Sweitzers Run.

DRAINAGE AREA.--301 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1965, published as Penn Creek at Penns Creek.

GAGE.--Water-stage recorder. Datum of gage is 506.72 ft above mean sea level. Prior to Feb. 1, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 405 cfs (18.27 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,190 cfs Feb. 23 (gage height, 6.01 ft); minimum, 57 cfs Sept. 10, 11 (gage height, 1.37 ft).

Period of record: Maximum discharge, 14,900 cfs Sept. 16, 1934 (gage height, 13.00 ft), from rating curve extended above 5,600 cfs; minimum, 7.0 cfs Sept. 27, 1932; minimum daily, 21 cfs Aug. 30, Sept. 3, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 891: 1934(M). WSP 1502: 1933(M), 1934, 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	267	535	425	190	1,300	694	295	239	121	330	69
2	66	229	479	392	180	1,200	784	295	235	113	274	72
3	90	298	447	400	180	1,100	871	298	235	104	319	69
4	80	479	535	452	170	940	899	281	226	97	305	68
5	72	408	488	754	180	840	885	260	205	92	270	65
6	70	352	443	664	190	740	844	326	205	90	211	65
7	65	309	408	545	210	760	808	412	196	89	170	65
8	65	274	392	501	220	780	772	364	187	84	150	62
9	65	249	388	470	200	740	742	364	173	83	134	62
10	64	242	388	430	180	680	784	337	165	155	121	60
11	67	380	376	390	190	620	790	323	155	113	115	57
12	92	1,050	525	360	220	600	760	316	158	119	109	155
13	87	2,360	646	330	700	660	736	565	181	102	102	312
14	80	1,850	550	360	1,930	800	742	955	208	95	97	223
15	153	2,290	506	388	1,470	1,300	688	748	263	93	93	155
16	109	2,170	488	352	1,150	1,800	640	682	295	87	90	129
17	89	1,640	550	323	927	2,000	590	628	220	84	87	155
18	80	1,300	634	291	808	1,800	550	545	184	83	84	153
19	75	1,070	600	260	990	1,600	501	492	163	81	81	139
20	74	1,070	736	250	1,420	1,400	470	452	153	107	80	267
21	84	1,570	652	240	2,180	1,200	443	447	145	100	78	368
22	832	1,120	646	230	1,900	1,100	420	416	141	86	81	281
23	550	1,010	664	230	3,030	980	400	376	134	80	78	214
24	291	857	748	240	1,820	906	380	352	127	75	74	181
25	220	748	634	250	1,250	790	364	348	123	87	71	158
26	184	670	590	270	1,160	748	352	337	119	100	71	153
27	160	616	535	240	1,370	688	333	309	115	99	80	158
28	143	575	520	230	1,440	670	326	291	113	81	107	150
29	132	540	474	220	-----	682	323	274	117	132	92	145
30	141	634	456	210	-----	730	309	253	113	229	83	139
31	246	-----	438	200	-----	688	-----	253	-----	506	74	-----
TOTAL	4,594	26,627	16,471	10,897	25,855	30,842	18,200	12,594	5,293	3,567	4,111	4,349
MEAN	148	888	531	352	923	995	607	406	176	115	133	145
MAX	832	2,360	748	754	3,030	2,000	899	955	295	506	330	368
MIN	64	229	376	200	170	600	309	253	113	75	71	57
CFSM	.49	2.95	1.76	1.17	3.07	3.31	2.02	1.35	.58	.38	.44	.48
IN.	.57	3.29	2.04	1.35	3.20	3.81	2.25	1.56	.65	.44	.51	.54

CAL YR 1970 TOTAL 183,813 MEAN 504 MAX 4,800 MIN 56 CFSM 1.67 IN 22.72
WTR YR 1971 TOTAL 163,400 MEAN 448 MAX 3,030 MIN 57 CFSM 1.49 IN 20.19

PEAK DISCHARGE (BASE, 3,100 CFS).--Feb. 23 (0630) 3,190 cfs (6.01 ft).

SUSQUEHANNA RIVER BASIN

01555500 East Mahantango Creek near Dalmatia, Pa.

LOCATION.--Lat 40°36'40", long 76°54'44", Northumberland County, on right bank at highway bridge, 2 miles upstream from mouth, and 3.2 miles south of Dalmatia.

DRAINAGE AREA.--162 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1945 published as Mahantango Creek East.

GAGE.--Water-stage recorder. Datum of gage is 400.50 ft above mean sea level (Pennsylvania Department of Transportation benchmark). Prior to Feb. 11, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 210 cfs (17.60 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,390 cfs Feb. 13 (gage height, 10.42 ft); maximum gage height, 12.42 ft Feb. 13 (ice jam); minimum discharge, 4.7 cfs Oct. 11 (gage height, 1.11 ft).

Period of record: Maximum discharge, 10,600 cfs Aug. 24, 1933 (gage height, 13.66 ft), from rating curve extended above 4,000 cfs; minimum, 1.3 cfs Oct. 7, 1957, Nov. 3, 1964; minimum gage height, 0.84 ft Sept. 21, 1932.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station.

REVISIONS (WATER YEARS).--WSP 891: 1933(M). WSP 1302: 1930(M), 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	66	170	140	92	847	200	84	117	44	514	47
2	20	59	151	130	80	679	200	88	101	44	514	47
3	21	57	142	140	74	588	224	124	99	38	708	38
4	21	90	167	170	82	546	194	103	92	34	1,450	43
5	18	90	162	400	100	452	177	88	84	33	722	40
6	18	82	152	370	120	407	171	108	84	33	440	40
7	18	70	142	320	150	576	180	134	84	30	321	46
8	19	61	139	280	170	698	166	122	78	28	244	35
9	25	57	142	250	260	526	155	129	70	61	191	35
10	16	54	132	240	200	436	147	122	64	55	160	34
11	8.9	57	124	210	150	403	137	112	63	43	139	34
12	16	86	163	190	130	418	132	115	59	52	134	240
13	16	740	212	160	1,500	584	129	257	122	41	108	137
14	18	562	218	180	2,930	597	127	514	410	74	97	166
15	90	548	208	170	836	665	120	388	218	52	86	117
16	120	666	189	160	550	804	115	370	188	38	82	97
17	57	471	355	140	455	708	112	349	142	33	74	112
18	40	342	513	130	399	588	108	283	112	37	68	101
19	38	270	467	130	777	588	101	247	95	40	68	84
20	31	281	379	120	902	908	99	218	84	80	64	80
21	31	1,090	311	110	1,050	688	99	212	78	61	59	310
22	120	651	289	120	1,510	563	97	200	72	43	61	244
23	209	452	268	130	2,040	490	95	174	64	34	57	168
24	142	330	275	110	1,180	425	90	160	59	29	50	139
25	103	262	240	120	836	363	90	155	54	31	47	112
26	84	220	226	120	747	328	88	144	50	31	46	101
27	66	196	200	130	1,120	300	86	132	47	97	59	103
28	59	177	180	110	1,080	276	86	122	49	72	120	95
29	52	164	170	100	-----	263	101	117	44	147	82	86
30	54	207	150	110	-----	240	92	120	43	300	61	78
31	63	-----	140	110	-----	218	-----	134	-----	737	55	-----
TOTAL	1,615.9	8,458	6,776	5,300	19,520	16,172	3,918	5,625	2,926	2,472	6,881	3,009
MEAN	52.1	282	219	171	697	522	131	181	97.5	79.7	222	100
MAX	209	1,090	513	400	2,930	908	224	514	410	737	1,450	310
MIN	8.9	54	124	100	74	218	86	84	43	28	46	34
CFSM	.32	1.74	1.35	1.06	4.30	3.22	.81	1.12	.60	.49	1.37	.62
IN.	.37	1.94	1.56	1.22	4.48	3.71	.90	1.29	.67	.57	1.58	.69

CAL YR 1970 TOTAL 89,428.5 MEAN 245 MAX 3,940 MIN 8.9 CFSM 1.51 IN 20.54
WTR YR 1971 TOTAL 82,672.9 MEAN 227 MAX 2,930 MIN 8.9 CFSM 1.40 IN 18.98

PEAK DISCHARGE (BASE, 1,900 CFS).--Feb. 13 (2130) 6,390 cfs (10.42 ft); Feb. 22 (2100) 2,930 cfs (6.75 ft).

01556000 Frankstown Branch Juniata River at Williamsburg, Pa.

LOCATION.--Lat 40°27'47", long 78°12'00", Blair County, on left bank 10 ft downstream from highway bridge at Williamsburg, 2.5 miles upstream from Clover Creek.

DRAINAGE AREA.--291 sq mi.

PERIOD OF RECORD.--October 1916 to current year. Monthly figures only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 831.78 ft above mean sea level (Penn Central Railroad benchmark). Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--55 years, 381 cfs (17.78 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,000 cfs Nov. 13 (gage height, 14.50 ft), from rating curve extended above 2,500 cfs on basis of slope-area measurement at gage height, 13.54 ft; minimum, 52 cfs Sept. 8 (gage height, 1.74 ft).

Period of record: Maximum discharge, 47,600 cfs Mar. 18, 1936 (gage height, 18.58 ft, from floodmark in gage shelter), from rating curve extended above 7,300 cfs on basis of slope-area measurement of peak flow; minimum, 13 cfs July 24, 1934 (gage height, 0.97 ft); minimum daily, 31 cfs Dec. 24, 25, 1930.

Maximum stage known, 19.1 ft June 1, 1889, from floodmark (discharge about 35,500 cfs).

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1332, 1722	1954	Mar. 1, 1954	11,200	13.98
1702, 1722	1960	May 9, 1960	9,920	13.36
WRD Penna. 1961, 1903	1961	Feb. 26, 1961	11,400	14.12

REMARKS.--Records good. Regulation at low flow by mills above station.

REVISIONS.--WSP 756: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	688	611	452	235	2,230	526	196	179	604	230	86
2	94	566	535	430	204	1,730	617	197	171	205	183	85
3	93	1,250	590	392	213	1,430	677	227	183	135	250	85
4	88	1,190	924	991	217	1,240	640	200	167	117	796	81
5	84	816	692	1,810	242	1,000	620	183	156	109	727	81
6	84	618	632	1,200	329	958	561	794	167	106	404	80
7	83	491	552	870	298	1,000	565	834	187	100	298	88
8	81	414	491	668	265	959	495	1,270	159	94	233	85
9	78	356	458	629	260	788	463	994	140	103	191	104
10	76	318	442	566	209	698	567	742	129	129	168	79
11	121	332	405	524	223	675	528	590	124	361	160	77
12	125	632	1,310	580	240	691	480	521	122	491	145	156
13	96	5,140	1,330	505	1,660	1,390	451	1,110	148	183	130	1,030
14	88	3,040	1,020	495	3,360	1,730	488	1,510	149	142	123	1,100
15	138	2,240	804	608	1,510	1,730	425	955	232	125	115	486
16	106	1,540	680	470	1,020	2,120	376	827	162	116	114	452
17	88	1,110	708	435	792	1,630	333	692	146	108	108	674
18	83	847	776	364	777	1,220	336	560	133	102	102	400
19	80	684	740	337	1,390	1,070	295	487	122	121	97	568
20	80	653	942	311	1,830	1,090	285	431	114	149	96	1,520
21	115	732	780	340	2,860	904	275	388	113	112	101	1,190
22	518	555	1,070	344	3,100	857	261	338	133	96	418	766
23	262	518	1,350	339	4,520	770	247	306	118	91	153	556
24	200	455	2,000	308	2,490	675	235	284	108	89	120	441
25	154	414	1,380	295	1,710	593	224	287	104	113	106	352
26	140	374	1,060	403	1,770	561	215	259	100	93	103	575
27	130	365	808	264	2,560	556	205	283	95	109	99	916
28	122	356	680	243	3,240	495	204	225	91	89	108	577
29	116	362	576	265	-----	528	219	210	98	150	101	479
30	160	937	508	328	-----	551	196	203	327	195	94	411
31	488	-----	455	294	-----	534	-----	193	-----	616	90	-----
TOTAL	4,270	27,993	25,309	16,060	37,524	32,403	12,009	16,296	4,377	5,353	6,163	13,580
MEAN	138	933	816	518	1,340	1,045	400	526	146	173	199	453
MAX	518	5,140	2,000	1,810	4,520	2,230	677	1,510	327	616	796	1,520
MIN	76	318	405	243	204	495	196	183	91	89	90	77
CFSM	.47	3.21	2.80	1.78	4.60	3.59	1.37	1.81	.50	.59	.68	1.56
IN.	.55	3.58	3.24	2.05	4.80	4.14	1.54	2.08	.56	.68	.79	1.74

CAL YR 1970 TOTAL 198,565 MEAN 544 MAX 6,260 MIN 76 CFSM 1.87 IN 25.38
WTR YR 1971 TOTAL 201,337 MEAN 552 MAX 5,140 MIN 76 CFSM 1.90 IN 25.74

PEAK DISCHARGE (BASE, 4,200 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-13	1715	14.50	10,000	2-23	0100	11.08	5,630
2-14	0200	10.25	4,790				

SUSQUEHANNA RIVER BASIN

01557500 Bald Eagle Creek at Tyrone, Pa.

LOCATION.--Lat 40°41'01", long 78°14'02", Blair County, on left bank, 0.2 mile upstream from plant of West Virginia Pulp and Paper Co., at Tyrone, 0.2 mile upstream from Laurel Run, and 1.3 miles upstream from mouth.

DRAINAGE AREA.--44.1 sq mi.

PERIOD OF RECORD.--October 1944 to current year. Prior to October 1967, published as South Bald Eagle Creek at Tyrone.

GAGE.--Water-stage recorder. Datum of gage is 921.80 ft above mean sea level. Oct. 1, 1944 to Nov. 15, 1950, water-stage recorder, and Nov. 16, 1950 to Nov. 30, 1952, nonrecording gage at site 0.5 mile downstream at datum 17.99 ft lower.

AVERAGE DISCHARGE.--27 years, 72.8 cfs (22.42 inches per year), adjusted for diversion from October 1950 to November 1952.

EXTREMES.--Current year: Maximum discharge, 819 cfs Feb. 27 (gage height, 3.19 ft); minimum, 3.6 cfs Sept. 6, 10, 11 (gage height, 0.13 ft).

Period of record: Maximum discharge, 5,140 cfs Nov. 25, 1950 (gage height, 7.5 ft, from floodmarks, at site and datum then in use), from rating curve extended above 2,100 cfs on basis of contracted-opening measurement of peak flow; minimum, 2.2 cfs Sept. 26, 27, 1959; minimum gage height, 0.15 ft Aug. 31, Sept. 1, 1962, Sept. 11, 1965, Sept. 1, 2, 3, 4, 1966.

Maximum stage known, about 15 ft Mar. 17 or 18, 1936 (site and datum in use prior to Dec. 1, 1952).

REMARKS.--Records good except those for winter periods, which are fair. Prior to Oct. 1, 1950, daily discharges were affected by diversion from the basin of a small quantity of water for boiler feed makeup for West Virginia Pulp and Paper Co. From Oct. 1, 1950 to Nov. 30, 1952, in addition to the effects of above diversion, daily discharges were affected by diversion into the basin, by West Virginia Pulp and Paper Co., of water from ground-water sources. Daily discharges subsequent to Nov. 30, 1952 are not affected by diversion.

REVISIONS (WATER YEARS).--WSP 1903: 1954(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	74	113	66	32	384	149	37	29	22	12	4.6
2	7.4	67	101	60	31	300	197	40	29	13	10	5.2
3	8.6	202	110	57	30	239	197	42	32	11	26	4.9
4	7.4	175	177	160	31	192	182	37	29	9.8	32	4.6
5	6.6	133	141	192	34	153	166	35	26	8.8	25	4.6
6	6.6	110	128	139	35	131	151	233	25	8.4	14	4.9
7	6.6	92	110	110	33	135	137	175	23	8.0	11	4.3
8	6.2	79	96	96	32	120	129	249	21	7.6	9.3	4.3
9	6.2	69	88	86	33	107	133	207	20	9.3	8.0	4.0
10	9.0	63	82	78	28	96	192	164	18	9.3	8.0	3.8
11	27	63	81	73	29	95	182	131	18	28	8.4	3.8
12	21	95	225	75	66	101	164	117	18	18	7.6	8.4
13	13	292	222	67	250	220	162	147	18	11	6.4	17
14	11	217	168	62	290	220	160	128	25	14	6.4	61
15	15	283	137	56	200	283	131	110	32	9.8	6.4	13
16	11	225	117	54	141	363	112	110	22	8.4	6.8	15
17	10	175	115	50	120	277	98	100	19	8.0	5.8	24
18	9.5	141	112	48	113	215	88	87	17	7.6	5.5	14
19	9.0	119	122	45	143	192	78	78	15	12	5.5	48
20	8.6	120	133	45	215	171	72	72	15	12	5.5	185
21	36	110	126	46	297	147	67	66	13	8.4	11	88
22	73	93	149	45	391	139	61	59	13	9.3	10	54
23	42	87	197	43	438	128	57	53	12	7.2	7.6	43
24	35	78	280	40	280	110	53	51	12	16	5.8	36
25	32	70	189	42	228	98	51	49	12	24	5.5	30
26	30	64	149	47	230	93	52	45	12	7.2	6.4	36
27	28	63	122	39	568	88	46	41	11	6.8	5.5	33
28	26	59	103	36	538	100	46	38	18	6.1	6.1	28
29	25	93	90	36	-----	135	36	36	12	9.8	5.2	26
30	36	157	78	39	-----	155	39	34	15	11	4.9	23
31	65	-----	72	35	-----	141	-----	32	-----	32	4.6	-----
TOTAL	635.1	3,668	4,133	2,067	4,856	5,328	3,388	2,803	581	373.8	292.2	831.4
MEAN	20.5	122	133	66.7	173	172	113	90.4	19.4	12.1	9.43	27.7
MAX	73	292	280	192	568	384	197	249	32	32	32	185
MIN	6.2	59	72	35	28	88	36	32	11	6.1	4.6	3.8
CFSM	.46	2.77	3.02	1.51	3.92	3.90	2.56	2.05	.44	.27	.21	.63
IN.	.54	3.09	3.49	1.74	4.10	4.49	2.86	2.36	.49	.32	.25	.70

CAL YR 1970 TOTAL 30,015.2 MEAN 82.2 MAX 1,130 MIN 6.2 CFSM 1.86 IN 25.32
WTR YR 1971 TOTAL 28,956.5 MEAN 79.3 MAX 568 MIN 3.8 CFSM 1.80 IN 24.43

PEAK DISCHARGE (BASE, 940 CFS).--No peak above base.

01558000 Little Juniata River at Spruce Creek, Pa.

LOCATION.--Lat 40°36'45", long 78°08'27", Huntingdon County, on right bank 150 ft downstream from Penn Central Railroad Bridge, 0.5 mile northwest of village of Spruce Creek, and 0.5 mile upstream from Spruce Creek.

DRAINAGE AREA.--220 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 354 cfs (21.85 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,250 cfs Feb. 27 (gage height, 8.19 ft); minimum, 75 cfs Sept. 10, 11, 12 (gage height, 1.69 ft).

Period of record: Maximum discharge, 23,100 cfs Nov. 25, 1950 (gage height, 15.77 ft), from rating curve extended above 5,600 cfs on basis of slope-area measurement of peak flow; maximum gage height, 15.82 ft Nov. 25, 1950 (backwater from unknown cause); minimum discharge, 45 cfs Sept. 26, 1943, Oct. 4, 1949; minimum gage height, 1.41 ft Sept. 26, 1943.

Maximum stage known, about 19.1 ft Mar. 18, 1936, from floodmarks 175 ft downstream (discharge, 39,800 cfs from rating curve extended above 5,600 cfs on basis of slope-area measurement at gage height, 15.77 ft).

REMARKS.--Records good. Some regulation at low flow by mills above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	440	595	406	173	2,100	633	205	183	162	162	82
2	96	418	528	360	169	1,680	795	212	178	116	136	88
3	100	978	572	333	167	1,380	863	235	190	101	160	82
4	95	1,010	880	714	169	1,160	831	210	173	93	264	82
5	91	779	705	1,070	178	945	782	192	162	91	259	81
6	90	642	652	786	188	813	728	755	164	90	178	80
7	90	514	562	629	180	813	665	768	162	90	151	90
8	88	427	490	522	176	737	615	1,030	151	86	136	81
9	88	372	452	497	178	624	611	890	140	101	128	97
10	89	337	419	450	153	564	849	741	134	153	122	77
11	183	340	397	417	157	551	809	611	130	237	132	75
12	164	493	1,110	435	164	559	728	538	128	248	122	86
13	118	1,160	1,060	374	1,210	1,300	696	656	142	136	110	188
14	108	1,020	859	357	1,590	1,330	701	642	151	136	106	473
15	144	1,280	725	360	990	1,510	576	514	183	118	103	192
16	114	1,070	628	299	741	2,020	493	518	145	105	103	151
17	104	888	635	284	589	1,560	435	477	136	101	99	210
18	98	741	634	248	629	1,230	413	417	126	95	95	170
19	95	625	642	237	950	1,100	360	381	120	108	95	400
20	94	606	713	235	1,280	1,000	333	350	114	149	93	1,300
21	166	582	660	243	1,820	854	317	327	112	110	122	740
22	487	463	801	245	2,380	786	302	296	112	97	190	540
23	271	433	984	243	2,720	728	281	275	106	93	116	440
24	222	379	1,400	225	1,720	633	267	261	110	97	101	360
25	202	342	1,040	220	1,390	551	256	264	105	116	93	310
26	189	319	858	259	1,380	518	253	243	105	99	91	360
27	175	308	705	202	2,840	485	235	230	103	101	90	330
28	162	298	606	195	2,960	489	235	217	110	91	93	280
29	154	349	518	197	-----	589	230	210	106	114	90	260
30	189	914	450	212	-----	678	215	202	134	136	84	230
31	344	-----	402	190	-----	629	-----	195	-----	374	84	-----
TOTAL	4,710	18,527	21,682	11,444	27,241	29,916	15,507	13,062	4,115	3,944	3,908	7,935
MEAN	152	618	699	369	973	965	517	421	137	127	126	265
MAX	487	1,280	1,400	1,070	2,960	2,100	863	1,030	190	374	264	1,300
MIN	88	298	397	190	153	485	215	192	103	86	84	75
CFSM	.69	2.81	3.18	1.68	4.42	4.39	2.35	1.91	.62	.58	.57	1.20
IN.	.80	3.13	3.67	1.94	4.61	5.06	2.62	2.21	.70	.67	.66	1.34

CAL YR 1970 TOTAL 169,963 MEAN 466 MAX 4,780 MIN 86 CFSM 2.12 IN 28.74
WTR YR 1971 TOTAL 161,991 MEAN 444 MAX 2,960 MIN 75 CFSM 2.02 IN 27.39

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2-13	2030	7.11	3,060	2-27	2030	8.19	4,250
2-22	1730	7.85	3,860				

SUSQUEHANNA RIVER BASIN

01559000 Juniata River at Huntingdon, Pa.

LOCATION.--Lat 40°29'05", long 78°01'09", Huntingdon County, on right bank 170 ft downstream from Smithfield Bridge at Huntingdon, and 0.8 mile upstream from Standing Stone Creek.

DRAINAGE AREA.--816 sq mi.

PERIOD OF RECORD.--September 1941 to current year. Gage-height records collected in this vicinity for the period May 1895 to December 1938 are contained in reports of U.S. Weather Bureau. Prior to October 1950, published as Frankstown Branch Juniata River at Huntingdon.

GAGE.--Water-stage recorder. Datum of gage is 599.69 ft above mean sea level.

AVERAGE DISCHARGE.--30 years, 1,020 cfs (16.98 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,300 cfs Feb. 23 (gage height, 8.63 ft); minimum, 39 cfs Sept. 7, 10, 11 (gage height, 0.50 ft).

Period of record: Maximum discharge, 34,200 cfs Nov. 25, 1950 (gage height, 15.29 ft), from rating curve extended above 20,000 cfs on basis of computation of flow over dam at gage height, 21.87 ft; minimum observed, 14 cfs Feb. 8, 1948, Aug. 2, 1954; minimum gage height observed, 0.27 ft Feb. 8, 1948.

Flood of Mar. 18, 1936, reached a stage of 21.87 ft, from floodmark (discharge, 81,000 cfs, by computation of flow over dam).

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow by Warrior Ridge hydroelectric plant 4 miles upstream. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	1,430	1,680	1,280	640	5,920	1,580	631	616	954	842	246
2	341	1,410	1,460	1,200	580	4,750	1,720	616	488	556	528	275
3	292	2,430	1,380	1,160	600	4,030	1,930	719	547	394	524	320
4	287	3,570	2,290	1,440	640	3,450	1,880	609	631	356	734	304
5	329	2,300	1,930	3,770	660	2,850	1,790	609	561	364	1,450	237
6	261	1,890	1,720	2,750	726	2,570	1,690	1,230	501	296	870	299
7	276	1,500	1,540	2,140	811	2,580	1,600	2,360	482	302	720	294
8	282	1,280	1,370	1,700	734	2,500	1,480	2,510	575	301	545	294
9	287	1,120	1,270	1,650	640	2,080	1,400	2,440	534	330	432	299
10	292	1,020	1,260	1,510	540	1,880	1,610	2,020	391	428	433	265
11	381	979	1,180	1,390	560	1,810	1,670	1,650	445	466	392	280
12	418	1,440	2,080	1,440	580	1,820	1,520	1,450	420	1,140	458	309
13	369	4,980	3,160	1,370	2,200	3,260	1,440	1,780	438	535	275	891
14	313	6,420	2,560	1,230	6,390	4,040	1,460	3,210	508	433	332	1,740
15	444	4,320	2,090	1,360	3,420	4,100	1,340	2,160	734	394	329	1,050
16	375	3,610	1,810	1,210	2,480	5,020	1,220	1,900	568	374	360	803
17	346	2,800	1,810	1,150	1,940	4,350	1,160	1,780	521	304	324	1,010
18	287	2,280	1,990	953	1,880	3,420	1,000	1,450	457	313	296	866
19	302	1,900	1,800	960	3,040	3,000	1,000	1,280	445	336	314	772
20	287	1,700	2,190	800	4,000	2,930	866	1,170	445	399	288	2,410
21	346	1,930	1,950	924	5,990	2,530	899	1,110	368	436	313	2,510
22	1,100	1,490	2,140	902	7,000	2,360	858	983	374	312	570	1,610
23	988	1,380	2,880	814	9,720	2,230	734	899	414	309	498	1,210
24	699	1,210	4,120	870	5,880	1,960	787	850	380	292	306	983
25	568	1,160	3,280	797	4,410	1,730	659	834	414	326	362	826
26	450	1,060	2,700	804	4,410	1,620	826	818	280	312	272	826
27	418	1,020	2,190	760	6,980	1,540	681	787	414	316	321	1,540
28	450	983	1,940	660	8,200	1,470	659	719	363	182	300	1,150
29	450	970	1,610	720	-----	1,520	704	652	414	261	309	958
30	464	2,240	1,430	760	-----	1,650	681	652	424	642	262	842
31	880	-----	1,280	740	-----	1,610	-----	638	-----	994	299	-----
TOTAL	13,306	61,822	62,090	39,214	85,651	86,580	36,844	40,516	14,152	13,357	14,258	25,419
MEAN	429	2,061	2,003	1,265	3,059	2,793	1,228	1,307	472	431	460	847
MAX	1,100	6,420	4,120	3,770	9,720	5,920	1,930	3,210	734	1,140	1,450	2,510
MIN	261	970	1,180	660	540	1,470	659	609	280	182	262	237
CFSM	.53	2.53	2.45	1.55	3.75	3.42	1.50	1.60	.58	.53	.56	1.04
IN.	.61	2.82	2.83	1.79	3.90	3.95	1.68	1.85	.65	.61	.65	1.16

CAL YR 1970 TOTAL 497,921 MEAN 1.364 MAX 12,700 MIN 238 CFSM 1.67 IN 22.70
WTR YR 1971 TOTAL 493,209 MEAN 1.351 MAX 9,720 MIN 182 CFSM 1.66 IN 22.48

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-14	0045	8.40	10,800	2-23	0330	8.63	11,300
2-13	2400	7.27	8,270	2-27	2400	7.83	9,460

SUSQUEHANNA RIVER BASIN

149

01559700 Buffalo Run tributary near Manns Choice, Pa.

LOCATION.--Lat 39°58'40", long 78°37'08", Bedford County, at left downstream end of bridge on State Highway 96, 2,000 ft upstream from mouth, 2.3 miles south of Manns Choice, and 11 miles southwest of Bedford.

DRAINAGE AREA.--5.28 sq mi.

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,230 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 4.72 cfs (12.14 inches per year).

EXTREMES.--Current year: Maximum discharge, 230 cfs Feb. 13 (gage height, 2.66 ft), from rating curve extended above 150 cfs; minimum, 0.25 cfs Sept. 9, 10, 11; minimum gage height, 0.34 ft July 23, 25.
Period of record: Maximum discharge, 1,010 cfs Sept. 28, 1967 (gage height, 4.26 ft), from rating curve extended above 150 cfs; no flow Aug. 4-11, 1966.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WRD Penna. 1970: 1968-69(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	9.7	5.7	6.4	3.8	40	6.6	2.0	2.1	.57	.98	.33
2	.44	6.5	5.1	6.0	3.5	30	7.0	2.2	2.2	.52	.98	.33
3	.67	30	5.9	5.6	3.2	23	7.4	2.1	2.8	.48	.98	.36
4	.44	13	7.2	25	3.2	18	6.8	2.0	1.9	.44	6.9	.33
5	.36	9.7	5.9	24	3.7	15	6.2	2.6	1.6	.44	2.5	.30
6	.36	7.9	5.5	19	4.4	14	5.6	47	2.8	.44	1.2	.30
7	.33	6.3	4.9	16	3.7	17	5.2	43	4.9	.44	.84	.30
8	.33	4.9	4.7	13	3.5	15	4.7	31	3.2	.44	.67	.27
9	.33	4.1	4.7	11	3.7	13	4.2	18	1.7	.36	.57	.27
10	.36	3.5	4.6	9.2	3.2	11	4.2	14	1.4	.36	.48	.27
11	.62	8.4	5.3	8.0	2.9	12	3.5	11	1.3	2.2	.98	.30
12	.52	24	19	9.4	3.4	11	3.4	9.6	1.4	.98	.72	3.1
13	.44	26	12	8.2	48	20	3.5	18	5.1	.52	.48	5.9
14	.44	21	11	9.0	48	28	3.5	33	4.4	.44	.40	2.2
15	.84	25	10	10	24	35	3.4	25	2.2	.40	16	1.1
16	.52	17	9.4	9.4	17	39	3.2	19	2.1	.40	10	2.8
17	.44	14	11	8.4	14	25	3.7	14	1.8	.36	2.6	2.1
18	.44	11	10	7.2	17	20	3.5	11	1.4	.33	1.7	1.4
19	.40	9.2	16	6.4	23	17	2.9	9.0	1.3	.48	1.3	2.2
20	.40	14	15	5.4	46	16	2.8	7.8	1.2	.52	1.1	7.9
21	7.7	10	12	5.6	47	13	2.6	6.9	1.2	.36	.91	4.2
22	6.1	8.4	26	5.6	90	11	2.6	5.9	1.1	.33	2.2	2.6
23	2.2	7.7	54	5.4	68	9.6	2.5	5.3	1.1	.30	.98	2.2
24	1.6	6.7	45	5.0	40	8.0	2.3	4.7	.98	.30	.67	1.8
25	1.3	5.9	31	4.8	35	7.2	2.3	4.4	.84	.30	.52	1.4
26	1.1	5.5	23	5.6	38	6.4	2.3	3.7	.78	.57	.48	3.2
27	.98	5.1	17	6.6	62	6.0	2.2	3.2	.72	.52	.48	2.1
28	.91	4.9	13	4.6	58	6.0	2.5	2.9	.67	.33	.52	1.6
29	.91	7.4	11	3.9	-----	6.4	2.5	2.9	.62	2.1	.44	1.3
30	12	7.9	8.7	5.2	-----	7.2	2.1	2.8	.57	.91	.40	1.2
31	13	-----	7.4	4.5	-----	7.0	-----	2.5	-----	2.0	.36	-----
TOTAL	56.92	334.7	421.0	273.4	717.2	506.8	115.2	366.5	55.38	19.14	59.34	53.66
MEAN	1.84	11.2	13.6	8.82	25.6	16.3	3.84	11.8	1.85	.62	1.91	1.79
MAX	13	30	54	25	90	40	7.4	47	5.1	2.2	16	7.9
MIN	.33	3.5	4.6	3.9	2.9	6.0	2.1	2.0	.57	.30	.36	.27
CFSM	.35	2.12	2.58	1.67	4.85	3.09	.73	2.23	.35	.12	.36	.34
IN.	.40	2.36	2.97	1.93	5.05	3.57	.81	2.58	.39	.13	.42	.38

CAL YR 1970 TOTAL 3,260.77 MEAN 8.93 MAX 148 MIN .33 CFSM 1.69 IN 22.97
WTR YR 1971 TOTAL 2,979.24 MEAN 8.16 MAX 90 MIN .27 CFSM 1.55 IN 20.99

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-3	1030	1.97	82	2-27	1230	2.02	90
12-23	1045	2.28	140	5-6	0715	2.35	155
2-13	1600	2.66	230	8-15	2215	2.65	228
2-22	1015	2.34	153				

NOTE.--No gage-height record Feb. 28 to Apr. 7.

SUSQUEHANNA RIVER BASIN

01560000 Dunning Creek at Belden, Pa.

LOCATION.--Lat 40°04'18", long 78°29'34", Bedford County, on left bank 10 ft upstream from highway bridge, 0.8 mile southeast of Belden, 3.8 miles north of Bedford, and 4.3 miles above mouth.

DRAINAGE AREA.--172 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,051.16 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 212 cfs (16.74 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,170 cfs Nov. 13 (gage height, 9.62 ft); minimum, 18 cfs Oct. 10, July 9, 10, 18, Sept. 7, 8, 11; minimum gage height, 1.31 ft Sept. 7, 8, 11.

Period of record: Maximum discharge, 6,430 cfs Mar. 1, 1954 (gage height, 11.43 ft), from rating curve extended above 4,000 cfs; minimum, 2.6 cfs Sept. 6, 1964; minimum gage height, 0.92 ft Jan. 8, 1954 (result of freezeup).

Maximum stage known, 17.8 ft Mar. 18, 1936, from floodmarks (backwater from Raystown Branch Juniata River), discharge, about 16,900 cfs.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 971: 1940(M). WSP 1502: 1940-41.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	973	435	200	130	1,180	310	89	69	47	120	21
2	33	693	386	190	110	909	343	81	66	38	96	21
3	30	1,280	347	180	110	737	390	85	81	30	98	21
4	27	1,120	489	600	120	565	361	83	73	26	235	20
5	24	693	377	1,210	136	450	334	79	58	24	344	20
6	22	476	359	830	167	433	314	1,650	62	24	246	20
7	21	332	309	520	152	531	299	1,540	93	22	178	19
8	21	253	264	400	140	463	261	1,540	76	21	132	24
9	20	205	240	373	130	377	240	1,060	55	20	104	22
10	20	195	227	310	100	353	294	649	46	20	86	21
11	27	218	205	275	110	365	283	433	40	32	73	19
12	44	540	1,040	324	117	344	253	332	40	115	64	40
13	32	3,020	1,130	278	1,060	700	243	949	53	47	53	235
14	27	1,800	783	311	2,000	923	249	1,110	73	35	46	246
15	66	1,410	554	437	900	1,110	216	733	53	29	42	153
16	44	997	419	324	600	1,230	177	597	58	25	78	195
17	32	701	427	280	500	871	157	429	53	22	44	316
18	29	515	479	220	470	603	205	320	46	21	37	159
19	26	399	510	190	893	514	149	263	38	25	33	169
20	25	403	614	170	1,250	519	136	225	44	46	32	573
21	51	403	541	190	1,990	442	141	195	55	30	32	472
22	344	305	811	190	2,340	422	140	169	40	24	88	336
23	162	301	1,080	180	2,610	385	131	147	35	21	55	253
24	118	256	1,440	170	1,360	345	124	132	35	19	35	198
25	98	239	978	160	1,060	301	119	129	33	22	29	153
26	86	201	693	200	1,070	289	114	112	30	22	27	198
27	73	191	502	140	1,670	267	109	104	29	40	26	278
28	64	182	384	130	1,810	265	109	93	27	27	27	201
29	60	184	300	150	-----	296	110	86	26	46	27	178
30	228	701	253	180	-----	330	100	83	38	83	24	153
31	725	-----	221	150	-----	327	-----	76	-----	232	21	-----
TOTAL	2,609	19,186	16,797	9,462	23,105	16,846	6,411	13,573	1,525	1,235	2,532	4,734
MEAN	84.2	640	542	305	825	543	214	438	50.8	39.8	81.7	158
MAX	725	3,020	1,440	1,210	2,610	1,230	390	1,650	93	232	344	573
MIN	20	182	205	130	100	265	100	76	26	19	21	19
CFSM	.49	3.72	3.15	1.77	4.80	3.16	1.24	2.55	.30	.23	.48	.92
IN.	.56	4.15	3.63	2.05	5.00	3.64	1.39	2.94	.33	.27	.55	1.02

CAL YR 1970 TOTAL 125,732 MEAN 344 MAX 3,520 MIN 20 CFSM 2.00 IN 27.19
WTR YR 1971 TOTAL 118,015 MEAN 323 MAX 3,020 MIN 19 CFSM 1.88 IN 25.52

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-13	1630	9.62	4,170	2-22	2130	8.90	3,540
2-14	0100	7.99	2,860	5- 6	1830	8.28	3,070

01562000 Raystown Branch Juniata River at Saxton, Pa.

LOCATION.--Lat 40°12'57", long 78°15'56", Bedford County, on left bank, 500 ft downstream from bridge on State Highway 913, 0.5 mile west of Saxton, and 1.5 miles upstream from Shoup Run.

DRAINAGE AREA.--756 sq mi.

PERIOD OF RECORD.--September 1911 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 795.77 ft above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at site 0.8 mile downstream at datum 4.82 ft lower.

AVERAGE DISCHARGE.--60 years, 878 cfs (15.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,900 cfs Feb. 23 (gage height, 10.66 ft); maximum gage height, 11.21 ft Feb. 14 (ice jam); minimum discharge, 124 cfs Sept. 6, 10 (gage height, 1.19 ft).
Period of record: Maximum discharge, 80,500 cfs Mar. 18, 1936 (gage height, 24.54 ft, from floodmark in gage shelter), from rating curve extended above 17,000 cfs on basis of slope-area measurement of peak flow; minimum, 39 cfs Sept. 6, 7, 12, 1966 (gage height, 0.84 ft).
Maximum stage known prior to 1911, 23.0 ft present site, June 1, 1889, from floodmarks (discharge, about 71,300 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station.

REVISIONS (WATER YEARS).--WSP 1302: 1912-13(M), 1914-15. WSP 1502: 1934, 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	2,000	1,610	1,100	540	5,850	1,020	408	531	234	475	146
2	192	2,300	1,260	1,000	460	4,300	987	385	481	224	425	142
3	191	3,900	1,160	960	480	3,470	1,050	390	457	219	358	136
4	190	3,500	1,200	2,000	500	3,000	1,150	398	505	208	328	133
5	179	2,300	1,380	4,300	540	2,370	999	420	486	191	527	133
6	169	1,600	1,210	4,050	660	2,050	923	4,500	434	184	698	127
7	163	1,200	1,120	3,040	620	2,080	893	4,800	484	180	477	131
8	157	960	1,010	2,400	580	2,440	891	6,600	631	174	374	132
9	154	780	948	2,000	540	2,170	837	4,800	576	169	309	133
10	156	701	908	1,800	470	1,890	755	3,500	428	165	262	129
11	171	694	878	1,610	430	1,740	820	2,500	368	180	232	135
12	168	1,370	1,290	1,500	480	1,710	819	2,000	339	238	214	232
13	170	8,960	3,400	1,590	2,000	1,890	722	1,800	338	258	207	1,010
14	180	7,970	3,030	1,420	7,000	3,000	691	4,500	391	256	200	1,440
15	210	5,040	2,340	1,680	4,600	3,370	677	3,700	710	199	181	804
16	179	4,320	1,900	1,400	3,020	3,730	649	2,800	574	172	183	581
17	189	3,110	1,730	1,200	2,150	3,560	599	2,500	501	168	249	615
18	184	2,300	1,890	1,000	1,950	2,830	590	2,000	453	155	252	720
19	169	1,850	1,980	820	2,970	2,300	637	1,600	403	159	199	494
20	162	1,590	2,260	700	4,400	2,300	565	1,400	373	180	179	549
21	350	1,780	2,410	760	8,020	2,000	540	2,220	399	165	171	1,250
22	900	1,580	2,310	780	8,280	1,800	523	2,040	378	169	224	954
23	720	1,260	3,560	720	12,000	1,700	513	1,580	340	164	201	699
24	500	1,150	6,020	680	7,960	1,500	498	1,310	313	149	242	565
25	420	987	5,240	660	4,960	1,400	473	1,130	305	145	201	467
26	350	888	3,650	900	4,580	1,300	455	974	281	142	176	425
27	300	865	2,710	660	5,520	1,200	439	830	261	145	163	582
28	270	811	2,150	560	7,410	1,110	428	718	248	137	159	799
29	250	778	1,600	600	-----	1,100	429	644	239	188	151	580
30	350	1,060	1,300	720	-----	1,170	435	595	248	236	147	440
31	700	-----	1,200	640	-----	1,060	-----	563	-----	333	147	-----
TOTAL	8,654	67,604	64,654	43,250	93,120	71,390	21,007	63,605	12,475	5,886	8,311	14,683
MEAN	279	2,253	2,086	1,395	3,326	2,303	700	2,052	416	190	268	489
MAX	900	8,960	6,020	4,300	12,000	5,850	1,150	6,600	710	333	698	1,440
MIN	154	694	878	560	430	1,060	428	385	239	137	147	127
CFSM	.37	2.98	2.76	1.85	4.40	3.05	.93	2.71	.55	.25	.35	.65
IN.	.43	3.33	3.18	2.13	4.58	3.51	1.03	3.13	.61	.29	.41	.72

CAL YR 1970 TOTAL 491,263 MEAN 1,346 MAX 15,700 MIN 154 CFSM 1.78 IN 24.17
WTR YR 1971 TOTAL 474,639 MEAN 1,300 MAX 12,000 MIN 127 CFSM 1.72 IN 23.36

PEAK DISCHARGE (BASE, 7,700 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-13	1115	9.96	11,500	2-23	0730	10.66	12,900
2-14	1600	9.07	9,860	2-28	1330	7.84	7,710

SUSQUEHANNA RIVER BASIN

01563000 Raystown Branch Juniata River near Huntingdon, Pa.

LOCATION.--Lat 40°25'35", long 78°01'47", Huntingdon County, 5 ft downstream from left abutment of highway bridge at Haws Bridge, 6 miles south of Huntingdon, and 9 miles upstream from mouth.

DRAINAGE AREA.--957 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 620.08 ft above mean sea level, adjustment of 1907.

AVERAGE DISCHARGE.--25 years, 1,045 cfs.

EXTREMES.--Current year: Maximum discharge, 17,000 cfs Nov. 13 (gage height, 13.86 ft); minimum, 18 cfs Oct. 20 (gage height, 1.68 ft); minimum daily, 24 cfs Oct. 17.

Period of record: Maximum discharge, 24,500 cfs Nov. 25, 1950 (gage height, 16.74 ft), from rating curve extended above 16,000 cfs on basis of computation of flow over dam at gage height 31.0 ft; minimum, 4.3 cfs Oct. 31, 1957; minimum daily, 5.0 cfs Oct. 30, 1957.

Flood of Mar. 18, 1936, reached a stage of 31.0 ft (discharge, 87,000 cfs, by computation of flow over dam).

REMARKS.--Records fair. Flow regulated by mills, powerplants, and Raystown Reservoir (capacity not known) 0.7 mile above station. Records of chemical analyses and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Penna. 1967: 1966(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	1,650	1,490	1,490	900	7,950	1,200	782	646	310	485	142
2	320	2,230	1,520	1,300	860	5,840	1,170	528	606	294	598	145
3	189	2,760	1,360	907	567	4,690	1,150	218	582	278	606	145
4	104	4,690	1,330	1,210	630	4,080	1,140	337	567	268	575	145
5	273	3,520	1,430	3,400	654	3,310	1,140	513	598	259	575	145
6	231	2,490	1,440	5,860	774	2,670	1,120	798	559	245	630	139
7	278	1,750	1,310	4,130	890	2,640	1,090	5,000	552	236	670	152
8	104	1,350	1,230	2,860	890	2,930	1,090	6,400	614	227	582	156
9	109	847	1,030	2,400	873	2,780	1,180	5,200	718	218	499	152
10	98	1,180	1,220	2,260	830	2,320	881	4,410	638	163	423	139
11	126	915	949	2,050	598	2,110	830	3,060	521	91	361	133
12	273	1,080	1,190	1,870	734	2,020	1,000	2,240	456	222	310	145
13	181	10,600	2,020	1,800	1,030	2,310	662	2,200	436	310	278	227
14	189	11,400	4,130	1,720	5,150	3,320	881	4,670	456	320	259	1,030
15	278	7,450	3,380	1,600	6,920	4,150	718	4,810	590	310	245	1,150
16	268	6,320	2,610	1,870	4,450	4,740	758	3,590	782	259	227	774
17	24	4,620	2,150	1,650	3,230	4,570	366	3,000	670	222	214	662
18	159	3,440	2,030	1,410	2,540	3,690	646	2,310	598	210	231	678
19	304	2,600	2,310	1,300	3,230	2,970	975	1,840	544	210	273	686
20	222	2,100	2,440	960	5,560	2,640	638	1,520	492	391	250	590
21	278	1,990	2,800	1,100	9,140	2,610	567	1,980	463	567	227	758
22	606	1,870	2,930	1,100	10,700	2,360	559	2,690	470	304	218	1,210
23	806	1,730	3,090	1,300	14,500	2,100	614	1,770	449	214	236	890
24	898	1,470	5,380	1,300	10,800	1,950	416	1,380	429	206	236	702
25	734	1,300	8,200	1,200	7,000	1,850	315	1,180	391	197	245	582
26	263	1,240	6,070	760	5,980	1,600	528	890	378	185	240	521
27	404	1,010	4,350	1,100	7,290	1,400	567	941	349	181	214	544
28	361	782	2,910	840	9,500	1,310	694	839	332	189	193	702
29	326	1,000	2,610	700	-----	1,250	678	766	310	197	170	774
30	552	1,140	2,000	528	-----	1,220	366	718	304	304	126	654
31	513	-----	1,980	924	-----	1,240	-----	678	-----	429	139	-----
TOTAL	9,580	86,524	78,889	52,899	116,220	90,620	23,939	67,258	15,500	8,016	10,535	14,872
MEAN	309	2,884	2,545	1,706	4,151	2,923	798	2,170	517	259	340	496
MAX	898	11,400	8,200	5,860	14,500	7,950	1,200	6,400	782	567	670	1,210
MIN	24	782	949	528	567	1,220	315	218	304	91	126	133
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 616,137	MEAN 1,688	MAX 20,600	MIN 24	CFSM -	IN. -						
WTR YR 1971	TOTAL 574,852	MEAN 1,575	MAX 14,500	MIN 24	CFSM -	IN. -						

SUSQUEHANNA RIVER BASIN

153

01563200 Raystown Branch Juniata River below Raystown Dam near Huntingdon, Pa.

LOCATION.--Lat 40°25'44", long 77°59'29", Huntingdon County, on left bank 1 mile downstream from Raystown Dam, 4 miles south of Huntingdon, and 4.7 miles upstream from mouth.

DRAINAGE AREA.--960 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 597.36 ft above mean sea level (Corps of Engineers bench mark).

EXTREMES.--Maximum discharge, 17,100 cfs Feb. 23 (gage height, 15.67 ft); minimum, 24 cfs Apr. 30 (gage height, 2.42 ft).

Period of record: Maximum discharge, 24,100 cfs Apr. 3, 1970 (gage height, 18.54 ft), from rating curve extended above 14,000 cfs; minimum daily, 14 cfs Oct. 18, 1969.

REMARKS.--Records good. Flow regulated by mills, powerplants, and Raystown Reservoir (capacity not known) 5.4 miles above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	1,220	1,590	1,490	940	8,050	1,290	796	670	296	470	144
2	292	2,200	1,640	1,360	898	5,680	1,260	541	627	284	596	144
3	218	2,470	1,470	989	627	4,530	1,230	199	591	270	632	146
4	91	4,050	1,430	1,470	692	3,970	1,220	245	571	259	581	149
5	292	3,590	1,550	3,280	709	3,310	1,220	452	596	249	576	146
6	245	2,590	1,540	5,490	814	2,730	1,200	714	581	235	627	141
7	299	1,940	1,410	4,130	940	2,670	1,160	4,750	551	225	720	149
8	138	1,460	1,320	3,050	910	2,920	1,170	6,050	591	218	606	154
9	111	1,140	1,110	2,520	892	2,840	1,270	5,660	703	208	532	154
10	70	1,010	1,290	2,320	844	2,430	940	4,360	676	186	448	144
11	125	961	1,020	2,100	617	2,230	868	3,120	546	102	370	138
12	292	1,120	1,300	1,920	754	2,110	1,040	2,380	466	169	318	146
13	218	9,140	2,600	1,910	1,010	2,380	743	2,250	430	284	281	189
14	172	11,200	3,820	1,840	4,440	3,200	856	4,330	439	292	252	720
15	299	7,010	3,060	1,710	6,860	4,010	784	4,730	541	307	242	1,200
16	288	5,870	2,460	1,960	4,190	4,550	772	3,580	796	256	225	874
17	58	4,370	2,170	1,780	3,180	4,440	421	3,040	714	215	212	703
18	130	3,360	2,200	1,510	2,480	3,650	638	2,450	612	196	212	692
19	307	2,640	2,390	1,400	2,910	2,980	989	2,010	551	189	263	743
20	232	2,190	2,570	934	4,900	2,690	749	1,660	493	292	252	617
21	256	2,090	2,920	1,080	8,660	2,660	627	1,630	452	561	228	681
22	576	2,020	2,840	1,070	11,000	2,450	606	2,660	457	370	215	1,170
23	743	1,760	3,560	1,340	15,900	2,210	601	1,950	443	221	225	1,020
24	940	1,570	6,610	1,340	11,800	2,080	581	1,550	426	199	235	778
25	856	1,400	6,700	1,260	7,040	1,990	242	1,310	383	192	235	627
26	362	1,340	4,700	726	5,680	1,750	522	922	366	183	238	536
27	434	1,080	3,330	1,070	6,880	1,540	536	989	342	177	218	532
28	400	838	2,930	850	9,630	1,440	737	910	322	183	199	638
29	358	1,120	2,320	743	-----	1,360	659	820	303	196	180	838
30	508	1,120	1,920	493	-----	1,320	457	749	292	259	141	714
31	622	-----	1,740	1,000	-----	1,350	-----	703	-----	412	138	-----
TOTAL	10,078	83,869	77,510	54,135	116,197	91,520	25,388	67,510	15,531	7,685	10,667	15,027
MEAN	325	2,796	2,500	1,746	4,150	2,952	846	2,178	518	248	344	501
MAX	940	11,200	6,700	5,490	15,900	8,050	1,290	6,050	796	561	720	1,200
MIN	58	838	1,020	493	617	1,320	242	199	292	102	138	138
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 612,123	MEAN 1,677	MAX 22,200	MIN 45	CFSM -	IN. -						
WTR YR 1971	TOTAL 575,117	MEAN 1,576	MAX 15,900	MIN 58	CFSM -	IN. -						

SUSQUEHANNA RIVER BASIN

01563500 Juniata River at Mapleton Depot, Pa.

LOCATION.--Lat 40°23'32", long 77°56'07", Huntingdon County, on right bank 0.25 mile downstream from Scrub Run, and 0.3 mile downstream from bridge on State Highway 655 at Mapleton Depot.

DRAINAGE AREA.--2,030 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 557.31 ft above mean sea level.

AVERAGE DISCHARGE.--34 years, 2,325 cfs (15.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 31,400 cfs Feb. 23 (gage height, 16.42 ft); minimum, 128 cfs Oct. 9, 10 (gage height, 1.37 ft).

Period of record: Maximum discharge, 76,800 cfs Nov. 25, 1950 (gage height, 26.4 ft, from floodmark in well), from rating curve extended above 39,000 cfs; minimum, 68 cfs Sept. 13, 1964; minimum daily, 101 cfs Aug. 21, 1966.

Maximum stage known, 38.2 ft Mar. 18, 1936, from floodmark (discharge, 145,000 cfs, from rating curve extended above 39,000 cfs on basis of data for station at Newport).

REMARKS.--Records good. Regulation at low flow by hydroelectric plants and mills above station.

REVISIONS (WATER YEARS).--WSP 921: 1940(M). WSP 1502: 1941, 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	644	2,920	3,900	3,240	1,810	16,700	3,400	1,500	1,530	1,300	1,750	436
2	627	4,010	3,700	2,980	1,590	12,300	3,480	1,430	1,430	1,130	1,460	449
3	638	5,730	3,400	2,580	1,280	9,940	3,710	1,180	1,370	797	1,510	454
4	483	9,320	4,310	3,480	1,450	8,620	3,630	1,000	1,420	702	1,870	469
5	547	6,960	4,150	7,890	1,610	7,130	3,530	1,190	1,290	674	2,700	456
6	604	5,170	3,870	9,300	1,850	6,200	3,420	2,030	1,250	612	1,870	434
7	615	4,010	3,530	6,870	2,070	6,260	3,290	6,980	1,330	601	1,710	484
8	598	3,220	3,220	5,300	1,980	6,460	3,140	9,350	1,290	567	1,370	528
9	443	2,730	2,880	4,770	1,870	5,810	3,150	8,860	1,360	611	1,120	453
10	424	2,270	3,040	4,470	1,670	5,090	3,050	7,070	1,300	707	1,030	453
11	443	2,320	2,670	4,070	1,410	4,760	3,030	5,420	1,150	635	894	440
12	753	3,410	3,850	3,930	1,600	4,590	2,980	4,350	1,030	1,460	800	590
13	778	13,400	6,380	3,760	3,360	6,610	2,790	5,090	994	1,080	728	955
14	586	20,400	7,190	3,610	11,900	8,540	2,610	9,080	1,150	815	713	2,460
15	943	13,000	5,880	3,560	11,900	9,270	2,580	8,080	1,660	824	628	2,650
16	882	11,000	4,900	3,600	7,770	11,000	2,420	6,430	1,670	681	633	1,920
17	621	8,340	4,650	3,400	5,930	10,200	2,060	5,630	1,480	614	578	1,950
18	395	6,600	4,960	2,860	5,100	8,230	1,960	4,610	1,250	564	560	1,810
19	680	5,310	4,960	2,640	6,720	7,000	2,270	3,900	1,140	610	646	1,720
20	621	4,550	5,490	2,040	10,200	6,670	1,950	3,460	1,030	711	594	3,060
21	656	4,710	5,580	2,380	16,700	6,070	1,850	3,390	981	1,100	650	3,570
22	2,110	4,200	5,680	2,290	20,300	5,680	1,770	4,280	943	856	745	3,080
23	2,150	3,650	7,140	2,600	29,500	5,230	1,630	3,440	959	601	884	2,560
24	2,040	3,360	11,700	2,580	20,700	4,740	1,890	2,930	905	522	617	2,030
25	1,620	3,090	11,200	2,410	13,300	4,370	992	2,640	898	585	636	1,660
26	1,110	2,910	8,400	1,940	11,700	4,030	1,570	2,220	725	616	583	1,520
27	970	2,560	6,340	2,310	16,500	3,690	1,430	2,170	855	556	559	2,250
28	984	2,300	5,540	1,670	21,400	3,520	1,610	1,990	799	522	539	2,100
29	902	2,490	4,500	1,670	-----	3,460	1,610	1,800	817	515	557	2,030
30	1,010	4,010	3,760	1,480	-----	3,510	1,540	1,720	800	1,030	489	1,900
31	1,720	-----	3,530	2,000	-----	3,530	-----	1,640	-----	1,830	506	-----
TOTAL	27,597	167,950	160,300	107,680	233,170	209,210	74,342	124,860	34,806	24,428	29,929	44,871
MEAN	890	5,598	5,171	3,474	8,328	6,749	2,478	4,028	1,160	788	965	1,496
MAX	2,150	20,400	11,700	9,300	29,500	16,700	3,710	9,350	1,670	1,830	2,700	3,570
MIN	395	2,270	2,670	1,480	1,280	3,460	992	1,000	725	515	489	434
CFSM	.44	2.76	2.55	1.71	4.10	3.32	1.22	1.98	.57	.39	.48	.74
IN.	.51	3.08	2.94	1.97	4.27	3.83	1.36	2.29	.64	.45	.55	.82
CAL YR 1970	TOTAL 1,277,144	MEAN 3,499	MAX 42,500	MIN 395	CFSM 1.72	IN 23.40						
WTR YR 1971	TOTAL 1,239,143	MEAN 3,395	MAX 29,500	MIN 395	CFSM 1.67	IN 22.71						

PEAK DISCHARGE (BASE, 12,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-14	0130	15.10	26,300	2-23	0845	16.42	31,400
12-24	1645	10.84	13,800	2-28	0530	13.85	22,600
2-15	0200	11.43	15,400				

01564500 Aughwick Creek near Three Springs, Pa.

LOCATION.--Lat 40°12'45", long 77°55'32", Huntingdon County, on right bank 10 ft downstream from bridge on State Highway 994, 300 ft upstream from East Broad Top Railroad Bridge, 350 ft upstream from Three Springs Creek, and 3.5 miles northeast of village of Three Springs. Records include flow of Three Springs Creek.

DRAINAGE AREA.--205 sq mi, includes that of Three Springs Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 618.65 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--33 years, 232 cfs (15.37 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,070 cfs Nov. 13 (gage height, 11.09 ft), from rating curve extended as explained below; minimum, 8.0 cfs Sept. 7, 8 (gage height, 2.38 ft).

Period of record: Maximum discharge, 20,600 cfs Nov. 25, 1950 (gage height, 18.04 ft), from rating curve extended above 2,900 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.8 cfs Sept. 2, 3, 4, 11, 12, 13, 1966 (gage height, 1.74 ft).

Maximum stage known, about 19.3 ft June 1, 1889 (discharge not determined; previously published figure is believed to be in error and should not be used).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	447	285	190	100	1,410	160	73	102	43	109	11
2	31	304	248	180	92	970	154	72	93	44	70	10
3	30	1,230	234	180	94	789	147	83	102	37	72	10
4	29	1,570	278	640	100	699	133	78	104	30	111	10
5	26	616	242	2,300	110	558	123	70	94	26	104	8.8
6	21	372	214	1,130	130	530	118	866	88	24	76	9.7
7	19	248	194	785	120	695	137	1,070	116	23	49	8.5
8	17	188	172	580	110	771	147	935	201	22	37	8.2
9	18	153	169	480	100	586	123	758	112	20	28	10
10	17	136	163	400	90	499	116	562	81	18	23	15
11	19	193	154	340	92	475	105	422	70	32	21	18
12	22	972	590	300	110	460	99	338	63	69	20	44
13	24	4,440	1,160	310	500	602	97	785	64	58	19	137
14	27	2,370	717	280	3,130	735	99	1,090	137	34	17	194
15	48	2,180	518	300	1,760	678	93	735	578	26	15	105
16	33	1,520	410	270	960	699	90	630	237	22	14	61
17	30	900	852	240	495	566	90	530	165	19	12	111
18	26	646	1,020	200	483	452	93	392	127	17	12	156
19	25	499	885	160	940	444	88	314	101	19	12	93
20	23	456	744	150	1,780	542	83	266	84	21	11	189
21	47	708	582	160	2,860	464	81	359	78	22	11	304
22	354	487	749	150	3,570	441	83	285	81	20	16	154
23	264	425	1,180	140	4,290	414	80	242	69	16	26	93
24	138	334	1,680	130	2,210	366	77	209	61	14	23	71
25	98	269	1,110	140	1,470	307	76	196	55	13	15	56
26	80	234	807	160	1,500	281	73	172	51	13	13	52
27	68	214	590	140	2,480	248	72	147	47	13	11	81
28	58	199	464	120	2,280	231	73	133	44	12	12	88
29	51	181	340	130	-----	217	87	121	41	22	17	69
30	68	352	290	140	-----	199	84	118	42	40	16	58
31	258	-----	240	120	-----	174	-----	114	-----	131	12	-----
TOTAL	2,006	22,843	17,281	10,945	31,956	16,502	3,081	12,165	3,288	920	1,004	2,235.2
MEAN	64.7	761	557	353	1,141	532	103	392	110	29.7	32.4	74.5
MAX	354	4,440	1,680	2,300	4,290	1,410	160	1,090	578	131	111	304
MIN	17	136	154	120	90	174	72	70	41	12	11	8.2
CFSM	.32	3.71	2.72	1.72	5.57	2.60	.50	1.91	.54	.14	.16	.36
IN.	.36	4.15	3.14	1.99	5.80	2.99	.56	2.21	.60	.17	.18	.41

CAL YR 1970 TOTAL 143,018.0 MEAN 392 MAX 7,660 MIN 15 CFSM 1.91 IN 25.95
WTR YR 1971 TOTAL 124,226.2 MEAN 340 MAX 4,440 MIN 8.2 CFSM 1.66 IN 22.54

PEAK DISCHARGE (BASE, 2,100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-3	2230	8.76	3,270	2-22	2130	10.89	5,790
11-13	1400	11.09	6,070	2-27	2400	8.29	2,800
1-4	2400	9.71	4,280	5-6	2030	7.98	2,510
2-14	1100	9.49	4,040				

SUSQUEHANNA RIVER BASIN

01565700 Little Lost Creek at Oakland Mills, Pa.

LOCATION.--Lat 40°36'19", long 77°18'42", Juniata County, on right bank at bridge on Legislative Route 34007, 0.8 mile south of Oakland Mills, and 1 mile upstream from mouth.

DRAINAGE AREA.--6.52 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-63. August 1963 to current year. Prior to August 1964, published as "near Oakland Mills."

GAGE.--Water-stage recorder. Datum of gage is 551.17 ft above mean sea level. June 8, 1960 to Aug. 7, 1963, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--8 years (1963-71), 5.19 cfs (10.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 180 cfs Feb. 22 (gage height, 6.82 ft); minimum, 0.73 cfs Sept. 5, 6, 9, 10, 11; minimum gage height, 4.22 ft Aug. 17, Sept. 5, 6.
Period of record: Maximum discharge, 288 cfs Apr. 2, 1970 (gage height, 7.33 ft); minimum (1963-70), 0.2 cfs Nov. 2, 3, 4, 5, 6, 1963, Oct. 4, 1964, Aug. 24, Sept. 2, 1965; minimum gage height, 4.18 ft Aug. 24, Sept. 2, 1965.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WRD Penna. 1970: 1967-69(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	9.5	8.7	7.4	2.3	26	6.4	2.9	1.8	1.6	2.1	.90
2	1.2	6.5	7.8	6.9	1.8	23	6.0	3.4	1.8	1.3	2.4	.90
3	1.4	9.9	7.8	6.9	1.8	20	5.6	3.1	1.9	1.2	2.1	.90
4	1.2	8.2	11	17	1.8	13	5.2	2.9	1.7	1.2	2.1	.90
5	1.2	6.5	8.2	23	2.2	19	4.8	2.7	1.6	1.2	2.0	.81
6	1.2	4.9	7.8	15	2.5	20	4.6	5.5	1.7	1.1	1.5	.90
7	1.2	4.4	6.5	11	2.5	24	4.5	3.6	1.6	1.1	1.4	.81
8	1.1	3.6	6.2	9.1	2.3	16	4.7	4.9	1.5	1.1	1.2	.81
9	1.2	3.4	6.2	8.2	2.5	12	4.9	4.1	1.4	1.7	1.2	.73
10	1.2	3.6	6.2	8.2	2.2	11	4.9	3.6	1.3	1.4	1.1	.73
11	1.4	6.9	6.2	7.8	2.0	13	4.6	3.1	1.2	2.2	1.1	.81
12	1.6	23	18	8.2	2.2	12	4.6	3.1	1.2	1.6	1.0	1.4
13	1.3	39	13	6.9	45	21	4.4	11	1.2	1.3	1.0	1.6
14	1.7	17	10	6.9	39	17	4.4	9.1	2.0	2.7	.98	1.0
15	4.6	67	9.1	6.5	17	19	4.1	5.5	2.7	1.2	.97	.81
16	1.8	27	8.2	5.8	10	18	4.1	5.2	2.2	1.2	.95	.90
17	1.4	17	26	5.2	7.4	15	4.1	4.4	1.7	1.5	.88	.90
18	1.4	14	29	4.6	8.2	12	3.9	3.6	1.5	1.2	.90	.81
19	1.3	12	20	3.9	20	13	3.9	3.4	1.4	1.4	.99	1.0
20	1.3	31	16	3.4	36	17	3.6	2.9	1.4	1.7	1.0	1.6
21	3.1	20	13	3.4	50	16	3.9	2.9	1.4	1.1	1.1	2.5
22	20	14	15	3.6	67	15	3.6	2.7	1.3	1.1	1.1	.90
23	6.9	12	15	4.1	72	14	3.4	2.5	1.2	1.0	1.0	.81
24	4.1	9.9	18	3.9	28	13	3.4	2.3	1.3	1.1	.96	.81
25	3.1	8.7	13	3.9	43	11	3.4	2.3	1.3	1.3	.98	.73
26	2.7	8.2	12	4.9	38	9.2	3.1	2.3	1.3	1.0	.99	1.1
27	2.3	8.2	10	4.6	71	8.6	3.1	2.2	1.3	1.1	1.2	1.1
28	2.0	7.8	9.1	3.4	41	7.8	3.4	2.0	1.4	.97	2.2	.90
29	2.0	8.7	8.2	2.7	-----	7.4	3.4	2.0	1.3	3.6	1.1	.81
30	6.2	13	7.8	3.1	-----	7.0	3.1	2.2	1.3	2.1	1.0	.73
31	14	-----	7.4	2.7	-----	6.6	-----	2.0	-----	4.7	1.0	-----
TOTAL	96.3	424.9	360.4	212.2	618.7	456.6	127.1	113.4	45.9	47.97	39.50	29.61
MEAN	3.11	14.2	11.6	6.85	22.1	14.7	4.24	3.66	1.53	1.55	1.27	.99
MAX	20	67	29	23	72	26	6.4	11	2.7	4.7	2.4	2.5
MIN	1.1	3.4	6.2	2.7	1.8	6.6	3.1	2.0	1.2	.97	.88	.73
CFSM	.48	2.18	1.78	1.05	3.39	2.25	.65	.56	.23	.24	.19	.15
IN.	.55	2.42	2.06	1.21	3.53	2.61	.73	.65	.26	.27	.23	.17

CAL YR 1970 TOTAL 3,555.60 MEAN 9.74 MAX 200 MIN 1.0 CFSM 1.49 IN 20.29
WTR YR 1971 TOTAL 2,572.58 MEAN 7.05 MAX 72 MIN .73 CFSM 1.08 IN 14.68

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-13	0345	5.87	107	2-22	1600	6.82	180
11-15	1445	6.05	125	2-25	1700	6.31	116
2-13	1830	6.55	143	2-27	0345	6.37	122

01567000 Juniata River at Newport, Pa.

LOCATION.--Lat 40°28'42", long 77°07'46", Perry County, on right bank at downstream side of highway bridge at Newport, 1,000 ft upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 363.93 ft above mean sea level. Prior to July 16, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--72 years, 4,183 cfs (16.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 48,700 cfs Feb. 24 (gage height, 16.39 ft); minimum, 386 cfs Sept. 8 (gage height, 3.10 ft).

Period of record: Maximum discharge, 190,000 cfs Mar. 19, 1936 (gage height, 34.24 ft, from floodmark in gage shelter), from rating curve extended above 100,000 cfs; minimum, 195 cfs July 27, 1966 (gage height, 2.81 ft); minimum daily, 221 cfs Nov. 2, 1966.

Maximum stage known, 35.9 ft June 1, 1889, from floodmarks (discharge, 209,000 cfs, from rating curve extended above 100,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by power-plants and mills above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1902(M). WSP 921: 1936(M). WSP 1302: 1915-17. WSP 1502: 1899-1908, 1914, 1924, 1936. WSP 1722: 1916.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,560	2,960	6,100	5,200	3,300	31,200	5,440	2,520	2,650	1,350	2,960	616
2	1,370	4,380	6,040	4,800	2,900	24,200	5,260	2,110	2,470	1,370	3,030	546
3	1,020	5,710	5,620	4,500	2,500	19,200	5,320	2,420	2,510	1,820	3,050	532
4	940	11,900	5,500	4,200	2,200	16,400	5,500	2,130	2,250	1,380	2,990	490
5	908	13,700	6,310	7,500	2,400	13,700	5,350	1,790	2,250	1,120	2,920	504
6	765	9,630	6,160	14,500	2,700	12,000	5,200	1,990	2,180	1,020	3,580	574
7	780	7,240	5,620	13,200	3,100	11,400	5,110	3,670	2,190	954	3,100	504
8	812	5,680	5,140	10,200	3,400	12,200	4,820	10,300	2,130	904	2,610	425
9	828	4,700	4,760	8,420	3,300	11,300	4,700	12,300	2,130	910	2,250	477
10	780	4,100	4,440	7,860	3,000	9,880	4,620	11,300	2,260	926	1,900	532
11	675	3,650	4,410	7,000	2,700	8,860	4,470	9,060	2,160	1,030	1,690	464
12	690	6,280	4,410	6,400	2,400	8,360	4,320	7,220	1,980	1,300	1,540	532
13	720	14,600	6,460	6,130	2,700	8,640	4,180	6,850	1,810	1,400	1,350	690
14	991	28,700	9,910	5,800	5,600	11,500	4,160	11,300	1,750	2,010	1,240	1,030
15	1,220	27,400	10,100	5,590	20,000	13,700	3,620	14,000	2,040	1,570	1,120	2,070
16	1,270	23,000	8,390	5,350	17,400	15,500	3,730	11,800	3,280	1,270	1,090	3,320
17	1,520	17,700	8,050	5,170	12,500	16,900	3,470	9,790	3,070	1,190	991	2,410
18	1,200	13,400	9,570	4,850	9,570	15,100	3,340	8,420	2,560	1,060	860	2,110
19	924	10,700	9,790	4,270	9,790	12,800	2,900	6,950	2,210	962	780	2,340
20	720	9,070	9,170	3,650	14,900	11,900	3,140	5,930	2,000	997	735	2,200
21	957	10,800	9,070	3,060	20,800	11,200	3,050	5,490	1,900	1,030	812	3,120
22	2,090	9,510	8,950	3,570	28,800	10,200	2,810	5,510	1,700	1,050	812	4,440
23	3,870	8,080	9,510	4,010	42,100	9,540	2,680	5,930	1,550	1,420	812	3,790
24	4,040	6,850	12,300	4,070	44,100	8,730	2,620	5,080	1,610	1,120	924	3,170
25	3,300	6,160	17,400	3,960	28,500	7,830	2,840	4,460	1,490	947	974	2,510
26	2,600	5,470	15,500	3,790	22,400	7,150	2,120	4,080	1,320	878	750	2,110
27	2,390	5,080	12,000	3,430	24,400	6,610	2,060	3,650	1,340	898	780	1,980
28	1,600	4,620	9,350	3,040	33,300	6,070	2,330	3,310	1,220	895	828	2,230
29	1,500	4,300	8,050	2,800	-----	5,800	2,490	3,160	1,330	880	780	2,680
30	1,540	4,760	6,730	2,500	-----	5,620	2,470	2,960	1,310	1,560	720	2,360
31	1,930	-----	5,710	2,300	-----	5,530	-----	2,790	-----	1,760	690	-----
TOTAL	45,510	290,130	250,520	171,120	370,760	369,020	114,120	188,270	60,650	36,981	48,668	50,756
MEAN	1,468	9,671	8,081	5,520	13,240	11,900	3,804	6,073	2,022	1,193	1,570	1,692
MAX	4,040	28,700	17,400	14,500	44,100	31,200	5,500	14,000	3,280	2,010	3,580	4,440
MIN	675	2,960	4,410	2,300	2,200	5,530	2,060	1,790	1,220	878	690	425
CFSM	.44	2.88	2.41	1.65	3.95	3.55	1.13	1.81	.60	.36	.47	.50
IN.	.50	3.22	2.78	1.90	4.11	4.09	1.27	2.09	.67	.41	.54	.56
CAL YR 1970	TOTAL 2,114,250			MEAN 5,792	MAX 62,800	MIN 675	CFSM 1.73	IN 23.45				
WTR YR 1971	TOTAL 1,996,505			MEAN 5,470	MAX 44,100	MIN 425	CFSM 1.63	IN 22.14				

PEAK DISCHARGE (BASE, 29,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-14	1700	13.65	35,100	2-24	0200	16.39	48,700
2-15	0200	13.53	34,600	2-28	2200	13.63	35,000

SUSQUEHANNA RIVER BASIN

01567500 Bixler Run near Loysville, Pa.

LOCATION.--Lat 40°22'15", long 77°24'09", Perry County, on right bank 400 ft upstream from bridge on State Highway 850 at Bixler, 2.3 miles upstream from mouth, and 3.6 miles west of Loysville.

DRAINAGE AREA.--15.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 601.22 ft above mean sea level. Prior to May 14, 1954, nonrecording gage and crest-stage gage 400 ft downstream at same datum.

AVERAGE DISCHARGE.--17 years, 15.4 cfs (13.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 476 cfs Feb. 23 (gage height, 5.67 ft); minimum, 2.6 cfs Sept. 9; minimum gage height, 2.66 ft Aug. 23, 24, 25, 26, 27, Sept. 9.

Period of record: Maximum discharge, 8,780 cfs Nov. 1, 1956 (gage height, 10.39 ft), from rating curve extended above 1,000 cfs on basis of slope-area measurement of peak flow; minimum, 1.5 cfs Feb. 2, 1959 (gage height, 2.44 ft).

REMARKS.--Records good. This station is operated in connection with a study of the effect of soil conservation practices on streamflow and suspended sediment loads. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	12	19	18	9.9	103	19	9.2	8.2	6.0	5.6	3.1
2	3.9	9.5	18	18	9.6	79	19	11	8.2	6.8	6.6	3.2
3	4.1	31	18	16	8.9	71	17	10	8.5	6.0	11	3.2
4	3.7	20	20	36	9.6	53	17	9.2	7.6	5.4	9.9	3.1
5	3.7	14	17	46	13	59	16	8.5	7.6	4.8	6.6	2.9
6	3.7	11	16	34	15	58	16	18	8.2	4.5	5.1	2.9
7	3.7	9.5	15	28	13	69	18	12	8.9	5.2	4.5	2.9
8	3.5	8.3	14	26	13	54	15	18	7.6	4.6	4.3	2.9
9	3.7	7.8	14	25	14	45	15	14	6.6	4.3	4.1	2.9
10	3.7	9.5	14	23	12	41	14	13	6.3	4.3	4.1	2.9
11	4.5	32	13	22	11	41	13	12	6.1	8.2	4.1	3.1
12	4.5	73	23	23	12	37	13	15	6.3	5.8	3.7	3.4
13	4.1	136	20	20	104	42	13	51	6.3	4.7	3.5	3.7
14	4.3	51	17	20	119	39	13	40	9.6	4.5	3.5	3.2
15	7.2	133	16	19	60	42	12	28	11	4.3	3.5	2.9
16	4.9	70	16	17	41	38	12	28	9.2	4.3	3.5	3.1
17	4.3	44	37	16	33	33	12	23	7.3	4.3	3.4	3.4
18	4.1	33	41	15	38	30	12	19	6.6	4.1	3.4	3.2
19	3.9	27	36	14	70	33	11	17	6.1	4.7	3.4	4.1
20	3.9	87	31	13	90	35	11	16	5.8	4.5	3.2	5.3
21	7.2	63	28	13	137	36	11	16	5.8	3.9	3.2	5.6
22	21	45	33	14	252	33	11	14	5.6	3.9	3.2	3.4
23	8.3	35	32	15	299	31	10	13	5.3	3.9	3.2	3.2
24	6.6	28	36	13	140	28	10	12	5.3	3.9	3.1	3.2
25	5.9	24	28	14	129	27	9.9	12	5.1	4.3	2.9	3.1
26	5.6	22	27	16	118	26	9.9	11	6.1	4.1	2.9	5.8
27	5.2	20	25	14	196	24	9.6	10	6.3	3.9	3.4	4.7
28	4.9	19	22	13	142	24	11	9.9	6.0	3.9	4.5	3.7
29	4.9	21	20	11	-----	23	11	9.6	5.4	7.3	3.2	3.4
30	10	28	18	13	-----	21	9.6	9.9	5.8	5.8	3.1	3.2
31	17	-----	17	12	-----	20	-----	9.2	-----	7.6	3.1	-----
TOTAL	179.9	1,123.6	701	597	2,109.0	1,295	391.0	498.5	208.7	153.8	132.8	104.7
MEAN	5.80	37.5	22.6	19.3	75.3	41.8	13.0	16.1	6.96	4.96	4.28	3.49
MAX	21	136	41	46	299	103	19	51	11	8.2	11	5.8
MIN	3.5	7.8	13	11	8.9	20	9.6	8.5	5.1	3.9	2.9	2.9
CFSM	.39	2.50	1.51	1.29	5.02	2.79	.87	1.07	.46	.33	.29	.23
IN.	.45	2.79	1.74	1.48	5.23	3.21	.97	1.24	.52	.38	.33	.26

CAL YR 1970 TOTAL 8,519.2 MEAN 23.3 MAX 476 MIN 3.5 CFSM 1.55 IN 21.13
WTR YR 1971 TOTAL 7,495.0 MEAN 20.5 MAX 299 MIN 2.9 CFSM 1.37 IN 18.59

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0330	5.23	322	2-23	0130	5.67	476
2-13	2030	5.16	301	2-27	0345	4.97	250

01568000 Sherman Creek at Shermans Dale, Pa.

LOCATION.--Lat 40°19'24", long 77°10'09", Perry County, on left bank on downstream side of bridge on State Highway 34 at Shermans Dale, and 1.2 miles upstream from Fishing Run.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some months, published in WSP 1302. Prior to October 1962, published as "at Shermans Dale."

GAGE.--Water-stage recorder. Datum of gage is 422.63 ft above mean sea level. Prior to Jan. 29, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 272 cfs (18.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,910 cfs Feb. 23 (gage height, 7.97 ft); minimum daily, 16 cfs Aug. 25.

Period of record: Maximum discharge, 22,300 cfs Aug. 24, 1933 (gage height, 14.05 ft), from rating curve extended above 6,500 cfs on basis of slope-area measurement at gage height, 12.75 ft; minimum 3.9 cfs Dec. 1, 1930; minimum gage height, 0.62 ft Sept. 11, 1966; minimum daily discharge, 10 cfs Dec. 24, 25, 1930, Sept. 30, 1941.

Maximum stage known, 20.34 ft July 22, 1927, from floodmark (discharge, about 44,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station.

REVISIONS (WATER YEARS).--WSP 1302: 1930(M). WSP 1502: 1933, 1934(M), 1935-36.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	436	358	199	180	1,580	288	113	122	53	87	23
2	30	305	315	285	170	1,210	285	121	110	56	76	21
3	26	597	295	292	160	1,030	279	138	117	46	80	21
4	27	1,030	328	424	190	908	254	116	109	38	110	22
5	30	547	288	978	210	740	238	105	95	36	100	21
6	24	397	260	670	230	755	235	199	98	34	80	20
7	23	318	232	507	220	978	272	300	106	38	50	19
8	22	269	220	417	230	897	257	290	148	32	44	19
9	22	232	211	448	290	665	223	281	98	30	39	27
10	19	220	208	401	270	588	208	245	77	27	35	23
11	22	551	196	358	250	583	193	218	71	34	32	23
12	28	2,350	254	348	230	578	188	207	66	73	30	24
13	29	3,440	358	321	900	636	185	660	68	58	28	31
14	29	1,560	276	295	2,700	710	182	936	78	42	26	45
15	139	2,940	241	295	1,220	760	168	582	200	33	25	35
16	129	1,960	229	217	776	914	162	522	152	28	24	29
17	58	1,160	494	235	565	755	158	455	119	29	23	28
18	43	853	725	226	542	636	157	357	86	28	23	27
19	37	680	569	208	892	710	146	309	70	34	23	25
20	34	1,140	503	199	1,280	837	140	275	63	34	22	29
21	56	1,870	424	229	1,910	700	139	272	61	33	22	42
22	1,020	972	452	232	3,320	695	137	244	57	30	20	47
23	473	771	533	217	4,770	631	129	211	54	26	18	46
24	254	597	602	232	2,270	538	124	192	53	23	17	35
25	185	494	473	202	1,600	469	121	202	48	22	16	31
26	147	432	432	208	1,560	436	119	185	44	27	19	29
27	124	397	372	179	2,610	401	113	160	61	27	23	33
28	103	365	341	170	2,390	379	120	148	54	23	31	44
29	93	341	301	180	-----	369	154	138	49	26	33	43
30	101	507	295	200	-----	341	134	146	53	41	30	37
31	358	-----	263	190	-----	308	-----	146	-----	65	25	-----
TOTAL	3,718	27,731	11,048	9,562	31,935	21,737	5,508	8,473	2,587	1,126	1,211	899
MEAN	120	924	356	308	1,141	701	184	273	86.2	36.3	39.1	30.0
MAX	1,020	3,440	725	978	4,770	1,580	288	936	200	73	110	47
MIN	19	220	196	170	160	308	113	105	44	22	16	19
CFSM	.60	4.62	1.78	1.54	5.71	3.51	.92	1.37	.43	.18	.20	.15
IN.	.69	5.16	2.65	1.78	5.94	4.04	1.02	1.58	.48	.21	.23	.17

CAL YR 1970 TOTAL 154,418 MEAN 423 MAX 7,000 MIN 19 CFSM 2.12 IN 28.72
WTR YR 1971 TOTAL 125,535 MEAN 344 MAX 4,770 MIN 16 CFSM 1.72 IN 23.35

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0900	7.08	4,500	11-20	2300	6.32	3,480
11-15	1730	6.80	4,110	2-23	0200	7.97	5,910

SUSQUEHANNA RIVER BASIN

01568500 Clark Creek near Carsonville, Pa.

LOCATION.--Lat 40°27'37", long 76°45'06", Dauphin County, on right bank 0.3 mile downstream from DeHart Dam, 1.8 miles southeast of Carsonville, and 15 miles upstream from mouth.

DRAINAGE AREA.--22.5 sq mi.

PERIOD OF RECORD.--September 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 552.32 ft above mean sea level. Prior to Jan. 6, 1939, water-stage recorder at site about 1,700 ft upstream at datum 9.49 ft higher. Jan. 6, 1939 to July 27, 1940, nonrecording gage at site 100 ft downstream at different datum.

AVERAGE DISCHARGE.--33 years (1937-39, 1940-71), 37.4 cfs (22.57 inches per year), adjusted for storage and diversion since 1941.

EXTREMES.--Current year: Maximum discharge, 280 cfs Feb. 23 (gage height, 3.23 ft); minimum, 4.2 cfs June 11 (gage height, 1.05 ft).

Period of record: Maximum discharge, 988 cfs Nov. 13, 1937, from rating curve extended above 400 cfs; maximum gage height, 4.81 ft May 27, 1946; minimum daily discharge, 0.2 cfs Jan. 29 to Feb. 3, 1940.

REMARKS.--Records good. Flow regulated by DeHart Reservoir (see p.179). Diversion from reservoir to city of Harrisburg.

REVISIONS (WATER YEARS).--WSP 1302: 1940(M). WSP 1702: 1942 (monthly mean).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.5	35	19	6.6	152	24	6.9	18	5.3	5.6	4.8
2	5.9	5.5	32	16	6.5	128	22	7.1	14	5.2	5.4	4.8
3	5.9	5.5	24	14	6.0	114	24	7.1	17	5.1	13	4.8
4	5.9	5.5	25	21	6.5	109	22	6.9	5.7	5.1	5.8	4.8
5	5.9	5.5	21	38	6.7	77	22	6.9	5.1	5.1	5.2	4.8
6	5.9	5.3	19	36	6.7	63	19	7.4	5.9	5.1	5.1	4.8
7	5.9	5.3	16	26	6.7	73	18	7.1	5.0	5.1	5.0	4.8
8	5.9	5.3	13	25	6.9	78	15	8.0	5.0	5.0	5.0	4.8
9	5.9	5.3	11	20	6.9	62	13	9.1	5.0	5.2	5.0	4.8
10	5.7	5.3	10	20	6.6	52	13	11	4.3	5.0	5.0	4.8
11	5.7	5.7	11	19	6.6	47	12	11	4.3	5.1	5.0	6.0
12	5.7	12	18	20	6.8	45	11	11	4.3	5.0	4.9	6.4
13	5.7	14	18	15	33	47	10	19	4.4	5.0	5.0	15
14	9.1	5.3	27	16	127	48	10	42	6.5	11	4.9	7.3
15	10	8.6	11	19	185	57	7.7	37	8.0	4.7	4.9	9.0
16	6.4	13	21	13	109	64	8.0	46	5.5	4.7	8.2	5.5
17	5.9	5.9	25	12	84	64	6.9	49	4.4	4.8	4.7	5.9
18	5.9	11	25	11	61	62	7.4	41	4.4	4.7	4.8	5.6
19	5.9	5.3	25	9.5	58	72	7.1	36	4.3	4.9	4.8	5.5
20	5.9	16	24	8.6	64	112	6.9	32	4.3	4.8	4.8	5.8
21	7.7	77	28	7.8	80	87	6.9	29	4.3	4.7	4.8	6.4
22	8.0	89	22	7.3	121	70	6.9	26	4.4	4.7	4.8	5.7
23	8.0	84	24	7.9	209	61	10	21	4.8	4.7	4.8	12
24	5.0	66	24	7.2	193	51	6.9	20	5.0	4.6	4.8	5.3
25	5.5	55	23	7.0	154	49	6.9	21	5.0	4.7	4.8	5.3
26	6.6	48	23	8.0	135	39	6.9	36	5.0	4.6	4.8	5.5
27	6.6	42	21	8.7	181	36	6.9	28	5.0	4.6	5.2	5.4
28	10	38	18	6.6	185	34	6.9	22	5.0	4.6	5.0	5.3
29	10	36	15	6.6	-----	32	6.9	20	5.0	4.8	4.9	5.3
30	10	43	12	6.6	-----	29	6.9	19	8.7	4.8	4.9	9.4
31	5.5	-----	12	6.6	-----	25	-----	21	-----	5.5	8.7	-----
TOTAL	207.9	728.8	633	458.4	2,058.5	2,039	351.1	664.5	187.6	158.2	169.6	185.6
MEAN	6.71	24.3	20.4	14.8	73.5	65.8	11.7	21.4	6.25	5.10	5.47	6.19
MAX	10	89	35	38	209	152	24	49	18	11	13	15
MIN	5.0	5.3	10	6.6	6.0	25	6.9	6.9	4.3	4.6	4.7	4.8
(\bar{x})	20.9	20.3	20.0	20.3	20.9	20.7	20.5	19.6	21.8	22.8	22.0	21.9
MEAN \neq	35.7	82.9	39.6	34.5	100	82.7	27.3	44.8	20.7	13.0	24.4	47.8
CFSM \neq	1.59	3.68	1.76	1.53	4.44	3.68	1.21	1.99	.92	.58	1.08	2.12
IN. \neq	1.83	4.11	2.03	1.76	4.62	4.24	1.35	2.29	1.03	.67	1.24	2.36

CAL YR 1970 TOTAL 8,938.3 MEAN 24.5 MAX 360 MIN 5.0 MEAN \neq 48.1 CFSM \neq 2.14 IN. \neq 29.04
 WTR YR 1971 TOTAL 7,842.2 MEAN 21.5 MAX 209 MIN 4.3 MEAN \neq 45.7 CFSM \neq 2.03 IN. \neq 27.53

\neq Diversion, equivalent in cubic feet per second, from DeHart Reservoir for municipal supply; furnished by city of Harrisburg.

\neq Adjusted for diversion and change in reservoir contents.

SUSQUEHANNA RIVER BASIN

161

01569000 Stony Creek near Dauphin, Pa.

LOCATION.--Lat 40°22'46", long 76°54'31", Dauphin County, on left bank at site of former railroad bridge, 1.5 miles northeast of Dauphin, and 2.2 miles upstream from mouth.

DRAINAGE AREA.--35.0 sq mi.

PERIOD OF RECORD.--September 1937 to September 1945, January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 353.75 ft above mean sea level, datum of 1907.

AVERAGE DISCHARGE.--12 years (1937-45, 1967-71), 55.8 cfs (21.65 inches per year)

EXTREMES.--Current year: Maximum discharge, 575 cfs Feb. 13 (gage height, 4.3 ft); maximum gage height, 4.85 ft Feb. 13 (ice jam); minimum discharge, 0.94 cfs July 16 (gage height, 1.27 ft).

Period of record: Maximum discharge, 2,360 cfs Nov. 9, 1943 (gage height, 7.97 ft), from rating curve extended above 1,200 cfs; minimum, 0.6 cfs Oct. 11, 1941; minimum gage height, 0.97 ft Sept. 18, 19, 1941.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1302: 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	44	77	39	30	280	68	35	51	16	53	11
2	10	39	67	43	28	240	68	42	44	16	74	9.7
3	9.8	39	60	50	24	211	69	58	42	14	140	9.2
4	8.9	46	60	60	25	192	65	50	40	12	137	8.3
5	8.4	47	57	108	26	164	60	41	36	11	79	8.3
6	8.0	45	54	99	32	153	58	52	35	11	44	7.9
7	7.5	39	50	76	36	192	61	54	33	11	30	7.4
8	7.5	35	47	69	46	182	56	61	33	10	22	7.4
9	7.2	32	46	62	66	149	53	62	32	19	18	7.4
10	7.2	31	45	57	50	128	51	57	30	20	15	7.0
11	7.2	39	44	53	40	120	48	50	28	17	16	16
12	7.2	68	51	48	36	115	47	46	26	17	15	116
13	7.2	235	54	45	250	116	46	92	26	13	12	164
14	9.3	178	49	42	391	115	45	127	42	13	10	231
15	149	220	46	45	220	123	42	101	54	11	9.7	107
16	178	211	44	45	144	148	42	99	66	9.2	9.2	63
17	76	135	69	44	105	137	41	98	52	9.7	9.2	66
18	37	104	76	43	98	115	40	83	38	11	8.3	67
19	25	87	66	43	118	137	38	71	30	11	8.3	52
20	20	130	61	42	146	168	37	65	26	13	8.8	43
21	40	217	60	38	184	142	37	63	25	11	8.8	42
22	135	157	60	37	313	128	37	60	23	9.2	8.3	45
23	148	118	60	36	454	120	35	54	21	8.8	7.9	38
24	87	101	61	40	354	115	34	50	19	8.3	7.4	34
25	58	87	56	35	245	104	33	63	18	9.7	7.0	30
26	46	79	53	36	226	96	32	89	17	9.7	7.0	33
27	39	73	50	38	307	90	32	71	16	17	16	39
28	34	69	48	38	351	86	34	57	15	16	48	36
29	31	68	46	32	-----	83	43	50	15	11	34	33
30	31	90	43	30	-----	79	39	50	16	21	18	29
31	42	-----	40	31	-----	73	-----	54	-----	44	13	-----
TOTAL	1,293.4	2,863	1,700	1,504	4,345	4,301	1,391	2,005	949	430.6	893.9	1,367.6
MEAN	41.7	95.4	54.8	48.5	155	139	46.4	64.7	31.6	13.9	28.8	45.6
MAX	178	235	77	108	454	280	69	127	66	44	140	231
MIN	7.2	31	40	30	24	73	32	35	15	8.3	7.0	7.0
CFSM	1.19	2.73	1.57	1.39	4.43	3.97	1.33	1.85	.90	.40	.82	1.30
IN.	1.37	3.04	1.81	1.60	4.62	4.57	1.48	2.13	1.01	.46	.95	1.45

CAL YR 1970 TOTAL 24,380.7 MEAN 66.8 MAX 760 MIN 7.2 CFSM 1.91 IN 25.91
 WTR YR 1971 TOTAL 23,043.5 MEAN 63.1 MAX 454 MIN 7.0 CFSM 1.80 IN 24.49

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	1745	3.54	325	2- 22	1430	4.07	495
2-13	2330	4.3	575	2- 28	0245	3.74	385

SUSQUEHANNA RIVER BASIN

01570000 Conodoguinet Creek near Hogestown, Pa.

LOCATION.--Lat 40°15'08", long 77°01'17", Cumberland County, on left bank 1,000 ft upstream from highway bridge, 0.4 mile downstream from Hogestown Run, and 1 mile northeast of Hogestown.

DRAINAGE AREA.--470 sq mi. At site used Sept. 25, 1911 to Sep. 30, 1917, 485 sq mi.

PERIOD OF RECORD.--October 1911 to September 1917, October 1929 to September 1958, June 1967 to current year. October 1917 to December 1919 (gage heights and discharge measurements only) contained in reports of Water Supply Commission of Pennsylvania, published as "at Brysons Bridge" 1912-17. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 351.00 ft above mean sea level. Prior to December 1919, nonrecording gage at site 2 miles downstream at different datum. Oct. 1, 1929 to Aug. 3, 1931, nonrecording gage at site 1,000 ft downstream at present datum.

AVERAGE DISCHARGE.--39 years (1911-17, 1929-58, 1967-71), 566 cfs (16.35 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,270 cfs Feb. 23 (gage height, 8.21 ft); minimum, 47 cfs Oct. 9, (gage height, 0.90 ft).

Period of record: Maximum discharge, 15,700 cfs Mar. 12, 1952 (gage height, 12.16 ft); minimum, 24 cfs Dec. 16, 1930; minimum daily, 26 cfs Dec. 23, 1930.

REMARKS.--Records good except those for winter periods, which are fair. Since June 1969 the Riverton Consolidated Water Co. diverts water, equivalent to a mean discharge of about 4.0 cfs, at a point just upstream from gage for municipal water supply. Records of chemical analyses, suspended sediment loads, and water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1722: 1913, 1917.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	958	754	588	380	2,670	652	338	360	195	324	149
2	163	860	605	555	350	2,170	628	329	330	220	436	142
3	150	790	550	610	340	1,900	616	363	320	220	637	133
4	137	2,960	561	652	390	1,820	577	348	320	181	648	127
5	131	1,700	550	1,770	450	1,460	544	315	293	171	621	130
6	128	1,030	489	2,180	500	1,630	528	372	288	164	476	127
7	119	742	440	1,530	460	1,910	599	1,070	288	158	369	122
8	116	583	397	1,110	480	2,100	599	965	325	158	302	122
9	100	462	382	1,020	620	1,670	539	1,000	397	155	261	164
10	105	451	377	874	560	1,430	506	772	293	145	234	145
11	108	628	372	754	500	1,340	467	640	250	152	220	145
12	108	1,850	408	706	480	1,290	440	566	238	181	205	145
13	110	3,510	790	682	1,300	1,250	434	694	234	198	191	161
14	110	3,140	825	628	4,440	1,290	429	1,510	246	184	188	257
15	131	3,120	694	634	2,670	1,200	408	1,200	387	161	178	223
16	125	3,740	610	566	1,720	1,210	397	1,010	916	149	171	181
17	113	2,190	874	473	1,330	1,090	392	1,060	528	142	164	171
18	103	1,550	1,500	484	1,250	958	387	832	412	136	164	167
19	97	1,210	1,370	408	2,350	993	382	688	347	139	164	155
20	97	1,090	1,100	382	3,440	1,360	363	605	302	152	164	174
21	131	2,290	923	413	4,080	1,370	353	605	277	145	161	246
22	392	1,770	895	473	4,830	1,460	353	742	254	139	155	407
23	797	1,340	1,290	451	6,720	1,540	343	566	246	136	152	261
24	489	1,040	2,050	424	5,390	1,410	338	489	238	133	145	209
25	325	839	1,900	408	3,420	1,170	329	456	223	149	142	181
26	258	718	1,490	424	3,160	1,040	325	533	212	142	139	171
27	222	658	1,160	408	3,360	944	311	484	227	136	164	195
28	188	616	958	372	3,400	867	315	392	212	130	202	250
29	177	572	790	390	-----	811	358	363	209	136	174	246
30	174	676	700	420	-----	760	382	363	212	164	178	216
31	325	-----	628	400	-----	706	-----	403	-----	216	161	-----
TOTAL	5,513	43,083	26,432	21,189	58,370	42,819	13,294	20,073	9,384	4,987	7,890	5,522
MEAN	191	1,436	853	684	2,085	1,381	443	648	313	161	255	184
MAX	797	3,740	2,050	2,180	6,720	2,670	652	1,510	916	220	648	407
MIN	97	451	372	372	340	706	311	315	209	130	139	122
CFSM	.41	3.06	1.81	1.46	4.44	2.94	.94	1.38	.67	.34	.54	.39
IN.	.47	3.41	2.09	1.68	4.62	3.39	1.05	1.59	.74	.39	.62	.44

CAL YR 1970 TOTAL 295,171 MEAN 809 MAX 9,240 MIN 97 CFSM 1.72 IN 23.36
 WTR YR 1971 TOTAL 258,956 MEAN 709 MAX 6,720 MIN 97 CFSM 1.51 IN 20.50

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-16	0430	6.30	4,400	2-23	1830	8.21	7,270
2-14	0815	6.72	4,970				

SUSQUEHANNA RIVER BASIN

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01570100 Conodoguinet Creek tributary No. 1 near Enola, Pa.

LOCATION.--Lat 40°17'27", long 76°59'38", Cumberland County, on right bank 720 ft upstream from bridge on State Highway 944, 3.2 miles upstream from mouth, and 3.3 miles west of Enola.

DRAINAGE AREA.--0.77 sq mi.

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 418.56 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 64 cfs Feb. 13 (gage height, 3.49 ft); minimum, 0.04 cfs July 27 (gage height, 1.71 ft).

Period of record: Maximum discharge, 64 cfs Feb. 13, 1971 (gage height, 3.49 ft); minimum, 0.04 cfs Sept. 17, 18, 22, 23, 24, 25, 1970, July 27, 1971; minimum gage height, 1.56 ft Oct. 1, 2, 1969.

REMARKS.--Records good. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.56	.57	.53	.29	2.3	.68	.37	.33	.10	.49	.20
2	.09	.41	.51	.47	.25	1.9	.77	.87	.31	.10	.93	.14
3	.09	1.1	.54	.42	.22	1.9	.74	.60	.31	.10	4.3	.13
4	.08	.75	.61	2.3	.25	2.1	.63	.42	.25	.10	1.2	.11
5	.09	.53	.47	3.6	.53	2.0	.58	.37	.23	.08	.62	.11
6	.08	.40	.43	2.0	.66	2.6	.70	1.7	.23	.08	.44	.11
7	.07	.35	.37	1.3	.66	6.3	.79	.83	.39	.08	.36	.09
8	.07	.31	.35	1.0	1.1	3.3	.60	1.6	.32	.08	.28	.09
9	.07	.28	.37	.92	1.8	2.5	.56	.95	.22	.14	.25	.10
10	.07	.29	.34	.83	.98	2.3	.56	.74	.18	.10	.23	.09
11	.07	.62	.33	.73	.73	2.2	.51	.60	.17	.18	.41	.19
12	.08	1.2	.66	.73	.73	1.9	.50	.62	.17	.11	.24	.18
13	.08	1.3	.58	.68	23	2.0	.50	3.2	.18	.09	.19	.15
14	.11	.77	.49	.64	8.5	1.6	.46	1.8	.34	.08	.17	.11
15	.30	4.9	.43	.60	3.1	1.7	.43	1.1	.35	.07	.15	.09
16	.14	1.7	.46	.49	2.2	1.4	.40	1.8	.24	.07	.14	.12
17	.11	1.0	2.8	.47	1.9	1.2	.40	1.1	.19	.08	.13	.11
18	.09	.81	1.8	.39	3.7	1.0	.40	.82	.16	.07	.12	.09
19	.07	.69	1.2	.33	6.6	3.1	.37	.70	.16	.11	.13	.09
20	.07	2.9	.88	.29	6.3	3.3	.37	.61	.14	.08	.14	.10
21	.88	1.9	.76	.26	6.8	2.3	.40	.60	.15	.07	.11	.09
22	.98	1.1	1.1	.29	12	1.8	.37	.51	.14	.07	.11	.08
23	.41	.89	1.4	.40	10	1.5	.35	.43	.13	.06	.10	.08
24	.33	.66	1.7	.39	4.5	1.3	.35	.40	.12	.07	.09	.08
25	.29	.56	1.3	.37	3.5	1.1	.33	.43	.12	.12	.09	.07
26	.22	.53	1.1	.72	2.9	1.1	.39	.40	.10	.07	.09	.15
27	.19	.48	.88	.59	5.0	.97	.31	.34	.10	.06	.41	.11
28	.16	.43	.74	.37	2.8	.89	.44	.33	.10	.06	.43	.10
29	.16	.64	.63	.33	-----	.89	.51	.31	.10	.11	.18	.09
30	.38	.93	.55	.42	-----	.80	.37	.59	.10	.12	.16	.08
31	.82	-----	.49	.42	-----	.72	-----	.63	-----	.18	.14	-----
TOTAL	6.74	28.99	24.84	23.28	111.00	59.97	14.77	25.77	6.03	2.89	12.83	3.33
MEAN	.22	.97	.80	.75	3.96	1.93	.49	.83	.20	.093	.41	.11
MAX	.98	4.9	2.8	3.6	23	6.3	.79	3.2	.39	.18	4.3	.20
MIN	.07	.28	.33	.26	.22	.72	.31	.31	.10	.06	.09	.07
CFSM	.29	1.26	1.04	.97	5.14	2.51	.64	1.08	.26	.12	.53	.14
IN.	.33	1.40	1.20	1.12	5.36	2.90	.71	1.24	.29	.14	.62	.16

CAL YR 1970 TOTAL 357.34 MEAN .98 MAX 27 MIN .05 CFSM 1.27 IN 17.26

WTR YR 1971 TOTAL 320.44 MEAN .88 MAX 23 MIN .06 CFSM 1.14 IN 15.48

PEAK DISCHARGE (BASE, 35 CFS).--Feb. 13 (1830) 64 cfs (3.49 ft).

SUSQUEHANNA RIVER BASIN

01570300 Conodoguinet Creek tributary No. 3 at Enola, Pa.

LOCATION.--Lat 40°18'05", long 76°56'57", Cumberland County, on right bank at upstream side of culvert on Valley Road, 1 mile northwest of Enola and 2.3 miles upstream from mouth.

DRAINAGE AREA.--0.38 sq mi.

PERIOD OF RECORD.--February 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 416.56 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 39 cfs Feb. 13 (gage height, 3.69 ft), from rating curve extended above 25 cfs; no flow on many days.

Period of record: Maximum discharge, 77 cfs July 2, 1970 (gage height, 5.04 ft), from rating curve extended above 25 cfs; no flow on many days.

REMARKS.--Records good. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.27	.33	.35	.21	.82	.27	.10	.15	.02	.82	.15
2	.03	.14	.27	.32	.17	.73	.39	.49	.17	.02	.94	.06
3	.03	1.1	.29	.31	.15	.81	.36	.26	.17	.01	6.6	.04
4	.02	.43	.38	2.2	.18	.90	.29	.14	.15	.01	.82	.03
5	.02	.23	.26	2.5	.35	1.3	.26	.11	.14	.01	.30	.03
6	.02	.16	.23	1.1	.44	1.7	.42	1.3	.12	.01	.18	.03
7	.01	.13	.19	.67	.44	3.1	.48	.41	.16	.01	.10	.02
8	.01	.11	.16	.53	.72	1.2	.25	1.2	.12	.01	.07	.02
9	.01	.10	.18	.50	1.2	.91	.22	.55	.10	.13	.06	.02
10	.02	.07	.17	.46	.76	.92	.20	.40	.07	.04	.05	.02
11	.02	.31	.17	.44	.51	.98	.17	.31	.06	.12	.24	.05
12	.02	.83	.70	.49	.43	.76	.17	.32	.06	.04	.10	.08
13	.02	1.1	.49	.43	13	.90	.17	2.4	.06	.02	.05	.11
14	.03	.38	.36	.42	3.7	.69	.16	.96	.17	.02	.04	.03
15	.08	4.2	.27	.39	1.4	.77	.15	.56	.19	.01	.04	.02
16	.04	.64	.30	.34	1.1	.61	.15	1.2	.13	.01	.04	.05
17	.03	.34	2.8	.31	.86	.46	.16	.67	.10	.02	.04	.05
18	.03	.26	.85	.30	2.0	.40	.15	.45	.08	.02	.03	.04
19	.03	.21	.55	.27	4.5	1.9	.13	.37	.08	.04	.04	.05
20	.03	2.4	.42	.24	3.4	1.7	.13	.34	.08	.02	.04	.04
21	1.6	.85	.39	.22	3.2	.95	.14	.35	.07	.01	.04	.04
22	.98	.44	.76	.23	6.6	.72	.11	.30	.07	.01	.03	.04
23	.18	.34	1.0	.30	5.0	.58	.10	.25	.06	0	.02	.04
24	.11	.26	1.0	.30	2.0	.48	.10	.24	.06	.01	.01	.02
25	.09	.21	.64	.29	1.7	.42	.10	.27	.05	.10	.01	.01
26	.07	.20	.54	.49	1.4	.42	.10	.23	.05	.02	.01	.09
27	.06	.19	.43	.39	2.7	.38	.09	.19	.04	.01	.27	.05
28	.05	.19	.37	.25	1.1	.36	.19	.17	.04	0	.28	.04
29	.05	.56	.32	.23	-----	.34	.20	.17	.03	.03	.04	.03
30	.25	.71	.29	.31	-----	.32	.11	.37	.03	.05	.03	.02
31	.63	-----	.28	.31	-----	.28	-----	.32	-----	.12	.03	-----
TOTAL	4.61	17.36	15.39	15.89	59.22	26.81	5.92	15.40	2.86	.95	11.37	1.32
MEAN	.15	.58	.50	.51	2.12	.86	.20	.50	.095	.031	.37	.044
MAX	1.6	4.2	2.8	2.5	13	3.1	.48	2.4	.19	.13	6.6	.15
MIN	.01	.07	.16	.22	.15	.28	.09	.10	.03	0	.01	.01
CFSM	.39	1.53	1.32	1.34	5.58	2.26	.53	1.32	.25	.08	.97	.12
IN.	.45	1.70	1.51	1.56	5.80	2.62	.58	1.51	.28	.09	1.11	.13

CAL YR 1970 TOTAL 220.25 MEAN .60 MAX 20 MIN 0 CFSM 1.58 IN 21.56
WTR YR 1971 TOTAL 177.10 MEAN .49 MAX 13 MIN 0 CFSM 1.29 IN 17.34

PEAK DISCHARGE (BASE, 45 CFS).--No peak above base.

01570500 Susquehanna River at Harrisburg, Pa.

LOCATION.--Lat 40°15'10", long 76°52'27", Dauphin County, on left bank at Nagle Street, 500 ft upstream from sanitary dam, 3,700 ft downstream from Walnut Street Bridge in Harrisburg, and 1.1 miles upstream from Paxton Creek.

DRAINAGE AREA.--24,100 sq mi, approximately.

PERIOD OF RECORD.--October 1890 to current year.

GAGE.--Water-stage recorder and concrete-slab control. Datum of gage is 290.01 ft above mean sea level.

Supplementary nonrecording gage at Walnut Street Bridge at same datum. Prior to Oct. 1, 1928, nonrecording gage at Walnut Street Bridge at same datum. Sanitary dam built during period Sept. 30, 1913 to Aug. 29, 1916. Major repairs to dam Sept. 15 to Dec. 23, 1964.

AVERAGE DISCHARGE.--81 years, 33,700 cfs (18.99 inches per year).

EXTREMES.--Current year: Maximum discharge, 224,000 cfs Mar. 1 (gage height, 12.83 ft); maximum gage height, 18.03 ft Feb. 16 (ice jam); minimum discharge, 3,980 cfs Aug. 27 (gage height, 3.04 ft).

Period of record: Maximum discharge, 740,000 cfs Mar. 19, 1936 (gage height, 29.23 ft at Nagle Street and 30.33 ft at Walnut Street); minimum, 1,600 cfs Nov. 29, 1930, result of freezeup. Minimum daily discharge since construction of sanitary dam and not affected by freezeup, 1,700 cfs Sept. 18, 1964; minimum gage height, 1.83 ft Sept. 13, 1964.

Maximum stage known during period 1786 to 1890, 26.8 ft at Walnut Street June 2, 1889 (discharge, 654,000 cfs).

REMARKS.--Records excellent except those for winter periods, which are good. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 711: 1929. WSP 1502: 1891-1923, 1926(M), 1928. The total runoff in inches for the 1953 water year and the yearly mean discharge for the 1957 calendar year have been corrected to 19.54 inches and 27,590 cfs, respectively, superseding figures published in WSP 1272 and 1552, respectively.

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,460	19,600	31,800	27,000	13,000	214,000	40,700	35,400	19,000	6,780	14,900	6,020
2	7,460	20,900	32,600	23,000	12,000	210,000	41,000	39,100	17,600	5,900	17,800	5,210
3	7,740	23,100	33,300	21,000	10,500	172,000	44,200	35,900	16,200	4,550	18,600	4,770
4	7,600	32,000	33,300	23,000	11,000	138,000	62,600	34,600	15,300	7,600	22,900	4,550
5	7,740	42,600	33,800	28,000	12,000	108,000	82,000	36,700	14,400	7,460	27,100	5,320
6	7,740	43,900	35,400	41,000	13,500	90,000	83,300	38,500	13,600	7,040	24,500	5,430
7	6,900	40,200	37,500	46,000	15,000	76,200	78,900	37,500	13,100	6,780	19,400	4,880
8	6,780	35,100	37,700	41,000	18,000	75,100	70,400	41,800	12,800	6,400	16,000	4,460
9	6,650	30,000	34,900	39,000	20,000	73,000	63,600	46,400	12,600	6,400	14,400	4,360
10	6,400	25,600	32,000	40,000	19,000	69,700	60,500	46,900	12,200	6,520	11,100	4,260
11	6,280	23,100	29,600	38,000	18,000	62,800	66,800	50,000	11,400	6,020	10,800	4,360
12	6,020	29,000	29,000	38,000	17,000	57,100	85,400	51,700	10,600	6,150	9,350	4,460
13	5,900	44,700	32,300	35,000	21,000	54,700	87,700	50,000	9,800	5,650	8,300	5,900
14	7,180	91,500	41,000	32,000	64,000	57,100	84,800	60,700	11,600	5,780	7,320	7,180
15	17,800	124,000	46,700	29,000	74,000	61,500	92,400	75,800	12,900	6,280	6,650	11,900
16	22,400	135,000	45,000	26,000	84,000	85,300	100,000	71,100	14,000	6,020	6,150	11,400
17	20,300	126,000	42,900	23,000	84,000	164,000	87,900	62,000	15,700	6,020	5,780	9,800
18	18,600	113,000	44,500	20,500	78,000	194,000	72,800	53,900	15,800	5,650	5,430	9,350
19	16,600	85,400	43,700	19,000	74,000	154,000	59,700	46,400	14,700	5,320	5,100	11,100
20	15,300	66,000	40,700	15,500	78,000	125,000	51,400	40,400	13,100	5,320	4,990	10,600
21	14,200	65,800	39,400	14,000	90,000	107,000	46,100	36,200	11,700	5,320	4,770	11,600
22	16,600	66,000	41,000	12,500	120,000	92,800	42,900	35,100	10,600	5,210	4,550	14,700
23	29,000	60,700	46,100	15,000	160,000	79,100	41,500	36,700	9,800	5,100	4,360	18,200
24	42,000	56,600	48,600	17,000	190,000	68,700	40,200	36,700	8,900	5,100	4,260	17,800
25	46,900	50,600	52,500	18,500	170,000	61,300	38,300	32,000	8,160	4,990	4,260	14,400
26	40,700	43,900	51,400	19,000	140,000	54,700	35,400	28,300	7,600	4,880	4,080	12,200
27	32,000	39,100	45,000	20,000	124,000	48,900	31,800	25,900	6,900	5,210	4,660	12,100
28	27,100	34,900	40,000	15,000	161,000	44,500	30,300	23,800	7,040	6,280	5,430	11,200
29	23,100	32,000	36,000	12,000	-----	41,500	29,300	22,400	6,650	5,650	5,900	10,600
30	20,500	30,800	34,000	12,000	-----	40,200	29,000	21,300	6,900	7,320	6,400	10,400
31	18,800	-----	31,000	11,000	-----	40,200	-----	20,500	-----	11,400	6,280	-----
TOTAL	519,750	1,631.1M	1,202.7M	771,000	1,891.0M	2,920.4M	1,780.9M	1,273.7M	360,650	190,100	311,520	268,510
MEAN	16,770	54,370	38,800	24,870	67,540	94,210	59,360	41,090	12,020	6,132	10,050	8,950
MAX	46,900	135,000	52,500	46,000	190,000	214,000	100,000	75,800	19,000	11,400	27,100	18,200
MIN	5,900	19,600	29,000	11,000	10,500	40,200	29,000	20,500	6,650	4,550	4,080	4,260
CFSM	.70	2.26	1.61	1.03	2.80	3.91	2.46	1.71	.50	.25	.42	.37
IN.	.80	2.52	1.86	1.19	2.92	4.51	2.75	1.97	.56	.29	.48	.41

CAL YR 1970 TOTAL 13,759,600 MEAN 37,700 MAX 323,000 MIN 5,100 CFSM 1.56 IN 21.24
WTR YR 1971 TOTAL 13,121,330 MEAN 35,950 MAX 214,000 MIN 4,080 CFSM 1.49 IN 20.25

PEAK DISCHARGE (BASE, 180,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	* Unknown
2-24	*	*	a200,000	3-18	0700	11.89	206,000	a About
3-1	1830	12.83	231,000					

SUSQUEHANNA RIVER BASIN

01571500 Yellow Breeches Creek near Camp Hill, Pa.

LOCATION.--Lat 40°13'29", long 76°53'54", Cumberland County, 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 and 3.1 miles upstream from mouth.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--April 1909 to December 1919, June 1954 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to June 1954, published as "at Olmsted's Mill."

GAGE.--Water-stage recorder. Datum of gage is 307.49 ft above mean sea level. March 1909 to December 1919, nonrecording gage at site 50 ft upstream at same datum.

AVERAGE DISCHARGE.--27 years, 268 cfs (16.85 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,360 cfs Aug. 3 (gage height, 8.60 ft); minimum, 53 cfs Aug. 26 (gage height, 0.53 ft); minimum daily, 128 cfs July 28.

Period of record: Maximum discharge, 5,550 cfs Aug. 22, 1915 (gage height, 8.61 ft, from graph based on gage readings), from rating curve extended above 3,700 cfs; maximum gage height, 8.90 ft July 10, 1970; minimum discharge, 23 cfs Sept. 12, 1966 (gage height, 0.17 ft); minimum daily, 67 cfs Sept. 13, 1966.

Flood of July 22, 1953, reached a stage of 9.4 ft, from floodmarks (discharge, 3,940 cfs, from rating curve extended above 2,500 cfs).

REMARKS.--Records good. The Mechanicsburg Water Co. diverts water at a point about 4 miles upstream from station for municipal water supply, equivalent to a mean discharge at station of 1.1 cfs. Some diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 1302: 1910, 1912-13, 1914(M), 1916.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	233	278	331	191	976	400	250	351	190	228	165
2	151	203	250	349	194	849	401	271	295	186	280	161
3	143	232	244	319	206	786	404	307	297	173	1,770	157
4	140	329	254	363	216	793	376	267	288	167	599	153
5	140	259	242	647	239	686	359	253	269	165	396	147
6	141	223	226	544	274	697	352	356	263	161	308	147
7	141	191	222	444	259	894	420	456	299	159	254	147
8	140	175	212	388	281	903	406	428	294	155	223	143
9	140	170	211	398	358	680	363	452	263	163	206	147
10	140	169	212	378	275	621	338	371	241	159	192	141
11	137	188	211	362	257	611	325	342	232	163	190	163
12	140	269	259	354	256	605	317	329	226	195	186	171
13	141	434	361	346	1,080	596	313	610	225	171	177	184
14	140	397	285	341	1,490	584	307	673	236	163	173	393
15	149	438	253	336	693	551	295	468	454	153	169	204
16	150	502	246	310	541	550	294	526	436	149	163	177
17	142	384	611	295	483	514	288	537	327	147	161	206
18	140	313	546	283	517	483	287	442	286	145	157	175
19	139	312	432	276	702	644	279	402	259	151	165	169
20	139	339	392	253	838	960	271	376	243	153	190	173
21	162	547	363	265	989	690	269	382	255	145	169	190
22	323	424	399	269	1,300	619	269	372	239	140	159	161
23	299	366	571	276	1,880	591	263	337	225	138	151	155
24	192	314	734	267	1,520	543	258	317	215	138	151	153
25	168	297	540	266	1,180	508	254	322	207	143	147	147
26	161	288	489	276	1,060	489	254	398	201	134	142	153
27	159	280	445	265	1,190	476	249	328	267	132	339	171
28	155	260	414	236	1,150	462	256	295	206	128	414	171
29	152	249	381	242	-----	453	283	286	204	130	216	159
30	158	298	356	260	-----	438	260	312	197	165	180	151
31	203	-----	338	249	-----	415	-----	445	-----	199	165	-----
TOTAL	4,980	9,083	10,977	10,188	19,619	19,667	9,410	11,910	8,000	4,860	8,420	5,134
MEAN	161	303	354	329	701	634	314	384	267	157	272	171
MAX	323	547	734	647	1,880	976	420	673	454	199	1,770	393
MIN	137	169	211	236	191	415	249	250	197	128	142	141
CFSM	.75	1.40	1.64	1.52	3.25	2.94	1.45	1.78	1.24	.73	1.26	.79
IN.	.86	1.56	1.89	1.75	3.38	3.39	1.62	2.05	1.38	.84	1.45	.88

CAL YR 1970 TOTAL 131,571 MEAN 360 MAX 2,500 MIN 137 CFSM 1.67 IN 22.66
WTR YR 1971 TOTAL 122,248 MEAN 335 MAX 1,880 MIN 128 CFSM 1.55 IN 21.05

PEAK DISCHARGE (BASE, 1,250 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2-14	0030	6.59	2,280	3-19	2300	4.29	1,250
2-23	1200	6.11	2,040	8- 3	1600	8.60	3,360
2-27	1000	4.36	1,270				

01573000 Swatara Creek at Harper Tavern, Pa.

LOCATION.--Lat 40°24'09", long 76°34'39", Lebanon County, on left bank 10 ft downstream from bridge on State Highway 934 at Harper Tavern, 6 miles northwest of Annville and 8.5 miles downstream from Little Swatara Creek.

DRAINAGE AREA.--337 sq mi.

PERIOD OF RECORD.--January 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1927, published as "at Harpers."

GAGE.--Water-stage recorder. Datum of gage is 356.68 ft above mean sea level. Prior to July 16, 1931, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--52 years, 548 cfs (22.08 inches per year).

EXTREMES.--Current year: Maximum discharge, 13,100 cfs Feb. 14 (gage height, 12.76 ft); minimum, 67 cfs July 9 (gage height, 0.23 ft).

Period of record: Maximum discharge, 25,300 cfs Aug. 24, 1933 (gage height, 17.53 ft); minimum, 6.0 cfs Aug. 21, 1965 (gage height, -0.10 ft).

Maximum stage known, 25.6 ft June 1, 1889, from floodmark (discharge, 53,000 cfs, from rating curve extended above 25,000 cfs).

REMARKS.--Records good except those for winter months, which are fair. Some regulation at low flow by mills above station.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1202: 1948. WSP 1302: 1920(M), 1921, 1924-25(M), 1927-28(M), 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	247	594	322	220	2,020	510	200	580	111	1,560	155
2	94	223	508	352	190	1,700	495	217	407	115	2,730	147
3	90	233	467	358	170	1,490	555	354	403	99	3,170	139
4	86	331	531	520	170	1,410	475	266	358	86	5,200	130
5	77	1,540	503	1,910	190	1,150	430	210	307	82	2,010	120
6	72	915	437	1,350	280	1,310	403	239	294	80	1,200	115
7	73	630	369	907	450	2,040	515	307	380	76	852	111
8	78	498	348	620	593	1,950	439	345	290	72	631	106
9	74	417	360	600	2,380	1,410	380	421	243	103	515	103
10	69	376	348	560	1,170	1,210	358	345	210	190	425	99
11	69	421	335	520	746	1,100	332	298	193	128	385	139
12	71	1,070	473	480	557	1,100	315	278	183	115	362	461
13	70	3,640	608	457	5,440	1,140	307	719	197	99	286	555
14	71	2,310	504	425	9,030	1,110	298	1,310	443	93	247	575
15	1,360	2,810	450	426	1,990	1,160	274	852	398	99	224	407
16	1,640	2,390	413	333	1,340	1,480	262	900	461	82	203	332
17	623	1,610	768	298	1,090	1,260	254	900	315	80	183	443
18	361	1,230	1,000	274	1,240	1,070	243	659	250	82	168	319
19	273	998	840	296	1,940	1,280	228	575	210	101	158	247
20	222	1,020	784	320	1,910	2,440	217	505	190	214	158	224
21	250	2,140	707	310	2,220	1,680	221	485	177	139	149	262
22	1,390	1,290	691	300	3,100	1,410	214	475	164	91	141	278
23	1,560	1,080	666	320	4,610	1,270	210	407	147	76	130	200
24	838	869	699	340	2,800	1,100	203	362	136	69	118	190
25	579	741	584	310	2,030	948	193	371	128	86	108	164
26	458	658	541	350	1,790	858	193	719	120	99	103	174
27	377	610	462	300	2,770	780	197	470	113	900	439	200
28	316	528	436	270	2,490	725	200	385	108	232	840	193
29	279	504	402	280	-----	686	266	349	103	149	362	190
30	266	828	355	270	-----	620	236	354	108	294	221	164
31	266	-----	332	260	-----	555	-----	769	-----	425	174	-----
TOTAL	12,158	32,157	16,515	14,638	52,906	39,462	9,423	15,046	7,616	4,667	23,452	6,942
MEAN	392	1,072	533	472	1,890	1,273	314	485	254	151	757	231
MAX	1,640	3,640	1,000	1,910	9,030	2,440	555	1,310	580	900	5,200	575
MIN	69	223	332	260	170	555	193	200	103	69	103	99
CFSM	1.16	3.18	1.58	1.40	5.61	3.78	.93	1.44	.75	.45	2.25	.69
IN.	1.34	3.55	1.82	1.62	5.84	4.36	1.04	1.66	.84	.52	2.59	.77

CAL YR 1970 TOTAL 243,066 MEAN 666 MAX 10,100 MIN 56 CFSM 1.98 IN 26.83
WTR YR 1971 TOTAL 234,982 MEAN 644 MAX 9,030 MIN 69 CFSM 1.91 IN 25.94

PEAK DISCHARGE (BASE, 4,800 CFS)

* From magnet.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2-14	0230	12.76*	13,100	8- 4	0830	8.55*	6,620
2-23	0130	7.40	5,240				

SUSQUEHANNA RIVER BASIN

01573086 Beck Creek near Cleona, Pa.

LOCATION.--Lat 40°19'24", long 76°29'00", Lebanon County, on right bank at bridge on Township Road T421, 0.4 mile upstream from mouth, and one mile south of Cleona.

DRAINAGE AREA.--7.87 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 414.77 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 5.69 cfs (9.82 inches per year).

EXTREMES.--Current year: Maximum discharge, 196 cfs Feb. 13 (gage height, 5.30 ft), from rating curve extended above 100 cfs on basis of culvert computation of peak flow; minimum daily, 3.5 cfs Sept. 30.

Period of record: Maximum discharge, 640 cfs July 10, 1970 (gage height, 6.25 ft), from rating curve extended above 100 cfs as explained above; no flow Jan. 30, 31, 1966.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	4.4	8.1	4.9	4.6	16	8.6	7.1	5.9	5.4	6.8	5.1
2	5.1	3.7	7.9	5.4	4.2	15	8.8	7.7	6.2	5.9	6.8	5.1
3	5.1	3.9	7.6	4.9	4.2	15	8.9	6.8	6.2	5.4	19	5.4
4	5.1	4.6	8.0	6.5	4.2	14	8.3	4.9	6.2	4.9	12	5.4
5	4.9	11	7.3	10	4.6	12	8.0	4.9	6.2	4.9	10	5.4
6	4.6	5.4	7.4	8.7	5.9	16	8.0	5.9	5.7	4.9	8.4	5.9
7	4.6	4.6	6.7	7.4	5.9	23	8.7	5.1	5.7	4.4	8.0	5.9
8	4.4	4.6	6.6	6.8	20	18	7.9	6.2	5.7	4.4	7.7	6.2
9	4.2	4.2	6.5	6.8	24	16	7.6	5.9	5.7	5.4	7.1	6.5
10	4.2	4.4	6.5	7.1	8.0	15	7.8	5.9	5.1	5.9	7.1	6.8
11	4.2	4.9	6.2	6.8	8.0	15	7.4	8.7	5.1	5.1	6.8	5.9
12	4.2	8.0	6.9	6.5	10	14	7.4	9.1	5.1	5.1	6.8	5.9
13	4.2	13	7.0	6.5	122	14	7.2	20	5.7	5.4	6.8	5.7
14	4.2	7.7	6.8	6.5	38	13	7.3	15	6.2	5.7	6.5	5.1
15	4.9	12	6.2	6.5	16	13	6.9	7.4	5.9	5.4	6.2	5.1
16	4.4	10	6.1	5.9	16	12	6.9	9.8	5.9	5.1	5.9	5.4
17	3.9	7.7	11	5.9	13	12	6.7	8.7	5.4	5.1	5.9	5.4
18	3.9	7.1	8.2	5.7	25	11	6.5	6.8	5.4	4.4	5.9	5.4
19	3.9	6.8	7.5	5.4	18	17	6.3	4.4	5.4	4.4	5.7	5.1
20	3.7	9.8	7.4	5.7	19	18	6.2	5.1	5.4	4.9	5.7	4.9
21	4.4	13	6.8	5.4	19	13	6.3	5.1	5.4	4.6	5.7	5.1
22	7.1	9.4	7.1	5.7	30	12	6.2	5.4	4.9	4.2	5.4	4.6
23	5.1	9.1	7.5	5.9	31	12	5.9	5.1	4.9	3.9	5.4	4.6
24	4.4	8.4	8.5	5.7	21	11	7.4	5.1	4.9	4.2	5.4	4.6
25	4.6	7.7	7.1	5.7	18	10	7.4	4.9	4.6	5.9	5.1	4.4
26	4.4	8.0	7.0	6.5	17	10	7.4	6.2	4.4	5.7	4.6	4.4
27	4.2	8.0	6.6	5.7	25	9.9	7.4	4.6	4.4	6.5	8.0	4.4
28	4.2	7.7	6.6	4.9	18	9.7	7.7	4.6	4.4	5.1	8.7	3.7
29	3.9	8.0	6.0	5.1	-----	9.7	8.0	4.6	4.4	5.4	5.9	3.7
30	4.2	9.1	5.9	5.4	-----	9.3	7.4	5.9	4.6	6.2	5.4	3.5
31	4.4	-----	5.7	4.9	-----	8.9	-----	10	-----	5.9	5.1	-----
TOTAL	139.7	226.2	220.7	190.8	549.6	414.5	222.5	216.9	161.0	159.7	219.8	154.6
MEAN	4.51	7.54	7.12	6.15	19.6	13.4	7.42	7.00	5.37	5.15	7.09	5.15
MAX	7.1	13	11	10	122	23	8.9	20	6.2	6.5	19	6.8
MIN	3.7	3.7	5.7	4.9	4.2	8.9	5.9	4.4	4.4	3.9	4.6	3.5
CFSM	.57	.96	.90	.78	2.49	1.70	.94	.89	.68	.65	.90	.65
IN.	.66	1.07	1.04	.90	2.60	1.96	1.05	1.03	.76	.75	1.04	.73

CAL YR 1970 TOTAL 3,356.7 MEAN 9.20 MAX 135 MIN 3.7 CFSM 1.17 IN 15.87

WTR YR 1971 TOTAL 2,876.0 MEAN 7.88 MAX 122 MIN 3.5 CFSM 1.00 IN 13.59

PEAK DISCHARGE (BASE, 80 CFS).--Feb. 8 (2230) 89 cfs (4.62 ft); Feb. 13 (1545) 196 cfs (5.30 ft).

SUSQUEHANNA RIVER BASIN

169

01574000 West Conewago Creek near Manchester, Pa.

LOCATION.--Lat 40°04'56", long 76°43'13", York County, on left bank 500 ft upstream from bridge on State Highway 181, 0.7 mile downstream from Little Conewago Creek, and 1.5 miles north of Manchester.

DRAINAGE AREA.--510 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1302. Prior to October 1931, published as Conewago Creek near Manchester.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft above mean sea level.

AVERAGE DISCHARGE.--43 years, 553 cfs (14.72 inches per year).

EXTREMES.--Current year: Maximum discharge, 15,700 cfs Feb. 13 (gage height, 13.59 ft); minimum, 34 cfs July 28, 29 (gage height, 1.53 ft).

Period of record: Maximum discharge, 47,600 cfs Aug. 24, 1933 (gage height, 24.14 ft); minimum, 1.9 cfs Oct. 13, 1941; minimum gage height, 1.03 ft Aug. 9, 1966.

REMARKS.--Records fair. Occasional regulation by Conewago Lake (capacity, 3,570 acre-ft) since October 1959.

REVISIONS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	391	789	500	262	1,860	451	229	1,110	134	139	134
2	57	312	446	434	195	1,520	434	204	576	129	547	111
3	51	232	374	643	198	1,390	456	226	491	109	1,990	105
4	46	1,000	358	812	189	1,690	442	238	442	103	1,390	98
5	89	1,820	384	3,000	232	1,550	388	226	404	88	768	85
6	112	1,120	316	2,840	409	2,020	368	296	352	77	643	81
7	112	446	268	1,680	638	3,640	680	1,060	360	74	329	72
8	108	326	234	1,130	905	2,840	845	823	1,520	69	226	70
9	104	272	218	1,040	2,800	1,560	571	1,440	547	66	170	70
10	102	243	227	905	1,710	1,300	451	881	341	59	142	64
11	100	239	226	740	923	1,240	396	596	255	61	127	62
12	102	558	302	640	869	1,170	360	473	226	77	123	92
13	102	1,310	1,160	560	6,530	1,070	348	887	210	94	147	207
14	104	1,050	736	520	8,860	1,130	329	2,420	251	107	127	1,210
15	79	1,410	512	480	2,210	965	307	1,140	643	77	101	514
16	77	2,110	427	400	1,450	941	279	998	1,130	64	85	238
17	75	897	2,900	340	1,220	812	272	1,630	638	62	76	204
18	89	631	2,120	270	1,710	675	265	1,030	392	58	70	226
19	63	522	1,100	280	3,420	905	251	686	296	55	72	164
20	148	520	890	310	3,770	3,420	245	562	245	58	86	137
21	217	2,330	726	290	3,950	1,760	232	505	216	55	152	162
22	405	1,080	872	352	4,690	1,250	226	557	198	53	123	300
23	704	748	2,770	380	8,310	1,100	219	505	181	49	86	222
24	290	591	4,030	356	3,910	947	207	396	162	46	69	147
25	195	463	1,930	400	2,550	796	198	356	144	43	66	123
26	160	378	1,420	404	2,210	719	195	356	132	41	58	111
27	152	355	1,120	380	3,690	659	195	341	164	39	76	113
28	205	338	917	360	2,780	612	192	282	226	35	779	154
29	194	318	741	314	-----	586	207	255	170	39	654	181
30	178	457	659	352	-----	557	258	300	149	53	275	147
31	122	-----	617	318	-----	496	-----	1,250	-----	76	173	-----
TOTAL	4,614	22,467	29,789	21,430	70,590	41,180	10,267	21,148	12,171	2,150	9,869	5,604
MEAN	149	749	961	691	2,521	1,328	342	682	406	69.4	318	187
MAX	704	2,330	4,030	3,000	8,860	3,640	845	2,420	1,520	134	1,990	1,210
MIN	46	232	218	270	189	496	192	204	132	35	58	62
CFSM	.29	1.47	1.88	1.35	4.94	2.60	.67	1.34	.80	.14	.62	.37
IN.	.34	1.64	2.17	1.56	5.15	3.00	.75	1.54	.89	.16	.72	.41

CAL YR 1970 TOTAL 313,772 MEAN 860 MAX 13,600 MIN 41 CFSM 1.69 IN 22.89
WTR YR 1971 TOTAL 251,279 MEAN 688 MAX 8,860 MIN 35 CFSM 1.35 IN 18.33

PEAK DISCHARGE (BASE, 10,800 CFS).--Feb. 13 (2400) 15,700 cfs (13.59 ft).

01574500 Codorus Creek at Spring Grove, Pa.

LOCATION.--Lat 39°52'43", long 76°51'13", York County, on right bank at downstream side of county highway bridge No. 132, 0.1 mile downstream from unnamed tributary, 0.3 mile downstream from east boundary of Spring Grove, and 7 miles southwest of York.

DRAINAGE AREA.--75.5 sq mi. Area at site used prior to Nov. 1, 1965, 74.3 sq mi.

PERIOD OF RECORD.--May 1929 to September 1964, November 1965 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1962 to September 1968, published as West Branch Codorus Creek at Spring Grove.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.86 ft above mean sea level. Prior to Jan. 18, 1930, nonrecording gage, Jan. 18, 1930 to Sept. 9, 1941, water-stage recorder at site 0.9 mile upstream and Sept. 10, 1941 to Sept. 30, 1964, water-stage recorder at site 0.8 mile upstream, all at datum 5.64 ft higher. Nov. 1 to Dec. 20, 1965, nonrecording gage about 40 ft downstream from gage at unknown datum, Dec. 21, 1965 to Mar. 31, 1966, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--40 years (1929-64, 1966-71), 74.0 cfs (13.31 inches per year), adjusted for diversion since March 1961 and for storage since 1966.

EXTREMES.--Current year: Maximum discharge, 1,960 cfs Feb. 13 (gage height, 7.43 ft); minimum daily, 32 cfs Dec. 7.

Period of record: Maximum discharge, 11,200 cfs Aug. 23, 1933 (gage height, 11.84 ft), from rating curve extended above 1,200 cfs on basis of computations of flow over dam at gage heights 8.71 and 11.84 ft; no flow part of day Oct. 26, 1947; minimum daily, 0.6 cfs Sept. 4, 1966.

REMARKS.--Records fair. Daily discharges include water diverted around station by waste treatment plant of P. H. Glatfelter Company.

COOPERATION.--Records of change in reservoir contents and daily diversion furnished by P. H. Glatfelter Company.

REVISIONS (WATER YEARS).--WSP 1302: 1929-30. WSP 1502: 1932(M), 1933, 1935(M), 1940, 1942(M), 1943, 1944-46 (M), 1951(M), 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	41	43	73	91	170	82	61	216	57	48	57
2	43	48	37	70	89	180	82	65	150	75	153	54
3	42	75	34	71	54	190	92	68	194	63	78	53
4	42	53	44	66	61	300	82	62	156	51	118	52
5	43	285	38	264	83	200	74	58	129	40	182	51
6	44	100	42	319	125	210	190	134	126	51	70	52
7	43	70	32	231	105	240	160	68	130	59	62	54
8	45	60	36	195	544	220	130	127	139	53	55	52
9	42	52	35	163	532	200	110	84	99	53	51	53
10	42	45	38	152	150	180	96	69	89	56	49	53
11	42	52	38	144	120	170	100	71	80	49	49	67
12	42	88	61	138	140	160	90	72	81	51	52	88
13	43	98	52	141	900	150	84	208	80	46	49	90
14	43	76	44	126	1,300	140	78	157	89	45	54	131
15	62	190	42	141	350	130	71	112	106	42	51	61
16	57	110	44	119	190	130	75	205	94	43	50	55
17	40	88	192	92	160	110	70	146	80	43	52	52
18	42	41	87	79	180	120	70	123	72	45	52	48
19	49	40	68	72	170	287	67	106	68	49	60	50
20	47	59	58	68	200	271	68	92	66	48	59	52
21	63	72	52	76	190	158	68	120	65	47	51	168
22	63	46	124	100	300	141	68	124	61	50	50	79
23	54	43	217	99	330	162	71	83	69	49	50	73
24	48	36	227	92	260	121	69	77	74	46	49	67
25	44	36	132	94	220	104	67	86	64	46	51	62
26	46	33	115	125	190	116	66	83	64	44	50	62
27	41	44	90	109	283	105	66	72	65	46	74	72
28	40	39	79	104	212	110	69	68	68	44	114	67
29	40	37	68	102	-----	100	93	59	64	44	53	68
30	48	72	72	109	-----	92	68	173	65	62	50	64
31	52	-----	64	101	-----	84	-----	630	-----	48	52	-----
TOTAL	1,438	2,129	2,305	3,835	7,529	5,051	2,576	3,663	2,903	1,545	2,038	2,007
MEAN	46.4	71.0	74.4	124	269	163	85.9	118	96.8	49.8	65.7	66.9
MAX	63	285	227	319	1,300	300	190	630	216	75	182	168
MIN	40	33	32	66	54	84	66	58	61	40	48	48
(∇)	-21.6	+17.8	+39.8	+2.3	+1.1	-5.4	0	+9.8	-5.5	-9.8	-6.5	-11.1
MEAN ∇	24.8	88.8	114	126	270	158	85.9	128	91.3	40.0	59.2	55.8
CFSM ∇	.33	1.18	1.51	1.67	3.58	2.09	1.14	1.70	1.21	.53	.78	.74
IN. ∇	.38	1.32	1.74	1.92	3.73	2.41	1.27	1.96	1.35	.61	.90	.83

CAL YR 1970 TOTAL 34,444 MEAN 94.4 MAX 1,160 MIN 16 MEAN ∇ 104 CFSM ∇ 1.38 IN. ∇ 18.60
 WTR YR 1971 TOTAL 37,019 MEAN 101 MAX 1,300 MIN 32 MEAN ∇ 102 CFSM ∇ 1.35 IN. ∇ 18.42

∇ Figures of net change in contents, in cubic feet per second, in Lake Marburg.

∇ Adjusted for change in contents in Lake Marburg.

NOTE.--No gage-height record Feb. 12-26.

01574800 East Branch Codorus Creek tributary near Winterstown, Pa.

LOCATION.--Lat 39°48'57", long 76°37'59", York County, on right bank 20 ft downstream from highway bridge, 1.5 miles upstream from mouth, and 1.7 miles southwest of Winterstown.

DRAINAGE AREA.--5.17 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-68. October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (from topographic map). November 1959 to September 1968, crest-stage gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 203 cfs Feb. 8 (gage height, 5.45 ft), from rating curve extended above 80 cfs; minimum, 2.0 cfs Oct. 6, 7, 8, 11, 12, 13 (gage height, 2.73 ft).

Period of record: Maximum discharge, 351 cfs July 28, 1969 (gage height, 7.02 ft), from rating curve extended above 15 cfs on basis of slope-area measurement at gage height, 4.90 ft; minimum, 1.2 cfs July 1, 1969 (gage height, 2.62 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.6	5.4	10	5.4	13	8.0	6.0	11	4.0	4.7	8.6
2	2.3	2.4	5.2	9.3	5.4	12	8.3	6.3	10	4.0	19	6.9
3	2.3	4.7	5.2	8.9	5.6	13	8.0	6.0	9.6	3.7	26	6.6
4	2.2	18	5.2	14	5.2	15	7.4	5.4	8.3	3.7	20	6.6
5	2.2	14	4.9	19	8.3	13	7.2	5.4	8.3	3.7	30	6.6
6	2.1	6.6	4.9	14	10	14	8.6	8.9	8.0	3.7	14	6.0
7	2.1	5.2	4.7	13	26	15	14	6.6	7.7	3.5	11	5.7
8	2.1	4.7	4.7	12	63	14	11	8.9	7.2	3.4	9.3	5.7
9	2.1	4.2	4.7	11	23	14	10	7.2	6.9	3.4	8.3	5.4
10	2.1	4.2	4.7	11	12	13	9.3	6.6	6.6	3.4	7.7	5.4
11	2.1	4.9	4.5	11	10	12	8.6	6.3	6.3	4.5	7.4	8.3
12	2.1	7.4	7.2	10	15	11	8.3	6.3	6.3	3.7	6.9	8.9
13	2.1	6.6	5.4	9.3	107	11	8.3	12	6.3	3.5	6.6	9.3
14	2.2	5.4	4.9	9.6	31	11	8.0	8.9	13	3.5	6.3	7.7
15	3.7	14	4.7	9.3	21	11	7.7	7.7	7.7	3.4	6.0	6.9
16	2.7	8.6	8.3	8.6	16	10	7.7	11	6.9	3.4	5.7	6.3
17	2.4	7.4	12	8.3	14	9.3	7.7	8.9	6.0	3.2	5.4	6.0
18	2.3	6.9	8.9	8.0	15	8.6	7.4	8.0	5.4	3.2	5.4	7.0
19	2.2	6.6	8.3	7.4	14	15	7.2	7.7	5.2	3.7	6.9	5.8
20	2.2	8.9	7.7	7.2	15	14	7.2	7.2	4.9	3.5	5.7	5.8
21	7.4	7.4	7.7	6.9	14	12	7.2	7.4	4.9	3.2	5.4	15
22	4.7	6.6	11	7.2	22	12	7.2	7.4	4.7	3.1	5.2	7.7
23	3.1	6.3	13	7.4	25	12	6.4	6.6	4.7	3.1	4.9	7.4
24	2.7	6.0	15	6.9	21	11	6.8	6.6	4.5	4.0	4.7	7.2
25	2.4	5.7	14	6.9	16	10	6.8	6.9	4.5	3.7	4.7	6.9
26	2.4	5.4	13	8.0	14	9.6	6.2	6.3	5.4	3.4	4.5	7.2
27	2.3	5.4	12	7.2	18	9.3	6.6	6.0	4.9	3.2	28	7.7
28	2.3	5.4	11	6.6	14	8.9	6.3	5.7	4.5	3.1	19	6.9
29	2.3	6.0	10	6.0	-----	8.9	6.9	5.7	4.2	3.5	9.6	6.6
30	2.8	6.0	10	6.6	-----	8.6	6.0	10	4.2	5.7	8.3	6.6
31	3.1	-----	5.6	6.0	-----	8.3	-----	21	-----	4.5	7.7	-----
TOTAL	81.4	203.5	247.8	286.6	565.9	359.5	236.3	240.9	198.1	112.6	314.3	214.7
MEAN	2.63	6.78	7.99	9.25	20.2	11.6	7.88	7.77	6.60	3.63	10.1	7.16
MAX	7.4	18	15	19	107	15	14	21	13	5.7	30	15
MIN	2.1	2.4	4.5	6.0	5.2	8.3	6.0	5.4	4.2	3.1	4.5	5.4
CFSM	.51	1.31	1.55	1.79	3.91	2.24	1.52	1.50	1.28	.70	1.95	1.38
IN.	.59	1.46	1.78	2.06	4.07	2.59	1.70	1.73	1.43	.81	2.26	1.54

CAL YR 1970 TOTAL 2,848.9 MEAN 7.81 MAX 49 MIN 2.1 CFSM 1.51 IN 20.50
 WTR YR 1971 TOTAL 3,061.6 MEAN 8.39 MAX 107 MIN 2.1 CFSM 1.62 IN 22.03

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 4	2100	4.39	104	6-14	1400	4.49	113
2- 8	1930	5.45	203	8- 3	1915	4.80	141
2-13	1445	5.40	198	8-27	1745	4.26	92

SUSQUEHANNA RIVER BASIN

01575000 South Branch Codorus Creek near York, Pa.

LOCATION.--Lat 39°55'14", long 76°44'57", York County, on right bank 100 ft downstream from dam of pumping station of York Water Co., 200 ft upstream from Penn Central Railroad Bridge, 0.5 mile upstream from mouth, and 3 miles southwest of York.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only prior to October 1931, published in WSP 1302. May 1925 to September 1927 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 373.03 ft above mean sea level, adjustment of 1907. Prior to Aug. 21, 1928, nonrecording gage at site 180 ft upstream at datum 5.00 ft higher.

AVERAGE DISCHARGE.--44 years, 126 cfs (14.62 inches per year), adjusted for diversion and, since October 1966, for storage.

EXTREMES.--Current year: Maximum discharge, 6,550 cfs Feb. 14 (gage height, 9.04 ft, in gage well, 9.67 ft outside, from floodmarks), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; minimum, 7.2 cfs Oct. 3, 5, 15 (gage height, 0.67 ft).

Period of record: Maximum discharge, 19,300 cfs Aug. 23, 1933 (gage height, 17.97 ft, from floodmark in gage house), by contracted-opening measurement of peak flow; no flow at times.

REMARKS.--Records good. Regulation at low flow by pumping plant above station. Some regulation, during entire period of record, from reservoirs of York Water Company (combined capacity, 2,500,000,000 gal). Diversion above station for municipal supply of city of York.

REVISIONS (WATER YEARS).--WSP 1302: 1931. WSP 1502: 1932-33, 1941, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	50	71	149	68	259	128	82	232	52	49	72
2	15	28	64	127	67	262	130	87	194	54	398	62
3	15	61	60	114	70	279	143	96	251	48	159	63
4	22	106	74	205	66	431	124	75	209	48	332	50
5	14	594	58	504	120	299	108	72	166	46	418	56
6	15	156	57	316	214	338	122	161	152	37	150	50
7	12	114	50	243	199	385	302	134	157	33	106	41
8	11	94	43	222	995	332	240	185	161	26	89	41
9	11	82	52	186	970	294	173	152	112	25	72	40
10	13	78	46	188	188	285	150	106	103	38	58	33
11	14	92	47	174	168	259	159	99	96	56	50	49
12	9.9	138	107	155	209	235	132	86	101	56	44	214
13	9.0	149	109	158	2,060	232	128	271	97	36	38	97
14	13	114	71	147	2,160	224	124	194	118	30	36	112
15	47	285	58	156	372	207	116	150	164	24	47	58
16	37	147	71	142	276	212	114	227	139	25	37	47
17	15	166	282	122	248	157	110	189	105	31	30	46
18	15	186	160	109	282	164	110	145	87	31	27	56
19	9.9	53	138	101	271	265	97	137	82	34	34	46
20	16	64	120	101	317	360	90	118	84	31	61	47
21	37	99	102	101	291	246	97	130	73	25	48	285
22	182	68	180	98	462	229	96	154	69	24	46	78
23	52	84	266	107	520	209	84	108	63	14	34	66
24	43	70	334	106	388	212	89	99	62	21	26	61
25	36	66	243	101	326	166	90	101	58	27	24	61
26	24	68	218	131	288	170	76	89	56	17	24	59
27	21	70	186	106	404	168	81	79	62	21	257	79
28	18	68	158	101	323	168	75	81	62	14	550	66
29	16	70	142	90	-----	154	124	86	54	32	126	59
30	26	106	124	102	-----	145	90	199	61	137	86	49
31	67	-----	122	92	-----	132	-----	597	-----	68	69	-----
TOTAL	847.8	3,526	3,813	4,754	12,322	7,478	3,702	4,489	3,430	1,161	3,525	2,143
MEAN	27.3	118	123	153	440	241	123	145	114	37.5	114	71.4
MAX	182	594	334	504	2,160	431	302	597	251	137	550	285
MIN	9.0	28	43	90	66	132	75	72	54	14	24	33
(\pm)	+32.7	+29.7	+29.0	+28.5	+29.5	+29.0	+30.2	+30.1	+32.3	+31.7	+32.1	+32.6
MEAN \neq	60.0	148	152	182	470	270	153	175	146	69.2	146	104
CFSM \neq	.51	1.26	1.30	1.56	4.02	2.31	1.31	1.50	1.25	.59	1.25	.89
IN. \neq	.59	1.41	1.50	1.80	4.19	2.66	1.46	1.73	1.40	.68	1.44	.99
CAL YR 1970	TOTAL 47,141.8	MEAN 129	MAX 2,440	MIN 8.1	MEAN \neq 161	CFSM \neq 1.38	IN. \neq 18.68					
WTR YR 1971	TOTAL 51,190.8	MEAN 140	MAX 2,160	MIN 9.0	MEAN \neq 170	CFSM \neq 1.45	IN. \neq 19.85					

\neq Diversion for municipal supply of city of York and change in contents in reservoirs of York Water Co., equivalent in cubic feet per second; furnished by York Water Co.

\neq Adjusted for diversion and change in reservoir contents.

01575500 Codorus Creek near York, Pa.

LOCATION.--Lat 39°56'46", long 76°45'20", York County, 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.

DRAINAGE AREA.--222 sq mi.

PERIOD OF RECORD.--August 1940 to current year. October 1915 to August 1923, August 1926 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters. Published as "at York" 1915-32.

GAGE.--Water-stage recorder. Datum of gage is 356.39 ft above mean sea level (Corps of Engineers benchmark). Prior to Sept. 30, 1932, nonrecording gage at site 1.6 miles downstream at different datum.

AVERAGE DISCHARGE.--31 years, 226 cfs (13.82 inches per year), adjusted for diversion and, since October 1951, for storage.

EXTREMES.--Current year: Maximum discharge, 6,180 cfs Feb. 13 (gage height, 10.84 ft), from rating curve extended above 3,300 cfs; minimum, 45 cfs Oct. 2, 6; minimum gage height, 2.00 ft Oct. 2, 6, July 29.
Period of record: Maximum discharge, 7,770 cfs Dec. 4, 1950 (gage height, 12.03 ft), from rating curve extended above 3,300 cfs; minimum, 3.0 cfs Oct. 25, 1966 (gage height, 1.40 ft), result of upstream shutoff.
Maximum stage known, about 24.0 ft Aug. 23, 1933 (present site and datum), from floodmark 500 ft downstream (discharge, about 32,000 cfs).

REMARKS.--Records good. Regulation at low flow by mills and pumping plant above station. Diversion above station for municipal supply of city of York. Flood flows regulated by Indian Rock Reservoir 2.1 miles upstream (see p.179) and by three reservoirs (combined capacity, 21,385,000,000 gallons).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	104	126	261	167	575	236	167	570	128	104	140
2	68	88	120	220	163	549	266	168	405	138	585	130
3	65	132	110	200	142	575	248	190	438	122	324	126
4	68	220	150	400	147	911	213	158	455	121	517	113
5	65	923	120	1,100	238	655	208	148	341	106	682	113
6	64	227	110	640	387	732	545	281	313	98	256	111
7	63	148	100	490	378	852	456	290	318	97	199	102
8	61	130	90	420	1,650	727	302	331	344	88	165	104
9	61	117	110	360	2,050	621	259	311	251	85	138	100
10	64	102	96	340	443	585	235	213	226	102	122	91
11	64	123	94	330	403	546	260	191	206	113	119	113
12	59	174	168	290	432	423	240	177	204	126	134	324
13	58	211	210	300	2,620	415	220	466	201	93	106	185
14	63	153	139	280	4,050	433	210	476	218	85	104	313
15	109	416	120	300	929	395	210	319	318	76	113	140
16	118	294	130	260	558	419	210	431	291	76	104	117
17	72	247	537	220	487	316	200	422	226	79	97	109
18	62	298	313	200	543	310	200	311	194	79	91	117
19	61	114	252	180	597	399	180	279	176	88	117	106
20	72	126	216	189	683	870	170	243	173	91	140	107
21	103	231	182	195	671	501	190	254	163	79	107	455
22	309	141	326	228	957	424	190	307	156	79	104	176
23	115	152	572	236	1,260	413	160	229	142	70	91	141
24	103	128	766	232	897	390	170	194	150	71	81	131
25	91	120	487	223	721	316	170	200	144	79	78	122
26	77	118	410	280	623	312	150	191	132	71	79	118
27	73	122	342	263	885	317	165	166	140	71	307	153
28	67	129	292	209	705	309	158	161	138	63	781	132
29	65	122	253	213	-----	290	235	159	140	76	196	124
30	75	178	236	240	-----	281	189	327	138	204	152	112
31	142	-----	220	223	-----	250	-----	1,490	-----	138	130	-----
TOTAL	2,603	5,788	7,397	9,522	23,786	15,111	6,845	9,250	7,311	2,992	6,323	4,425
MEAN	84.0	193	239	307	850	487	228	298	244	96.5	204	148
MAX	309	923	766	1,100	4,050	911	545	1,490	570	204	781	455
MIN	58	88	90	180	142	250	150	148	132	63	78	91
(\bar{x})	+11.8	+47.6	+68.8	+30.8	+32.1	+23.4	+30.0	+40.6	+24.5	+21.8	+25.6	+21.4
MEAN \neq	95.8	241	308	338	882	510	258	339	268	118	230	169
CFSM \neq	.43	1.09	1.39	1.52	3.97	2.30	1.16	1.53	1.21	.53	1.04	.76
IN. \neq	.50	1.22	1.60	1.75	4.13	2.65	1.29	1.76	1.35	.61	1.20	.85

CAL YR 1970 TOTAL 102,437 MEAN 281 MAX 4,300 MIN 42 MEAN \neq 322 CFSM \neq 1.45 IN. \neq 19.31
WTR YR 1971 TOTAL 101,353 MEAN 278 MAX 4,050 MIN 58 MEAN \neq 309 CFSM \neq 1.39 IN. \neq 18.91

\neq Diversion for municipal supply of city of York and change in contents in reservoirs, equivalent in cubic feet per second. Records of diversion and change in contents in three reservoirs furnished by P. H. Glatfelter Co. and York Water Co.

\neq Adjusted for diversion and change in reservoir contents.

SUSQUEHANNA RIVER BASIN

01576000 Susquehanna River at Marietta, Pa.

LOCATION.--Lat 40°03'16", long 76°31'52", Lancaster County, on left bank, 420 ft upstream from Chickies Creek and 1 mile downstream from Marietta. Records include flow of Chickies Creek.

DRAINAGE AREA.--25,990 sq mi, approximately (includes that of Chickies Creek).

PERIOD OF RECORD.--October 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 200.56 ft above mean sea level.

AVERAGE DISCHARGE.--40 years, 34,980 cfs (18.28 inches per year).

EXTREMES.--Current year: Maximum discharge, 238,000 cfs Mar. 1 (gage height, 46.79 ft); minimum, 3,910 cfs Aug. 24, 26 (gage height, 32.22 ft).

Period of record: Maximum discharge, 787,000 cfs Mar. 19, 1936 (gage height, 60.73 ft), from rating curve extended above 460,000 cfs; minimum, 618 cfs Sept. 26, 1932 (gage height, 30.89 ft), when York Haven power-plant was shut down in order to obtain current-meter measurements at low water; minimum daily, 1,380 cfs Sept. 26, 1932.

Maximum stage known prior to 1931, 58.3 ft June 2, 1889, from floodmark (discharge, about 630,000 cfs).

REMARKS.--Records excellent. Discharge below 8,000 cfs regulated by Metropolitan Edison Co., plant at York Haven. Accuracy of records for entire period has been verified independently by Pennsylvania Power and Light Co., and Safe Harbor Water Power Corp. by comparison with records obtained at Safe Harbor, Holtwood, and Conowingo powerplants below station.

COOPERATION.--Gage-height record furnished by Safe Harbor Water Power Corp.

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 1502: 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,660	20,700	34,100	31,200	13,000	220,000	44,900	33,800	24,500	8,250	15,200	7,800
2	8,480	21,900	34,500	24,200	14,000	229,000	45,300	42,500	21,600	8,260	24,600	7,400
3	8,580	23,300	34,900	22,300	12,000	197,000	46,800	39,100	20,200	6,640	28,800	6,420
4	8,680	27,800	35,800	24,600	11,000	163,000	59,100	37,000	18,800	6,140	33,500	5,840
5	8,770	45,400	35,500	32,900	12,000	128,000	84,400	36,800	17,900	8,980	33,400	5,960
6	8,790	51,500	36,900	49,900	14,000	105,000	89,500	42,100	16,600	8,890	30,900	6,800
7	8,650	45,800	38,400	51,000	15,000	92,500	87,500	41,500	16,200	8,070	25,200	6,940
8	8,020	41,500	40,600	44,600	18,000	88,000	80,000	43,900	16,500	7,910	20,200	5,990
9	7,910	34,600	39,000	43,300	23,200	84,800	71,700	51,400	15,600	7,450	17,300	5,700
10	7,600	29,400	35,400	43,700	21,800	80,000	66,700	51,600	14,600	7,980	15,100	5,390
11	7,550	26,200	32,200	40,900	19,400	73,600	68,700	53,200	13,900	7,960	13,500	5,280
12	7,600	27,000	31,000	40,300	18,000	66,300	84,900	56,300	12,900	7,830	11,400	6,340
13	7,290	40,100	33,000	39,100	22,000	62,900	95,300	56,500	12,000	7,360	10,500	7,500
14	7,160	81,000	41,600	33,900	67,800	64,500	90,500	64,500	12,500	6,950	8,890	9,290
15	11,300	130,000	49,000	31,100	82,800	67,900	94,700	81,300	17,200	7,250	8,540	12,700
16	23,100	150,000	51,100	29,200	91,600	83,900	105,000	80,800	16,500	7,340	7,980	13,200
17	23,800	142,000	50,800	25,000	91,100	160,000	98,800	72,800	18,200	7,010	7,220	13,000
18	21,100	133,000	51,700	22,700	84,100	207,000	82,200	63,000	18,100	7,190	6,750	10,700
19	19,100	106,000	50,600	21,100	81,400	175,000	68,900	53,800	17,800	7,230	6,530	12,300
20	17,800	82,400	46,400	17,900	86,400	148,000	58,300	46,300	16,400	6,690	6,530	12,700
21	15,800	73,500	43,600	15,800	99,900	124,000	51,600	40,700	15,100	6,470	5,880	13,000
22	18,200	75,800	45,000	13,900	144,000	105,000	46,900	37,900	13,100	6,450	5,910	14,700
23	21,600	71,900	52,500	16,700	184,000	90,400	44,800	38,500	12,000	6,240	6,190	18,600
24	45,200	65,000	59,000	19,600	208,000	78,900	43,600	41,200	11,200	5,860	5,360	19,800
25	47,900	60,100	59,300	20,400	182,000	70,300	41,200	36,000	10,200	6,220	5,370	17,400
26	48,800	53,600	59,400	21,400	154,000	63,300	38,800	32,300	9,380	6,320	5,290	14,600
27	37,800	46,600	53,500	22,200	142,000	56,800	34,500	29,500	8,960	6,140	6,010	14,200
28	31,100	41,000	46,500	17,800	169,000	51,100	32,400	26,500	8,770	7,310	9,720	13,200
29	26,400	36,800	40,700	14,000	-----	47,000	31,300	24,900	8,340	7,690	9,130	12,200
30	23,300	34,300	38,800	13,000	-----	44,700	30,400	24,200	8,140	7,470	8,220	12,100
31	21,700	-----	34,100	12,000	-----	44,400	-----	26,500	-----	11,200	8,470	-----
TOTAL	567,740	1,818.2M	1,334.9M	855,700	2,081.5M	3,272.3M	1,918.7M	1,406.4M	443,190	228,750	407,590	317,050
MEAN	18,310	60,610	43,060	27,600	74,340	105,600	63,960	45,370	14,770	7,379	13,150	10,570
MAX	48,800	150,000	59,400	51,000	208,000	229,000	105,000	81,300	24,500	11,200	33,500	19,800
MIN	7,160	20,700	31,000	12,000	11,000	44,400	30,400	24,200	8,140	5,860	5,290	5,280
CFSM	.70	2.33	1.66	1.06	2.86	4.06	2.46	1.75	.57	.28	.51	.41
IN.	.81	2.60	1.91	1.22	2.98	4.68	2.75	2.01	.63	.33	.58	.45

CAL YR 1970 TOTAL 15,230,750 MEAN 41,730 MAX 150,000 MIN 6,280 CFSM 1.61 IN 21.80
WTR YR 1971 TOTAL 14,652,020 MEAN 40,140 MAX 229,000 MIN 5,280 CFSM 1.54 IN 20.97

01576500 Conestoga Creek at Lancaster, Pa.

LOCATION.--Lat 40°03'00", long 76°16'39", Lancaster County, on left bank at Penn Central Railroad Bridge, 50 ft downstream from small tributary, 500 ft downstream from diversion dam of city water works, and 0.75 mile east of Lancaster.

DRAINAGE AREA.--324 sq mi.

PERIOD OF RECORD.--September 1928 to March 1932, August, September 1932, April 1933 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 245.63 ft above mean sea level. Prior to May 1, 1933, at site 600 ft upstream at different datum, excluding small tributary.

AVERAGE DISCHARGE.--41 years (1928-31, 1933-71), 371 cfs (15.55 inches per year), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 11,200 cfs Feb. 14 (gage height, 12.08 ft), from rating curve extended as explained below; minimum, 65 cfs Oct. 14 (gage height, 2.84 ft).

Period of record: Maximum discharge, 22,800 cfs Aug. 24, 1933 (gage height, 17.52 ft), from floodmark in shelter), from rating curve extended above 4,000 cfs on basis of slope-area measurement of peak flow; probably no flow at times; minimum daily discharge, 7 cfs Aug. 11, 1930.

REMARKS.--Records fair. Regulation at low flow by waterworks and mill above station. Diversion above station for municipal supply of city of Lancaster. Records of chemical analyses, water temperatures and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1202: Drainage area. WSP 1502: 1943(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	100	298	323	235	1,400	428	279	693	178	385	403
2	114	110	254	319	217	1,200	421	271	412	295	2,870	375
3	104	200	242	320	221	1,000	467	299	586	199	2,990	349
4	110	400	259	398	226	840	421	272	430	163	2,560	327
5	115	580	250	2,130	240	780	390	250	388	152	984	306
6	108	350	231	1,330	260	1,000	386	304	349	147	693	291
7	102	250	212	793	350	1,800	1,150	402	502	143	559	282
8	98	210	202	611	500	1,600	728	457	359	136	484	278
9	98	190	198	608	2,100	1,000	510	645	309	163	415	254
10	97	180	202	554	800	800	462	411	282	231	396	244
11	104	250	198	525	450	630	429	330	267	177	383	288
12	100	640	254	506	350	620	413	299	256	175	553	462
13	98	1,400	394	485	500	680	401	1,220	253	161	348	425
14	85	860	293	468	4,000	640	390	1,300	276	147	311	499
15	168	1,000	250	474	1,050	1,000	365	706	319	141	295	353
16	260	860	239	397	900	659	356	745	279	134	279	286
17	134	540	793	378	800	583	342	823	258	145	268	264
18	109	386	527	352	960	540	339	566	233	151	258	273
19	98	342	368	333	1,500	603	323	496	219	179	272	246
20	102	351	341	313	1,400	1,570	321	458	217	241	291	239
21	115	684	317	306	1,900	823	313	442	204	162	255	274
22	496	378	357	306	2,500	688	307	456	208	136	234	267
23	486	322	489	332	3,200	693	297	395	192	127	221	227
24	263	280	771	348	1,700	626	292	369	183	125	209	221
25	210	267	514	323	1,300	566	284	355	179	154	201	209
26	170	250	464	417	1,100	545	280	342	175	228	194	205
27	150	259	406	380	2,200	526	275	319	171	151	731	244
28	130	246	383	330	1,800	508	272	299	167	141	3,120	229
29	120	239	336	306	-----	502	358	296	159	487	864	213
30	120	373	329	296	-----	476	316	310	166	841	534	205
31	110	-----	319	288	-----	449	-----	983	-----	369	447	-----
TOTAL	4,690	12,497	10,690	15,249	32,759	25,347	12,036	15,099	8,691	6,379	22,604	8,738
MEAN	151	417	345	492	1,170	818	401	487	290	206	729	291
MAX	496	1,400	793	2,130	4,000	1,800	1,150	1,300	693	841	3,120	499
MIN	85	100	198	288	217	449	272	250	159	125	194	205
(\bar{x})	9.1	6.1	9.7	9.2	7.2	8.1	7.9	7.8	9.2	9.3	7.9	7.8
MEAN \neq	160	423	355	501	1,177	826	409	495	299	215	737	299
CFSM \neq	.49	1.31	1.10	1.55	3.63	2.55	1.26	1.53	.92	.66	2.27	.93
IN. \neq	.56	1.46	1.27	1.79	3.78	2.94	1.41	1.76	1.03	.76	2.62	1.03
CAL YR 1970	TOTAL 173,818	MEAN 476	MAX 5,060	MIN 85	MEAN \neq 487	CFSM \neq 1.50	IN. \neq 20.43					
WTR YR 1971	TOTAL 174,779	MEAN 479	MAX 4,000	MIN 85	MEAN \neq 487	CFSM \neq 1.50	IN. \neq 20.41					

PEAK DISCHARGE (BASE, 2,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2-14	#	12.08*	11,200	8-3	0230	8.68	5,530
2-23	#	#	#				

Unknown.

* From magnet.

✓ Diversion above station for municipal supply, equivalent in cubic feet per second, furnished by city of Lancaster.

≠ Adjusted for diversion.

NOTE.--No gage-height record Feb. 5 to Mar. 15.

SUSQUEHANNA RIVER BASIN

01577500 Muddy Creek at Castle Fin, Pa.

LOCATION.--Lat 39°46'21", long 76°18'58", York County, on right bank 200 ft upstream from highway bridge on Legislative Route 66062, 0.8 mile northeast of Castle Fin, and 3.4 miles upstream from mouth.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--October 1928 to September 1938, March 1968 to September 1971 (discontinued). Monthly discharge only for October 1928 published in WSP 1302.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (from topographic map). During period 1928-38, water-stage recorder at same site; datum of gage was 174.42 ft above mean sea level, datum of 1910.

AVERAGE DISCHARGE.--13 years (1928-38, 1969-71), 157 cfs (16.03 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,750 cfs Feb. 13 (gage height, 12.00 cfs), from rating curve extended above 600 cfs on basis of slope-area measurement at gage height, 14.20 ft; minimum, 70 cfs Oct. 10, 11, 12, 13, 14, 15 (gage height, 3.35 ft).

Period of record: Maximum discharge, 16,600 cfs Aug. 23, 1933 (gage height, 21.11 ft, datum then in use, from floodmark in gage shelter), from rating curve extended above 7,600 cfs on basis of computation of peak flow over dam; minimum daily, 20 cfs July 29, 1931.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1302: 1929-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	87	136	160	120	293	184	149	310	133	368	171
2	78	80	130	150	110	289	184	146	242	133	1,380	164
3	80	122	127	140	120	310	198	161	285	122	574	155
4	80	240	133	170	120	468	180	149	249	120	1,070	146
5	76	693	125	450	130	353	174	138	212	115	835	141
6	74	201	122	361	160	357	185	205	194	113	361	136
7	72	155	120	280	400	402	444	194	204	113	269	133
8	72	136	120	250	2,060	353	318	237	223	108	230	130
9	72	130	120	230	825	310	249	226	174	106	204	127
10	70	122	120	226	280	289	226	198	174	108	190	122
11	70	149	120	219	240	281	212	184	171	117	180	172
12	70	258	162	215	291	261	201	177	171	127	177	296
13	70	245	160	204	3,100	261	198	478	171	110	161	226
14	70	184	136	212	972	249	194	314	570	110	158	245
15	114	458	127	219	430	238	184	230	315	101	152	158
16	122	265	134	180	331	230	184	362	265	99	146	141
17	80	212	417	170	289	215	184	289	208	99	144	138
18	78	187	230	160	306	201	184	238	184	97	141	136
19	76	174	198	150	306	302	174	215	168	113	158	133
20	74	186	180	140	331	429	168	198	164	115	158	136
21	96	245	168	130	322	293	168	194	161	99	138	333
22	216	171	274	130	605	265	168	194	158	95	133	164
23	133	161	315	140	666	273	164	187	149	93	130	149
24	94	149	375	150	425	242	164	180	149	91	125	146
25	87	141	289	140	353	223	161	174	141	101	122	136
26	80	136	265	200	314	219	155	194	138	95	122	133
27	78	138	234	170	460	215	152	180	219	104	992	144
28	74	136	215	160	353	215	149	164	136	93	763	133
29	74	136	200	150	-----	212	180	158	136	93	253	136
30	76	168	180	140	-----	208	158	239	136	233	198	130
31	96	-----	170	130	-----	194	-----	732	-----	256	177	-----
TOTAL	2,680	5,865	5,802	5,926	14,419	8,650	5,844	7,084	6,177	3,612	10,209	4,810
MEAN	86.5	196	187	191	515	279	195	229	206	117	329	160
MAX	216	693	417	450	3,100	468	444	732	570	256	1,380	333
MIN	70	80	120	130	110	194	149	138	136	91	122	122
CFSM	.65	1.47	1.41	1.44	3.87	2.10	1.47	1.72	1.55	.88	2.47	1.20
IN.	.75	1.64	1.62	1.66	4.03	2.42	1.63	1.98	1.73	1.01	2.86	1.35

CAL YR 1970 TOTAL 71,856 MEAN 197 MAX 1,790 MIN 70 CFSM 1.48 IN 20.10
WTR YR 1971 TOTAL 81,078 MEAN 222 MAX 3,100 MIN 70 CFSM 1.67 IN 22.68

PEAK DISCHARGE (BASE, 3,400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2- 8	2130	9.85	4,450	8- 2	0200	10.00	4,600
2-13	1500	12.00	6,750				

01578400 Bowery Run near Quarryville, Pa.

LOCATION.--Lat 39°53'41", long 76°06'50", Lancaster County, on left bank at single-span bridge, 1.1 miles up-stream from mouth, and 2.5 miles east of Quarryville.

DRAINAGE AREA.--5.98 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 468.08 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 6.23 cfs (14.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 720 cfs Feb. 13 (gage height, 6.10 ft), from rating curve extended above 150 cfs as explained below; minimum, 1.8 cfs Jan. 9 (gage height, 3.00 ft).
Period of record: Maximum discharge, 2,220 cfs July 3, 1964 (gage height, 7.7 ft, from floodmark), from rating curve extended above 150 cfs on basis of slope-area measurement of peak flow; minimum, 1.0 cfs Sept. 1, 2, 3, 4, 9, 10, 11, 12, 1966; minimum gage height, 2.32 ft July 6, 1963.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.8	5.2	6.2	4.5	12	6.6	5.9	7.6	7.3	5.2	6.2
2	3.9	4.8	5.2	5.9	4.2	12	7.6	5.9	6.9	6.6	17	5.9
3	3.3	11	5.2	5.9	4.2	15	7.6	6.2	7.3	5.2	6.9	5.4
4	3.0	6.9	5.5	18	4.2	27	6.9	5.9	6.9	4.8	9.7	5.3
5	2.8	14	5.5	53	23	15	6.6	5.5	6.6	4.8	17	5.2
6	2.8	6.9	5.9	11	12	16	8.0	9.0	6.2	4.8	5.2	5.1
7	2.8	5.5	5.9	8.7	101	17	19	6.6	6.6	4.5	4.8	5.1
8	2.5	5.2	5.9	7.6	103	13	8.7	14	5.9	4.5	4.5	5.1
9	2.8	4.8	6.2	6.9	14	12	7.6	8.0	5.2	4.5	4.2	5.0
10	2.8	5.9	6.6	7.3	8.0	11	7.3	6.9	5.2	4.2	4.2	5.0
11	2.5	8.7	6.6	7.6	7.6	10	6.9	6.2	5.2	5.2	4.2	7.4
12	2.5	12	12	7.6	8.3	9.6	6.9	6.2	5.2	4.5	4.2	27
13	2.8	11	6.9	6.9	273	9.0	6.6	21	5.2	4.5	3.9	8.8
14	2.8	6.9	5.5	8.0	16	8.6	6.2	9.4	13	4.2	3.9	6.6
15	8.0	25	5.2	7.3	10	8.0	6.2	7.3	7.6	4.2	3.9	5.9
16	3.9	7.6	7.6	6.6	9.4	7.6	6.2	15	12	4.2	3.6	5.6
17	3.0	6.6	16	6.2	9.0	7.3	6.2	8.7	6.6	4.2	3.6	9.2
18	3.0	6.2	6.9	5.9	9.4	6.9	5.9	7.3	5.9	3.9	3.6	6.8
19	2.8	5.9	6.6	5.5	9.4	21	5.9	6.9	5.5	4.5	4.2	6.1
20	2.8	8.3	5.9	5.5	13	11	5.9	6.6	5.5	4.5	3.9	5.8
21	6.6	7.3	5.9	5.5	10	8.7	5.9	7.3	5.5	4.2	3.6	10
22	27	5.9	12	5.5	38	8.3	5.5	6.6	5.5	4.2	3.6	6.1
23	110	5.9	16	6.9	34	8.7	5.5	6.2	5.5	3.9	3.3	5.9
24	6.6	5.2	11	6.2	13	7.6	5.5	5.9	5.5	3.9	3.3	5.8
25	5.2	5.2	8.0	6.2	12	7.3	5.2	7.6	5.5	3.6	3.3	5.5
26	5.2	5.5	7.3	16	12	7.3	5.5	6.9	5.5	3.6	3.3	5.7
27	5.2	5.5	6.6	6.2	36	7.3	5.5	5.9	5.2	3.6	91	5.9
28	4.8	5.5	6.2	5.2	13	7.3	5.9	5.9	5.5	3.3	72	5.7
29	4.5	5.9	5.9	4.8	-----	7.3	7.6	5.5	5.5	3.9	9.0	5.5
30	4.8	6.9	5.5	5.5	-----	6.9	5.9	8.7	5.5	7.6	7.3	5.5
31	4.8	-----	5.5	5.2	-----	6.6	-----	28	-----	5.9	6.6	-----
TOTAL	249.4	288.9	226.2	270.8	811.2	332.3	206.8	263.0	190.8	142.8	324.0	204.1
MEAN	8.05	9.63	7.30	8.74	29.0	10.7	6.89	8.48	6.36	4.61	10.5	6.80
MAX	110	69	16	53	273	27	19	28	13	7.6	91	27
MIN	2.5	4.8	5.2	4.8	4.2	6.6	5.2	5.5	5.2	3.3	3.3	5.0
CFSM	1.35	1.61	1.22	1.46	4.85	1.79	1.15	1.42	1.06	.77	1.76	1.14
IN.	1.55	1.80	1.41	1.68	5.05	2.07	1.29	1.64	1.19	.89	2.02	1.27

CAL YR 1970 TOTAL 3,325.1 MEAN 9.11 MAX 110 MIN 2.5 CFSM 1.52 IN 20.68
WTR YR 1971 TOTAL 3,510.3 MEAN 9.62 MAX 273 MIN 2.5 CFSM 1.61 IN 21.84

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-23	0130	6.03	664	2-13	1900	6.10	720
11- 4	2015	5.79	511	2-27	0315	4.92	209
2- 7	2115	6.07	701	8-27	2330	5.82	557

Reservoirs in Susquehanna River basin

- 01534180 STILLWATER RESERVOIR.--Lat 41°41'46", long 75°29'10", Susquehanna County, at Stillwater Dam on Lackawanna River, 0.3 mile downstream from confluence of East and West Branches, 1.4 miles south of Uniondale and 3.5 miles north of Forest City. Drainage area, 37.1 sq mi. Period of record, December 1959 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 2,400 acre-ft Mar. 17 (elevation, 1,587.13 ft); minimum, 400 acre-ft July 24 (elevation, 1,571.99 ft). Extremes for period of record: Maximum contents, 5,860 acre-ft Apr. 5, 1960 (elevation, 1,603.2 ft); minimum, 242 acre-ft Sept. 10, 1960 (elevation, 1,568.85 ft). Reservoir formed by an earthfill dam, rock faced, with ungated concrete spillway at elevation 1,621.00 ft. Storage began in December 1959. Capacity at elevation 1,621.00 ft is 12,000 acre-ft. Reservoir is used for flood control and municipal water supply. Figures given herein represent total contents. Flood storage is regulated by power-operated slide gate; water supply storage is regulated by a weir formed by stop logs. Records furnished by Corps of Engineers.
- 01541180 CURWENSVILLE RESERVOIR.--Lat 40°57'13", long 78°31'40", Clearfield County, at Curwensville Dam on West Branch Susquehanna River, 0.7 mile upstream from State Highway 453, 1.2 miles south of Curwensville and 2.5 miles upstream from Anderson Creek. Drainage area, 365 sq mi. Period of record, November 1965 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 14,660 acre-ft Feb. 23 (elevation, 1,167.75 ft); minimum, 1,770 acre-ft Oct. 25 (elevation, 1,147.30 ft). Extremes for period of record: Maximum contents, 54,500 acre-ft Apr. 7, 1968 (elevation, 1,197.06 ft); minimum, 252 acre-ft Nov. 6, 1968 (elevation, 1,136.70 ft). Reservoir formed by earthfill dam with excavated chute spillway with concrete control sill at elevation 1,228.00 ft. Storage began in November 1965. Capacity at elevation 1,228.00 ft is 124,200 acre-ft. Conservation pool elevation, 1,155.00 ft (capacity, 4,870 acre-ft). Reservoir is used for flood control, recreation and study of water quality. Figures given herein represent total contents. Flow regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.
- 01541340 GLENDALE LAKE.--Lat 40°41'50", long 78°32'15", Cambria County, at Glendale Dam on Beaverdam Run, 1 mile upstream from Dutch Run, 1.3 miles southwest of Flinton, 1.9 miles above mouth, and 3.4 miles south of Coalport. Drainage area, 41.9 sq mi. Period of record, December 1960 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 28,530 acre-ft Feb. 23, 24 (elevation, 1,429.02 ft); minimum, 24,840 acre-ft Sept. 7 (elevation, 1,426.69 ft). Extremes for period of record: Maximum contents unknown; minimum, no storage at times. Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation 1,435.50 ft. Storage began Dec. 1, 1960. Capacity at elevation 1,435.50 ft is 41,200 acre-ft of which 15,900 acre-ft is controlled storage above elevation 1,427.00 ft (conservation pool). Dead storage is 25,300 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is controlled by 72-inch sluice gate and an 8-inch by-pass valve. Records furnished by Pennsylvania Department of Environmental Resources.
- 01543900 FIRST FORK SINNEMAHONING CREEK RESERVOIR.--Lat 41°24'25", long 78°01'10", Cameron County, at control tower of George B. Stevenson Dam on First Fork Sinnemahoning Creek, 8 miles northeast of Sinnemahoning, and 8 miles upstream from mouth. Drainage area, 243 sq mi. Period of record, January 1956 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level, datum unknown. Extremes for current year: Maximum contents, 3,330 acre-ft Feb. 28 (elevation, 928.15 ft); minimum, 568 acre-ft Sept. 12 (elevation, 904.40 ft). Extremes for period of record: Maximum contents, 39,250 acre-ft Mar. 11, 1964 (elevation, 994.50 ft); minimum (after first filling), 348 acre-ft Aug. 20, 1957 (elevation, 900.57 ft). Reservoir is formed by an earthfill dam. Storage began Jan. 31, 1956. Capacity, 75,800 acre-ft between elevations 890.00 ft (sill of outlet gates) and 1,026.00 ft (crest of spillway). No dead storage. Ordinary minimum (conservation) pool elevation, 920.00 ft (capacity, 2,000 acre-ft). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Records furnished by Pennsylvania Department of Environmental Resources.
- 01544800 KETTLE CREEK RESERVOIR (formerly published as Alvin R. Bush Reservoir).--Lat 41°21'37", long 77°55'27", Clinton County, at control tower of dam on Kettle Creek, 1.1 miles downstream from Sugar Camp Run, and 8.5 miles upstream from mouth and Westport. Drainage area, 226 sq mi. Period of record, February 1962 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 2,290 acre-ft Oct. 12 (elevation, 844.12 ft); minimum, 301 acre-ft Dec. 11 (elevation, 827.22 ft). Extremes for period of record: Maximum contents, 45,350 acre-ft Apr. 13, 1970 (elevation, 913.50 ft); minimum, no storage June 7, 1962. Reservoir formed by an earthfill embankment, rock faced, with ungated concrete spillway at elevation, 937.0 ft. Storage began Feb. 7, 1962; water in reservoir first reached conservation pool elevation in March 1962. Total capacity at elevation, 937.0 ft is 75,000 acre-ft. No dead storage. Ordinary minimum (conservation) pool elevation, 840.0 ft (capacity, 1,590 acre-ft). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Storage is regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.
- 01547480 FOSTER JOSEPH SAYERS RESERVOIR.--Lat 41°02'53", long 77°36'35", Centre County, at Foster Joseph Sayers Dam, on Bald Eagle Creek, 1 mile upstream from Marsh Creek, and 1.2 miles south of Blanchard. Drainage area, 339 sq mi. Period of record, March to September 1971. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for period March to September 1971: Maximum contents, 29,340 acre-ft May 27 (elevation, 630.30 ft); minimum, 4,960 acre-ft Mar. 10 (elevation, 607.74 ft). Reservoir formed by an earthfill dam with ungated concrete ogee weir at elevation 657.00 ft, with abutting concrete gravity walls and partially paved exit channel. Storage began March 1971. Capacity at elevation 657.00 ft is 99,100 acre-ft. Dead storage is 25 acre-ft. Ordinary minimum (conservation) pool elevation, 610.00 ft (capacity, 6,300 acre-ft). Reservoir used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by two gates. Records furnished by Corps of Engineers.

Reservoirs in Susquehanna River basin--Continued

01568400 DeHART RESERVOIR.--Lat 40°27'50", long 76°44'50", Dauphin County, at dam on Clark Creek, 1.8 miles southeast of Carsonville, and 15.3 miles upstream from mouth. Drainage area, 21.7 sq mi. Period of record, October 1940 to current year. Staff gage. Datum of gage is at mean sea level (levels by city of Harrisburg). Extremes for current year: Maximum contents, 18,980 acre-ft Feb. 15 (elevation, 644.92 ft); minimum, 15,090 acre-ft Oct. 13, 14 (elevation, 638.25 ft). Extremes for period of record: Maximum contents, 19,030 acre-ft Apr. 3, 1970 (elevation, 645.00 ft); minimum (after first filling), 4,680 acre-ft Jan. 2, 1966 (elevation, 613.33 ft).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 644.0 ft (crest of spillway raised 4 ft in November 1954). Storage began Jan. 21, 1940. Capacity at elevation 644.00 ft is 18,480 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. There are no gates on spillway and regulation is controlled by valves on pipe through dam. Records furnished by city of Harrisburg.

01574700 INDIAN ROCK RESERVOIR.--Lat 39°55'22", long 76°45'14", York County, at dam on Codorus Creek, 0.1 mile upstream from mouth of South Branch Codorus Creek, 0.3 mile west of pumping station of York Water Co., and 3 miles southwest of York. Drainage area, 93.7 sq mi. Period of record, September 1962 to current year in reports of Geological Survey, September 1942 to August 1962 in files of Baltimore District, Corps of Engineers. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 2,540 acre-ft Feb. 14 (elevation, 399.48 ft); minimum, 18 acre-ft Oct. 22 (elevation, 372.98 ft). Extremes for period of record: Maximum contents, 3,360 acre-ft Mar. 12, 1952 (elevation, 402.80 ft); minimum, no storage many times.

Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 435.0 ft. Reservoir completed in June 1942; storage began in June 1946. Capacity at elevation 435.0 ft is 28,000 acre-ft. No dead storage. Reservoir is used for flood control. Figures given herein represent total contents. Flood storage is regulated by three vertical-lift tractor gates. Water is stored only during high flows and released when downstream conditions warrant. Records furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR October 1970 to SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01534180 STILLWATER RESERVOIR				01541180 CURWENSVILLE RESERVOIR		
Sept. 30.....	1,572.80	480	-	1,149.15	2,320	-
Oct. 31.....	1,573.07	507	+0.4	1,152.40	3,560	+20.2
Nov. 30.....	1,573.49	549	+7	1,154.10	4,380	+13.8
Dec. 31.....	1,572.98	498	-8	1,149.50	2,430	-31.7
CAL YR 1970.....	-	-	0	-	-	-4.0
Jan. 31.....	1,572.77	477	-3	1,151.35	3,120	+11.2
Feb. 28.....	1,575.88	788	+5.6	1,163.65	10,910	+140
Mar. 31.....	1,573.49	549	-3.9	1,155.20	4,980	-96.4
Apr. 30.....	1,574.30	630	+1.4	1,157.16	6,140	+19.5
May 31.....	1,573.09	509	-2.0	1,161.94	9,490	+54.5
June 30.....	1,572.54	454	-9	1,162.42	9,890	+6.7
July 31.....	1,572.98	498	+7	1,162.20	9,710	-2.9
Aug. 31.....	1,572.95	495	0	1,161.87	9,440	-4.4
Sept. 30.....	1,572.69	469	-4	1,155.57	5,190	-71.4
WTR YR 1971.....	-	-	0	-	-	+4.0
01541340 GLENDALE LAKE				01543900 F F SINNEMAHONING CREEK RESERVOIR		
Sept. 30.....	1,427.17	25,570	-	920.77	2,090	-
Oct. 31.....	1,427.56	26,200	+10.2	918.53	1,820	-4.4
Nov. 30.....	1,427.66	26,360	+2.7	921.42	2,180	+6.1
Dec. 31.....	1,427.68	26,390	+5	920.48	2,060	-2.0
CAL YR 1970.....	-	-	+4	-	-	0
Jan. 31.....	1,427.34	25,840	-8.9	920.31	2,040	-3
Feb. 28.....	1,428.91	28,360	+45.4	927.14	3,130	+19.6
Mar. 31.....	1,427.64	26,320	-33.2	920.21	2,030	-17.9
Apr. 30.....	1,427.27	25,730	-9.9	920.43	2,050	+3
May 31.....	1,427.20	25,620	-1.8	920.48	2,060	+2
June 30.....	1,427.36	25,880	+4.4	920.77	2,090	+5
July 31.....	1,426.84	25,060	-13.3	920.49	2,060	-5
Aug. 31.....	1,426.82	25,030	-5	912.81	1,240	-13.3
Sept. 30.....	1,427.50	26,100	+18.0	919.90	1,990	+12.6
WTR YR 1971.....	-	-	+7	-	-	-1

SUSQUEHANNA RIVER BASIN

Reservoirs in Susquehanna River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01544800 KETTLE CREEK RESERVOIR				01547480 FOSTER JOSEPH SAYERS RESERVOIR		
Sept. 30.....	840.80	1,710	-	-	-	-
Oct. 31.....	840.74	1,700	-0.2	-	-	-
Nov. 30.....	840.60	1,680	-0.3	-	-	-
Dec. 31.....	841.10	1,760	+1.3	-	-	-
CAL YR 1970.....	-	-	+1.1	-	-	-
Jan. 31.....	840.80	1,710	-0.8	-	-	-
Feb. 28.....	839.20	1,470	-4.3	-	-	-
Mar. 31.....	840.90	1,720	+4.1	617.85	12,610	+205
Apr. 30.....	840.92	1,730	+2	626.76	23,640	+185
May 31.....	840.57	1,680	-0.8	630.01	28,820	+84.2
June 30.....	840.69	1,690	+2	630.05	28,890	+1.2
July 31.....	840.75	1,700	+2	630.02	28,840	-0.8
Aug. 31.....	840.20	1,620	-1.3	629.74	28,360	-7.8
Sept. 30.....	840.59	1,680	+1.0	628.96	27,040	-22.2
WTR YR 1971.....	-	-	0	-	-	+37.1
01568400 DeHART RESERVOIR				01574700 INDIAN ROCK RESERVOIR		
Sept. 30.....	639.42	15,790	-	373.13	19.8	-
Oct. 31.....	640.25	16,290	+8.1	376.28	65.6	+7
Nov. 30.....	644.17	18,570	+38.3	376.60	72.0	+1
Dec. 31.....	644.08	18,520	-0.8	376.45	69.0	0
CAL YR 1970.....	-	-	+2.5	-	-	+1
Jan. 31.....	644.00	18,480	-0.7	376.55	71.1	0
Feb. 28.....	644.58	18,800	+5.8	380.06	152	+1.5
Mar. 31.....	644.17	18,570	-3.7	379.60	138	-0.2
Apr. 30.....	643.67	18,280	-4.9	379.20	126	-0.2
May 31.....	644.08	18,520	+3.9	380.75	172	+7
June 30.....	643.33	18,080	-7.4	374.30	34.0	-2.3
July 31.....	641.75	17,160	-15.0	373.88	28.4	-1
Aug. 31.....	641.42	16,970	-3.1	373.75	27.1	0
Sept. 30.....	643.42	18,140	+19.7	373.44	23.1	-1
WTR YR 1971.....	-	-	+3.2	-	-	0

01603500 Evitts Creek near Centerville, Pa.

LOCATION.--Lat 39°47'23", long 78°34'48", Bedford County, on left bank 2 miles upstream from Thomas W. Koon Dam, 3.0 miles south of Centerville, 7.0 miles upstream from Rock Gully Creek, and at mile 16.3.

DRAINAGE AREA.--30.2 sq mi.

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft above mean sea level (city of Cumberland bench mark).

AVERAGE DISCHARGE.--39 years, 30.2 cfs (13.58 inches per year).

EXTREMES.--Current year: Maximum discharge, 772 cfs Feb. 22 (gage height, 3.28 ft); minimum, 3.5 cfs Sept. 10, 11 (gage height, 1.09 ft).

Period of record: Maximum discharge, 5,240 cfs Mar. 17, 1936 (gage height, 7.13 ft), from rating curve extended above 400 cfs on basis of slope-area measurements at gage heights 4.64 and 7.13 ft; minimum, 0.70 cfs Dec. 17, 1958 (gage height, 0.79 ft), result of freezeup.

Maximum stage known, about 8 ft, from floodmark, date unknown.

REMARKS.--Records good except those for winter months, which are fair.

REVISIONS (WATER YEARS).--WSP 781: 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	55	29	42	27	195	31	16	20	8.4	14	4.2
2	5.2	32	25	40	26	150	31	17	21	8.1	9.4	4.4
3	5.4	140	25	36	24	130	29	18	20	7.2	10	4.4
4	5.2	75	42	163	24	112	27	17	18	6.8	20	4.1
5	4.6	51	30	235	26	96	26	18	16	6.5	15	3.9
6	4.4	39	27	110	34	89	26	293	20	6.8	7.6	3.9
7	4.2	37	24	90	28	115	34	159	34	6.5	6.0	4.1
8	4.2	26	23	80	26	94	32	240	28	6.0	5.2	3.9
9	4.2	23	22	70	24	74	27	138	18	6.0	5.0	4.4
10	4.4	21	23	60	24	69	27	103	15	6.0	4.6	3.9
11	6.2	31	22	55	24	75	24	82	14	11	6.8	3.7
12	5.8	70	84	65	22	73	24	73	15	10	6.5	12
13	5.0	108	58	56	110	108	24	162	28	6.5	4.9	35
14	4.6	70	42	59	211	95	24	122	55	5.8	4.4	14
15	5.6	121	37	64	124	99	23	96	21	5.4	6.8	9.0
16	5.2	79	35	49	70	99	23	98	19	5.0	53	8.1
17	4.6	64	64	44	70	86	23	81	18	4.8	10	9.7
18	4.6	53	66	42	85	74	25	66	16	4.6	7.2	7.2
19	4.4	45	55	38	120	82	22	58	15	5.6	6.5	8.1
20	4.4	58	60	34	200	87	21	54	14	5.8	6.0	46
21	20	59	48	34	394	70	20	55	13	4.8	5.6	17
22	38	42	134	34	573	62	20	44	13	4.4	9.4	11
23	13	38	347	32	500	56	20	40	12	4.1	7.2	9.4
24	9.0	33	301	30	265	50	19	38	12	4.1	5.6	8.4
25	7.8	30	164	31	216	46	18	35	10	4.4	5.0	7.2
26	7.0	28	121	41	212	45	18	31	10	4.6	4.8	11
27	6.5	27	93	28	326	42	17	29	9.4	4.4	4.8	12
28	6.0	26	74	24	278	40	18	27	9.0	3.9	5.0	9.0
29	6.0	26	60	28	-----	39	19	26	9.0	5.8	4.6	8.1
30	35	47	52	34	-----	36	17	25	9.4	6.8	4.2	7.6
31	63	-----	46	32	-----	33	-----	23	-----	8.1	4.2	-----
TOTAL	308.9	1,549	2,233	1,780	4,063	2,521	709	2,284	531.8	188.2	269.2	294.7
MEAN	9.96	51.6	72.0	57.4	145	81.3	23.6	73.7	17.7	6.07	8.68	9.82
MAX	63	140	347	235	573	195	34	293	55	11	53	46
MIN	4.2	21	22	24	22	33	17	16	9.0	3.9	4.2	3.7
CFSM	.33	1.71	2.38	1.90	4.80	2.69	.78	2.44	.59	.20	.29	.33
IN.	.38	1.91	2.75	2.19	5.00	3.11	.87	2.81	.66	.23	.33	.36

CAL YR 1970 TOTAL 19,011.7 MEAN 52.1 MAX 1,180 MIN 3.7 CFSM 1.73 IN 23.42
WTR YR 1971 TOTAL 16,731.8 MEAN 45.8 MAX 573 MIN 3.7 CFSM 1.52 IN 20.61

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-23	1300	3.02	556	2-22	1815	3.28	772
2-13	1845	2.83	421	5-6	1215	2.99	533

POTOMAC RIVER BASIN

01613050 Tonoloway Creek near Needmore, Pa.

LOCATION.--Lat 39°53'54", long 78°07'57", Fulton County, on left bank 10 ft downstream from bridge on Legislative Route 29015, 0.2 mile upstream from Foster Creek, and 3.5 miles north of Needmore.

DRAINAGE AREA.--10.7 sq mi.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1963-65. October 1965 to current year.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 688.94 ft above mean sea level. Prior to Sept. 2, 1965, crest-stage gage at same site at datum 2.0 ft higher.

AVERAGE DISCHARGE.--6 years, 10.5 cfs (13.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 685 cfs Nov. 12 (gage height, 6.81 ft); maximum gage height, 7.37 ft Feb. 13 (ice jam); minimum discharge, 0.04 cfs July 28, 29, Sept. 11; minimum gage height, 2.52 ft Sept. 11. Period of record: Maximum discharge, 685 cfs Nov. 12, 1970 (gage height, 6.81 ft); maximum gage height, 7.37 ft Feb. 13, 1971; no flow on many days.

REMARKS.--Records good except those for period of no gage-height record or those for winter periods, which are poor.

REVISIONS (WATER YEARS).--WRD Penna. 1969: 1966-68(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	21	7.1	12	8.0	54	9.6	3.0	6.5	1.5	2.8	.47
2	.92	13	6.5	11	7.2	41	9.4	3.2	6.7	1.3	4.3	.92
3	1.4	90	6.5	11	6.6	35	8.3	3.6	7.0	1.1	28	.84
4	.92	50	8.3	68	6.6	30	7.5	3.4	5.6	1.0	27	.42
5	.78	25	6.5	84	7.6	25	6.8	3.0	5.4	1.0	16	.26
6	.76	16	6.5	58	9.0	23	7.0	64	6.5	1.1	11	.16
7	.68	11	6.0	41	8.0	31	8.6	59	11	.92	6.5	.10
8	.68	8.0	6.5	34	7.4	32	7.3	64	8.8	.77	4.7	.06
9	.68	6.2	6.0	25	8.2	27	6.2	50	5.4	.64	3.3	.06
10	.78	5.0	6.0	20	7.0	24	5.9	36	4.2	.70	2.8	.09
11	1.3	16	6.0	17	6.0	22	5.3	27	3.6	2.2	3.0	.12
12	1.1	50	18	17	6.8	20	5.1	22	4.4	2.0	2.6	7.1
13	.90	245	22	15	100	24	5.1	37	4.3	1.1	2.0	24
14	.90	77	20	15	160	25	5.1	35	5.5	.92	1.7	6.9
15	1.8	75	18	14	49	29	4.7	32	6.3	.70	1.6	3.6
16	1.1	54	17	14	30	29	4.7	33	5.9	.70	1.6	3.0
17	.90	33	33	13	24	23	4.8	25	5.2	.58	1.4	3.5
18	.90	23	40	12	33	18	5.4	21	4.4	.42	1.3	2.6
19	.84	17	36	12	55	20	4.7	18	3.9	.92	1.2	2.6
20	.82	20	30	11	90	21	4.3	33	3.5	1.0	1.1	12
21	19	19	27	10	120	20	4.3	68	3.4	.52	1.0	9.9
22	14	17	41	11	173	23	4.3	51	3.1	.29	2.2	6.5
23	4.5	16	65	10	172	25	3.9	35	2.7	.18	1.7	4.8
24	3.4	12	101	13	87	23	3.9	27	2.4	.16	1.0	3.6
25	2.6	9.5	60	8.5	63	20	3.9	21	2.2	.29	.84	2.7
26	2.2	8.9	43	9.6	58	18	3.6	16	2.1	.20	.77	6.0
27	2.0	8.3	31	12	85	16	3.4	13	1.8	.11	.77	7.5
28	1.9	7.1	24	9.0	75	15	3.6	11	1.7	.06	1.3	6.7
29	1.8	7.7	18	8.0	-----	14	3.8	9.9	1.8	1.4	.84	5.7
30	31	10	15	10	-----	12	3.4	9.1	1.6	1.4	.52	4.7
31	32	-----	13	9.2	-----	10	-----	8.1	-----	3.3	.42	-----
TOTAL	134.16	970.7	743.9	614.3	1,462.4	749	163.9	841.3	136.9	28.48	135.26	126.90
MEAN	4.33	32.4	24.0	19.8	52.2	24.2	5.46	27.1	4.56	.92	4.36	4.23
MAX	32	245	101	84	173	54	9.6	68	11	3.3	28	24
MIN	.68	5.0	6.0	8.0	6.0	10	3.4	3.0	1.6	.06	.42	.06
CFSM	.40	3.03	2.24	1.85	4.88	2.26	.51	2.53	.43	.09	.41	.40
IN.	.47	3.37	2.59	2.14	5.08	2.60	.57	2.92	.48	.10	.47	.44

CAL YR 1970 TOTAL 7,019.10 MEAN 19.2 MAX 394 MIN .42 CFSM 1.79 IN 24.40
WTR YR 1971 TOTAL 6,107.20 MEAN 16.7 MAX 245 MIN .06 CFSM 1.56 IN 21.23

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-12	2100	6.81	685	2-22	2245	5.16	266
12-23	1230	4.59	164	5- 6	1030	4.65	174
2-13	1800	5.80	413	8- 3	1630	4.53	155

NOTE.--No gage-height record Oct. 3 to Nov. 12.

POTOMAC RIVER BASIN

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01614090 Conococheague Creek near Fayetteville, Pa.

LOCATION.--Lat 39°55'48", long 77°26'23", Franklin County, on right bank 20 ft downstream from bridge on State Highway 233, 0.3 mile upstream from Birch Run, 1.3 miles upstream from Chambersburg Reservoir Dam, 4 miles northeast of Fayetteville, and 12 miles east of Chambersburg.

DRAINAGE AREA.--5.05 sq mi.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,132.76 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 5.82 cfs (15.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 52 cfs Feb. 23 (gage height, 2.23 ft); minimum, 1.1 cfs Sept. 11 (gage height, 1.14 ft).

Period of record: Maximum discharge, 114 cfs Apr. 16, 1961 (gage height, 2.80 ft); minimum, 0.1 cfs on many days; minimum gage height, 0.67 ft Sept. 3, 1966.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	4.6	9.9	11	4.8	34	9.6	4.7	7.2	3.5	4.9	1.5
2	1.7	3.5	9.2	10	4.5	29	9.6	6.0	7.5	3.3	6.3	1.6
3	1.7	7.1	9.0	9.4	4.3	26	9.2	5.5	7.7	2.9	8.5	1.5
4	1.5	5.9	9.4	16	4.4	23	8.5	4.7	6.9	2.7	4.5	1.4
5	1.5	4.9	8.5	19	4.6	20	8.2	4.7	6.3	2.7	3.7	1.6
6	1.5	4.4	8.2	14	4.8	19	8.2	16	7.2	2.7	2.6	1.6
7	1.4	4.0	7.7	13	5.2	23	11	8.8	9.2	2.4	2.1	1.4
8	1.4	3.8	7.4	12	5.5	20	10	13	7.5	2.3	1.9	1.4
9	1.5	3.7	7.4	12	5.7	17	8.5	11	6.3	2.3	1.8	1.4
10	1.5	4.2	7.3	11	5.3	16	7.9	10	5.5	2.3	1.7	1.3
11	1.6	7.8	7.1	11	5.1	17	7.7	9.6	5.3	4.5	2.0	1.5
12	1.6	24	10	10	4.7	16	7.5	9.6	5.3	3.7	2.1	2.4
13	1.6	25	9.0	9.6	11	17	7.5	16	5.1	2.7	1.7	4.1
14	1.6	19	7.9	9.6	12	16	7.5	13	5.7	2.4	1.6	2.1
15	2.0	27	7.2	9.6	8.5	15	6.9	11	8.2	2.3	1.4	1.6
16	1.8	20	7.4	8.5	7.9	15	6.3	15	6.9	2.1	1.5	1.4
17	1.5	18	18	8.2	7.7	13	6.0	12	5.5	2.1	1.5	2.1
18	1.5	16	13	7.7	7.9	12	6.0	12	4.9	2.0	1.4	1.9
19	1.5	14	13	7.5	10	15	5.7	11	4.5	2.7	2.9	2.9
20	1.5	20	13	7.2	15	16	5.5	11	4.5	2.3	2.0	4.3
21	5.9	18	12	7.2	22	13	5.5	12	4.3	2.0	1.7	2.4
22	11	14	15	6.9	36	15	5.5	10	4.3	1.9	1.8	1.7
23	3.9	14	21	6.9	46	15	5.3	9.2	3.9	1.8	1.6	1.6
24	2.7	13	19	6.6	36	13	5.3	8.8	3.9	1.8	1.4	1.5
25	2.3	12	17	6.3	32	13	5.1	8.8	3.7	1.9	1.3	1.3
26	2.2	11	16	7.2	30	12	4.9	8.5	3.5	1.7	1.3	1.9
27	2.1	11	15	5.7	44	12	4.9	7.9	3.5	1.7	3.7	2.4
28	2.0	10	13	5.7	38	12	5.3	7.7	4.9	1.6	3.7	1.9
29	2.0	10	12	5.7	-----	12	5.3	7.5	4.3	3.0	2.0	1.7
30	3.8	15	12	5.7	-----	11	4.9	8.8	3.7	3.5	1.6	1.5
31	6.2	-----	11	5.1	-----	10	-----	9.2	-----	3.2	1.5	-----
TOTAL	75.8	364.9	352.6	285.3	422.9	517	209.3	303.0	167.2	78.0	77.7	56.9
MEAN	2.45	12.2	11.4	9.20	15.1	16.7	6.98	9.77	5.57	2.52	2.51	1.90
MAX	11	27	21	19	46	34	11	16	9.2	4.5	8.5	4.3
MIN	1.4	3.5	7.1	5.1	4.3	10	4.9	4.7	3.5	1.6	1.3	1.3
CFSM	.49	2.42	2.26	1.82	2.99	3.31	1.38	1.93	1.10	.50	.50	.38
IN.	.56	2.69	2.60	2.10	3.12	3.81	1.54	2.23	1.23	.57	.57	.42

CAL YR 1970 TOTAL 3,288.2 MEAN 9.01 MAX 60 MIN 1.4 CFSM 1.78 IN 24.22
 WTR YR 1971 TOTAL 2,910.6 MEAN 7.97 MAX 46 MIN 1.3 CFSM 1.58 IN 21.44

PEAK DISCHARGE (BASE, 70 CFS).--No peak above base.

NEWELL CREEK BASIN

03008000 Newell Creek near Port Allegany, Pa.

LOCATION.--Lat 41°53'43", long 78°20'56", McKean County, on right bank at downstream side of concrete bridge, 0.5 mile upstream from bridge on State Highway 155, and 6.5 miles northwest of Port Allegany.

DRAINAGE AREA.--7.79 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1960-65. October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,450 ft (from topographic map). Nov. 4, 1959, to Sept. 30, 1965, crest-stage gage at site 60 ft upstream and Oct. 1, 1965, to Sept. 30, 1968, water-stage recorder at datum 1.00 ft higher.

AVERAGE DISCHARGE.--6 years, 10.4 cfs (18.13 inches per year).

EXTREMES.--Current year: Maximum discharge, 237 cfs Feb. 27 (gage height, 4.28 ft); no flow on many days. Period of record: Maximum discharge, 740 cfs June 15, 1960 (gage height, 6.93 ft, present datum), from rating curve extended above 200 cfs on basis of slope-area measurement at gage height 5.31 ft, present datum; no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	8.5	11	6.8	1.6	60	15	15	1.2	.08	.03	.01
2	8.5	12	11	6.4	1.5	40	34	13	1.2	.12	.02	0
3	8.0	62	11	6.2	1.5	27	30	11	1.3	.04	.01	0
4	6.5	62	36	8.3	1.5	24	25	10	.92	.02	.02	0
5	5.4	39	25	22	3.0	22	21	8.5	.74	.02	.02	0
6	11	26	21	14	3.5	14	17	8.5	.92	.01	0	0
7	8.0	19	16	10	2.5	18	15	7.1	.74	.01	0	0
8	7.1	15	14	9.0	2.1	15	14	14	.92	0	0	0
9	6.2	12	14	9.0	1.9	14	16	19	.56	0	0	0
10	9.5	10	14	7.0	1.8	13	26	17	.38	0	0	0
11	19	9.3	19	6.0	2.0	9.3	19	15	.29	0	0	0
12	23	14	23	5.2	2.4	8.8	17	15	.20	0	0	0
13	49	29	25	4.7	3.0	14	23	13	.29	0	0	0
14	37	29	21	4.3	4.0	34	33	11	.92	0	0	1.7
15	32	95	17	3.8	2.9	122	21	8.8	.83	0	0	.47
16	23	58	15	4.5	2.3	91	17	7.8	.56	0	0	.29
17	18	38	15	4.0	2.1	45	15	7.1	.29	0	0	.65
18	15	27	13	3.7	5.4	29	12	5.8	.20	0	0	.16
19	11	21	24	3.5	28	24	10	5.1	.14	.04	0	.47
20	9.5	43	27	3.4	45	20	9.0	4.5	.10	.16	0	2.3
21	9.5	38	22	3.3	62	16	8.5	4.0	.12	.05	0	1.7
22	25	29	20	3.5	40	14	7.6	3.5	.10	.02	0	.92
23	17	23	20	3.5	50	12	6.5	3.0	.10	.01	0	.47
24	16	17	29	3.3	28	10	6.0	2.7	.09	.02	0	.16
25	14	14	20	3.3	22	11	6.0	4.2	.07	.12	0	.10
26	11	12	17	3.5	29	9.5	5.6	3.0	.06	.07	0	.14
27	9.8	11	15	1.5	146	9.0	4.9	2.7	.04	.16	.01	.20
28	8.3	11	12	1.4	96	9.8	12	2.4	.12	.04	.65	6.0
29	7.3	11	11	2.1	-----	11	19	2.0	.08	.04	.09	3.2
30	7.8	12	8.2	1.9	-----	11	17	1.7	.04	.07	.04	2.7
31	8.5	-----	7.4	1.7	-----	11	-----	1.5	-----	.05	.02	-----
TOTAL	450.4	806.8	553.6	170.8	591.0	768.4	482.1	246.9	13.52	1.15	.91	21.64
MEAN	14.5	26.9	17.9	5.51	21.1	24.8	16.1	7.96	.45	.037	.029	.72
MAX	49	95	36	22	146	122	34	19	1.3	.16	.65	6.0
MIN	5.4	8.5	7.4	1.4	1.5	8.8	4.9	1.5	.04	0	0	0
CFSM	1.86	3.45	2.30	.71	2.71	3.18	2.07	1.02	.06	.005	.004	.09
IN.	2.15	3.85	2.64	.82	2.82	3.67	2.30	1.18	.06	.005	.004	.10

CAL YR 1970 TOTAL 5,614.24 MEAN 15.4 MAX 138 MIN .47 CFSM 1.98 IN 26.81
WTR YR 1971 TOTAL 4,107.22 MEAN 11.3 MAX 146 MIN 0 CFSM 1.45 IN 19.61

PEAK DISCHARGE (BASE, 200 CFS).--Feb. 27 (1700) 237 cfs (4.28 ft); Mar. 15 (1645) 219 cfs (4.16 ft).

03010500 Allegheny River at Eldred, Pa.

LOCATION.--Lat 41°57'48", long 78°23'11", McKean County, 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, half a mile north of Eldred and at mile 267.8.

DRAINAGE AREA.--550 sq. mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,416.53 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 909 cfs (22.44 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,460 cfs Mar. 17 (gage height, 12.25 ft); minimum, 28 cfs Aug. 20, 21 (gage height, 1.45 ft).

Period of record: Maximum discharge, 55,000 cfs July 19, 1942 (gage height, 27.6 ft, from floodmark), from rating curve extended above 15,000 cfs on basis of slope-area measurement of peak flow; minimum, 22 cfs Sept. 29, 30, 1959 (gage height, 1.27 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analysis, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	953	1,310	720	280	4,380	1,020	1,080	294	155	78	55
2	478	1,040	1,230	640	270	3,960	1,940	1,060	274	194	78	49
3	484	1,590	1,190	600	260	3,060	2,740	1,010	290	198	66	45
4	461	3,120	1,880	701	250	2,220	2,710	952	281	144	65	43
5	396	3,050	2,130	1,220	250	1,860	2,580	840	245	124	66	41
6	448	2,520	1,880	1,130	270	1,530	2,400	789	235	116	62	38
7	584	1,950	1,700	900	300	1,450	2,190	802	299	113	54	37
8	452	1,550	1,440	800	280	1,470	2,160	935	267	104	47	35
9	400	1,300	1,360	760	270	1,210	2,220	1,480	255	93	43	37
10	386	1,130	1,340	800	260	1,010	3,020	1,370	214	89	40	38
11	983	1,060	1,240	800	250	1,040	3,400	1,300	191	85	37	33
12	1,710	1,170	1,600	660	250	905	3,500	1,270	178	89	35	32
13	2,580	1,940	1,760	450	260	930	3,550	1,380	172	95	34	47
14	3,480	2,580	1,600	450	300	1,270	3,930	1,230	202	87	32	535
15	4,070	3,250	1,390	560	370	2,580	4,280	1,070	503	87	31	445
16	3,780	3,720	1,230	450	360	3,830	4,070	965	565	80	31	190
17	2,710	3,720	1,180	400	330	4,380	3,100	903	364	73	31	168
18	1,850	3,210	1,110	350	310	4,050	2,300	790	305	71	33	202
19	1,450	2,410	1,100	310	400	3,120	1,870	703	270	80	31	146
20	1,190	2,140	1,730	310	540	2,440	1,620	636	244	142	29	292
21	1,040	3,040	1,530	340	1,700	1,950	1,470	585	232	142	30	518
22	1,750	2,790	1,420	340	1,970	1,600	1,310	522	227	92	39	274
23	1,750	2,340	1,440	330	2,220	1,390	1,140	478	200	75	69	182
24	1,480	1,960	1,700	310	2,250	1,230	977	443	187	69	149	147
25	1,370	1,640	1,480	310	1,670	1,010	907	475	172	85	89	126
26	1,250	1,400	1,300	330	1,480	942	834	526	161	111	62	156
27	1,110	1,270	1,160	250	2,780	892	744	438	156	96	73	230
28	959	1,230	1,060	280	4,000	919	797	411	147	83	204	228
29	838	1,190	941	310	-----	970	1,280	372	242	71	180	170
30	793	1,400	821	300	-----	993	1,170	340	170	71	102	133
31	959	-----	680	290	-----	911	-----	314	-----	75	71	-----
TOTAL	41,711	61,663	42,932	16,401	24,130	59,502	65,229	25,469	7,542	3,189	1,991	4,672
MEAN	1,346	2,055	1,385	529	862	1,919	2,174	822	251	103	64.2	156
MAX	4,070	3,720	2,130	1,220	4,000	4,380	4,280	1,480	565	198	204	535
MIN	386	953	680	250	250	892	744	314	147	69	29	32
CFSM	2.45	3.74	2.52	.96	1.57	3.49	3.95	1.49	.46	.19	.12	.28
IN.	2.82	4.17	2.90	1.11	1.63	4.02	4.41	1.72	.51	.22	.13	.32

GAL YR 1970 TOTAL 425,077 MEAN 1,165 MAX 6,320 MIN 104 CFSM 2.12 IN 28.75
WTR YR 1971 TOTAL 354,431 MEAN 971 MAX 4,380 MIN 29 CFSM 1.77 IN 23.97

PEAK DISCHARGE (BASE, 5,000 CFS).--No peak above base.

OHIO RIVER MAIN STEM

03011020 Allegheny River at Salamanca, N.Y.

LOCATION.--Lat 42°09'23", long 78°42'56", Cattaraugus County, on left bank 230 ft upstream from Main Street bridge in Salamanca, 1.3 miles downstream from Great Valley Creek, and 1.6 miles upstream from Little Valley Creek.

DRAINAGE AREA.--1,608 sq mi.

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1964, published as "at Red House."

GAGE.--Water-stage recorder. Datum of gage is 1,358.00 ft above mean sea level (Corps of Engineers bench mark). Prior to Sept. 3, 1917, nonrecording gage and Sept. 4, 1917, to Sept. 30, 1964, water-stage recorder at site 7.5 miles downstream at different datum. Oct. 1, 1964, to Sept. 30, 1967, at present site at datum 0.04 ft lower.

AVERAGE DISCHARGE.--68 years, 2,742 cfs (23.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 18,600 cfs Mar. 16 (gage height, 10.08 ft); minimum daily, 79 cfs Sept. 10, 11.

Period of record: Maximum discharge, 49,100 cfs Mar. 8, 1956 (gage height, 15.11 ft); minimum daily, 79 cfs Sept. 10, 11, 1971.

REMARKS.--Records good except those for winter periods and those for July to September, which are fair.

REVISIONS (WATER YEARS).--WSP 1385: 1907, 1909-12, 1913(M), 1914-15, 1916-17(M), 1925, 1927. WRD N.Y. 1965: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,600	2,610	4,550	2,000	840	13,800	3,120	3,960	834	571	229	225
2	1,410	2,750	4,050	1,900	820	11,300	7,130	3,670	786	552	238	178
3	1,430	3,430	3,670	1,800	800	8,930	9,580	3,410	906	541	238	123
4	1,590	8,550	6,000	2,100	780	6,350	8,430	3,210	870	470	234	119
5	1,470	7,780	7,050	3,760	760	4,890	7,600	2,900	777	393	229	157
6	1,640	6,130	5,730	3,860	840	4,590	6,900	2,640	707	358	216	187
7	1,840	4,770	4,970	2,670	920	4,410	6,150	2,530	762	355	195	148
8	1,590	3,900	4,170	2,420	860	4,610	6,050	2,900	766	331	174	153
9	1,280	3,280	3,920	2,250	820	3,850	6,480	4,490	697	310	170	103
10	1,130	2,880	4,260	2,450	780	3,260	10,100	4,320	618	293	170	79
11	2,580	2,740	4,030	2,470	760	3,210	10,100	3,850	544	280	161	79
12	4,340	3,190	4,410	2,200	780	2,900	10,100	3,670	502	268	148	83
13	6,250	5,680	4,750	1,400	840	2,800	11,800	3,810	485	276	136	127
14	7,480	7,800	4,570	1,400	920	3,470	14,900	3,540	606	293	127	314
15	8,430	11,600	4,010	1,700	1,100	8,800	13,700	3,110	1,180	289	123	1,150
16	8,200	14,300	3,580	1,410	1,100	17,600	10,900	2,790	1,700	272	119	613
17	6,580	11,200	3,410	1,160	1,000	15,100	8,980	2,510	1,240	250	119	383
18	4,650	8,830	3,280	1,180	960	11,100	6,950	2,270	939	246	115	341
19	3,650	6,880	3,290	964	1,400	8,830	5,680	2,040	779	276	115	343
20	3,000	5,640	5,260	960	1,700	7,000	5,010	1,850	671	359	111	463
21	2,590	9,280	5,030	1,000	5,200	5,530	4,530	1,710	657	347	107	918
22	4,360	8,530	4,380	1,100	5,700	4,590	4,090	1,540	621	336	111	787
23	4,990	6,830	4,280	1,000	6,250	4,030	3,590	1,390	557	289	166	516
24	4,070	5,470	5,010	960	6,400	3,610	3,140	1,270	511	268	234	396
25	3,590	4,570	4,690	1,000	4,990	3,070	2,940	1,340	468	263	293	333
26	3,210	3,940	4,050	960	4,490	2,820	2,850	1,450	442	276	259	308
27	2,800	3,720	3,580	800	9,330	2,720	2,740	1,330	416	289	216	302
28	2,510	4,770	3,000	880	16,200	2,790	2,850	1,200	397	302	238	364
29	2,250	4,730	2,600	960	-----	2,940	4,390	1,090	655	289	386	468
30	2,100	4,970	2,300	920	-----	3,040	4,490	984	695	293	340	437
31	2,480	-----	2,000	880	-----	2,830	-----	900	-----	246	272	-----
TOTAL	105,090	180,750	129,880	50,514	77,340	184,770	205,270	77,674	21,788	10,181	5,989	10,197
MEAN	3,390	6,025	4,190	1,629	2,762	5,960	6,842	2,506	726	328	193	340
MAX	8,430	14,300	7,050	3,860	16,200	17,600	14,900	4,490	1,700	571	386	1,150
MIN	1,130	2,610	2,000	800	760	2,720	2,740	900	397	246	107	79
CFSM	2.11	3.75	2.61	1.01	1.72	3.71	4.26	1.56	.45	.20	.12	.21
IN.	2.43	4.18	3.00	1.17	1.79	4.27	4.75	1.80	.50	.24	.14	.24

CAL YR 1970 TOTAL 1,182,566 MEAN 3,240 MAX 19,100 MIN 326 CFSM 2.01 IN 27.35
WTR YR 1971 TOTAL 1,059,443 MEAN 2,903 MAX 17,600 MIN 79 CFSM 1.81 IN 24.50

PEAK DISCHARGE (BASE, 17,000 CFS).--Mar. 16 (1100) 18,600 cfs (10.08 ft).

KINZUA CREEK BASIN

187

03011800 Kinzua Creek near Guffey, Pa.

LOCATION.--Lat 41°45'59", long 78°43'08", McKean County, in Allegheny National Forest, on right bank 130 ft upstream from bridge on U. S. Highway 219, 0.2 mile upstream from Wintergreen Run, 1.0 mile downstream from Pine Run, and 1.5 miles west of Guffey.

DRAINAGE AREA.--46.4 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, published as "at Tallyho", water years 1959-65. October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,540 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 68.5 cfs (20.07 inches per year).

EXTREMES.--Current year: Maximum discharge, 548 cfs Mar. 15 (gage height, 4.87 ft); minimum, 5.0 cfs Aug. 17, 18, 19, 20 (gage height, 2.36 ft).

Period of record: Maximum discharge, 4,090 cfs Sept. 28, 1967 (gage height, 8.33 ft), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; minimum, 4.0 cfs Sept. 2, 3, 1966 (gage height, 2.35 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Pa. 1968: 1967 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	82	144	52	18	263	99	71	22	25	8.4	7.7
2	32	87	133	48	18	215	270	72	23	21	7.9	7.0
3	38	276	125	45	17	175	242	67	28	17	8.8	6.5
4	32	312	220	60	17	149	222	64	22	16	8.9	6.5
5	29	224	161	123	23	139	208	56	19	14	8.0	6.5
6	55	179	134	77	30	110	187	61	49	14	7.0	6.5
7	53	147	118	61	24	129	175	56	40	13	6.5	6.5
8	37	121	105	54	22	114	185	109	37	12	6.5	6.5
9	32	103	100	52	21	97	229	122	28	12	6.5	6.0
10	54	94	104	54	22	88	345	87	22	11	6.2	6.0
11	180	93	115	45	19	79	261	78	20	12	6.5	6.0
12	172	129	157	40	18	73	244	88	19	12	6.0	7.0
13	224	184	156	35	21	77	262	87	25	11	6.0	13
14	180	153	128	46	25	113	299	75	115	12	5.5	110
15	163	279	114	37	28	305	203	65	260	11	5.5	37
16	132	216	105	31	25	348	165	61	132	10	6.0	20
17	111	179	104	28	23	244	141	62	95	10	5.5	23
18	98	155	95	26	24	193	121	53	74	9.9	5.0	17
19	83	133	110	24	30	173	104	48	59	19	5.0	18
20	72	210	144	25	50	152	92	44	49	17	5.5	29
21	81	276	112	27	110	128	84	40	61	12	7.0	27
22	192	189	108	28	102	112	76	37	46	10	7.6	18
23	123	166	115	25	152	98	67	34	37	9.3	13	13
24	104	144	154	23	137	86	61	32	33	10	7.6	12
25	94	124	116	22	122	75	61	52	29	12	7.6	10
26	85	110	105	22	126	70	59	40	28	10	8.1	11
27	75	119	97	16	301	67	53	37	25	9.4	18	12
28	66	153	88	21	327	70	92	34	22	8.2	24	14
29	60	148	80	20	-----	78	115	30	20	9.5	17	14
30	71	181	70	19	-----	73	85	27	19	9.5	11	12
31	95	-----	58	19	-----	68	-----	24	-----	9.1	8.8	-----
TOTAL	2,855	4,966	3,675	1,205	1,852	4,161	4,807	1,813	1,458	387.9	260.9	488.7
MEAN	92.1	166	119	38.9	66.1	134	160	58.5	48.6	12.5	8.42	16.3
MAX	224	312	220	123	327	348	345	122	260	25	24	110
MIN	29	82	58	16	17	67	53	24	19	8.2	5.0	6.0
CFSM	1.98	3.58	2.56	.84	1.42	2.89	3.45	1.26	1.05	.27	.18	.35
IN.	2.29	3.98	2.95	.97	1.48	3.34	3.85	1.45	1.17	.31	.21	.39
CAL YR 1970	TOTAL 31,867.4		MEAN 87.3		MAX 592	MIN 9.4	CFSM 1.88	IN 25.55				
WTR YR 1971	TOTAL 27,929.5		MEAN 76.5		MAX 348	MIN 5.0	CFSM 1.65	IN 22.39				

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 3	2000	4.79	516	6-14	1700	4.81	524
3-15	2000	4.87	548				

OHIO RIVER MAIN STEM

03012600 Allegheny River at Warren, Pa.

LOCATION.--Lat 41°49'28", long 79°07'09", Warren County, at center pier on downstream side of bridge on U. S. Highway 6 at Warren, 1,500 ft upstream from Glade Run, 6.9 miles downstream from Kinzua Dam, and at mile 191.2.

DRAINAGE AREA.--2,223 sq mi. Area at site used prior to Nov. 1, 1964, 2,179 sq mi.

PERIOD OF RECORD.--October 1935 to current year. Published as "near Kinzua" (sta 03012500) prior to October 1968.

GAGE.--Water-stage recorder. Altitude of gage is 1,170 ft (from topographic map). Prior to Nov. 1, 1964, water-stage recorder at site 7.4 miles upstream at different datum. Nov. 1, 1964, to Aug. 4, 1966, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--36 years, 3,714 cfs (22.69 inches per year), adjusted for storage since October 1965.

EXTREMES.--Current year: Maximum discharge, 23,800 cfs Mar. 3 (gage height, 14.20 ft); minimum daily, 680 cfs Sept. 21, 22.

Period of record: Maximum discharge, 60,500 cfs Mar. 8, 1956 (gage height, 19.95 ft, site and datum then in use); minimum not determined.

REMARKS.--Records good. Flow regulated since October 1965 by Allegheny Reservoir 6.9 miles upstream (see p. 233). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1275: 1936-37.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,830	3,350	7,210	5,680	700	11,300	1,110	5,670	1,920	1,810	1,570	1,280
2	3,790	3,350	3,330	5,680	700	16,000	1,350	5,550	1,930	1,800	1,570	1,280
3	3,770	3,850	6,630	5,680	700	19,000	1,250	5,730	1,930	1,780	1,550	1,280
4	3,750	3,820	9,450	5,650	1,100	23,100	1,220	5,760	1,920	1,750	1,560	1,270
5	3,690	5,520	9,810	5,730	1,700	22,300	1,100	5,820	1,900	1,750	1,550	1,260
6	3,690	9,000	10,400	5,680	2,890	20,600	950	4,610	1,890	1,770	1,550	1,230
7	3,210	10,200	10,400	5,680	3,070	16,400	860	3,620	1,890	1,770	1,530	1,230
8	1,660	10,000	10,300	5,680	2,850	14,400	932	3,620	1,710	1,740	1,500	1,220
9	690	8,790	10,200	5,600	1,000	14,100	1,010	3,580	1,300	1,730	1,510	1,220
10	710	7,770	10,200	5,600	700	12,100	1,100	3,640	1,300	1,730	1,490	1,200
11	1,250	7,650	10,200	5,620	1,220	7,730	1,090	4,290	1,290	1,710	1,470	1,160
12	2,830	7,680	7,500	5,550	1,720	3,860	1,420	5,670	1,290	1,730	1,450	1,150
13	4,170	7,680	4,350	5,500	2,760	3,160	2,020	5,670	1,280	1,730	1,430	1,660
14	4,870	7,620	6,740	5,520	3,530	3,200	2,180	5,080	1,230	1,740	1,420	1,940
15	6,950	6,790	10,100	5,550	3,750	2,980	2,170	4,320	1,600	1,690	1,410	1,160
16	9,690	3,910	10,000	5,520	4,450	1,940	2,220	4,300	1,390	1,690	1,390	752
17	11,000	5,410	9,990	5,400	4,910	1,810	2,250	4,000	1,350	1,680	1,390	716
18	10,900	8,550	9,870	5,420	5,300	1,770	2,210	3,660	1,340	1,660	1,390	725
19	10,800	9,000	9,870	3,140	5,350	1,750	5,390	2,940	1,300	1,680	1,380	725
20	10,600	8,970	9,870	1,600	4,370	1,770	17,100	2,020	1,300	1,670	1,380	770
21	9,900	9,000	9,840	1,680	2,130	1,730	21,400	2,040	1,670	1,670	1,380	680
22	8,370	9,000	7,410	2,270	700	1,720	19,900	1,980	1,880	1,670	1,380	680
23	8,250	8,790	4,150	2,790	2,260	2,500	12,100	1,940	1,720	1,680	1,530	1,060
24	8,190	9,000	4,900	2,320	6,700	3,760	3,760	2,040	1,670	1,650	1,340	1,960
25	7,630	9,240	5,750	2,460	12,400	3,720	3,700	2,040	1,850	1,620	1,330	2,320
26	5,620	9,450	5,750	3,830	12,700	4,310	3,680	2,060	1,840	1,630	1,330	2,260
27	5,580	9,600	5,720	2,440	7,360	5,300	3,720	2,020	1,810	1,630	1,340	2,190
28	5,500	9,000	5,750	700	8,280	5,350	3,720	1,990	1,830	1,620	1,340	2,560
29	5,420	8,700	5,820	700	-----	4,650	3,800	1,950	1,810	1,630	1,300	2,740
30	5,310	8,760	5,700	700	-----	3,160	5,700	1,940	1,800	1,620	1,300	2,690
31	3,330	-----	5,680	700	-----	1,700	-----	1,930	-----	1,610	1,290	-----
TOTAL	174,950	229,450	242,890	126,070	105,300	237,170	130,412	111,480	48,940	52,640	44,350	42,368
MEAN	5,644	7,648	7,835	4,067	3,761	7,651	4,347	3,596	1,631	1,698	1,431	1,412
MAX	11,000	10,200	10,400	5,730	12,700	23,100	21,400	5,820	1,930	1,810	1,570	2,740
MIN	690	3,350	3,330	700	700	1,700	860	1,930	1,230	1,610	1,290	680
MEAN#	4,930	8,472	5,595	2,367	3,405	7,992	8,807	3,186	1,256	468	454	882
CFSM#	2.22	3.81	2.52	1.06	1.53	3.60	3.96	1.43	.57	.21	.20	.40
IN.#	2.56	4.25	2.91	1.22	1.59	4.15	4.42	1.65	.64	.24	.23	.45

CAL YR 1970 TOTAL 1,658,228 MEAN 4,543 MAX 17,100 MIN 438 MEAN# 4,543 CFSM# 2.04 IN.# 27.75
WTR YR 1971 TOTAL 1,546,020 MEAN 4,236 MAX 23,100 MIN 680 MEAN# 3.981 CFSM# 1.79 TN.# 24.31

Adjusted for change in contents in Allegheny Reservoir.

03015000 Conewango Creek at Russell, Pa.

LOCATION.--Lat 41°56'17", long 79°08'00", Warren County, on left bank at highway bridge in Russell, 0.5 mile upstream from Akeley Run, and 8.0 miles upstream from mouth.

DRAINAGE AREA.--816 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October, November 1939, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,222.18 ft above mean sea level, unadjusted. Prior to Apr. 10, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 1,441 cfs (23.98 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,550 cfs Mar. 2 (gage height, 7.57 ft); minimum, 118 cfs Aug. 19, 20 (gage height, 2.06 ft).

Period of record: Maximum discharge, 14,400 cfs Apr. 7, 1947 (gage height, 10.69 ft); minimum not determined; minimum daily, 57 cfs Oct. 17, 1960.

Flood in March 1936 reached a stage of 10.9 ft, from floodmark (discharge, 14,600 cfs).

REMARKS.--Records good. Flow regulated by Chautauqua Lake (see p. 233).

REVISIONS (WATER YEARS).--WSP 1083: 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,090	1,820	4,280	1,740	520	6,290	2,210	2,120	385	270	196	151
2	1,690	2,620	4,200	1,660	520	6,510	2,990	1,830	365	295	176	139
3	1,520	3,680	4,100	1,590	520	6,290	3,420	1,510	486	270	168	142
4	1,650	5,080	4,280	1,760	520	5,790	3,570	1,290	570	240	160	145
5	1,770	5,130	4,170	3,090	696	5,180	3,640	1,130	504	224	154	145
6	2,600	5,130	3,930	2,940	817	4,570	3,390	988	450	216	148	139
7	3,180	5,100	3,650	2,700	934	4,110	2,930	907	420	212	145	136
8	2,900	4,840	3,220	2,430	952	3,740	2,640	1,010	468	200	142	136
9	2,540	4,310	2,870	2,080	920	3,280	2,550	1,880	444	196	139	136
10	2,090	3,470	2,990	1,900	840	2,900	2,780	1,860	380	184	139	139
11	2,540	2,730	2,980	1,700	800	2,660	2,980	1,550	350	180	142	139
12	2,970	2,550	3,280	1,580	880	2,430	3,030	1,260	320	176	136	139
13	3,650	2,750	3,260	1,410	997	2,270	3,060	1,320	330	172	133	176
14	3,540	2,880	3,080	1,290	900	2,560	3,570	1,200	345	176	133	260
15	3,780	4,020	2,840	1,290	960	3,930	3,680	979	474	172	133	245
16	3,280	4,440	2,570	1,250	860	4,670	3,750	835	492	172	130	216
17	2,810	4,320	2,420	1,190	900	4,890	3,630	750	432	164	124	196
18	2,390	4,260	2,390	1,100	1,100	5,130	3,200	682	380	154	121	176
19	1,970	4,100	2,550	900	1,200	5,180	2,700	633	330	157	121	168
20	1,570	3,780	3,140	960	1,730	5,020	2,310	591	315	168	121	164
21	1,280	3,810	3,080	1,000	3,040	4,620	1,980	558	345	172	139	160
22	2,140	3,640	2,970	916	3,140	4,040	1,760	528	540	168	188	157
23	2,280	3,490	2,810	898	3,570	3,350	1,620	498	546	160	176	154
24	1,950	3,300	2,960	871	3,830	2,820	1,390	480	420	157	157	151
25	1,660	2,930	2,790	774	3,770	2,400	1,220	534	340	168	142	142
26	1,400	2,570	2,580	774	3,990	2,080	1,260	612	300	212	136	139
27	1,200	2,680	2,390	580	5,120	1,920	1,470	626	265	240	136	142
28	1,060	3,650	2,190	620	5,930	1,960	1,710	612	245	260	145	151
29	961	3,920	2,030	580	-----	2,190	2,160	577	236	255	180	164
30	934	4,200	1,910	560	-----	2,260	2,270	504	236	228	208	151
31	1,370	-----	1,770	540	-----	2,190	-----	432	-----	208	180	-----
TOTAL	66,765	111,200	93,740	42,693	49,956	117,230	78,870	30,286	11,713	6,226	4,648	4,798
MEAN	2,194	3,707	3,024	1,377	1,784	3,782	2,629	977	390	201	150	160
MAX	3,780	5,130	4,280	3,090	5,930	6,510	3,750	2,120	570	295	208	260
MIN	934	1,820	1,770	540	520	1,920	1,220	432	236	154	121	136
MEAN#	2,165	3,858	2,830	1,268	2,107	3,628	2,660	962	399	108	146	120
CFSM#	2.65	4.73	3.47	1.55	2.58	4.45	3.26	1.18	.49	.13	.18	.15
IN.#	3.06	5.28	4.00	1.79	2.69	5.13	3.64	1.36	.55	.15	.21	.17
CAL YR 1970	TOTAL 694,479	MEAN 1,903	MAX 5,700	MIN 179	MEAN# 1,907	CFSM# 2.34	IN.# 31.72					
WTR YR 1971	TOTAL 618,125	MEAN 1,693	MAX 6,510	MIN 121	MEAN# 1,683	CFSM# 2.06	IN.# 28.03					

Adjusted for change in contents in Chautauqua Lake.

CONEWANGO CREEK BASIN

03015280 Jackson Run near North Warren, Pa.

LOCATION.--Lat 41°54'10", long 79°14'18", Warren County, on right bank at downstream side of highway bridge on Creamery Road, 0.6 mile upstream from Mud Run, and 5 miles northwest of North Warren.

DRAINAGE AREA.--12.8 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,370 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 22.0 cfs (23.34 inches per year).

EXTREMES.--Current year: Maximum discharge, 447 cfs, Oct. 13 (gage height, 3.69 ft), from rating curve extended above 330 cfs; minimum not determined; minimum daily, 1.0 cfs Sept. 10, 11.

Period of record: Maximum discharge, 810 cfs Mar. 5, 1964 (gage height, 5.10 ft), from rating curve extended above 330 cfs; minimum, 0.4 cfs Oct. 22, 26-27, 1963 (gage height, 1.18 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	49	42	19	3.8	89	49	20	4.3	2.0	1.9	1.4
2	14	81	37	18	3.7	65	120	20	4.7	2.0	1.6	1.4
3	21	177	36	17	3.6	48	77	18	8.0	1.9	1.9	1.4
4	17	183	120	43	3.6	42	53	15	5.0	1.7	2.0	1.4
5	13	76	59	63	6.0	40	40	14	4.3	1.7	1.7	1.3
6	25	48	45	45	10	30	35	14	5.0	1.6	1.4	1.2
7	19	36	40	25	8.0	65	34	12	4.3	1.6	1.4	1.2
8	14	29	36	17	6.4	42	36	34	5.3	1.4	1.3	1.1
9	11	25	34	14	6.0	37	46	26	4.3	1.4	1.3	1.1
10	12	26	36	12	5.6	32	60	19	3.7	1.4	1.2	1.0
11	78	31	50	10	5.4	26	44	16	3.3	1.4	2.2	1.0
12	70	73	56	8.0	5.2	23	44	22	2.9	1.6	1.6	1.3
13	228	60	54	7.0	6.0	26	60	19	2.9	1.7	1.3	6.0
14	102	51	42	8.0	7.6	60	74	15	9.8	2.2	1.3	80
15	129	207	36	5.3	6.8	189	38	13	6.7	1.7	1.3	14
16	63	102	33	5.0	6.2	156	29	12	4.5	1.4	1.4	7.0
17	44	60	32	4.7	5.8	73	25	11	3.7	1.4	1.3	5.0
18	35	40	32	4.6	6.4	48	22	10	3.3	1.6	1.2	4.5
19	27	34	50	4.5	15	42	18	8.5	2.9	3.5	1.2	4.0
20	23	50	50	4.8	35	38	17	8.0	5.3	2.4	1.2	10
21	28	74	36	5.2	70	31	16	7.1	6.3	1.9	3.7	6.0
22	73	44	34	4.7	35	29	15	6.3	3.9	1.7	4.1	4.0
23	38	38	38	4.4	27	26	13	5.9	3.1	1.7	11	3.0
24	31	34	83	4.1	24	23	13	5.9	2.9	2.0	2.8	2.5
25	26	31	59	4.0	22	22	15	20	2.8	2.9	2.2	2.1
26	22	28	32	5.0	30	21	16	10	2.5	2.2	2.2	2.2
27	19	48	33	3.5	230	20	14	8.5	2.3	2.0	3.3	2.5
28	18	65	34	4.5	165	27	25	7.1	2.3	1.7	3.5	7.0
29	16	63	29	4.2	-----	35	33	5.9	2.2	2.8	2.8	4.5
30	22	62	25	4.0	-----	31	24	5.3	2.0	2.6	2.2	3.3
31	58	-----	22	3.9	-----	27	-----	4.7	-----	2.3	1.9	-----
TOTAL	1,311	1,925	1,345	382.4	759.1	1,463	1,105	413.2	124.5	59.4	69.4	182.4
MEAN	42.3	64.2	43.4	12.3	27.1	47.2	36.8	13.3	4.15	1.92	2.24	6.08
MAX	228	207	120	63	230	189	120	34	9.8	3.5	11	80
MIN	11	25	22	3.5	3.6	20	13	4.7	2.0	1.4	1.2	1.0
CFSM	3.30	5.02	3.39	.96	2.12	3.69	2.88	1.04	.32	.15	.18	.48
IN.	3.81	5.59	3.91	1.11	2.21	4.25	3.21	1.20	.36	.17	.20	.53

CAL YR 1970 TOTAL 11,399.8 MEAN 31.2 MAX 354 MIN 2.3 CFSM 2.44 IN 33.13
WTR YR 1971 TOTAL 9,139.4 MEAN 25.0 MAX 230 MIN 1.0 CFSM 1.95 IN 26.56

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-13	0915	3.69	447	2-27	1730	3.29	327
11-3	1945	3.30	330				

03015500 Brokenstraw Creek at Youngsville, Pa.

LOCATION.--Lat 41°51'09", long 79°19'03", Warren County, on right bank 150 ft downstream from bridge on Main Street at Youngsville, 500 ft upstream from Mathews Run, and 3.7 miles upstream from mouth.

DRAINAGE AREA.--321 sq mi., including that of Mathews Run.

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1305. Flow of Mathews Run included in records since October 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,186.92 ft above mean sea level, adjustment of 1907. Prior to Sept. 30, 1933, nonrecording gage at site 150 ft upstream at datum 2.00 ft higher. Oct. 1, 1933, to June 15, 1939, nonrecording gage at site 150 ft upstream, and June 16, 1939, to Sept. 30, 1961, water-stage recorder at present site, both at datum 1.00 ft higher.

AVERAGE DISCHARGE.--62 years, 571 cfs (24.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,270 cfs Nov. 3 (gage height, 7.46 ft); minimum, 42 cfs Aug. 19, 20 (gage height, 0.48 ft).

Period of record: Maximum discharge, about 18,000 cfs Mar. 25, 1913 (gage height, 14.2 ft., present datum); minimum observed, 19 cfs Oct. 14, 1934.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1083: 1913(M). WSP 1275: 1920, 1932, 1936. WSP 1305: 1910-15, 1928-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	432	1,960	1,860	563	240	3,360	998	740	190	100	70	114
2	383	2,790	1,220	517	240	1,990	2,270	620	188	108	64	95
3	439	3,360	970	497	240	1,390	2,490	538	343	100	63	84
4	535	4,180	1,870	668	240	959	1,840	470	506	89	70	77
5	476	3,260	1,760	1,460	300	835	1,160	414	291	84	64	87
6	645	1,870	1,310	1,290	450	831	956	398	267	78	57	89
7	944	1,090	924	810	370	1,290	888	370	276	80	55	79
8	721	810	799	648	320	1,270	935	650	336	73	52	73
9	456	683	823	528	300	988	1,010	963	366	72	50	69
10	391	651	1,030	553	280	817	1,330	700	258	69	50	64
11	861	730	1,160	501	270	792	1,240	526	203	69	59	84
12	1,120	821	1,440	464	270	679	1,030	550	178	69	59	87
13	2,470	900	1,550	357	350	670	1,080	610	175	66	55	163
14	2,070	973	1,290	437	320	919	1,550	514	205	72	52	434
15	1,940	2,440	1,010	400	300	2,760	1,290	430	326	70	51	276
16	1,330	2,350	875	360	290	4,030	830	382	322	66	50	170
17	973	1,890	835	330	280	3,020	670	343	223	64	49	129
18	774	1,110	841	310	280	1,630	586	309	185	63	49	108
19	648	846	928	270	350	1,150	518	285	160	75	45	98
20	554	868	1,350	320	800	1,080	470	264	190	88	46	102
21	546	1,520	1,230	290	1,700	898	434	249	240	77	148	98
22	1,140	1,520	899	300	1,600	852	406	228	218	67	183	91
23	1,160	1,090	875	280	2,200	778	382	215	180	63	358	82
24	872	767	1,190	270	2,100	689	362	208	148	72	163	75
25	686	703	1,040	280	1,960	593	390	378	132	84	104	69
26	581	714	877	300	1,730	570	462	370	121	80	97	70
27	505	870	726	210	3,660	588	486	319	112	100	406	75
28	455	2,100	678	260	4,450	702	542	306	106	98	590	123
29	424	2,860	635	260	-----	990	894	267	100	91	386	134
30	556	2,830	578	250	-----	1,030	963	234	95	91	220	106
31	1,630	-----	530	250	-----	837	-----	213	-----	79	150	-----
TOTAL	26,717	48,556	33,103	14,233	25,890	38,987	28,462	13,063	6,640	2,457	3,915	3,405
MEAN	862	1,619	1,068	459	925	1,258	949	421	221	79.3	126	114
MAX	2,470	4,180	1,870	1,460	4,450	4,030	2,490	963	506	108	590	434
MIN	383	651	530	210	240	570	362	208	95	63	45	64
CFSM	2.69	5.04	3.33	1.43	2.88	3.92	2.96	1.31	.69	.25	.39	.36
IN.	3.10	5.63	3.84	1.65	3.00	4.52	3.30	1.51	.77	.28	.45	.39

CAL YR 1970 TOTAL 262,732 MEAN 720 MAX 4,900 MIN 75 CFSM 2.24 IN 30.45
 WTR YR 1971 TOTAL 245,428 MEAN 672 MAX 4,450 MIN 45 CFSM 2.09 IN 28.44

PEAK DISCHARGE (BASE, 4,500 CFS).--Nov. 3 (2300) 5,270 cfs (7.46 ft); Feb. 27 (2200) 4,800 cfs (7.10 ft).

OHIO RIVER MAIN STEM

03016000 Allegheny River at West Hickory, Pa.

LOCATION.--Lat 41°34'15", long 79°24'29", Forest County, on right bank at downstream side of bridge on State Highway 127 at West Hickory, 0.6 mile upstream from Siggins Run, 0.8 mile downstream from East Hickory Creek, and at mile 158.9.

DRAINAGE AREA.--3,660 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,059.90 ft above mean sea level. Prior to Dec. 12, 1941, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 6,346 cfs (23.54 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 32,500 cfs Mar. 2 (gage height, 9.92 ft); minimum, 1,010 cfs Sept. 23 (gage height, 2.98 ft).
Period of record: Maximum discharge, 101,000 cfs Mar. 8, 1956 (gage height, 17.20 ft); maximum gage height, 17.83 ft Jan. 25, 1964 (backwater from ice); minimum discharge not determined.

REMARKS.--Records good. Flow regulated by Allegheny Reservoir 39 miles upstream since October 1965 and by Chautauqua Lake (see p. 233).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,740	8,540	16,200	7,800	1,600	26,600	4,840	9,440	3,000	2,340	1,870	1,700
2	6,180	10,500	10,700	7,600	1,700	31,800	8,070	8,970	3,020	2,390	1,830	1,630
3	5,740	12,500	11,100	7,400	1,800	31,000	9,290	8,570	3,150	2,330	1,810	1,610
4	5,860	18,200	17,400	8,000	1,900	30,500	8,400	8,240	3,590	2,260	1,810	1,610
5	5,860	14,800	17,200	11,100	2,500	28,900	7,330	7,900	3,380	2,230	1,800	1,610
6	6,260	17,100	17,200	11,100	4,000	27,700	6,310	7,480	3,310	2,210	1,760	1,570
7	8,180	17,600	16,200	10,200	4,500	23,700	5,600	5,450	3,220	2,230	1,740	1,520
8	6,100	16,700	15,500	9,560	5,000	19,800	5,240	6,040	3,290	2,210	1,720	1,520
9	4,220	15,900	15,000	9,090	4,000	18,600	5,200	7,420	2,740	2,180	1,700	1,520
10	3,350	13,100	15,100	8,600	3,200	17,000	6,090	7,460	2,410	2,170	1,700	1,500
11	4,800	12,500	15,300	8,000	3,000	13,000	6,150	6,900	2,220	2,160	1,700	1,520
12	7,660	12,900	15,600	7,600	3,400	8,400	5,950	8,610	2,130	2,140	1,660	1,540
13	12,100	13,100	11,000	7,200	4,000	6,870	6,920	8,690	2,100	2,150	1,680	1,720
14	12,200	13,100	10,900	7,000	4,500	7,210	8,520	8,320	2,290	2,170	1,650	3,820
15	14,200	17,700	15,100	7,000	5,200	11,600	8,340	6,770	3,620	2,170	1,660	2,570
16	15,300	14,100	14,800	6,800	5,600	14,100	7,830	6,390	2,960	2,050	1,610	1,650
17	15,700	12,500	14,300	6,400	6,000	11,700	7,520	6,110	2,460	2,030	1,630	1,250
18	14,700	15,300	14,200	6,000	6,400	9,990	6,960	5,180	2,220	1,990	1,610	1,160
19	13,700	15,100	14,100	5,200	7,000	9,290	6,750	5,030	2,070	2,070	1,610	1,130
20	12,900	14,800	15,600	3,290	8,000	9,090	16,500	3,440	1,960	2,110	1,590	1,270
21	12,500	15,800	15,500	3,460	10,000	8,350	24,200	3,260	2,220	1,930	1,780	1,270
22	12,000	15,500	14,300	3,600	7,460	7,600	23,400	3,180	2,740	1,930	1,910	1,070
23	12,400	14,700	9,290	4,240	8,620	6,920	17,200	3,050	2,850	1,930	2,380	1,040
24	11,700	14,100	9,850	4,170	12,400	8,160	6,810	3,020	2,510	1,930	2,070	1,720
25	11,000	13,600	11,000	3,350	18,200	7,560	5,920	3,540	2,390	1,890	1,740	2,670
26	8,780	13,500	10,500	4,880	19,900	7,200	5,880	3,620	2,480	1,890	1,720	2,840
27	8,140	13,600	10,100	4,640	17,600	8,480	6,000	3,530	2,410	1,950	1,780	2,690
28	7,740	15,800	9,630	1,600	22,300	8,630	6,490	3,470	2,340	1,970	2,410	4,020
29	7,460	16,800	9,200	1,800	-----	9,140	7,090	3,330	2,340	2,090	2,160	3,740
30	7,540	17,900	8,800	2,000	-----	7,970	9,630	3,200	2,300	2,070	1,890	3,520
31	7,340	-----	8,200	1,700	-----	5,930	-----	3,090	-----	1,950	1,800	-----
TOTAL	288,350	437,340	408,870	190,380	199,780	442,790	260,430	178,700	79,720	65,120	55,780	58,000
MEAN	9,302	14,580	13,190	6,141	7,135	14,280	8,681	5,765	2,657	2,101	1,799	1,933
MAX	15,700	18,200	17,400	11,100	22,300	31,800	24,200	9,440	3,620	2,390	2,410	4,020
MIN	3,350	8,540	8,200	1,600	1,600	5,930	4,840	3,020	1,960	1,890	1,590	1,040
MEAN [≠]	8,599	15,560	10,760	4,331	7,102	14,470	13,170	5,340	2,291	781	818	1,363
CFSM [≠]	2.35	4.25	2.94	1.18	1.94	3.95	3.60	1.46	.63	.21	.22	.37
IN. [≠]	2.71	4.74	3.39	1.36	2.02	4.55	4.02	1.68	.70	.24	.25	.41
CAL YR 1970	TOTAL 2,880,620	MEAN 7,892	MAX 21,600	MIN 1,040	MEAN [≠] 7,896	CFSM [≠] 2.16	IN. [≠] 29.27					
WTR YR 1971	TOTAL 2,665,260	MEAN 7,302	MAX 31,800	MIN 1,040	MEAN [≠] 7,037	CFSM [≠] 1.92	IN. [≠] 26.07					

[≠] Adjusted for change in contents in Allegheny Reservoir and Chautauqua Lake.

TIONESTA CREEK BASIN

193

03017500 Tionesta Creek at Lynch, Pa.

LOCATION.--Lat 41°36'07", long 79°03'01", Forest County, in Allegheny National Forest, on left bank at downstream side of highway bridge at Lynch, 500 ft upstream from Bluejay Creek, and 7 miles south of Sheffield.

DRAINAGE AREA.--233 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,252.43 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--34 years, 421 cfs (24.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,840 cfs Sept. 14 (gage height, 6.29 ft); minimum, 15 cfs Aug. 18, 19, 20 (gage height, 0.71 ft).

Period of record: Maximum discharge, 15,000 cfs Jan. 22, 1959 (gage height, 11.25 ft, from floodmark in gage well), from rating curve extended above 4,600 cfs on basis of slope-area measurement of peak flow; minimum, 11 cfs Aug. 26, 27, 1962 (gage height, 0.67 ft).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 923: 1939-40. WSP 1555: 1943, 1946-47, 1948(M), 1952, 1953(M), 1955-56.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	773	798	370	110	1,720	515	395	135	98	42	32
2	261	749	760	330	110	1,370	1,350	395	129	113	37	30
3	296	1,610	688	320	110	1,090	1,570	375	175	75	36	31
4	241	2,630	1,180	362	110	920	1,360	355	135	65	40	29
5	208	1,770	977	637	120	850	1,190	320	118	61	39	28
6	249	1,290	862	460	150	625	1,060	355	279	67	32	25
7	239	990	745	347	140	850	955	325	283	61	28	24
8	195	793	641	300	130	762	976	620	245	53	25	23
9	176	654	594	260	120	625	1,070	702	197	50	25	22
10	199	598	570	280	120	600	1,610	595	161	47	23	21
11	1,000	674	572	250	120	530	1,310	545	138	47	22	20
12	1,180	811	902	210	120	470	1,220	590	126	53	22	25
13	1,780	1,020	1,030	180	130	460	1,270	630	150	47	21	75
14	1,510	939	901	220	170	580	1,490	530	175	45	19	2,430
15	1,370	1,910	799	190	160	1,400	1,050	470	990	40	19	590
16	1,090	1,870	704	170	150	2,280	850	435	610	40	19	245
17	874	1,360	680	160	140	1,610	720	395	430	42	18	193
18	731	1,080	619	150	140	1,210	625	350	325	40	16	138
19	605	878	610	140	140	1,050	540	320	261	57	15	150
20	511	894	764	150	500	962	480	288	217	98	16	325
21	526	1,290	624	160	1,000	762	440	257	189	55	32	279
22	1,190	989	615	180	900	650	405	233	168	45	57	178
23	855	862	659	160	1,200	575	365	209	144	40	82	135
24	729	751	931	150	1,000	505	335	197	129	40	57	113
25	637	647	753	140	889	455	325	345	115	47	37	96
26	556	563	691	130	828	435	310	261	106	43	55	98
27	487	550	617	100	1,900	400	283	217	98	42	135	101
28	426	615	544	130	2,290	415	375	197	91	36	120	306
29	381	629	485	120	-----	495	535	178	85	53	69	189
30	454	994	400	120	-----	495	435	161	89	91	48	185
31	788	-----	350	110	-----	450	-----	147	-----	53	36	-----
TOTAL	20,032	31,183	22,065	6,986	12,997	25,601	25,019	11,392	6,493	1,744	1,242	6,136
MEAN	646	1,039	712	225	464	826	834	367	216	56.3	40.1	205
MAX	1,780	2,630	1,180	637	2,290	2,280	1,610	702	990	113	135	2,430
MIN	176	550	350	100	110	400	283	147	85	36	15	20
CFSM	2.77	4.46	3.06	.97	1.99	3.55	3.58	1.58	.93	.24	.17	.88
IN.	3.20	4.98	3.52	1.12	2.08	4.09	3.99	1.82	1.04	.28	.20	.98

CAL YR 1970 TOTAL 195,383 MEAN 535 MAX 4,270 MIN 37 CFSM 2.30 IN 31.19
WTR YR 1971 TOTAL 170,890 MEAN 468 MAX 2,630 MIN 15 CFSM 2.01 IN 27.28

PEAK DISCHARGE (BASE, 3,500 CFS).--Sept. 14 (1130) 3,840 cfs (6.29 ft).

TIONESTA CREEK BASIN

03020000 Tionesta Creek at Tionesta Dam, Pa.
(Formerly published as Tionesta Creek at Tionesta Creek Dam)

LOCATION.--Lat 41°28'44", long 79°26'26", Forest County, on left bank 100 ft downstream from outlet tunnel at Tionesta Dam, 1.5 miles southeast of Tionesta, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--479 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,043.43 ft above mean sea level, unadjusted. July 1, 1954, to Dec. 6, 1960, water-stage recorder at present site and at datum 1.5 ft higher. See WSP 1305 or 1725 for history of changes prior to July 1, 1954.

AVERAGE DISCHARGE.--31 years, 848 cfs (24.04 inches per year), adjusted for storage since January 1941.

EXTREMES.--Current year: Maximum discharge, 6,920 cfs Mar. 4 (gage height, 7.36 ft); minimum daily, 40 cfs May 21-25.

Period of record: Maximum discharge, about 13,500 cfs Mar. 12, 1964; maximum gage height, 11.31 ft Mar. 13, 1964 (backwater from Allegheny River); minimum daily discharge, 0.4 cfs Feb. 28, 29, May 22 to June 16, 1968.

REMARKS.--Records good. Flow completely regulated since 1941 by Tionesta Lake 0.2 mile upstream (see p. 233).

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	434	1,230	1,690	522	250	730	790	1,310	468	125	117	200
2	430	1,620	2,030	526	250	2,080	815	1,130	306	223	119	61
3	430	1,310	1,720	530	250	3,100	882	830	435	335	119	61
4	426	1,550	1,300	530	250	4,870	1,230	630	464	335	119	61
5	422	2,680	1,750	542	250	6,300	2,050	620	304	253	112	61
6	285	4,130	2,150	550	250	5,040	2,510	630	306	125	90	61
7	207	3,980	2,090	696	250	3,060	2,480	645	436	125	61	61
8	351	3,770	2,030	830	252	2,400	2,470	760	705	125	61	61
9	430	3,080	1,700	820	255	2,310	2,430	1,380	805	125	61	61
10	426	2,080	1,230	815	255	2,250	2,440	1,570	685	123	61	61
11	438	1,970	1,230	810	402	2,110	2,460	1,440	289	123	61	61
12	892	1,930	1,250	810	534	2,110	2,980	1,230	115	123	61	61
13	1,350	1,930	1,310	800	530	1,300	3,550	1,040	115	123	61	61
14	1,960	1,940	1,750	785	522	785	3,290	1,080	484	123	61	61
15	3,020	1,650	2,100	775	518	810	3,170	936	1,430	123	61	395
16	3,790	1,440	1,970	770	510	906	2,390	835	2,140	121	61	665
17	3,540	2,020	1,970	556	376	1,320	1,940	835	1,680	121	61	660
18	3,210	2,530	1,490	240	245	1,680	1,230	745	835	121	61	650
19	2,520	2,490	1,230	240	245	1,700	1,230	271	458	121	61	640
20	1,670	2,430	1,230	240	245	2,210	999	60	317	121	61	635
21	1,280	2,390	1,250	240	245	2,620	765	40	320	121	61	765
22	1,030	2,380	1,250	240	245	2,560	765	40	320	121	61	876
23	1,390	2,350	1,250	242	871	2,530	750	40	320	121	61	860
24	1,770	2,270	1,270	245	2,120	2,470	745	40	200	119	61	650
25	1,700	2,170	1,310	245	2,580	2,320	740	40	125	119	61	341
26	1,410	1,720	1,330	250	2,190	2,200	735	267	125	119	61	338
27	1,000	1,300	1,340	250	986	2,080	600	715	125	119	61	335
28	864	1,270	1,340	250	700	1,600	502	830	125	119	200	335
29	630	1,270	1,310	250	-----	1,010	770	630	125	119	323	507
30	640	1,290	1,270	250	-----	780	1,270	303	125	119	320	600
31	685	-----	879	250	-----	785	-----	433	-----	117	317	-----
TOTAL	38,630	64,170	47,019	15,099	16,576	68,026	48,978	21,355	14,687	4,427	3,117	10,245
MEAN	1,246	2,139	1,517	487	592	2,194	1,633	689	490	143	101	342
MAX	3,790	4,130	2,150	830	2,580	6,300	3,550	1,570	2,140	335	323	876
MIN	207	1,230	879	240	245	730	502	40	115	117	61	61
MEAN [‡]	1,294	2,198	1,486	504	1,061	1,784	1,570	729	506	125	89.9	373
CFSM [‡]	2.70	4.59	3.10	1.05	2.22	3.72	3.28	1.52	1.06	.26	.19	.78
IN. [‡]	3.11	5.12	3.57	1.21	2.31	4.29	3.66	1.75	1.18	.30	.22	.87
CAL YR 1970	TOTAL 393,681	MEAN 1,079	MAX 6,630	MIN 113	MEAN [‡] 1,077	CFSM [‡] 2.25	IN. [‡] 30.51					
WTR YR 1971	TOTAL 352,329	MEAN 965	MAX 6,300	MIN 40	MEAN [‡] 974	CFSM [‡] 2.03	IN. [‡] 27.59					

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

OIL CREEK BASIN

195

03020500 Oil Creek at Rouseville, Pa.

LOCATION.--Lat 41°28'54", long 79°41'44", Venango County, on right bank 100 ft downstream from bridge on State Highway 8, about 300 ft upstream from Cherrytree Run, and 1 mile north of Rouseville. Records include flow of Cherrytree Run.

DRAINAGE AREA.--300 sq mi, including that of Cherrytree Run.

PERIOD OF RECORD.--June 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,028.33 ft above mean sea level, unadjusted. Prior to June 9, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--39 years, 512 cfs (23.18 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,160 cfs Feb. 28 (gage height, 7.21 ft); minimum, 36 cfs Aug. 20 (gage height, 1.48 ft).

Period of record: Maximum discharge, 21,000 cfs Jan. 22, 1959 (gage height, 11.97 ft); minimum observed, 22 cfs July 29, Sept. 5, 7, 1934; minimum gage height, 1.48 ft Aug. 20, 1971.

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1053: 1936-37(M), 1943(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	2,550	1,230	450	250	2,080	855	540	195	100	63	110
2	260	2,710	898	400	250	1,490	1,910	530	189	105	60	90
3	295	2,530	750	425	240	1,110	1,670	495	234	95	58	80
4	325	4,350	1,730	510	240	796	1,080	430	258	86	58	74
5	252	2,110	1,410	1,460	270	740	814	375	199	82	56	84
6	782	1,220	946	720	500	695	710	425	495	80	54	74
7	1,010	876	772	410	470	1,460	650	400	615	78	50	72
8	495	710	680	390	440	1,250	625	705	485	76	46	70
9	355	620	700	350	400	848	590	906	385	72	43	66
10	285	595	978	400	360	690	665	615	275	70	43	61
11	716	710	890	405	330	690	620	505	216	72	46	60
12	938	645	1,400	375	350	595	550	605	189	76	48	78
13	2,290	695	1,460	258	370	585	525	710	213	72	45	117
14	2,470	760	1,080	375	390	808	834	560	460	70	43	158
15	2,020	2,130	855	360	410	2,590	675	475	560	70	42	195
16	1,280	2,180	740	306	390	3,190	545	430	480	70	42	146
17	867	1,170	725	280	380	1,720	490	410	333	70	39	110
18	686	841	740	270	420	1,090	495	370	250	66	39	88
19	555	705	760	230	520	938	430	338	206	80	38	82
20	475	715	1,200	260	1,000	1,040	385	306	181	88	37	90
21	460	1,430	814	250	2,570	827	360	284	223	72	76	100
22	860	994	750	240	1,900	760	342	262	209	65	213	84
23	758	740	890	240	2,420	690	329	242	169	60	120	80
24	572	625	1,190	240	2,050	620	311	238	152	65	115	72
25	485	600	855	250	1,300	525	324	510	141	76	78	65
26	430	565	730	275	1,320	530	347	470	133	70	110	65
27	385	615	645	220	3,650	545	338	342	125	65	266	70
28	345	1,700	605	250	4,120	645	415	315	117	65	620	114
29	320	2,070	560	260	-----	1,100	720	284	110	82	360	222
30	854	2,130	480	260	-----	914	670	238	100	93	198	199
31	3,110	-----	405	250	-----	720	-----	216	-----	72	130	-----
TOTAL	25,230	40,291	27,988	11,369	27,310	32,281	19,274	13,531	7,897	2,363	3,236	2,976
MEAN	814	1,343	903	367	975	1,041	642	436	263	76.2	104	99.2
MAX	3,110	4,350	1,730	1,460	4,120	3,190	1,910	906	615	105	620	222
MIN	252	565	405	220	240	525	311	216	100	60	37	60
CFSM	2.71	4.48	3.01	1.22	3.25	3.47	2.14	1.45	.88	.25	.35	.33
IN.	3.13	5.00	3.47	1.41	3.39	4.00	2.39	1.68	.98	.29	.40	.37

CAL YR 1970 TOTAL 232,488 MEAN 637 MAX 4,820 MIN 55 CFSM 2.12 IN 28.83
WTR YR 1971 TOTAL 213,746 MEAN 586 MAX 4,350 MIN 37 CFSM 1.95 IN 26.50

PEAK DISCHARGE (BASE, 5,000 CFS).--Feb. 28 (0030) 5,160 cfs (7.21 ft).

FRENCH CREEK BASIN

03021500 French Creek at Carters Corners, Pa.

LOCATION.--Lat 41°57'23", long 79°52'38", Erie County, on left bank 400 ft upstream from highway bridge at Carters Corners, 4 miles northwest of Union City, and 5.0 miles upstream from South Branch.

DRAINAGE AREA.--208 sq mi.

PERIOD OF RECORD.--October 1909 to September 1971 (discontinued). Published as North Branch French Creek at Kimmeytown May 1910 to September 1914 and as "at Kimmeytown" October 1915 to September 1932. Monthly discharge only for some periods published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,235.7 ft above mean sea level. Prior to Dec. 22, 1948, nonrecording gage at site 400 ft downstream at same datum.

AVERAGE DISCHARGE.--62 years, 414 cfs (27.03 inches per year).

EXTREMES.--Current year: Maximum discharge not determined due to reservoir construction downstream; minimum daily, 10 cfs Aug. 16.

Period of record: Maximum discharge, 20,000 cfs Apr. 5, 1947 (gage height, 13.50 ft), by slope-area measurement of peak flow; maximum gage height observed, 16.0 ft Feb. 20, 1918 (backwater from ice), site then in use; minimum discharge observed, 3.9 cfs Aug. 15, 18-21, 1930; minimum gage height observed, 0.35 ft Aug. 23, 1931, site then in use.

REMARKS.--Records fair except those for winter periods or no gage height record, which are poor.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1275: 1934, 1936-37(M). 1939(M). 1942(M). WSP 1305: 1910-11, 1913, 1914(M), 1915-16, 1925, 1928. WRD Penna. 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	1,210	1,300	330	230	3,500	400	710	77	66	23	45
2	252	906	900	310	220	2,000	400	448	79	50	22	37
3	323	1,230	560	300	210	1,200	500	348	226	43	22	34
4	534	1,800	1,600	600	200	800	800	304	145	35	22	33
5	517	2,500	1,000	1,000	350	660	680	255	98	33	20	40
6	668	1,700	740	1,500	400	640	640	227	94	31	19	35
7	713	1,200	600	1,000	350	1,100	580	210	100	29	16	32
8	430	1,000	450	800	320	900	520	296	213	28	16	29
9	300	800	500	1,400	300	800	480	460	158	27	16	27
10	248	620	600	800	290	700	450	308	100	24	15	25
11	253	521	740	500	280	640	500	217	77	25	15	24
12	308	480	900	420	270	600	600	234	68	23	14	24
13	818	586	1,500	900	310	580	800	269	79	23	14	31
14	837	510	1,200	700	350	560	1,000	220	77	23	13	41
15	638	800	1,000	600	300	600	1,300	176	86	22	12	52
16	562	900	840	500	280	1,400	800	155	123	22	10	49
17	411	960	700	450	260	2,000	600	136	86	21	13	38
18	329	840	660	400	280	2,000	450	120	68	20	12	31
19	295	713	800	370	300	1,300	400	106	59	22	12	29
20	254	509	1,420	340	500	800	350	96	48	24	13	39
21	252	800	800	320	1,300	700	320	90	67	22	28	65
22	384	880	640	310	900	600	283	86	65	21	28	68
23	451	880	540	290	1,500	500	276	77	49	20	31	58
24	329	760	800	280	1,200	450	258	73	47	21	27	46
25	264	680	660	260	1,000	400	290	141	42	36	21	39
26	232	540	560	250	900	360	438	179	37	41	28	40
27	211	785	500	240	900	400	550	179	35	37	27	42
28	233	1,300	450	270	2,500	545	570	176	34	31	207	45
29	221	1,800	400	330	-----	500	904	136	120	30	184	64
30	319	2,000	370	280	-----	450	1,100	111	96	30	94	62
31	1,160	-----	350	250	-----	420	-----	90	-----	27	59	-----
TOTAL	13,068	30,210	24,080	16,300	16,200	28,105	17,239	6,633	2,653	907	1,053	1,224
MEAN	422	1,007	777	526	579	907	575	214	88.4	29.3	34.0	40.8
MAX	1,160	2,500	1,600	1,500	2,500	3,500	1,300	710	226	66	207	68
MIN	211	480	350	240	200	360	258	73	34	20	10	24
CFSM	2.03	4.84	3.74	2.53	2.78	4.36	2.76	1.03	.43	.14	.16	.20
IN.	2.34	5.40	4.31	2.92	2.90	5.03	3.08	1.19	.47	.16	.19	.22

CAL YR 1970 TOTAL 201,276 MEAN 551 MAX 4,390 MIN 39 CFSM 2.65 IN 36.00
WTR YR 1971 TOTAL 157,672 MEAN 432 MAX 3,500 MIN 10 CFSM 2.08 IN 28.20

NOTE.--No gage-height record Feb. 27 to Apr. 21.

FRENCH CREEK BASIN

197

03021700 Little Conneauttee Creek near McKean, Pa.

LOCATION.--Lat 41°55'53", long 80°05'02", Erie County, on left bank at downstream side of highway bridge on old Waterford Road, 2.2 miles east of McLane, and 5.5 miles southeast of McKean (Middleboro).

DRAINAGE AREA.--3.60 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,330 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 7.05 cfs (26.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 380 cfs June 8 (gage height, 4.20 ft); no flow Aug. 17-20.

Period of record: Maximum discharge, 830 cfs July 5, 1969 (gage height, 4.78 ft in gage well, 4.90 ft, from floodmarks), from rating curve extended above 310 cfs on basis of contracted-opening measurement of peak flow; no flow on many days.

REMARKS.--Records good except those for winter periods and those below 1 cfs, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	18	9.6	3.0	1.8	16	38	4.5	.25	.18	.10	.10
2	1.2	7.3	6.0	2.8	1.7	9.6	72	4.1	10	.18	.08	.08
3	3.3	61	4.7	2.7	1.7	5.4	18	4.3	71	.15	.10	.08
4	5.6	60	46	47	1.8	4.7	8.4	4.1	4.1	.12	.10	.15
5	2.3	15	9.2	47	3.5	4.2	6.6	2.7	1.9	.10	.08	.54
6	62	6.7	5.4	7.2	10	4.0	6.3	2.5	19	.15	.04	.35
7	9.7	4.6	4.7	4.5	7.0	45	6.9	2.1	20	.10	.04	.21
8	3.1	3.5	4.9	3.9	4.5	17	6.6	8.4	88	.08	.04	.15
9	1.9	3.2	21	3.4	5.2	9.0	7.8	4.7	7.2	.06	.02	.10
10	1.9	14	48	3.3	4.0	6.0	14	2.7	3.3	.06	.02	.10
11	2.5	10	46	3.1	3.7	5.0	11	1.8	2.1	.04	.04	.10
12	3.7	8.5	45	2.9	4.5	4.0	7.5	3.4	1.5	.06	.04	.08
13	74	7.0	21	2.3	5.2	3.8	11	3.1	1.9	.04	.02	.46
14	24	11	8.8	4.1	4.0	43	36	2.0	1.4	.08	.02	3.4
15	30	84	7.2	4.1	3.6	104	6.0	1.5	1.2	.06	.01	1.2
16	15	25	5.4	3.1	3.4	45	4.1	1.5	.86	.06	.01	.40
17	8.1	8.3	14	2.9	3.6	12	4.1	1.3	.64	.06	0	.25
18	4.6	6.4	16	2.7	6.0	7.2	4.3	.74	.46	.06	0	.21
19	3.4	5.4	43	2.9	36	9.6	2.9	.64	.40	.08	0	.21
20	2.9	15	21	2.4	115	10	2.5	.46	.35	.10	0	3.3
21	8.1	52	5.7	2.2	87	14	2.1	.40	.40	.06	.01	3.3
22	17	10	4.7	2.7	44	6.9	1.9	.35	.35	.02	.04	.74
23	7.0	5.0	10	2.7	81	5.1	1.7	.25	.25	.02	.10	.35
24	4.0	4.3	21	2.5	27	4.1	1.9	.30	.25	.21	.06	.21
25	3.2	4.4	6.0	2.3	17	3.7	4.3	2.7	.21	.21	.04	.18
26	2.7	4.9	4.5	2.1	56	3.4	6.6	1.3	.21	.15	.04	.15
27	2.4	50	4.0	2.0	122	4.5	4.7	1.0	.18	.18	.12	.15
28	2.1	117	3.5	2.5	41	24	6.6	.86	.15	.12	.15	5.4
29	1.9	48	3.2	2.2	-----	33	19	.64	.30	.15	.15	1.7
30	21	39	3.0	2.0	-----	12	11	.40	.21	.12	.12	.74
31	77	-----	2.8	1.9	-----	11	-----	.30	-----	.12	.12	-----
TOTAL	407.1	708.5	455.3	180.4	701.2	486.2	333.8	65.04	238.07	3.18	1.71	24.39
MEAN	13.1	23.6	14.7	5.82	25.0	15.7	11.1	2.10	7.94	.10	.055	.81
MAX	77	117	48	47	122	104	72	8.4	88	.21	.15	5.4
MIN	1.2	3.2	2.8	1.9	1.7	3.4	1.7	.25	.15	.02	0	.08
CFSM	3.64	6.56	4.08	1.62	6.94	4.36	3.08	.58	2.21	.03	.02	.23
IN.	4.21	7.32	4.70	1.86	7.25	5.02	3.45	.67	2.46	.03	.02	.25

CAL YR 1970 TOTAL 3,849.59 MEAN 10.5 MAX 136 MIN .08 CFSM 2.92 IN 39.78
WTR YR 1971 TOTAL 3,604.89 MEAN 9.88 MAX 122 MIN 0 CFSM 2.74 IN 37.25

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-13	0800	3.41	150	6- 3	0215	3.95	272
11-28	1000	3.62	184	6- 8	0015	4.20	380
2-20	2015	3.51	166				

FRENCH CREEK BASIN

03024000 French Creek at Utica, Pa.

LOCATION.--Lat 41°26'15", long 79°57'22", Venango County, on right bank at upstream side of bridge on Legislative Route 60019 at Utica, 2,000 ft upstream from Mill Creek.

DRAINAGE AREA.--1,028 sq mi.

PERIOD OF RECORD.--August 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,019.44 ft above mean sea level. Prior to Nov. 27, 1933, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--39 years, 1,732 cfs (22.88 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,500 cfs Feb. 24 (gage height, 8.77 ft); minimum, 65 cfs Aug. 18, 19, 20 (gage height, 1.06 ft).

Period of record: Maximum discharge, 23,800 cfs Mar. 7, 1964 (gage height, 13.2 ft, from floodmark in gage well); minimum, 43 cfs July 30, 1934 (gage height, 1.03 ft).

Maximum stage since at least 1912, 15.7 ft in March 1913 (discharge, 35,600 cfs, from rating curve extended above 21,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 823: 1936(M). WSP 1275: 1933, 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,870	5,740	6,080	1,700	840	9,870	3,000	2,330	465	444	148	394
2	1,560	4,580	4,790	1,600	820	7,930	3,650	2,160	428	402	137	306
3	1,420	4,210	4,000	1,750	800	5,880	4,550	1,900	470	339	128	261
4	1,390	6,080	4,740	2,050	780	4,500	3,990	1,600	966	300	121	242
5	1,430	6,250	5,190	4,460	840	3,780	3,330	1,370	989	265	117	289
6	1,610	4,940	4,370	4,300	1,200	3,610	2,920	1,300	951	244	116	349
7	3,130	4,000	3,880	3,350	1,500	4,480	2,690	1,230	1,430	228	107	336
8	2,600	3,320	3,420	3,070	1,300	4,880	2,520	1,270	1,830	212	98	274
9	2,080	2,820	3,300	2,680	1,200	4,080	2,390	1,580	2,450	201	93	262
10	1,670	2,680	3,920	2,270	1,100	3,620	2,350	1,660	1,710	192	89	254
11	1,310	2,980	4,160	1,910	1,200	3,480	2,500	1,370	1,250	185	89	236
12	1,330	2,930	4,620	1,730	1,100	3,210	2,450	1,310	822	180	89	210
13	3,570	2,800	5,140	1,450	1,200	3,110	2,330	1,420	708	170	87	251
14	5,530	2,690	4,490	1,490	1,300	3,570	2,820	1,420	769	167	87	866
15	4,970	4,410	3,880	1,500	1,400	5,910	3,080	1,200	737	157	83	1,050
16	4,220	5,820	3,390	1,420	1,300	7,490	2,710	1,030	636	163	76	983
17	3,490	4,900	3,350	1,260	1,300	7,380	2,460	925	620	157	69	869
18	2,890	4,040	3,640	1,000	1,600	5,770	2,350	830	534	146	67	588
19	2,420	3,490	3,530	900	2,500	4,630	2,160	748	460	142	65	376
20	1,920	3,000	3,950	928	5,000	4,510	1,910	682	405	138	67	316
21	1,670	3,500	3,750	968	7,430	4,140	1,590	628	633	133	440	356
22	1,880	3,880	3,310	1,000	7,490	3,840	1,360	585	732	131	385	545
23	2,040	3,330	3,320	1,060	8,450	3,600	1,200	534	605	130	394	564
24	1,940	2,900	3,280	1,030	9,290	3,290	1,090	505	495	128	321	434
25	1,670	2,580	3,080	1,030	7,400	2,980	1,070	776	412	155	333	344
26	1,430	2,440	2,720	1,070	6,730	2,780	1,120	856	366	171	301	305
27	1,260	2,610	2,390	689	8,910	2,740	1,250	830	334	179	409	287
28	1,120	4,210	2,210	758	10,300	2,950	1,450	736	306	171	620	294
29	1,040	5,770	2,150	849	-----	3,610	1,900	677	289	185	861	345
30	1,530	6,590	2,040	900	-----	3,620	2,260	607	314	180	780	457
31	4,570	-----	1,790	860	-----	3,220	-----	526	-----	163	558	-----
TOTAL	70,560	119,490	113,880	51,032	94,280	138,460	70,450	34,595	23,116	6,158	7,335	12,643
MEAN	2,276	3,983	3,674	1,646	3,367	4,466	2,348	1,116	771	199	237	421
MAX	5,530	6,590	6,080	4,460	10,300	9,870	4,550	2,330	2,450	444	861	1,050
MIN	1,040	2,440	1,790	689	780	2,740	1,070	505	289	128	65	210
CFSM	2.21	3.87	3.57	1.60	3.28	4.34	2.28	1.09	.75	.19	.23	.41
IN.	2.55	4.32	4.12	1.85	3.41	5.01	2.55	1.25	.84	.22	.27	.46

CAL YR 1970 TOTAL 815,864 MEAN 2,235 MAX 11,000 MIN 221 CFSM 2.17 IN 29.52
WTR YR 1971 TOTAL 741,999 MEAN 2,033 MAX 10,300 MIN 65 CFSM 1.98 IN 26.85

03025000 Sugar Creek at Sugarcreek, Pa.

LOCATION.--Lat 41°25'43", long 79°52'48", Venango County, on left bank at downstream side of highway bridge, 0.8 mile north of Sugarcreek, 0.9 mile upstream from mouth, and 3 miles northwest of Franklin.

DRAINAGE AREA.--166 sq mi.

PERIOD OF RECORD.--August 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,013.03 ft above mean sea level, adjustment of 1912. Prior to Dec. 7, 1939, nonrecording gage, and Dec. 8, 1939 to Aug. 31, 1948, water-stage recorder, at same site at datum 3.00 ft higher; Sept. 1, 1948 to Nov. 11, 1952, water-stage recorder at same site at datum 2.20 ft higher; Nov. 12, 1952 to Sept. 30, 1960, water-stage recorder at same site at datum 1.00 ft higher.

AVERAGE DISCHARGE.--39 years, 261 cfs (21.35 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,940 cfs Feb. 27 (gage height, 6.47 ft); minimum daily, 13 cfs Aug. 18.

Period of record: Maximum discharge, 10,000 cfs May 28, 1946 (gage height, 11.49 ft, present datum); maximum gage height, 11.5 ft Jan. 25, 1937, present datum, from graph based on gage readings; minimum discharge observed, 9.2 cfs Oct. 22, 1935.

REMARKS.--Records good. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISION (WATER YEARS).--WSP 758: Drainage area. WSP 1335: 1933-34(M), 1937-39, 1948-49.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	1,210	512	242	110	1,110	472	223	108	86	37	48
2	118	1,090	460	215	110	850	720	208	108	86	33	45
3	134	1,280	412	203	110	660	568	190	152	76	32	43
4	114	1,580	886	317	110	504	448	176	122	71	34	40
5	100	940	600	685	165	440	368	160	110	71	31	43
6	92	675	504	356	269	400	320	210	600	68	27	34
7	89	516	428	236	208	835	293	203	368	64	24	30
8	81	408	372	236	193	650	269	404	488	61	23	28
9	75	340	400	213	167	512	245	380	299	59	21	25
10	71	352	504	220	178	440	248	278	220	53	20	23
11	199	400	444	203	173	408	225	239	178	57	23	23
12	240	376	725	188	169	360	210	360	154	61	21	24
13	975	352	795	152	178	372	208	400	223	52	19	53
14	640	360	592	208	158	680	320	293	188	58	18	52
15	846	1,080	504	193	173	1,420	254	242	167	50	18	43
16	542	835	432	165	160	1,200	236	220	152	55	17	32
17	430	610	456	160	167	765	218	203	129	52	16	28
18	341	500	460	140	225	576	220	190	117	46	13	25
19	279	416	508	120	420	548	193	169	113	59	15	27
20	235	444	584	146	1,260	588	183	152	106	61	14	32
21	251	645	444	138	1,590	500	198	140	248	46	113	37
22	366	464	488	142	1,100	464	180	129	165	38	58	28
23	294	388	560	136	1,580	408	167	120	129	37	81	24
24	245	328	576	124	1,040	356	158	118	117	46	53	21
25	216	299	444	131	800	305	160	299	112	46	41	20
26	193	293	392	140	970	293	158	213	100	45	48	23
27	173	320	348	103	2,290	302	148	171	93	48	131	26
28	158	412	311	130	1,680	420	198	154	90	35	117	25
29	148	468	281	120	-----	655	293	140	89	45	82	28
30	606	760	254	120	-----	540	266	127	87	58	61	48
31	1,930	-----	225	110	-----	448	-----	117	-----	45	50	-----
TOTAL	10,307	18,141	14,901	5,992	15,753	18,009	8,144	6,628	5,332	1,735	1,291	978
MEAN	332	605	481	193	563	581	271	214	178	56.0	41.6	32.6
MAX	1,930	1,580	886	685	2,290	1,420	720	404	600	86	131	53
MIN	71	293	225	103	110	293	148	117	87	35	13	20
CFSM	2.00	3.64	2.90	1.16	3.39	3.50	1.63	1.29	1.07	.34	.25	.20
IN.	2.31	4.07	3.34	1.34	3.53	4.04	1.83	1.49	1.19	.39	.29	.22

CAL YR 1970 TOTAL 113,043 MEAN 310 MAX 3,560 MIN 27 CFSM 1.87 IN 25.33
WTR YR 1971 TOTAL 107,211 MEAN 294 MAX 2,290 MIN 13 CFSM 1.77 IN 24.03

PEAK DISCHARGE (BASE, 3,000 CFS).--No peak above base.

FRENCH CREEK BASIN

03025200 Patchel Run near Franklin, Pa.

LOCATION.--Lat 41°25'20", long 79°50'59", Venango County, on right bank at downstream side of highway bridge, 0.7 mile upstream from mouth, and 1.5 miles northwest of Franklin.

DRAINAGE AREA.--5.69 sq mi.

PERIOD OF RECORD.--Annual maximums and occasional discharge measurements, water years 1961-64. August 1964 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Altitude of gage is 1,040 ft (from topographic map). July 20, 1960, to Aug. 19, 1964, crest-stage gage at same site and at datum 3.00 ft higher.

AVERAGE DISCHARGE.--7 years, 8.51 cfs (20.31 inches per year).

EXTREMES.--Current year: Maximum discharge, 102 cfs June 7 (gage height, 4.25 ft); minimum, 0.57 cfs Aug. 18 (gage height, 2.92 ft).

Period of record: Maximum discharge, 504 cfs Dec. 28, 1968 (gage height, 5.17 ft), from rating curve extended above 130 cfs on basis of slope-area measurement at gage height 4.67 ft from crest-stage gage, present datum; minimum, 0.42 cfs Oct. 8, 1966 (gage height, 2.89 ft), result of unusual regulation.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	36	8.7	7.5	3.7	36	14	4.5	4.3	3.1	1.1	1.3
2	3.6	35	9.5	7.1	3.6	28	15	4.5	4.3	3.0	1.1	1.3
3	3.6	37	11	6.4	3.5	23	14	4.3	6.4	2.8	1.1	1.2
4	3.0	35	20	12	3.5	20	13	4.3	4.3	2.7	1.1	1.2
5	2.8	28	16	13	7.0	17	12	4.3	3.9	2.6	1.1	1.1
6	2.6	23	15	10	7.9	15	11	5.8	4.9	2.4	1.0	1.1
7	2.5	18	13	9.0	5.3	25	9.5	4.9	8.3	2.3	.95	1.1
8	2.3	15	12	9.0	5.5	20	9.1	11	37	2.1	.95	1.1
9	2.2	12	12	7.8	5.3	17	8.3	8.7	20	2.3	.89	1.0
10	2.5	13	11	7.9	5.6	15	7.9	8.7	16	2.1	.89	1.0
11	10	12	10	7.5	5.4	14	7.1	8.7	13	2.1	.95	1.0
12	8.6	11	16	6.7	5.1	13	6.7	12	11	2.0	.84	1.1
13	17	12	17	6.1	5.1	15	7.1	11	11	1.8	.84	2.8
14	12	12	15	8.7	6.4	23	7.9	9.5	9.5	1.8	.78	1.8
15	16	25	14	7.1	4.9	31	6.7	9.1	8.7	1.7	.78	1.2
16	12	21	13	6.4	4.7	31	6.4	8.7	7.9	1.8	.73	1.1
17	10	18	15	6.1	5.5	26	6.1	8.3	6.4	1.7	.73	1.1
18	8.3	16	13	5.4	6.1	21	6.1	7.5	5.8	1.6	.73	1.1
19	7.1	14	14	4.5	15	21	5.5	7.1	5.3	2.7	.68	1.7
20	6.4	15	13	5.4	40	21	5.3	6.7	4.9	1.9	.78	2.6
21	7.9	14	12	5.0	39	18	5.3	6.1	12	1.6	7.4	1.7
22	8.3	12	16	5.0	37	16	5.3	5.5	6.4	1.5	1.7	1.2
23	6.7	10	15	4.7	46	14	5.1	5.3	5.1	1.5	2.1	1.1
24	6.4	10	15	4.5	33	12	5.1	5.5	4.9	1.8	1.5	1.1
25	6.1	9.1	13	4.6	28	12	5.1	7.9	4.7	1.6	1.5	1.0
26	5.8	8.7	12	5.0	33	10	5.1	5.8	4.5	1.4	1.5	1.3
27	5.3	8.7	12	3.7	56	10	4.7	5.5	4.1	1.4	3.7	1.2
28	5.1	8.3	11	4.2	47	13	4.9	5.1	3.9	1.2	3.3	1.1
29	5.1	9.5	9.1	4.0	-----	15	4.9	4.9	3.5	2.0	1.9	1.9
30	18	10	8.3	3.9	-----	14	4.7	4.9	3.3	1.4	1.7	1.8
31	35	-----	10	3.8	-----	13	-----	4.7	-----	1.2	1.5	-----
TOTAL	245.4	508.3	401.6	202.0	468.1	579	228.9	210.8	245.3	61.1	45.82	40.3
MEAN	7.92	16.9	13.0	6.52	16.7	18.7	7.63	6.80	8.18	1.97	1.48	1.34
MAX	35	37	20	13	56	36	15	12	37	3.1	7.4	2.8
MIN	2.2	8.3	8.3	3.7	3.5	10	4.7	4.3	3.3	1.2	.68	1.0
CFSM	1.39	2.97	2.28	1.15	2.94	3.29	1.34	1.20	1.44	.35	.26	.24
IN.	1.60	3.32	2.63	1.32	3.06	3.79	1.50	1.38	1.60	.40	.30	.26

CAL YR 1970 TOTAL 3,229.30 MEAN 8.85 MAX 82 MIN 1.1 CFSM 1.56 IN 21.11
WTR YR 1971 TOTAL 3,236.62 MEAN 8.87 MAX 56 MIN .68 CFSM 1.56 IN 21.16

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

03025500 Allegheny River at Franklin, Pa.

LOCATION.--Lat 41°23'22", long 79°49'14", Venango County, on right bank at downstream side of Eighth Street Bridge on U. S. Highway 322 at Franklin, 1,000 ft downstream from French Creek, and at mile 124.4.

DRAINAGE AREA.--5,982 sq mi.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site since April 1905 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 955.92 ft above mean sea level, unadjusted. Prior to Sept. 16, 1932, nonrecording gage and Sept. 16-30, 1932, water-stage recorder, at present site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--57 years, 10,190 cfs (23.13 inches per year) adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 46,000 cfs Feb. 28 (gage height, 11.62 ft); minimum 1,620 cfs Aug. 19, 20 (gage height, 2.55 ft).

Period of record: Maximum discharge, 138,000 cfs Mar. 13, 1920 (gage height, 20.65 ft, present datum); maximum gage height observed, 26.0 ft, present datum, Feb. 27, 1917 (ice jam) and Feb. 26, 1926 (ice jam); minimum discharge, 334 cfs July 30, 1934 (gage height, 1.63 ft).

Flood of Mar. 17, 1865, reached a stage of 25.0 ft, present datum, and that of Mar. 26, 1913, a stage of 24.6 ft, present datum, from graph based on gage readings (discharges, 196,000 cfs and 191,000 cfs, respectively, from rating curve extended above 120,000 cfs). Maximum discharge since at least 1864 is that of Mar. 17, 1865.

REMARKS.--Records good. Flow regulated by Allegheny Reservoir 74 miles upstream since 1965, by Chautauqua Lake, and by Tionesta Lake since 1940 (see p. 233).

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 783: 1913(M), WSP 1003: 1920(M). WSP 1305: 1926(M), 1928-29(M). WSP 1385: 1920, 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,880	20,300	27,500	12,200	2,500	38,000	11,200	14,300	4,630	3,330	2,460	2,790
2	9,000	21,900	22,300	12,000	2,600	39,300	14,700	13,500	4,290	3,450	2,380	2,380
3	8,440	20,500	17,800	11,700	2,800	37,600	18,900	12,400	4,760	3,450	2,330	2,190
4	8,260	33,800	25,700	12,100	3,100	41,400	16,900	11,400	5,390	3,330	2,290	2,130
5	8,300	28,900	27,800	17,900	3,700	44,400	15,100	10,800	5,440	3,210	2,270	2,150
6	8,580	27,600	26,800	18,200	6,000	40,600	14,000	10,900	6,490	3,000	2,210	2,210
7	11,900	27,100	24,700	15,400	7,000	37,000	12,700	9,030	7,000	2,910	2,170	2,170
8	11,000	25,300	23,100	15,100	8,000	31,900	11,900	9,470	8,660	2,860	2,090	2,050
9	6,620	23,300	22,300	14,200	7,000	28,900	11,400	11,900	8,090	2,820	2,030	1,990
10	6,520	20,400	22,500	12,800	5,870	26,400	11,900	12,300	6,310	2,770	2,010	1,980
11	6,480	18,800	23,000	12,200	4,850	22,700	12,300	11,200	5,100	2,770	2,010	1,990
12	10,500	18,000	25,300	11,800	5,080	17,000	12,100	12,200	3,950	2,750	1,980	2,030
13	16,000	18,900	22,700	10,900	6,200	13,700	13,300	13,000	3,800	2,680	1,940	2,330
14	25,800	18,800	19,900	11,100	7,020	13,500	15,700	12,600	4,150	2,720	1,940	3,730
15	24,500	21,100	22,600	11,000	8,330	22,200	16,300	10,900	6,390	2,660	1,900	4,710
16	26,100	30,100	22,800	10,600	8,520	30,900	14,500	9,610	7,220	2,660	1,880	3,990
17	24,900	22,400	22,200	10,200	9,270	26,100	12,800	9,160	6,190	2,610	1,830	3,210
18	23,100	21,900	22,000	9,180	9,520	21,600	11,800	8,300	4,850	2,570	1,830	2,750
19	21,000	22,200	21,200	8,680	10,800	19,000	10,800	7,450	3,850	2,660	1,810	2,480
20	16,500	21,100	23,300	5,810	16,800	19,100	16,800	5,880	3,430	2,790	1,810	2,460
21	17,500	24,100	23,200	4,710	23,800	18,200	27,000	4,770	3,940	2,590	2,790	2,570
22	17,200	23,200	22,300	5,400	22,200	16,600	27,200	4,590	4,400	2,520	2,820	2,820
23	16,000	22,800	18,300	5,930	24,300	15,300	23,500	4,330	4,430	2,480	2,930	2,720
24	17,500	20,900	16,900	6,060	28,100	15,200	12,600	4,210	4,100	2,520	3,000	2,610
25	16,100	20,000	17,800	5,900	30,900	14,500	8,750	5,380	3,500	2,550	2,590	2,950
26	13,800	19,500	17,000	6,050	34,100	13,500	8,570	5,710	3,500	2,500	2,420	3,190
27	11,400	18,800	15,900	5,240	39,000	14,200	8,660	5,890	3,380	2,500	2,720	3,120
28	10,700	22,900	15,000	4,120	44,300	15,000	9,030	5,940	3,230	2,520	3,650	4,130
29	9,870	27,000	14,300	2,530	-----	16,600	10,900	5,690	3,140	2,750	4,130	4,270
30	10,800	30,100	13,700	2,890	-----	15,500	13,200	4,910	3,090	2,860	3,630	4,570
31	18,100	-----	12,600	3,100	-----	12,800	-----	4,600	-----	2,590	3,090	-----
TOTAL	448,350	691,700	652,500	295,000	381,660	738,900	424,510	272,320	146,700	86,380	74,940	84,670
MEAN	14,460	23,060	21,050	9,516	13,630	23,840	14,150	8,785	4,890	2,786	2,417	2,822
MAX	26,100	33,800	27,800	18,200	44,300	44,400	27,200	14,300	8,660	3,450	4,130	4,710
MIN	6,480	18,000	12,600	2,530	2,500	12,800	8,570	4,210	3,090	2,480	1,810	1,980
MEAN#	13,800	24,090	18,590	7,726	14,070	23,620	18,580	8,400	4,540	1,446	1,425	2,283
CFSM#	2.31	4.03	3.11	1.29	2.35	3.95	3.11	1.40	.76	.24	.24	.38
IN.#	2.66	4.50	3.59	1.49	2.45	4.55	3.47	1.61	.85	.28	.28	.42
CAL YR 1970	TOTAL 4,656,110	MEAN 12,760	MAX 43,700	MIN 1,630	MEAN# 12,760	CFSM# 2.13	IN.# 28.96					
WTR YR 1971	TOTAL 4,297,630	MEAN 11,770	MAX 44,400	MIN 1,810	MEAN# 11,510	CFSM# 1.92	IN.# 26.15					

Adjusted for change in contents in Allegheny Reservoir, Chautauqua Lake, and Tionesta Lake.

CLARION RIVER BASIN

03026500 Sevenmile Run near Rasselas, Pa.

LOCATION.--Lat 41°37'52", long 78°34'37", McKean County, on right bank 300 ft upstream from highway bridge, 600 ft upstream from Fivemile Run, and 3.2 miles northeast of Rasselas.

DRAINAGE AREA.--7.84 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,690.73 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 13.6 cfs (23.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs Nov. 3 (gage height, 3.77 ft); minimum daily, 0.10 cfs Aug. 19.

Period of record: Maximum discharge, 1,620 cfs Sept. 28, 1967 (gage height, 4.79 ft), from rating curve extended above 200 cfs on basis of slope-area measurement at gage height, 4.60 ft; minimum, 0.07 cfs Sept. 21, 1955.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	23	29	9.2	3.1	44	18	12	4.1	1.7	.66	.43
2	9.7	28	26	8.6	2.8	35	61	12	4.1	1.7	.55	.40
3	10	103	23	8.0	2.8	28	53	12	4.8	1.3	.60	.38
4	8.7	92	40	9.4	3.0	24	48	11	3.6	1.2	.66	.36
5	7.7	54	31	20	4.5	21	44	10	3.0	1.1	.50	.34
6	11	38	27	15	5.6	18	39	11	7.1	1.1	.40	.33
7	9.7	29	23	12	4.2	21	37	11	6.8	1.1	.36	.50
8	8.4	23	20	10	3.9	18	44	19	6.1	.95	.33	.40
9	7.4	20	18	9.0	3.5	16	62	20	4.5	.95	.24	.32
10	13	18	18	9.2	3.1	15	109	17	3.6	.95	.20	.28
11	66	17	18	9.4	3.0	14	64	15	3.0	1.0	.22	.25
12	81	22	24	9.4	3.7	12	58	17	2.8	1.1	.18	.40
13	166	43	28	8.6	4.8	12	56	19	4.8	.87	.16	1.8
14	95	34	23	8.0	6.0	16	58	16	4.5	.87	.15	6.1
15	59	61	21	7.8	5.2	52	39	14	9.4	.80	.15	1.8
16	40	46	19	6.8	4.0	59	31	13	7.1	.73	.20	1.3
17	30	35	17	6.4	3.6	38	25	12	5.5	.73	.14	2.3
18	25	29	16	6.0	3.4	31	22	11	4.5	.73	.11	1.3
19	21	24	17	5.4	4.5	28	19	10	3.9	1.9	.10	1.5
20	17	32	22	5.2	13	25	17	9.4	3.3	1.7	.14	4.8
21	19	51	18	5.0	28	22	15	8.4	3.0	.95	.33	2.4
22	37	35	18	5.4	15	19	14	7.7	2.8	.80	.40	1.4
23	26	30	18	5.4	25	17	12	7.1	2.6	.66	.73	1.0
24	23	25	22	5.0	22	15	11	6.5	2.3	.73	.37	.87
25	20	21	18	4.5	18	14	11	9.8	2.3	1.0	.33	.73
26	18	19	17	4.0	19	13	11	7.7	2.1	.80	.38	.87
27	15	19	15	4.5	68	12	10	6.8	1.9	.87	3.6	.95
28	14	25	14	4.0	61	12	13	6.1	1.8	.60	3.0	1.3
29	12	25	13	3.5	-----	13	16	5.5	1.7	.80	1.0	1.1
30	16	38	11	3.7	-----	13	13	5.1	1.5	.73	.66	5.8
31	23	-----	10	3.3	-----	12	-----	4.5	-----	.80	.48	-----
TOTAL	919.6	1,059	634	231.7	343.7	689	1,030	346.6	118.5	31.22	17.33	41.71
MEAN	29.7	35.3	20.5	7.47	12.3	22.2	34.3	11.2	3.95	1.01	.56	1.39
MAX	166	103	40	20	68	59	109	20	9.4	1.9	3.6	6.1
MIN	7.4	17	10	3.3	2.8	12	10	4.5	1.5	.60	.10	.25
CFSM	3.79	4.50	2.61	.95	1.57	2.83	4.38	1.43	.50	.13	.07	.18
IN.	4.36	5.02	3.01	1.10	1.63	3.27	4.89	1.64	.56	.15	.08	.20

CAL YR 1970 TOTAL 7,557.90 MEAN 20.7 MAX 345 MIN 1.9 CFSM 2.64 IN 35.86
 WTR YR 1971 TOTAL 5,462.36 MEAN 15.0 MAX 166 MIN .10 CFSM 1.91 IN 25.92

PEAK DISCHARGE (BASE, 200 CFS).--Oct. 13 (1015) 211 cfs (3.67 ft); Nov. 3 (1700) 248 cfs (3.77 ft).

CLARION RIVER BASIN

203

03027500 East Branch Clarion River at East Branch Clarion River Dam, Pa.

LOCATION.--Lat 41°33'11", long 78°35'47", Elk County, on left bank 700 ft upstream from Middle Fork, 0.5 mile downstream from East Branch Clarion River Dam, and 1.2 miles northeast of Glen Hazel.

DRAINAGE AREA.--73.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,517.58 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--23 years, 130 cfs (24.12 inches per year) adjusted for storage since 1952.

EXTREMES.--Current year: Maximum discharge, about 520 cfs Oct. 15; maximum gage height, 4.00 ft Oct. 12 (backwater from Middle Fork); minimum daily discharge, 25 cfs Apr. 30, May 1, 4-6.

Period of record: Maximum discharge, 2,590 cfs May 10, 1957 (gage height, 7.25 ft); minimum, 0.20 cfs July 25, 1969 (gage height, 1.06 ft); minimum daily, 0.40 cfs July 24-27, 1969.

Flood of May 28, 1946, reached a stage of 8.3 ft from graph based on gage readings at site 1,000 ft downstream and at different datum (discharge, 4,000 cfs).

REMARKS.--Records good. Flow completely regulated since June 1952 by East Branch Clarion River Lake 0.5 mile upstream (see p. 233).

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

REVISIONS.--WSP 1235: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	229	482	54	55	60	58	25	76	160	178	200
2	49	361	476	52	55	60	60	26	76	158	178	196
3	50	58	476	51	55	60	60	26	78	148	178	192
4	49	68	476	51	55	60	60	25	105	146	178	192
5	49	260	476	51	55	60	60	25	125	146	290	188
6	50	504	476	52	55	61	60	25	125	146	476	190
7	50	494	473	52	54	61	60	26	103	154	476	190
8	67	488	470	52	54	61	47	26	103	156	358	192
9	86	403	467	52	54	60	39	26	123	156	207	190
10	86	258	467	53	54	62	39	26	125	156	174	190
11	86	228	467	53	54	62	38	26	125	152	172	190
12	62	482	467	53	54	62	38	99	125	152	172	190
13	48	485	464	53	54	61	38	160	125	172	172	190
14	48	482	464	53	55	61	39	158	123	188	172	190
15	250	310	461	51	55	61	40	156	78	188	172	190
16	516	152	458	51	55	61	40	156	60	186	170	190
17	504	376	455	52	55	61	40	154	87	186	170	172
18	497	485	452	52	55	61	39	154	121	186	168	152
19	494	482	452	52	52	61	39	154	121	186	168	154
20	488	410	452	52	55	61	39	116	121	186	168	138
21	488	260	342	52	56	61	39	85	121	186	168	112
22	485	370	238	52	58	61	40	85	119	186	166	112
23	485	479	238	52	60	60	41	83	144	186	164	128
24	485	394	240	52	60	60	40	83	144	184	176	146
25	485	308	240	52	60	58	40	86	144	184	196	146
26	482	464	238	52	60	58	40	86	144	184	190	146
27	479	461	238	52	60	58	39	86	144	184	178	146
28	476	479	235	52	60	58	33	70	150	180	170	82
29	476	479	194	50	-----	58	26	57	158	178	174	59
30	473	482	104	51	-----	58	25	66	160	178	182	109
31	308	-----	54	55	-----	58	-----	76	-----	178	190	-----
TOTAL	8,700	11,191	11,692	1,614	1,564	1,865	1,296	2,452	3,553	5,316	6,351	4,862
MEAN	281	373	377	52.1	55.9	60.2	43.2	79.1	118	171	205	162
MAX	516	504	482	55	60	62	60	160	160	188	476	200
MIN	48	58	54	50	52	58	25	25	60	146	164	59
MEAN [†]	304	311	219	87.1	123	241	299	108	47.6	14.0	9.0	26.0
CFSM [†]	4.15	4.25	2.99	1.19	1.68	3.29	4.08	1.48	.65	.19	.12	.36
IN. [†]	4.78	4.74	3.45	1.37	1.75	3.79	4.55	1.71	.73	.22	.14	.40

CAL YR 1970 TOTAL 71,243 MEAN 195 MAX 523 MIN 33 MEAN[†] 187 CFSM[†] 2.55 IN.[†] 34.74
WTR YR 1971 TOTAL 60,456 MEAN 166 MAX 516 MIN 25 MEAN[†] 149 CFSM[†] 2.04 IN.[†] 27.63

[†] Adjusted for change in contents in East Branch Clarion River Lake.

CLARION RIVER BASIN

03028000 West Branch Clarion River at Wilcox, Pa.

LOCATION.--Lat 41°34'31", long 78°41'33", Elk County, on right bank 20 ft downstream from highway bridge at Wilcox, 100 ft downstream from Wilson Run, and 0.1 mile upstream from Penn Central Railroad bridge.

DRAINAGE AREA.--63.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,502.02 ft above mean sea level. Prior to Nov. 18, 1953, nonrecording gage at site 20 ft upstream at same datum. Nov. 18 to Dec. 8, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 116 cfs (25.00 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Nov. 3 (gage height, 4.90 ft); minimum daily, 5.6 cfs Aug. 19.

Period of record: Maximum discharge, 5,490 cfs Sept. 28, 1967 (gage height, 10.01 ft), from rating curve extended above 3,000 cfs; minimum, 4.2 cfs Sept. 21, 1955 (gage height, 1.27 ft).

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	183	249	82	30	473	147	105	39	24	9.6	8.0
2	72	228	235	76	30	374	384	109	41	25	8.8	8.0
3	80	657	218	74	30	288	405	105	50	17	9.6	8.0
4	61	703	349	100	30	238	381	98	38	16	11	8.0
5	54	510	264	180	35	198	346	91	34	15	8.8	8.0
6	98	360	246	119	40	165	307	103	52	15	8.0	8.0
7	72	267	215	90	36	195	291	91	42	14	7.4	8.0
8	60	210	183	80	34	165	300	175	45	12	7.0	7.0
9	55	175	170	70	32	143	388	161	34	12	6.9	7.0
10	136	159	161	74	31	135	593	153	30	11	6.8	7.0
11	464	153	170	60	31	127	489	147	27	14	6.7	7.0
12	573	188	230	54	31	117	457	173	26	14	6.6	9.0
13	969	288	246	50	38	119	477	165	41	11	6.5	29
14	699	258	223	60	50	159	501	145	36	11	6.4	101
15	533	453	203	52	45	429	339	133	151	9.6	6.3	27
16	363	374	183	47	43	565	264	125	77	9.6	6.2	21
17	273	311	175	45	41	405	220	117	60	10	6.0	28
18	220	255	155	42	40	311	188	101	52	10	5.8	17
19	180	213	163	40	66	270	161	92	45	29	5.6	24
20	151	307	188	42	127	233	145	84	41	26	6.0	38
21	168	353	159	45	238	193	133	75	38	14	17	24
22	300	288	163	50	220	165	119	69	34	11	9.6	16
23	220	258	168	45	300	147	107	63	32	9.6	20	12
24	205	220	208	40	235	129	100	60	29	12	8.0	9.4
25	183	188	170	37	208	115	94	92	27	16	6.0	8.0
26	161	163	161	36	205	109	89	66	26	11	8.4	12
27	141	161	149	30	593	105	85	59	24	12	39	15
28	123	188	133	35	629	109	115	55	22	8.8	37	38
29	111	205	121	33	-----	121	129	50	22	11	14	25
30	145	285	100	32	-----	117	107	46	20	11	8.0	25
31	188	-----	88	31	-----	113	-----	43	-----	13	8.0	-----
TOTAL	7,134	8,561	5,846	1,851	3,468	6,532	7,861	3,151	1,235	434.6	321.0	562.4
MEAN	230	285	189	59.7	124	211	262	102	41.2	14.0	10.4	18.7
MAX	969	703	349	180	629	565	593	175	151	29	39	101
MIN	54	153	88	30	30	105	85	43	20	8.8	5.6	7.0
CFSM	3.65	4.52	3.00	.95	1.97	3.35	4.16	1.62	.65	.22	.17	.30
IN.	4.21	5.06	3.45	1.09	2.05	3.86	4.64	1.86	.73	.26	.19	.33

CAL YR 1970 TOTAL 60,286.0 MEAN 165 MAX 1,570 MIN 14 CFSM 2.62 IN 35.60
WTR YR 1971 TOTAL 46,957.0 MEAN 129 MAX 969 MIN 5.6 CFSM 2.05 IN 27.73

PEAK DISCHARGE (BASE, 1,000 CFS).--Oct. 13 (1100) 1,140 cfs (4.66 ft); Nov. 3 (1800) 1,280 cfs (4.90 ft).

CLARION RIVER BASIN

205

03028500 Clarion River at Johnsonburg, Pa.

LOCATION.--Lat 41°29'10", long 78°40'43", Elk County, on right bank at downstream side of highway bridge in Johnsonburg, 0.1 mile downstream from Johnson Run, and 0.4 mile downstream from confluence of East and West Branches.

DRAINAGE AREA.--204 sq mi.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,422.98 ft above mean sea level. Prior to Nov. 8, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--26 years, 364 cfs (24.23 inches per year) adjusted for storage since 1952.

EXTREMES.--Current year: Maximum discharge, 4,250 cfs Oct. 12 (gage height, 6.48 ft); minimum, 83 cfs Jan. 19, 27, Feb. 10, result of freezeup; minimum daily, 96 cfs Feb. 3 (result of regulation above station).
Period of record: Maximum discharge, 11,700 cfs May 28, 1946 (gage height, 9.2 ft, from graph based on gage readings); maximum gage height, 9.25 ft Nov. 25, 1950, from floodmarks; minimum discharge, 6 cfs Sept. 18, 1952 (gage height, 0.68 ft), result of regulation above station; minimum daily, 20 cfs Oct. 5, 1948, Nov. 6, 1951.

Flood in July 1942 reached a stage of 16.7 ft, from floodmark.

REMARKS.--Records good. Flow regulated since June 1952 by East Branch Clarion River Lake 7.9 miles upstream (see p. 233) and at low flow by industrial plants above station.

REVISIONS.--WSP 1235: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	554	920	228	105	1,040	336	200	129	233	204	196
2	153	801	899	208	99	822	744	204	126	208	200	184
3	176	1,210	878	200	96	648	774	196	157	176	200	176
4	140	1,480	1,130	248	105	540	744	192	140	172	200	180
5	126	1,110	962	436	102	456	690	180	172	172	251	180
6	176	1,180	927	288	120	390	642	212	192	168	474	184
7	153	1,010	864	236	111	432	594	196	180	168	468	184
8	150	899	808	256	111	390	588	315	157	176	394	188
9	164	768	774	240	114	335	647	308	172	172	212	192
10	243	546	750	260	99	304	934	296	164	168	172	192
11	895	636	756	236	105	304	720	296	157	168	168	188
12	1,500	808	913	220	108	280	726	361	153	168	172	196
13	2,910	969	948	150	136	292	738	456	172	168	172	224
14	1,640	913	885	202	153	377	780	400	176	200	172	370
15	1,280	1,080	836	184	143	829	576	370	305	192	176	232
16	1,200	751	794	143	136	1,200	486	355	172	192	176	224
17	1,020	885	774	139	123	864	410	335	155	196	176	232
18	892	955	738	138	150	684	340	312	184	192	176	180
19	808	878	750	115	204	606	308	300	176	208	172	191
20	750	962	815	143	353	528	288	268	168	216	168	224
21	780	899	684	140	546	438	264	212	164	196	184	160
22	1,050	871	546	143	510	375	244	192	164	200	172	129
23	885	948	576	129	714	335	224	184	176	204	176	133
24	850	815	690	120	624	300	208	176	172	208	153	157
25	808	609	600	126	516	270	208	236	172	216	160	153
26	756	750	576	129	528	264	196	192	172	208	184	157
27	720	744	534	104	1,310	252	184	172	168	208	201	160
28	684	815	480	118	1,410	268	232	153	172	208	230	404
29	654	837	415	108	-----	292	252	126	219	204	176	176
30	708	1,030	308	117	-----	288	204	126	204	204	180	192
31	628	-----	220	105	-----	272	-----	136	-----	204	180	-----
TOTAL	23,056	26,713	22,750	5,609	8,831	14,675	14,341	7,657	5,190	5,973	6,509	5,938
MEAN	744	890	734	181	315	473	478	247	173	193	210	198
MAX	2,910	1,480	1,130	436	1,410	1,200	934	456	305	233	474	404
MIN	126	546	220	104	96	252	184	126	126	168	153	129
MEAN [†]	767	828	576	216	382	654	734	276	103	36.0	14.0	62
CFSM [†]	3.76	4.06	2.82	1.06	1.87	3.21	3.60	1.35	.50	.18	.07	.30
IN. [†]	4.33	4.53	3.25	1.22	1.95	3.70	4.02	1.56	.56	.21	.08	.33
CAL YR 1970	TOTAL 184,930	MEAN 507	MAX 2,910	MIN 113	MEAN [†] 499	CFSM [†] 2.45	IN. [†] 33.20					
WTR YR 1971	TOTAL 147,242	MEAN 403	MAX 2,910	MIN 96	MEAN [†] 386	CFSM [†] 1.89	IN. [†] 25.74					

[†] Adjusted for change in contents in East Branch Clarion River Lake.

CLARION RIVER BASIN

03029400 Toms Run at Cooksburg, Pa.

LOCATION.--Lat 41°20'16", long 79°12'50", Clarion County, on right bank about 100 ft downstream from foot-bridge on Longfellow Trail, Cook Forest State Park, 0.6 mile upstream from mouth, and half a mile north-west of Cooksburg.

DRAINAGE AREA.--12.6 sq mi.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,180.50 ft above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--12 years, 17.1 cfs (18.43 inches per year).

EXTREMES.--Current year: Maximum discharge, 165 cfs Feb. 20; maximum gage height, 3.04 ft Feb. 21 (back-water from ice); minimum discharge not determined; minimum daily 0.31 cfs Aug. 19.

Period of record: Maximum discharge, 656 cfs Mar. 10, 1964 (gage height, 4.17 ft); maximum gage height, 4.37 ft Mar. 5, 1964 (ice jam); minimum daily discharge, 0.31 cfs Aug. 19, 1971; minimum gage height, 1.14 ft. Aug. 6, 1962.

REMARKS.--Records fair. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	63	32	15	5.2	80	23	8.0	3.8	1.5	.69	.91
2	2.2	55	32	14	5.2	67	64	9.0	3.6	1.7	.69	.91
3	4.1	95	32	13	5.2	56	62	9.0	4.7	1.4	2.0	.83
4	2.4	90	53	18	6.0	47	54	8.0	3.9	1.5	1.1	.76
5	2.0	64	43	39	11	37	45	7.0	3.6	1.7	.76	.69
6	1.3	50	40	25	44	32	40	35	4.5	1.5	.69	.69
7	1.7	42	33	20	13	43	37	15	5.2	1.4	.57	.63
8	1.7	34	28	17	9.0	38	35	41	4.0	.95	.52	.63
9	1.6	28	27	15	8.0	32	39	37	3.5	2.2	.42	.63
10	4.4	27	27	17	7.4	28	43	30	3.2	3.4	.42	.57
11	54	27	31	14	7.8	25	35	25	3.1	5.9	.57	.57
12	64	34	61	12	8.7	23	33	27	3.0	5.3	.52	1.2
13	88	38	63	10	14	24	35	27	3.0	2.4	.47	12
14	58	36	53	13	31	37	33	22	3.3	13	.42	79
15	50	58	44	11	34	71	26	19	4.1	2.4	.42	16
16	37	48	38	10	15	88	22	18	3.3	2.0	.42	6.5
17	29	42	36	9.0	12	66	20	18	2.7	1.6	.34	7.2
18	24	36	33	8.4	14	53	19	14	2.4	1.3	.34	2.0
19	20	31	35	8.0	25	50	17	12	2.2	10	.31	8.6
20	17	42	40	7.4	90	49	15	11	2.2	9.3	.47	25
21	22	50	34	8.0	80	39	14	9.8	2.7	2.2	3.0	11
22	53	44	38	8.6	95	34	13	8.6	2.2	1.6	1.3	2.7
23	39	40	43	7.6	108	30	12	7.8	2.0	.91	4.8	1.6
24	31	34	48	7.0	82	23	12	7.0	1.8	.57	1.0	1.2
25	26	29	41	6.2	59	20	11	9.0	2.0	.76	.83	.91
26	22	27	36	7.0	56	19	10	7.4	1.8	.57	1.4	1.3
27	19	25	31	6.4	103	20	9.4	6.4	1.7	.52	14	1.3
28	16	24	26	6.0	103	21	11	5.6	1.7	.42	11	1.1
29	15	29	22	5.8	-----	27	9.6	5.0	1.5	.91	3.0	1.2
30	39	40	19	6.2	-----	27	8.6	4.5	1.4	.83	1.6	3.0
31	69	-----	17	5.6	-----	25	-----	4.1	-----	.69	1.1	-----
TOTAL	815.7	1,282	1,136	370.2	1,051.5	1,231	807.6	467.2	88.1	80.43	55.17	190.63
MEAN	26.3	42.7	36.6	11.9	37.6	39.7	26.9	15.1	2.94	2.59	1.78	6.35
MAX	88	95	63	39	108	88	64	41	5.2	13	14	79
MIN	1.6	24	17	5.6	5.2	19	8.6	4.1	1.4	.42	.31	.57
CFSM	2.09	3.39	2.90	.94	2.98	3.15	2.13	1.20	.23	.21	.14	.50
IN.	2.41	3.78	3.35	1.09	3.10	3.63	2.38	1.38	.26	.24	.16	.56
CAL YR 1970	TOTAL 8,101.80	MEAN 22.2	MAX 346	MIN 1.6	CFSM 1.76	IN 23.92						
WTR YR 1971	TOTAL 7,575.53	MEAN 20.8	MAX 108	MIN .31	CFSM 1.65	IN 22.37						

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 3	1530	2.56	157	9-14	0400	2.74	157
2-20	-	-	165				

03029500 Clarion River at Cooksburg, Pa.

LOCATION.--Lat 41°19'50", long 79°12'33", Jefferson County, on left bank at downstream side of bridge on State Highway 36 at Cooksburg, 300 ft downstream from Toms Run, and 2.7 miles upstream from Cather Run.

DRAINAGE AREA.--807 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October, November 1938, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,146.48 ft above mean sea level, adjustment of 1912. Prior to May 17, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 1,390 cfs (23.39 inches per year) adjusted for storage since 1952.

EXTREMES.--Current year: Maximum discharge, 11,900 cfs Oct. 13 (gage height, 9.36 ft); minimum not determined; minimum daily, 220 cfs Aug. 19.

Period of record: Maximum discharge, 32,800 cfs Mar. 10, 1964 (gage height, 14.70 ft); maximum gage height, 17.13 ft Feb. 3, 1970 (ice jam); minimum discharge, 41 cfs Aug. 30, 1939 (gage height, 1.22 ft).

Maximum stage since 1935, 19 ft Mar. 17, 1936, from floodmarks (discharge, about 56,000 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by East Branch Clarion River Lake since June 1952 (see p. 233) and at low flow by industrial plants above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1305: 1939(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	1,820	3,090	1,000	500	7,140	1,570	772	465	510	304	284
2	415	2,900	2,780	940	450	5,480	2,730	719	447	515	300	297
3	439	7,080	2,600	900	410	4,190	4,210	726	479	530	297	287
4	544	8,440	3,730	1,100	380	3,570	3,700	726	545	384	300	274
5	440	5,680	4,060	2,570	400	2,780	3,300	677	452	340	308	270
6	371	4,420	3,440	2,620	800	2,340	2,940	726	474	320	308	262
7	454	3,500	3,060	1,860	860	2,310	2,510	1,080	570	308	535	267
8	450	2,800	2,680	1,630	740	2,500	2,520	1,480	555	297	535	264
9	374	2,460	2,450	1,500	660	2,050	2,410	2,510	501	293	492	274
10	401	2,240	2,410	1,460	600	1,780	3,010	1,980	456	297	328	270
11	1,500	2,070	2,270	1,380	500	1,710	2,900	1,740	412	320	270	270
12	4,800	1,950	3,460	1,250	560	1,550	2,530	1,630	388	320	259	277
13	8,850	2,690	4,290	1,120	700	1,520	2,390	2,140	388	324	256	312
14	6,840	3,650	3,900	989	1,100	1,940	2,510	1,950	438	344	256	1,490
15	4,710	4,180	3,370	1,110	1,300	3,750	2,220	1,690	1,140	384	250	1,300
16	3,870	3,520	2,950	970	1,100	7,500	1,810	1,540	1,100	344	240	585
17	3,050	2,870	2,760	816	1,000	5,640	1,560	1,450	670	340	240	726
18	2,540	2,760	2,580	725	1,200	4,180	1,400	1,300	540	328	230	652
19	2,180	2,560	2,400	600	1,500	3,470	1,230	1,180	510	332	220	479
20	1,920	2,260	3,060	500	2,500	3,230	1,100	1,080	465	392	240	590
21	1,780	2,220	2,790	540	4,900	2,660	1,020	972	434	400	270	764
22	3,480	2,450	2,450	520	4,260	2,270	956	820	416	340	300	550
23	3,260	2,810	2,650	500	5,540	2,010	884	733	392	312	400	429
24	2,650	2,750	3,140	460	5,080	1,780	804	677	384	304	320	364
25	2,360	2,380	3,130	500	4,370	1,530	772	691	372	324	287	356
26	2,130	2,050	2,720	580	3,840	1,440	756	868	364	360	259	340
27	1,920	2,080	2,470	470	6,190	1,340	712	691	352	324	332	340
28	1,750	2,090	2,170	400	8,820	1,370	684	616	344	300	545	474
29	1,580	2,140	1,700	450	-----	1,590	884	575	332	297	555	1,640
30	1,630	3,360	1,400	500	-----	1,660	924	515	416	300	364	804
31	1,690	-----	1,100	600	-----	1,550	-----	483	-----	308	316	-----
TOTAL	68,858	94,180	87,110	30,560	60,260	87,830	56,946	34,737	14,801	10,791	10,116	15,491
MEAN	2,221	3,139	2,810	986	2,152	2,833	1,898	1,121	493	348	326	516
MAX	8,850	8,440	4,290	2,620	8,820	7,500	4,210	2,510	1,140	530	555	1,640
MIN	371	1,820	1,100	400	380	1,340	684	483	332	293	220	262
MEAN*	2,244	3,077	2,652	1,021	2,219	3,014	2,154	1,150	423	191	130	380
CFSM*	2.78	3.81	3.29	1.27	2.75	3.73	2.67	1.43	.52	.24	.16	.47
IN.*	3.21	4.25	3.79	1.46	2.86	4.30	2.98	1.65	.58	.28	.18	.52

CAL YR 1970 TOTAL 689,373 MEAN 1,889 MAX 16,400 MIN 322 MEAN* 1,881 CFSM* 2.33 IN.* 31.64
WTR YR 1971 TOTAL 571,680 MEAN 1,566 MAX 8,850 MIN 220 MEAN* 1,549 CFSM* 1.92 IN.* 26.06

PEAK DISCHARGE (BASE, 10,000 CFS).--Oct. 13 (1300) 11,900 cfs (9.36 ft).

* Adjusted for change in contents in East Branch Clarion River Lake.

CLARION RIVER BASIN

03030500 Clarion River near Piney, Pa.

LOCATION.--Lat 41°11'33", long 79°26'25", Clarion County, on left bank 0.2 mile downstream from hydroelectric plant of Pennsylvania Electric Co., 2.3 miles northeast of Piney, 2.4 miles upstream from Piney Creek, and 3 miles southwest of Clarion.

DRAINAGE AREA.--951 sq mi.

PERIOD OF RECORD.--October 1944 to current year (monthly discharge only October 1944 to September 1947).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,002.06 ft above mean sea level (Pennsylvania Electric Co. bench mark). Prior to Dec. 23, 1947, records from hydroelectric plant 0.2 mile upstream.

AVERAGE DISCHARGE.--27 years, 1,673 cfs (23.89 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 13,600 cfs Oct. 13 (gage height, 11.10 ft); minimum daily, 23 cfs June 12.

Period of record: Maximum discharge, 46,100 cfs Mar. 10, 1964 (gage height, 21.16 ft, from mark in gage well), from rating curve extended above 17,000 cfs on basis of slope-area measurement at gage height 20.70 ft in gage well; minimum not determined.

Maximum discharge since 1935, 50,000 cfs Mar. 18, 1936, as determined by Pennsylvania Electric Co. (elevation, 1,028.5 ft, at lower pool of dam).

REMARKS.--Records good. Flow regulated by East Branch Clarion River Lake since June 1952 (see p. 233) and by hydroelectric plant at Piney Dam 0.2 mile upstream since 1924 (combined capacity of reservoirs, 113,200 acre-ft). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	3,030	3,420	944	1,010	8,000	2,250	904	754	718	33	415
2	400	3,010	2,910	1,830	798	6,190	3,020	395	622	790	420	420
3	263	5,130	3,110	563	736	5,000	5,000	918	616	580	425	598
4	265	10,100	3,830	2,820	698	4,100	3,420	953	1,510	26	420	29
5	854	6,860	4,420	3,150	510	3,520	2,840	939	24	30	420	30
6	536	5,420	4,040	2,850	270	3,870	3,650	1,310	30	410	410	30
7	418	4,400	3,610	2,150	283	1,450	3,110	1,320	1,370	400	580	525
8	714	3,750	3,270	1,900	859	3,160	2,890	2,480	724	598	32	420
9	760	2,710	2,830	1,530	688	2,510	2,210	2,740	718	420	748	425
10	27	2,860	2,600	1,340	531	2,180	3,580	2,430	560	64	992	405
11	1,220	2,450	2,760	2,130	828	2,080	3,240	1,790	730	41	1,000	38
12	5,970	2,860	3,790	1,170	829	2,080	2,670	1,580	23	415	45	38
13	8,640	3,650	5,510	1,460	358	1,380	2,740	3,190	26	580	39	676
14	7,600	3,280	4,350	1,530	377	2,370	2,680	2,510	748	410	55	2,250
15	5,550	3,640	3,540	1,290	1,250	4,020	2,370	1,890	1,890	415	34	1,730
16	4,380	3,800	3,700	935	975	8,000	2,330	1,540	984	435	976	946
17	3,610	3,440	3,500	158	1,030	6,400	1,830	1,720	960	420	430	1,170
18	2,640	3,220	2,850	912	868	5,380	1,100	1,400	911	38	69	555
19	2,560	3,070	2,710	767	2,590	4,370	1,460	1,500	485	440	57	26
20	2,360	3,010	3,070	753	2,880	4,110	1,280	1,320	28	505	43	1,200
21	2,210	4,430	3,600	759	5,190	2,590	1,300	1,500	953	616	43	1,210
22	3,200	2,970	3,160	734	5,480	2,480	1,090	932	742	760	43	814
23	3,800	3,100	3,090	401	7,160	2,430	1,140	207	385	405	1,420	586
24	3,600	3,060	3,200	739	6,270	2,310	897	904	390	34	435	440
25	2,500	2,970	4,100	736	5,070	1,780	59	736	911	38	425	69
26	2,110	1,530	3,200	763	4,140	1,810	1,010	1,180	29	604	102	235
27	2,300	2,660	2,720	766	7,640	1,470	890	911	29	435	46	550
28	1,970	2,420	2,630	578	11,100	1,230	904	1,180	610	445	238	2,200
29	1,940	1,850	2,240	932	-----	1,960	911	560	390	430	435	500
30	2,170	3,750	2,140	226	-----	1,970	1,470	380	440	420	592	750
31	3,460	-----	1,520	70	-----	1,960	-----	207	-----	38	415	-----
TOTAL	78,705	108,430	101,420	36,886	70,418	102,160	63,341	41,526	18,592	11,960	11,422	19,280
MEAN	2,539	3,614	3,272	1,190	2,515	3,295	2,111	1,340	620	386	368	643
MAX	8,640	10,100	5,510	3,150	11,100	8,000	5,000	3,190	1,890	790	1,420	2,250
MIN	27	1,530	1,520	70	270	1,230	59	207	23	26	32	26
(%)	+10.9	-61.4	-166	+67.1	+238	+9.0	+250	+50.6	-90.3	-151	-191	-142
MEAN#	2,550	3,553	3,106	1,257	2,753	3,304	2,361	1,391	530	235	177	501
CFSM#	2.68	3.74	3.27	1.32	2.89	3.47	2.48	1.46	.56	.25	.19	.53
IN.#	3.09	4.17	3.77	1.52	3.01	4.00	2.77	1.68	.62	.29	.22	.59
CAL YR 1970	TOTAL 805,544	MEAN 2,207	MAX 19,600	MIN 27	MEAN# 2200	CFSM# 2.31	IN.# 31.41					
WTR YR 1971	TOTAL 664,140	MEAN 1,820	MAX 11,100	MIN 23	MEAN# 1803	CFSM# 1.90	IN.# 25.73					

Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake and Piney Reservoir. Records of contents in Piney Reservoir furnished by Pennsylvania Electric Co.

Adjusted for change in contents.

03031500 Allegheny River at Parker, Pa.

LOCATION.--Lat 41°06'02", long 79°40'53", Armstrong County, on right bank 500 ft downstream from bridge on State Highway 368 at Parker, 1.1 miles downstream from Clarion River, and at mile 83.4.

DRAINAGE AREA.--7,671 sq mi.

PERIOD OF RECORD.--October 1932 to current year. Prior to October 1963, published as "at Parkers Landing". Gage-height records collected at same site since 1885 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 845.14 ft above mean sea level, adjustment of 1907. Prior to Oct. 1, 1932, U. S. Weather Bureau gages at different datums. Oct. 1-28, 1932, nonrecording gage at datum 27.00 ft lower.

AVERAGE DISCHARGE.--39 years, 12,880 cfs (22.80 inches per year) adjusted for storage since October 1940.

EXTREMES.--Current year: Maximum discharge, 64,800 cfs Feb. 28 (gage height, 12.42 ft); maximum gage height, 19.79 ft Feb. 21 (backwater from ice); minimum discharge, 1,920 cfs Aug. 19, 20 (gage height, 1.54 ft).

Period of record: Maximum discharge, about 175,000 cfs Jan. 22, 1959; maximum gage height, 29.60 ft. Jan. 21, 1959 (backwater from ice); minimum discharge, 409 cfs July 30, 1934 (gage height, 0.67 ft).

Flood of Mar. 17, 1865 reached a stage of 29.4 ft, present datum (discharge, 250,000 cfs), from rating curve extended above 125,000 cfs.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1965 by Allegheny Reservoir, by Chautauqua Lake, since 1941 by Tionesta Lake, since 1952 by East Branch Clarion River Lake (see p. 233), and since 1924 by Piney Reservoir.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,400	28,900	34,300	14,300	3,100	51,700	15,300	16,000	5,660	3,930	2,670	3,500
2	10,200	30,200	29,300	14,000	3,200	47,100	16,500	15,200	5,640	4,410	2,540	3,170
3	9,600	30,100	23,200	14,000	3,500	46,400	25,900	14,600	5,750	4,220	2,900	2,930
4	8,920	49,700	29,900	15,400	4,000	45,300	23,500	13,300	6,660	3,930	2,880	2,670
5	9,080	42,600	36,300	23,000	5,000	47,600	19,100	12,500	7,050	3,380	2,830	2,180
6	9,360	37,700	33,700	24,600	8,000	46,200	19,300	13,300	6,000	3,230	2,760	2,220
7	11,300	35,400	31,300	20,200	8,600	43,000	17,400	12,900	9,470	3,370	2,700	2,260
8	12,800	32,500	29,000	18,300	9,400	40,000	16,100	13,200	10,300	3,370	2,800	2,700
9	10,400	29,300	27,300	16,900	10,000	35,000	14,900	16,100	10,200	3,640	2,350	2,500
10	8,160	26,500	26,600	16,200	8,400	31,700	16,100	16,700	8,620	3,400	2,710	2,430
11	7,440	24,500	27,600	15,800	6,600	28,200	16,700	15,100	7,040	2,940	3,350	2,430
12	18,200	24,300	31,900	14,500	6,600	23,100	15,600	14,400	5,450	2,970	2,710	2,130
13	26,500	25,600	34,200	13,500	8,000	18,400	16,400	17,500	4,370	3,340	2,060	2,680
14	37,200	25,500	28,100	13,800	9,000	18,300	18,600	16,600	5,230	3,300	2,020	4,210
15	33,000	30,000	27,300	14,000	10,000	27,000	19,600	14,900	6,770	3,190	2,020	7,100
16	33,200	39,000	29,200	12,800	11,000	41,800	18,500	12,400	9,650	3,140	2,340	5,980
17	30,700	30,200	28,300	12,100	13,000	38,000	16,200	11,900	8,280	3,130	2,580	5,000
18	28,200	28,300	27,800	10,000	15,000	31,300	14,500	11,300	6,970	3,070	2,320	4,160
19	26,000	28,800	26,300	9,000	18,000	27,100	13,500	9,860	5,270	2,870	1,930	3,500
20	23,000	27,500	28,200	8,000	25,000	26,700	15,000	8,830	4,550	3,530	1,960	3,440
21	21,200	30,600	29,400	6,390	45,000	24,100	26,400	6,930	4,440	3,470	2,220	4,140
22	23,200	29,800	27,700	6,000	36,400	21,900	29,400	6,320	5,560	3,440	3,230	4,100
23	23,500	28,300	25,700	7,200	39,200	20,400	27,000	5,460	5,080	3,010	3,440	3,830
24	23,200	26,400	22,000	7,000	39,100	19,000	18,700	5,520	4,980	2,990	4,220	3,370
25	20,400	24,800	23,700	8,000	38,400	18,400	10,500	5,780	4,850	2,680	3,380	3,340
26	18,200	23,600	22,400	7,240	41,700	17,200	9,940	7,350	4,300	2,820	3,000	3,470
27	15,300	22,400	20,800	6,000	51,700	16,800	10,300	7,160	3,770	3,000	2,700	3,960
28	13,900	24,600	19,300	5,200	61,200	17,700	10,600	7,410	3,700	3,000	3,460	4,880
29	13,000	30,300	18,100	4,500	-----	19,900	11,600	7,040	3,940	3,130	4,550	6,910
30	15,200	35,400	17,300	3,500	-----	20,200	13,600	5,970	3,730	3,500	4,740	5,590
31	28,300	-----	15,700	3,100	-----	17,600	-----	5,520	-----	3,340	3,900	-----
TOTAL	580,060	902,800	831,900	364,530	538,100	927,100	516,740	347,050	183,280	102,740	89,270	110,780
MEAN	18,710	30,090	26,840	11,760	19,220	29,910	17,220	11,200	6,109	3,314	2,880	3,693
MAX	37,200	49,700	36,300	24,600	61,200	51,700	29,400	17,500	10,300	4,410	4,740	7,100
MIN	7,440	22,400	15,700	3,100	3,100	16,800	9,940	5,460	3,700	2,680	1,930	2,130
(f)	-644	+972	-2,630	-1,730	+674	-214	+4,680	-335	-440	-1,490	-1,180	-681
Mean#	18,070	31,060	24,210	10,030	19,890	29,700	21,900	10,860	5,669	1,824	1,780	3,012
CFSM#	2.36	4.05	3.16	1.31	2.59	3.87	2.85	1.42	.74	.24	.22	.39
IN#	2.72	4.52	3.64	1.51	2.70	4.46	3.18	1.64	.83	.28	.25	.44

CAL YR 1970 TOTAL 6,032,010 MEAN 16,530 MAX 75,900 MIN 2,460 MEAN# 16,530 CFSM# 2.15 IN.# 29.24

WTR YR 1971 TOTAL 5,494,350 MEAN 15,050 MAX 61,200 MIN 1,930 MEAN# 14,780 CFSM# 1.93 IN.# 26.17

Change in contents, equivalent in cubic feet per second, in Allegheny Reservoir, Chautauqua Lake, Tionesta Lake, East Branch Clarion River Lake and Piney Reservoir. Records of contents in Piney Reservoir furnished by Pennsylvania Electric Co.

Adjusted for change in reservoir contents.

REDBANK CREEK BASIN

03031950 Big Run near Sprinkle Mills, Pa.

LOCATION.--Lat 40°59'30", long 79°05'26", Jefferson County, on right bank at downstream side of highway bridge, 0.5 mile downstream from McCracken Run, and 1.3 miles southeast of Sprinkle Mills.

DRAINAGE AREA.--7.38 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,290 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 11.3 cfs (20.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 512 cfs Aug. 27 (gage height, 5.09 ft); minimum, 0.50 cfs Aug. 17, 18 (gage height, 1.90 ft).

Period of record: Maximum discharge, 822 cfs Feb. 13, 1966 (gage height, 6.23 ft); minimum, 0.2 cfs July 20, 28-30, Aug. 19, 24, 30, 31, 1965; minimum gage height, 1.90 ft Aug. 17, 18, 1971.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	25	17	8.4	3.3	33	15	2.7	2.3	3.2	1.3	4.9
2	1.7	22	15	7.3	3.1	25	17	2.9	2.3	2.0	1.2	3.9
3	3.0	107	20	6.4	3.0	20	15	3.1	3.5	1.2	1.2	3.2
4	1.5	56	35	71	3.3	16	12	2.9	3.0	.98	1.5	2.6
5	1.3	35	24	89	4.5	15	11	2.4	2.4	.92	1.4	2.3
6	1.3	25	20	39	24	13	9.9	25	3.0	.84	1.1	2.0
7	1.3	19	16	24	8.8	26	9.2	12	4.8	.80	.93	1.8
8	1.1	15	14	17	5.6	19	8.2	37	3.0	.77	.80	1.7
9	1.1	12	12	15	4.7	16	7.6	19	2.7	3.2	.80	1.6
10	3.4	11	11	12	4.5	15	7.5	14	2.5	1.3	.80	1.5
11	14	9.8	15	11	4.7	15	6.3	11	2.4	6.2	.80	1.4
12	7.6	13	43	10	6.8	15	6.1	22	2.4	2.6	.67	1.7
13	7.3	22	33	7.9	122	45	6.1	31	2.7	2.3	.65	5.4
14	6.0	18	26	13	32	69	6.7	25	3.5	4.8	.65	15
15	9.2	25	21	10	19	69	5.6	19	7.4	1.7	.65	5.6
16	6.3	18	18	7.3	14	44	5.3	16	3.5	2.1	.71	17
17	5.6	16	20	6.4	28	29	5.6	13	2.7	1.5	.65	16
18	4.9	13	20	5.8	40	24	5.4	10	2.2	1.2	.65	10
19	4.2	11	27	5.0	78	32	4.5	8.7	1.9	12	.65	16
20	3.7	21	26	4.2	164	25	4.2	7.4	1.8	8.6	.84	17
21	16	19	22	3.8	63	22	4.2	6.4	2.0	3.0	3.9	13
22	29	16	28	3.6	113	18	4.1	5.6	1.8	2.0	3.0	10
23	14	14	24	3.4	69	16	3.7	4.9	1.7	1.7	5.9	8.4
24	10	11	26	3.3	35	14	3.6	4.6	1.6	2.2	1.3	6.9
25	8.4	9.8	20	3.2	32	13	3.7	6.0	1.5	2.3	1.2	5.6
26	6.9	9.3	18	5.0	46	13	3.6	4.6	1.5	1.7	1.2	7.5
27	5.8	8.9	15	4.2	95	14	3.2	4.1	1.4	1.7	83	5.9
28	5.1	8.4	13	3.8	50	18	3.3	3.6	1.2	1.3	27	5.2
29	5.0	19	10	3.5	-----	20	3.1	3.3	1.1	1.9	14	4.7
30	17	24	9.0	3.6	-----	18	2.8	2.9	.97	1.5	8.6	5.3
31	27	-----	8.4	3.8	-----	15	-----	2.6	-----	1.8	6.2	-----
TOTAL	230.0	633.2	626.4	410.9	1,076.3	746	203.5	332.7	74.77	79.31	173.25	203.1
MEAN	7.42	21.1	20.2	13.3	38.4	24.1	6.78	10.7	2.49	2.56	5.59	6.77
MAX	29	107	43	89	164	69	17	37	7.4	12	83	17
MIN	1.1	8.4	8.4	3.2	3.0	13	2.8	2.4	.97	.77	.65	1.4
CFSM	1.01	2.86	2.74	1.80	5.20	3.27	.92	1.45	.34	.35	.76	.92
IN.	1.16	3.19	3.16	2.07	5.43	3.76	1.03	1.68	.38	.40	.87	1.02

CAL YR 1970 TOTAL 4,858.00 MEAN 13.3 MAX 236 MIN .65 CFSM 1.80 IN 24.49
WTR YR 1971 TOTAL 4,789.43 MEAN 13.1 MAX 164 MIN .65 CFSM 1.78 IN 24.14

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11- 3	1330	4.22	295	2-20	1730	4.32	320
1- 4	1630	3.71	182	2-22	1445	3.98	236
2-13	1200	4.25	302	8-27	1815	5.09	512

REDBANK CREEK BASIN

211

03032500 Redbank Creek at St. Charles, Pa.

LOCATION.--Lat 40°59'40", long 79°23'40", Armstrong County, on left bank 400 ft downstream from highway bridge on Legislative Route 03117 at St. Charles, 0.3 mile downstream from Leatherwood Creek, and 3 miles west of New Bethlehem.

DRAINAGE AREA.--528 sq mi.

PERIOD OF RECORD.--October 1918 to current year. Monthly discharge only for November 1920 to June 1921, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 973.14 ft above mean sea level, datum of 1912. Prior to July 10, 1940, nonrecording gage at site 500 ft upstream at datum 3.10 ft higher.

AVERAGE DISCHARGE.--53 years, 835 cfs (21.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,710 cfs Feb. 21 (gage height, 10.13 ft); minimum, 20 cfs Sept. 10 (gage height, 1.48 ft).

Period of record: Maximum discharge, 35,200 cfs Mar. 18, 1936 (gage height, 18.60 ft, from floodmarks, site and datum then in use), by slope-area measurement of peak flow: minimum observed, 19 cfs Oct. 1, 1918.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1923(M), 1926(M), 1931. WSP 1385: 1919, 1936-39.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	1,980	1,650	782	340	4,500	974	315	220	89	74	100
2	155	2,070	1,380	722	300	3,400	1,250	294	208	213	72	86
3	222	3,230	1,240	644	280	2,690	1,650	303	223	225	71	77
4	245	6,020	2,320	1,040	260	2,160	1,430	324	225	158	74	71
5	209	4,160	2,540	3,570	600	1,730	1,240	327	205	110	78	66
6	169	3,090	2,090	2,940	1,290	1,530	1,060	615	225	93	82	63
7	149	2,300	1,720	2,140	820	1,690	939	1,350	288	83	57	60
8	137	1,780	1,420	1,560	590	1,890	827	1,830	273	77	63	56
9	127	1,440	1,230	1,320	472	1,570	754	2,340	220	108	57	75
10	149	1,200	1,150	1,240	400	1,190	718	1,730	178	163	53	26
11	718	1,070	1,060	1,070	448	1,170	700	1,360	148	130	51	44
12	1,830	1,120	2,110	928	404	1,120	630	1,190	134	155	49	50
13	2,220	1,240	2,910	778	1,320	1,670	580	1,580	140	120	47	107
14	1,930	1,540	2,630	772	1,640	2,530	565	1,610	240	148	45	988
15	1,670	1,760	2,230	911	1,350	3,370	560	1,370	1,180	120	45	1,210
16	1,400	1,810	1,860	676	1,170	4,120	520	1,120	600	96	44	848
17	1,040	1,560	1,770	520	1,030	3,440	468	953	404	89	42	1,360
18	813	1,340	1,790	410	1,580	2,620	460	790	309	83	40	904
19	658	1,170	1,710	370	2,850	2,160	412	670	246	80	38	585
20	546	1,170	2,170	350	5,480	2,280	373	575	205	138	41	615
21	560	1,750	1,990	380	6,090	1,910	356	508	215	118	47	706
22	1,810	1,540	1,820	360	5,660	1,650	342	456	195	97	66	550
23	1,770	1,320	2,030	340	6,400	1,460	330	400	163	83	97	416
24	1,300	1,120	2,220	320	4,540	1,270	315	363	140	78	100	330
25	1,020	937	2,120	350	3,310	1,040	306	366	140	90	79	273
26	830	827	1,850	380	2,970	974	303	392	148	92	71	252
27	687	770	1,600	330	4,960	918	303	352	132	89	180	246
28	580	739	1,400	280	5,950	911	300	312	112	81	682	258
29	515	781	1,180	300	-----	1,090	324	288	100	75	384	267
30	827	1,630	958	350	-----	1,170	330	267	90	79	213	444
31	1,650	-----	752	400	-----	1,050	-----	246	-----	77	136	-----
TOTAL	26,110	52,464	54,900	26,533	62,504	60,273	19,319	24,596	7,306	3,437	3,178	11,133
MEAN	842	1,749	1,771	856	2,232	1,944	644	793	244	111	103	371
MAX	2,220	6,020	2,910	3,570	6,400	4,500	1,650	2,340	1,180	225	682	1,360
MIN	127	739	752	280	260	911	300	246	90	75	38	26
CFSM	1.59	3.31	3.35	1.62	4.23	3.68	1.22	1.50	.46	.21	.20	.70
IN.	1.84	3.70	3.87	1.87	4.40	4.25	1.36	1.73	.51	.24	.22	.78

CAL YR 1970 TOTAL 383,073 MEAN 1.050 MAX 8,400 MIN 90 CFSM 1.99 IN 26.99
WTR YR 1971 TOTAL 351,753 MEAN .964 MAX 6,400 MIN 26 CFSM 1.83 IN 24.78

PEAK DISCHARGE (BASE, 7,000 CFS).--Feb. 21 (0230) 7,710 cfs (10.13 ft).

MAHONING CREEK BASIN

03034000 Mahoning Creek at Punxsutawney, Pa.

LOCATION.--Lat 40°56'21", long 79°00'31", Jefferson County, on right bank 75 ft downstream from Williams Run, 1.9 miles downstream from Sawmill Run, and 2 miles west of Punxsutawney.

DRAINAGE AREA.--158 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,206.14 ft above mean sea level (Corps of Engineers bench mark). Prior to Oct. 1, 1946, at site 2.9 miles upstream at datum 13.30 ft higher.

AVERAGE DISCHARGE.--33 years, 259 cfs (22.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,360 cfs Feb. 21 (gage height, 6.86 ft); minimum, 22 cfs Aug. 19 (gage height, 0.83 ft).

Period of record: Maximum discharge, 11,100 cfs Mar. 10, 1964 (gage height, 13.01 ft), from rating curve extended above 4,300 cfs on basis of slope-area measurement of peak flow; minimum, 2.6 cfs Sept. 26, 1939. Maximum stage since 1935, 15.6 ft Mar. 18, 1936, from floodmark, at former site and datum (discharge, 12,500 cfs, from rating curve extended above 4,300 cfs).

REMARKS.--Records good. Diurnal fluctuation at low flow by mine pumpage into stream above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	453	635	264	110	1,300	332	94	87	84	46	42
2	76	478	540	231	100	954	456	96	87	105	42	39
3	130	1,330	488	210	96	740	448	106	113	63	42	37
4	100	2,070	822	500	92	600	396	105	96	53	46	34
5	74	1,280	745	1,690	130	492	348	94	81	45	46	32
6	70	882	650	1,130	285	420	306	356	85	42	41	30
7	68	635	536	735	180	520	279	452	85	39	36	30
8	63	488	444	532	132	504	258	548	73	37	33	28
9	59	400	392	452	117	428	240	552	67	43	31	28
10	65	336	336	392	105	368	267	460	61	64	30	27
11	407	306	310	332	128	364	237	376	58	90	29	26
12	659	306	720	299	110	364	219	364	57	103	27	27
13	455	536	900	249	1,060	816	207	508	68	60	26	56
14	366	548	770	273	930	1,200	225	680	103	106	25	207
15	332	650	635	273	544	1,700	195	560	186	88	25	112
16	284	595	532	213	384	1,800	177	484	117	60	31	70
17	236	512	516	195	360	1,200	165	400	93	51	27	150
18	208	444	492	168	640	852	174	317	78	45	25	120
19	180	380	488	174	1,030	745	145	267	68	64	24	80
20	158	408	680	150	2,190	790	136	240	61	143	26	90
21	188	492	575	155	2,440	630	132	207	63	76	42	130
22	455	432	590	145	2,000	560	128	174	60	59	70	110
23	374	444	645	140	2,210	500	120	153	56	50	64	100
24	320	368	715	124	1,390	436	115	140	57	49	44	90
25	277	324	620	124	954	356	113	145	57	63	33	80
26	239	296	552	155	936	328	113	134	56	53	32	90
27	207	285	480	140	1,950	296	106	120	56	55	117	150
28	180	270	412	130	1,960	313	103	112	55	43	216	100
29	166	289	344	120	-----	376	105	105	53	46	81	80
30	241	785	292	120	-----	372	100	99	105	48	58	66
31	367	-----	255	130	-----	332	-----	93	-----	49	48	-----
TOTAL	7,084	17,022	17,111	9,945	22,563	20,656	6,345	8,541	2,342	1,976	1,463	2,261
MEAN	229	567	552	321	806	666	212	276	78.1	63.7	47.2	75.4
MAX	659	2,070	900	1,690	2,440	1,800	456	680	186	143	216	207
MIN	59	270	255	120	92	296	100	93	53	37	24	26
CFSM	1.45	3.59	3.49	2.03	5.10	4.22	1.34	1.75	.49	.40	.30	.48
IN.	1.67	4.01	4.03	2.34	5.31	4.86	1.49	2.01	.55	.47	.34	.53

CAL YR 1970 TOTAL 127,029 MEAN 348 MAX 3,530 MIN 28 CFSM 2.20 IN 29.91
WTR YR 1971 TOTAL 117,309 MEAN 321 MAX 2,440 MIN 24 CFSM 2.03 IN 27.62

PEAK DISCHARGE (BASE, 2,500 CFS).--Nov. 3 (2100) 3,000 cfs (6.45 ft); Feb. 21 (0030) 3,360 cfs (6.86 ft).

MAHONING CREEK BASIN

213

03034500 Little Mahoning Creek at McCormick, Pa.

LOCATION.--Lat 40°50'10", long 79°06'37", Indiana County, on left bank 200 ft upstream from highway bridge at McCormick, 1 mile west of Georgeville, 1.7 miles upstream from Ross Run, and 4 miles southeast of Smicksburg.

DRAINAGE AREA.--87.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,164.88 ft above mean sea level (Corps of Engineers benchmark). Prior to May 10, 1940, nonrecording gage at site 200 ft upstream at same datum.

AVERAGE DISCHARGE.--32 years, 144 cfs (22.37 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,980 cfs Feb. 21 (gage height, 8.10 ft); maximum gage height, 9.67 ft Feb. 13 (ice jam); minimum discharge, 3.4 cfs Sept. 10, 11, 12 (gage height, 1.14 ft).
Period of record: Maximum discharge, 5,300 cfs Jan. 27, 1952 (gage height, 11.42 ft); maximum gage height, 13.86 ft Jan. 21, 1959 (ice jam); minimum discharge, 0.3 cfs Sept. 28, 1959.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	434	328	90	58	520	156	35	26	10	18	5.9
2	40	343	257	84	54	380	200	35	25	9.9	13	5.3
3	75	757	258	80	46	300	192	40	39	8.2	11	5.0
4	57	857	525	426	50	250	154	41	35	7.2	22	4.7
5	44	474	374	1,320	58	212	134	35	26	6.5	21	4.5
6	40	363	296	654	200	172	120	558	32	6.2	17	4.3
7	36	260	226	388	120	310	108	440	56	5.6	12	3.8
8	32	199	181	272	90	295	98	460	34	5.6	9.1	3.8
9	29	164	160	226	80	240	86	355	24	5.6	7.8	3.6
10	33	140	144	186	68	196	98	260	20	10	7.2	3.4
11	223	127	133	149	60	194	84	200	17	29	6.6	3.4
12	273	140	801	135	54	212	75	176	16	74	6.2	3.6
13	181	172	742	104	540	729	71	244	19	21	5.6	15
14	143	173	470	230	700	861	97	282	37	24	5.3	79
15	145	228	335	242	450	1,040	85	208	70	19	4.7	46
16	125	217	260	144	300	879	76	174	37	14	4.6	25
17	105	187	266	119	250	552	73	146	29	12	4.3	58
18	94	164	269	94	500	370	80	119	23	9.5	4.0	32
19	82	142	251	88	800	353	67	101	19	13	3.8	26
20	71	159	308	80	1,400	408	60	89	17	54	4.0	31
21	95	179	253	74	1,360	308	59	75	18	24	5.0	50
22	340	156	278	70	1,150	276	58	65	18	15	19	36
23	225	173	312	66	1,100	244	53	56	15	11	19	24
24	176	139	312	62	630	210	50	50	12	10	16	19
25	143	123	254	60	435	168	48	55	12	21	9.1	16
26	117	113	222	90	450	154	45	52	11	17	6.8	19
27	99	111	189	74	1,000	143	42	43	11	15	8.2	62
28	84	108	161	70	825	156	39	38	11	14	14	36
29	76	144	130	66	-----	206	40	35	9.9	12	11	27
30	205	546	118	68	-----	196	37	32	9.1	14	8.6	22
31	389	-----	96	72	-----	168	-----	29	-----	16	6.8	-----
TOTAL	3,821	7,492	8,909	5,883	12,828	10,702	2,585	4,528	728.0	513.3	310.7	674.3
MEAN	123	250	287	190	458	345	86.2	146	24.3	16.6	10.0	22.5
MAX	389	857	801	1,320	1,400	1,040	200	558	70	74	22	79
MIN	29	108	96	60	46	143	37	29	9.1	5.6	3.8	3.4
CFSM	1.41	2.86	3.28	2.17	5.24	3.95	.99	1.67	.28	.19	.11	.26
IN.	1.63	3.19	3.79	2.50	5.46	4.56	1.10	1.93	.31	.22	.13	.29

CAL YR 1970 TOTAL 66,894.8 MEAN 183 MAX 2,300 MIN 7.8 CFSM 2.09 IN 28.47
WTR YR 1971 TOTAL 58,974.3 MEAN 162 MAX 1,400 MIN 3.4 CFSM 1.85 IN 25.10

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

MAHONING CREEK BASIN

03036000 Mahoning Creek at Mahoning Creek Dam, Pa.

LOCATION.--Lat 40°55'39", long 79°17'29", Armstrong County, on left bank at downstream side of highway bridge at McCrea Furnace, 700 ft downstream from Camp Run, 0.9 mile downstream from Mahoning Creek Lake, 1 mile southwest of Eddyville, and 2.1 miles upstream from Pine Run.

DRAINAGE AREA.--344 sq mi.

PERIOD OF RECORD.--August 1938 to current year. Monthly discharge only for August 1938, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,003.39 ft above mean sea level (Corps of Engineers bench mark). Prior to Feb. 1, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 565 cfs (22.31 inches per year) adjusted for storage since June 1941.

EXTREMES.--Current year: Maximum discharge, 8,110 cfs Mar. 2 (gage height, 7.67 ft); minimum daily, 27 cfs Aug. 9, 10.

Period of record: Maximum discharge, 10,400 cfs Mar. 8, 1942 (gage height, 8.10 ft); minimum daily, 8.8 cfs Sept. 19-26, 1959.

REMARKS.--Records good. Flow completely regulated since 1941 by Mahoning Creek Lake 0.9 mile upstream (see p. 233).

COOPERATION.--Six discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1305: 1941 (adjusted monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	440	941	520	260	3,030	752	178	205	32	40	101
2	375	450	1,310	515	260	5,560	752	97	205	60	94	34
3	370	460	1,290	515	260	7,540	752	97	205	97	165	33
4	284	525	1,310	545	260	4,180	746	97	205	97	165	32
5	190	953	1,870	615	288	1,360	746	97	202	97	165	32
6	190	2,290	1,930	1,540	392	1,040	740	340	202	97	162	32
7	168	3,010	1,250	2,760	510	1,040	728	645	202	97	104	31
8	187	2,940	863	2,720	500	1,040	537	807	199	97	28	31
9	146	2,350	757	2,130	495	1,040	276	1,110	199	99	27	59
10	108	1,430	751	1,340	485	1,030	276	1,390	196	97	27	95
11	116	1,380	652	980	480	1,020	276	1,170	139	103	28	95
12	316	1,340	787	623	369	996	374	1,070	95	103	28	95
13	550	1,290	844	510	312	776	500	788	97	121	30	103
14	555	1,260	1,240	515	450	734	500	800	97	168	31	118
15	565	991	1,760	624	578	926	495	814	142	168	31	110
16	655	672	1,720	728	485	972	490	1,090	175	168	31	148
17	799	1,010	1,690	614	884	1,360	393	1,360	175	165	33	316
18	787	1,230	1,310	388	1,210	2,020	268	1,320	175	162	33	480
19	763	1,010	1,620	268	1,060	2,020	268	882	175	168	30	465
20	745	727	1,590	260	746	2,020	268	490	255	165	29	370
21	564	733	1,560	260	746	1,990	268	485	344	165	28	356
22	542	745	1,520	260	788	1,970	264	352	227	165	28	276
23	769	657	1,500	264	1,760	2,360	264	205	97	165	30	187
24	769	844	1,330	268	3,520	2,720	264	205	97	165	49	181
25	769	968	1,220	264	4,480	2,590	260	208	97	88	118	181
26	602	844	1,210	230	4,680	1,720	260	208	68	30	175	181
27	757	613	863	260	3,670	776	260	208	31	30	226	178
28	636	505	525	260	3,040	764	260	208	31	30	199	178
29	401	515	637	260	-----	752	256	208	32	32	284	152
30	263	482	745	260	-----	648	256	208	32	33	360	112
31	410	-----	620	260	-----	758	-----	205	-----	33	308	-----
TOTAL	14,726	32,664	37,215	21,556	32,968	56,752	12,749	17,342	4,601	3,297	3,086	4,762
MEAN	475	1,089	1,200	695	1,177	1,831	425	559	153	106	99.5	159
MAX	799	3,010	1,930	2,760	4,680	7,540	752	1,390	344	168	360	480
MIN	108	440	525	230	260	648	256	97	31	30	27	31
MEAN#	494	1,096	1,167	707	1,680	1,380	397	572	146	111	86.5	161
CFSM#	1.44	3.19	3.39	2.06	4.88	4.04	1.15	1.66	.42	.32	.25	.47
IN.#	1.66	3.56	3.91	2.37	5.08	4.62	1.28	1.91	.47	.37	.29	.52
CAL YR 1970 TOTAL	262,645											
WTR YR 1971 TOTAL	241,718											
MEAN 720												
MAX 3,400												
MIN 27												
MEAN# 720												
CFSM# 660												
IN.# 28.37												
IN.# 26.04												

Adjusted for change in contents in Mahoning Creek Lake.

03036500 Allegheny River at Kittanning, Pa.

LOCATION.--Lat 40°49'13", long 79°31'54", Armstrong County, on right bank 600 ft upstream from dam at lock 7 at Kittanning, 5.7 miles upstream from Crooked Creek, 9.7 miles downstream from Mahoning Creek, and at mile 45.8.

DRAINAGE AREA.--8,973 sq mi.

PERIOD OF RECORD.--August 1904 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 771.32 ft above mean sea level, adjustment of 1912. Prior to Sept. 30, 1928, nonrecording gage at site 4,000 ft downstream at different datum. Oct. 1, 1934, to Apr. 19, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--61 years (1904-28, 1934-71), 15,350 cfs (23.23 inches per year) adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 93,000 cfs Feb. 21 (gage height, 19.44 ft); minimum, 1,510 cfs Aug. 14 (gage height, 11.48 ft).

Period of record: Maximum discharge, 269,000 cfs Mar. 26, 1913 (gage height, 30.7 ft, from floodmark, site and datum then in use); minimum observed, 570 cfs Sept. 15-17, 1913.

REMARKS.--Records good. Flow regulated since 1965 by Allegheny Reservoir, by Chautauqua Lake, since 1941 by Tionesta Lake, since 1952 by East Branch Clarion River Lake, since 1924 by Piney Reservoir, and since 1941 by Mahoning Creek Lake (see p.233). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 873: Drainage area. WSP 1305: 1906(M), 1914, 1925. WSP 1435: 1936-37, 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	11,800	32,900	37,600	16,000	3,570	62,400	17,800	16,800	5,460	3,830	2,820	3,700	
2	11,100	33,300	33,400	15,100	3,830	55,400	17,800	16,200	6,180	4,350	2,610	3,200	
3	10,300	33,800	27,200	15,400	4,250	57,500	27,100	14,900	5,910	4,620	2,980	2,790	
4	9,590	53,900	31,500	16,400	4,770	52,400	26,900	14,300	6,360	4,190	3,150	2,670	
5	9,190	50,200	41,200	28,500	5,860	51,200	22,000	13,300	7,660	3,670	3,040	2,140	
6	9,740	42,600	38,500	30,000	9,110	49,700	21,800	14,800	6,280	3,410	2,920	1,980	
7	10,400	40,800	34,800	26,000	9,600	47,500	19,900	16,800	8,050	3,510	2,720	2,090	
8	13,200	37,500	31,800	23,100	10,400	44,800	18,400	16,500	10,300	3,430	2,670	2,450	
9	11,200	33,500	29,500	21,100	11,400	39,100	17,000	20,700	10,500	3,770	2,180	2,410	
10	9,280	29,600	28,500	19,600	10,600	35,200	16,600	20,900	9,520	3,880	2,580	2,330	
11	8,350	27,000	28,900	17,700	7,710	32,200	18,000	19,100	7,690	3,380	2,830	2,280	
12	18,600	26,900	33,900	17,300	7,450	27,700	17,000	17,300	6,540	3,300	2,890	2,140	
13	25,900	28,000	39,800	15,300	9,880	24,200	17,400	20,200	4,820	3,420	2,070	2,560	
14	38,800	29,000	33,400	15,500	10,700	23,500	19,400	20,400	4,970	3,770	1,910	4,920	
15	34,400	30,600	30,900	16,300	11,000	30,900	20,700	18,700	7,240	3,530	1,870	7,970	
16	34,600	41,500	33,200	14,700	12,900	45,800	20,200	15,700	10,400	3,410	1,850	7,680	
17	32,200	34,000	32,500	13,500	12,800	45,500	18,300	14,800	9,520	3,370	2,600	7,050	
18	30,000	30,600	31,600	10,500	15,500	38,000	16,400	14,100	8,220	3,110	2,170	6,280	
19	27,200	31,600	30,500	9,640	20,100	32,900	14,600	12,300	6,780	3,090	1,870	4,850	
20	24,300	29,500	31,600	9,590	33,300	32,400	14,200	10,800	5,220	3,760	1,830	4,360	
21	22,500	32,300	33,500	7,440	57,200	29,500	24,200	8,810	4,830	3,790	1,970	5,050	
22	25,400	32,300	31,500	6,710	47,700	27,100	30,400	7,920	6,100	3,590	2,590	5,100	
23	26,000	30,700	31,100	7,830	51,600	25,500	28,900	6,800	5,930	3,560	3,010	4,400	
24	25,300	28,700	26,400	7,610	49,800	24,100	22,800	5,710	5,390	3,230	4,010	4,030	
25	22,600	26,900	27,500	8,430	46,800	23,700	12,700	6,460	5,020	2,970	3,480	3,550	
26	20,300	25,700	26,300	9,170	49,600	21,400	10,300	7,450	4,980	2,770	3,110	3,560	
27	17,200	23,700	24,600	7,330	59,400	19,100	11,000	7,970	4,050	3,230	3,370	4,110	
28	15,400	24,700	21,300	5,680	71,000	20,000	11,000	7,810	3,800	3,030	4,240	4,620	
29	14,200	30,300	19,500	5,170	-----	21,400	11,800	7,960	4,160	3,100	4,780	7,270	
30	15,500	35,900	18,600	4,130	-----	23,000	13,600	7,040	3,870	3,380	4,970	6,490	
31	29,200	-----	17,700	3,520	-----	20,700	-----	5,870	-----	3,470	4,680	-----	
TOTAL	613,750	988,000	938,300	424,250	647,830	1,083.8M	558,200	408,400	195,750	108,920	89,770	124,030	
MEAN	19,800	32,930	30,270	13,690	23,140	34,960	18,610	13,170	6,525	3,514	2,896	4,134	
MAX	38,800	53,900	41,200	30,000	71,000	62,400	30,400	20,900	10,500	4,620	4,970	7,970	
MIN	8,350	23,700	17,700	3,520	3,570	19,100	10,300	5,710	3,800	2,770	1,830	1,980	
(Δ)	-625	+979	-2,660	-1,710	+1,180	-665	+4,650	-321	-447	-1,490	-1,200	-679	
MEAN ^Δ	19,180	33,910	27,610	11,980	24,320	34,300	23,260	12,850	6,078	2,024	1,696	3,455	
CFSM ^Δ	2.14	3.78	3.08	1.34	2.71	3.82	2.59	1.43	.68	.23	.19	.39	
IN. ^Δ	2.47	4.22	3.55	1.54	2.82	4.40	2.89	1.65	.76	.27	.22	.44	
CAL YR 1970	TOTAL 6,856,980		MEAN 18,790		MAX 91,700		MIN 2,690		MEAN ^Δ 18,780		CFSM ^Δ 2.09		IN. ^Δ 28.43
WTR YR 1971	TOTAL 6,181,000		MEAN 16,930		MAX 71,000		MIN 1,830		MEAN ^Δ 16,660		CFSM ^Δ 1.86		IN. ^Δ 25.23

Δ Change in contents, equivalent in cubic feet per second in Allegheny Reservoir, Chautauqua Lake, Tionesta Lake, East Branch Clarion River Lake, Piney Reservoir, and Mahoning Creek Lake. Records of contents in Piney Reservoir furnished by Pennsylvania Electric Co.

Δ Adjusted for change in reservoir contents.

CROOKER CREEK BASIN

03038000 Crooked Creek at Idaho, Pa.

LOCATION.--Lat 40°39'17", long 79°20'56", Armstrong County, on right bank 0.4 mile downstream from Keystone Generating Station, at old bridge abutment, at Idaho, 1.5 miles downstream from Plum Creek, and 2.4 miles west of Shelocta.

DRAINAGE AREA.--191 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods published in WSP 1305.

GAGE.--Water-stage recorder and concrete weir control. Datum of gage is 961.04 ft above mean sea level (Baltimore and Ohio Railroad bench mark).

AVERAGE DISCHARGE.--34 years, 276 cfs (19.62 inches per year) adjusted for storage since March 1968.

EXTREMES.--Current year: Maximum discharge, 4,580 cfs Jan. 5 (gage height, 8.23 ft), from rating curve extended above 2,900 cfs; minimum daily discharge, 41 cfs Aug. 7, 14.

Period of record: Maximum discharge, 12,400 cfs Oct. 16, 1954 (gage height, 15.12 ft), from rating curve extended above 6,100 cfs on basis of slope-area measurement of peak flow at site 1.2 miles below gage, adjusted for drainage-area ratio; minimum daily, 1.0 cfs Oct. 22, 1966, result of abnormal regulation.

Flood in March 1936 reached a stage of 18.6 ft from floodmark (discharge, 19,400 cfs, from rating curve extended above 6,100 cfs on basis of slope-area measurement at gage height 15.12 ft).

REMARKS.--Records good. Flow regulated to some extent since March 1968 by Plum Creek Reservoir 7 miles upstream (usable capacity, 22,010 acre-ft). Evaporation from operation of steam-electric plant 0.4 mile upstream, which began during July 1967, can amount to as much as 30 cfs.

REVISIONS (WATER YEARS).--WSP 1385: 1938, 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	946	748	200	132	772	235	109	98	53	57	46
2	119	742	610	170	100	646	270	114	93	52	60	57
3	174	1,250	646	160	93	580	270	119	109	55	56	46
4	116	1,660	1,350	1,130	109	520	230	109	96	53	68	48
5	96	940	1,030	4,010	658	436	210	104	104	54	54	44
6	87	730	796	1,740	934	406	200	916	96	53	48	45
7	85	544	610	886	502	772	180	760	109	50	41	53
8	73	424	490	586	364	796	170	856	73	54	46	50
9	63	340	360	484	280	646	160	664	87	58	52	47
10	85	295	300	406	170	562	150	472	87	54	52	45
11	328	270	406	340	190	604	140	334	78	206	49	45
12	412	305	2,900	300	300	622	140	285	84	137	45	46
13	290	412	2,290	245	2,420	1,760	130	394	87	52	48	60
14	230	412	1,310	688	1,870	1,680	157	436	124	64	41	300
15	275	514	886	634	826	1,240	121	316	140	64	45	80
16	235	490	706	448	580	946	137	275	87	58	50	76
17	190	436	898	376	604	736	140	230	84	55	53	116
18	167	382	940	260	1,080	574	150	186	82	56	47	70
19	147	328	820	235	1,740	622	116	157	78	60	49	82
20	129	412	694	210	3,220	832	116	140	68	78	48	71
21	300	544	580	198	3,100	736	186	116	68	60	50	63
22	826	448	694	206	2,800	700	154	119	70	50	58	60
23	586	436	712	235	2,870	622	96	111	65	53	50	53
24	424	340	682	202	1,450	568	111	109	65	56	52	58
25	316	295	580	202	958	472	107	127	67	58	48	54
26	240	265	514	340	850	436	100	107	67	55	56	71
27	190	255	442	150	1,150	376	100	96	70	60	57	80
28	157	235	376	202	991	346	114	102	70	61	52	60
29	140	316	305	178	-----	316	129	107	65	60	49	56
30	448	970	270	220	-----	300	127	107	55	49	52	56
31	814	-----	235	178	-----	245	-----	107	-----	60	47	-----
TOTAL	7,882	15,936	24,180	15,819	30,341	20,869	4,646	8,184	2,526	1,988	1,580	2,038
MEAN	254	531	780	510	1,084	673	155	264	84.2	64.1	51.0	67.9
MAX	826	1,660	2,900	4,010	3,220	1,760	270	916	140	206	68	300
MIN	63	235	235	150	93	245	96	96	55	49	41	44
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 144,412	MEAN 396	MAX 4,230	MIN 35	CFSM -	IN. -						
WTR YR 1971	TOTAL 135,989	MEAN 373	MAX 4,010	MIN 41	CFSM -	IN. -						

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-12	1800	7.03	3,230	2-21	0100	7.92	4,200
1-5	0900	8.23	4,580	2-22	2000	7.89	4,170
2-13	1700	8.05	4,360				

03039000 Crooked Creek at Crooked Creek Dam, Pa.

LOCATION.--Lat 40°43'13", long 79°30'42", Armstrong County, on right bank 0.4 mile downstream from Crooked Creek Dam, 3.5 miles south of Ford City, and 6.7 miles upstream from mouth.

DRAINAGE AREA.--278 sq mi.

PERIOD OF RECORD.--October 1909 to current year. Published as "at Hileman's Farm" 1910-29, and as "near Ford City" 1930-39. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 799.51 ft above mean sea level (levels by Corps of Engineers). Prior to Aug. 1, 1933, nonrecording gage at site 2 miles downstream at different datum. July 31, 1933, to Dec. 5, 1939, nonrecording gage at site 1.5 miles downstream at different datum.

AVERAGE DISCHARGE.--62 years, 416 cfs (20.32 inches per year) adjusted for storage from May 1940 to September 1968.

EXTREMES.--Current year: Maximum discharge, 2,570 cfs Feb. 23, 24 (gage height, 5.76 ft); minimum daily, 17 cfs June 25-28.

Period of record: Maximum discharge, 21,000 cfs Mar. 18, 1936 (gage height, 17.86 ft, from floodmark, site and datum then in use), from rating curve extended above 8,000 cfs on basis of contracted-opening measurement of peak flow; minimum observed, 0.1 cfs Sept. 8, 11, 20, 25, 26, 1932.

REMARKS.--Records good. Flow completely regulated since 1940 by Crooked Creek Lake 0.4 mile upstream (see p. 233) and since 1968 by Plum Creek Reservoir (combined capacity, 115,910 acre-ft).

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1910-12, 1915-16, 1917(M), 1918, 1922-27, 1928(M), 1930(M). WSP 1435: 1919-21, 1932-33, 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	478	842	472	442	206	1,390	200	67	173	76	57	42
2	470	944	706	320	206	1,950	200	67	212	76	57	34
3	462	730	710	206	206	2,200	203	67	201	78	57	34
4	308	762	730	215	206	2,120	203	67	227	78	57	34
5	145	1,340	983	250	206	2,040	203	67	224	78	66	34
6	145	2,100	1,220	1,160	345	1,930	200	321	224	78	74	49
7	131	1,980	1,200	2,220	482	1,310	200	592	224	62	78	66
8	129	1,590	1,170	2,140	590	937	200	702	145	46	78	66
9	129	921	1,170	2,040	698	1,150	200	925	34	46	60	66
10	129	642	1,070	1,900	690	1,120	203	1,100	19	46	46	66
11	129	654	1,010	1,420	670	1,100	203	1,070	24	47	46	66
12	172	646	1,080	1,020	642	1,070	203	837	62	139	47	66
13	227	532	1,230	564	670	841	200	646	98	230	40	67
14	230	434	1,680	209	991	941	200	642	102	227	32	68
15	230	442	2,060	338	1,640	972	197	642	107	136	32	264
16	230	450	1,980	466	1,940	762	197	634	107	44	32	478
17	234	454	1,920	466	1,840	984	194	622	166	42	32	470
18	234	458	1,860	470	1,760	1,200	194	610	221	42	32	287
19	234	462	1,800	474	1,510	1,180	197	389	165	42	32	113
20	234	462	1,400	454	737	1,170	194	164	109	74	33	113
21	230	470	1,040	450	574	1,160	194	164	109	104	33	113
22	364	470	830	446	606	1,600	194	116	84	104	57	113
23	502	478	658	438	1,480	1,790	194	66	58	81	85	87
24	506	578	670	434	2,280	1,690	194	66	32	58	85	63
25	506	674	670	315	2,520	1,040	194	66	17	57	85	63
26	502	548	670	200	2,380	630	194	66	17	57	87	63
27	502	442	670	203	1,880	614	194	66	17	57	158	64
28	498	438	670	203	1,400	512	126	67	17	57	246	64
29	490	324	593	203	-----	414	64	88	46	57	242	66
30	490	230	450	203	-----	305	64	138	76	57	149	66
31	498	-----	450	203	-----	200	-----	173	-----	57	48	-----
TOTAL	9,768	21,497	32,822	20,072	29,355	36,322	5,603	11,307	3,317	2,433	2,263	3,245
MEAN	315	717	1,059	647	1,048	1,172	187	365	111	78.5	73.0	108
MAX	506	2,100	2,060	2,220	2,520	2,200	203	1,100	227	230	246	478
MIN	129	230	450	200	206	200	64	66	17	42	32	34
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1970 TOTAL 188,867.0 MEAN 517 MAX 2,470 MIN 1.0 CFSM - IN.-

WTR YR 1971 TOTAL 178,004.0 MEAN 488 MAX 2,520 MIN 17 CFSM - IN.-

KISKIMINETAS RIVER BASIN

03039200 Clear Run near Buckstown, Pa.

LOCATION.--Lat 40°02'50", long 78°49'58", Somerset County, on left bank at downstream side of highway bridge on State Highway 160, 0.8 mile south of Reels Corners, and 2.3 miles southeast of Buckstown.

DRAINAGE AREA.--3.68 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1961-64. September 1964 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Altitude of gage is 2,340 ft (from topographic map). July 6, 1960, to Aug. 31, 1964, crest-stage gage at site 50 ft upstream at same datum.

AVERAGE DISCHARGE.--7 years, 5.50 cfs (20.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 98 cfs May 6 (gage height, 3.50 ft), from rating curve extended as explained below; minimum, 0.10 cfs July 23, 24, 25, 26, 28, 29 (gage height, 2.11 ft).

Period of record: Maximum discharge, 250 cfs Feb. 25, 1961 (gage height, 5.30 ft, gage then in use), from rating curve extended above 120 cfs on basis of slope-area measurement at gage height, 4.89 ft, gage then in use; no flow at times in water years 1964-66.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	14	5.6	5.6	3.0	27	12	3.0	2.8	1.6	2.0	.14
2	.67	10	4.9	4.6	2.7	21	19	3.3	2.8	1.5	1.4	.25
3	1.3	35	4.9	4.3	2.6	16	16	3.5	5.2	.98	1.8	.20
4	.75	23	6.9	16	2.5	13	17	4.0	4.0	.74	6.9	.17
5	.53	17	5.6	27	2.7	11	16	4.0	3.0	.62	6.9	.15
6	.39	13	4.9	14	3.0	9.4	15	62	6.5	.62	2.2	.14
7	.36	10	4.6	10	2.8	13	14	30	14	.51	.98	.35
8	.33	8.0	4.3	8.3	2.6	10	13	39	9.4	.38	.56	.45
9	.33	7.2	4.3	7.4	2.6	7.8	13	20	5.2	.38	.46	.30
10	.36	6.6	4.9	6.5	2.4	6.9	17	14	4.3	.38	.38	.20
11	1.1	6.4	4.6	5.6	2.4	6.5	13	12	3.8	1.6	.38	.30
12	1.6	10	20	5.2	2.4	6.5	11	11	3.8	1.4	.34	1.5
13	.75	22	14	4.9	18	16	11	24	9.4	.42	.23	2.8
14	1.5	18	11	7.8	16	25	13	19	16	.28	.21	8.9
15	3.1	24	8.3	8.8	8.9	55	9.4	14	8.9	.23	.19	4.0
16	1.6	16	7.4	6.0	6.5	47	8.3	12	8.3	.19	.17	3.3
17	1.2	12	7.4	5.2	6.5	29	7.4	11	7.4	.17	.16	4.0
18	1.1	10	6.5	4.9	7.8	19	7.8	8.9	6.0	.15	.15	2.4
19	.85	8.3	9.4	4.6	9.4	16	6.5	7.8	4.9	.68	.15	4.6
20	.80	9.4	12	4.3	18	13	5.6	6.9	4.6	.74	.14	16
21	1.9	9.4	8.3	4.0	22	11	5.2	6.0	4.0	.23	.14	7.8
22	10	6.9	11	3.8	28	9.4	4.9	5.2	3.8	.15	3.0	4.6
23	5.8	6.0	19	3.8	36	7.8	4.6	4.9	3.5	.11	1.5	3.8
24	3.1	5.2	27	3.5	21	6.9	4.3	4.6	3.0	.11	.45	3.3
25	2.6	4.6	15	3.3	16	6.0	4.0	4.3	2.8	.17	.16	2.8
26	2.4	4.3	12	4.0	18	5.6	3.8	4.0	2.4	.21	.15	6.5
27	2.1	4.3	9.4	3.5	52	5.2	3.5	3.8	2.2	.82	.15	6.9
28	1.9	4.0	7.8	3.2	39	6.5	3.8	3.5	2.0	.15	.60	4.3
29	1.9	4.9	6.9	3.0	-----	10	3.8	3.3	1.5	2.2	.50	3.8
30	9.5	8.3	6.0	4.0	-----	8.9	3.3	3.3	2.4	3.5	.30	3.5
31	13	-----	5.2	3.3	-----	7.8	-----	3.0	-----	8.3	.20	-----
TOTAL	73.57	337.8	279.1	200.4	354.8	453.2	286.2	355.3	157.9	29.52	32.85	97.45
MEAN	2.37	11.3	9.00	6.46	12.7	14.6	9.54	11.5	5.26	.95	1.06	3.25
MAX	13	35	27	27	52	55	19	62	16	8.3	6.9	16
MIN	.33	4.0	4.3	3.0	2.4	5.2	3.3	3.0	1.5	.11	.14	.14
CFSM	.64	3.07	2.45	1.76	3.45	3.97	2.59	3.13	1.43	.26	.29	.88
IN.	.74	3.41	2.82	2.03	3.59	4.58	2.89	3.59	1.60	.30	.33	.99

CAL YR 1970 TOTAL 3,447.09 MEAN 9.44 MAX 86 MIN .33 CFSM 2.57 IN 34.85
 WTR YR 1971 TOTAL 2,658.09 MEAN 7.28 MAX 62 MIN .11 CFSM 1.98 IN 26.87

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 3	Unknown	3.21	66	3-15	1845	3.37	84
2-27	1715	3.25	70	5- 6	0945	3.50	98

LOCATION.--Lat 40°17'08", long 78°55'15", Cambria County, on right bank 50 ft upstream from highway bridge at Ferndale, 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.

PERIOD OF RECORD.--October 1913 to March 1936, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Monthly figures adjusted for storage and diversion for October 1918 to September 1921, published in WSP 503, 523, have been found in error and should not be used. Published as "at Johnstown", 1914-36. Gage-height records collected in this vicinity since 1885 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,184.20 ft above mean sea level. Prior to Mar. 19, 1936, non-recording gage at site 3.5 miles downstream at different datum. Dec. 8, 1938, to Jan. 30, 1940, nonrecording gage at site 50 ft downstream at present datum.

AVERAGE DISCHARGE.--33 years (1938-71), 742 cfs (22.34 inches per year) adjusted for storage and diversion,

EXTREMES.--Current year: Maximum discharge, 9,850 cfs May 6 (gage height, 9.21 ft); minimum, 58 cfs Oct. 9 (gage height, 2.07 ft).

Period of record: Maximum discharge, 59,000 cfs Mar. 18, 1936 (gage height, 30.26 ft, from high-water mark, site and datum then in use), from rating curve extended above 13,000 cfs on the basis of slope-area and contracted-opening measurements of peak flow; minimum observed, 5 cfs Sept. 8, 1929.

REMARKS.--Records good except those for winter periods or no gage-height record, which are fair. Regulation by mine pumpage and reservoirs and diversion above station; the five largest reservoirs have a combined capacity of 42,170 acre-ft. Figures of daily discharge do not include diversion from Stony Creek intake and Quemahoning Creek Reservoir to plants of Bethlehem Steel Co., and from Mill Creek, Dalton Run, and North Fork Bens Creek Reservoirs for water supply of city of Johnstown.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1915, 1918, 1923-26. WSP 1435: 1920-21, 1932, 1941(M), 1943(M), 1945-46(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	1,370	894	838	500	3,280	1,020	305	230	227	452	120
2	86	1,130	708	765	430	2,580	1,300	318	210	187	314	170
3	96	2,510	713	659	390	2,150	1,300	368	220	156	518	140
4	101	2,450	1,100	1,850	390	1,780	1,200	410	210	143	1,150	130
5	83	1,580	959	4,460	450	1,430	1,100	341	200	133	1,380	120
6	68	1,230	843	2,770	597	1,300	1,000	5,920	250	123	715	110
7	65	970	704	1,820	508	1,680	940	5,160	700	115	500	200
8	66	796	631	1,360	468	1,570	880	4,260	500	110	400	400
9	62	676	594	1,200	429	1,210	820	2,880	370	108	300	350
10	65	590	614	1,050	346	1,050	972	1,960	310	105	250	250
11	139	580	583	936	351	980	900	1,470	290	300	200	220
12	198	864	1,880	911	406	908	771	1,180	270	341	250	300
13	146	1,990	1,950	816	2,330	2,970	715	2,330	300	180	200	602
14	116	1,650	1,460	1,070	3,200	4,260	892	2,680	800	140	170	4,200
15	272	1,860	1,170	1,970	2,160	4,680	806	1,740	1,500	120	160	4,120
16	203	1,530	1,010	1,370	1,590	4,500	680	1,390	900	110	150	2,580
17	158	1,220	1,010	1,100	1,290	2,930	656	1,170	600	113	140	2,100
18	140	1,000	1,040	904	1,690	2,160	813	956	500	115	120	1,700
19	126	846	1,110	766	2,240	1,950	632	806	420	150	110	1,500
20	117	826	1,720	651	3,640	2,020	560	680	370	247	100	1,300
21	226	933	1,370	625	5,070	1,630	518	602	330	128	100	2,200
22	1,080	764	1,680	588	5,700	1,470	476	536	376	87	600	1,200
23	609	683	3,340	605	6,830	1,330	435	482	300	72	500	900
24	395	567	4,570	572	3,810	1,140	410	440	243	65	300	740
25	333	501	2,690	531	2,560	956	377	400	215	69	200	640
26	270	469	2,010	642	2,680	900	350	370	198	72	170	600
27	227	469	1,640	472	5,660	820	336	340	187	94	160	1,000
28	209	458	1,360	430	5,240	948	341	320	174	72	400	1,800
29	195	521	1,140	450	-----	1,350	372	300	219	138	300	900
30	376	1,270	978	600	-----	1,250	332	280	278	282	200	600
31	1,100	-----	867	540	-----	1,060	-----	250	-----	836	160	-----
TOTAL	7,421	32,303	42,338	33,321	60,955	58,242	21,904	40,644	11,670	5,138	10,669	31,192
MEAN	239	1,077	1,366	1,075	2,177	1,879	730	1,311	389	166	344	1,040
MAX	1,100	2,510	4,570	4,460	6,830	4,680	1,300	5,920	1,500	836	1,380	4,200
MIN	62	458	583	430	346	820	332	250	174	65	100	110
(%)	+18.4	+239	+195	+137	+167	+138	+136	+147	+150	+48.2	+120	+127
MEAN#	317	1,316	1,561	1,212	2,344	2,017	866	1,458	539	214	464	1,167
CFSM#	.70	2.92	3.46	2.69	5.20	4.47	1.92	3.23	1.20	.47	1.03	2.59
IN.#	.81	3.26	3.99	3.10	5.41	5.15	2.14	3.72	1.34	.54	1.19	2.89

CAL YR 1970	TOTAL	366,161	MEAN	1,003	MAX	10,400	MIN	62	MEAN#	1,157	CFSM#	2.57	IN.#	34.83
WTR YR 1971	TOTAL	355,797	MEAN	975	MAX	6,830	MIN	62	MEAN#	1,115	CFSM#	2.47	IN.#	33.54

* Diversion from and change in contents in Quemahoning Creek, North Fork Bens Creek, Dalton Run, and Mill Creek Reservoirs and diversion from Stony Creek intake, equivalent in cubic feet per second. Records of diversion and reservoir contents furnished by Manufacturers Water Co., and Greater Johnstown Water Authority.

Adjusted for diversion and change in reservoir contents.

NOTE.--No gage height record Aug. 7 to Sept. 12.

03041000 Little Conemaugh River at East Conemaugh, Pa.

LOCATION.--Lat 40°20'37", long 78°53'07", Cambria County, on right bank 100 ft downstream from bridge on State Highway 271 at East Conemaugh, 0.3 mile downstream from Clapboard Run, and 2.5 miles upstream from confluence with Stony Creek.

DRAINAGE AREA.--183 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,207.94 ft above mean sea level. Prior to Feb. 1, 1940, non-recording gage at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--32 years, 310 cfs (23.01 inches per year) adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 4,590 cfs Feb. 22 (gage height, 5.63 ft); minimum daily, 40 cfs Aug. 19.

Period of record: Maximum discharge, 12,300 cfs Oct. 16, 1954 (gage height, 8.86 ft), from rating curve extended above 4,100 cfs on basis of slope-area measurement of peak flow; minimum, 3.4 cfs Sept. 28, Oct. 8, 9, 11, 1963 (gage height, 1.08 ft).

Maximum discharge since 1935, 28,800 cfs Mar. 17, 18, 1936, by slope-area measurement.

REMARKS.--Records good. Flow regulated by reservoirs and diversion above station; the two most effective reservoirs have a combined capacity of 5,640 acre-ft. Figures of daily discharge do not include diversion at South Fork intake to Cambria plant of Bethlehem Steel Co., from Saltlick Run Reservoir to city of Johnstown, and from Wilmore Reservoir (capacity, 3,145 acre-ft) average diversion, about 2.6 cfs) to Penn Central Railroad.

REVISIONS (WATER YEARS).--WSP 1305: 1939-50 (adjusted monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	240	558	340	190	1,740	488	179	138	76	97	68
2	73	200	460	320	170	1,380	653	193	129	74	82	66
3	75	544	460	300	160	1,070	611	236	132	66	90	64
4	73	624	840	993	160	846	590	220	127	64	597	62
5	70	446	616	1,870	200	695	560	190	121	62	524	62
6	68	411	530	940	252	604	548	1,870	161	64	292	64
7	68	306	425	618	220	754	506	1,110	240	62	186	70
8	68	250	360	488	208	667	476	1,170	156	66	129	66
9	67	212	336	465	170	560	470	802	124	64	97	62
10	71	188	348	430	150	494	653	625	113	62	74	57
11	114	192	312	385	150	482	542	518	105	200	72	59
12	122	378	1,420	380	186	450	488	460	102	244	68	80
13	88	2,070	1,310	330	1,180	1,700	465	695	113	97	54	246
14	80	1,300	966	405	1,570	1,930	518	709	144	78	46	900
15	117	1,170	746	488	819	2,470	425	530	162	72	42	300
16	92	876	626	375	597	2,360	370	494	127	70	66	380
17	82	680	617	350	518	1,470	355	445	115	68	57	584
18	78	565	602	288	738	990	430	385	105	68	42	350
19	76	467	630	280	1,010	864	340	345	97	87	40	320
20	73	432	912	272	1,940	794	312	330	102	121	41	810
21	91	495	676	276	2,440	653	296	288	94	82	74	681
22	293	384	778	260	2,940	590	284	256	90	72	276	465
23	136	372	1,190	264	2,890	548	264	236	87	68	165	370
24	105	306	1,790	240	1,650	494	248	216	85	74	107	300
25	95	276	1,130	228	1,110	430	232	216	87	74	82	240
26	88	255	895	276	1,200	415	220	197	80	74	76	350
27	81	255	721	203	2,940	400	208	179	78	90	74	445
28	77	255	601	180	2,630	440	200	169	78	74	76	330
29	75	282	495	190	-----	566	220	162	60	85	74	272
30	100	903	420	230	-----	542	193	156	74	97	68	236
31	208	-----	363	210	-----	476	-----	147	-----	260	68	-----
TOTAL	2,978	15,334	22,133	12,874	28,388	27,874	12,165	13,728	3,426	2,815	3,836	8,359
MEAN	96.1	511	714	415	1,014	899	406	443	114	90.8	124	279
MAX	293	2,070	1,790	1,870	2,940	2,470	653	1,870	240	260	597	900
MIN	67	188	312	180	150	400	193	147	60	62	40	57
(X)	+3.8	+13.2	+46.2	+12.0	+5.0	+3.6	+3.5	+4.7	+3.8	+6.6	+32.1	+6.4
MEAN [†]	99.9	524	760	427	1,019	903	410	448	118	97.4	156	285
CFSM [†]	.55	2.86	4.15	2.33	5.57	4.93	2.24	2.45	.64	.53	.85	1.56
IN. [†]	.63	3.19	4.78	2.69	5.80	5.68	2.50	2.82	.71	.61	.98	1.74

CAL YR 1970 TOTAL 160,581 MEAN 440 MAX 5,380 MIN 67 MEAN[†] 449 CFSM[†] 2.45 IN.[†] 33.25
WTR YR 1971 TOTAL 153,910 MEAN 422 MAX 2,940 MIN 40 MEAN[†] 434 CFSM[†] 2.37 IN.[†] 32.13

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-13	0930	5.11	3,700	2-27	2130	5.43	4,160
2-21	0100	4.97	3,250	3-15	2100	5.08	3,460
2-22	1630	5.63	4,590	5-6	1200	5.27	3,840

[†] Diversion from and change in contents in Saltlick Run Reservoir, and diversion from South Fork intake, equivalent in cubic feet per second. Records of diversion and reservoir contents furnished by Greater Johnstown Water Authority.

[†] Adjusted for diversion and change in contents.

03041500 Conemaugh River at Seward, Pa.

LOCATION.--Lat 40°25'09", long 79°01'35", Westmoreland County, on left bank at upstream side of bridge on State Highway 56 at Seward, 2.0 miles downstream from Findley Run, and 9 miles northwest of Johnstown.

DRAINAGE AREA.--715 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,076.02 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 1,230 cfs (23.36 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 16,300 cfs May 6 (gage height, 10.30 ft); minimum, 270 cfs Aug. 19 (gage height, 2.06 ft).
 Period of record: Maximum discharge, 54,000 cfs Oct. 16, 1954 (gage height, 19.20 ft); minimum not determined; minimum daily, 105 cfs Dec. 28, 29, 31, 1938.
 Maximum stage since 1935, 26.4 ft Mar. 18, 1936, from floodmarks (discharge, 90,000 cfs by contracted-opening measurement).

REMARKS.--Records good. Flow regulated by steel mills and by reservoirs above station, the nine most effective of which have a combined capacity of 51,580 acre-ft. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	361	1,960	1,820	1,420	900	6,050	1,980	707	631	520	795	409
2	356	1,730	1,460	1,310	860	4,850	2,380	721	598	483	644	387
3	362	2,710	1,430	1,170	820	3,970	2,400	820	602	418	825	368
4	351	4,100	2,300	2,600	800	3,400	2,260	865	640	370	2,400	344
5	345	2,670	2,030	7,020	900	2,770	2,140	775	623	352	2,900	331
6	324	2,100	1,730	4,820	1,110	2,620	2,050	7,640	644	357	1,530	335
7	317	1,640	1,550	3,180	998	3,140	1,920	7,400	1,200	358	963	403
8	322	1,330	1,390	2,360	946	2,900	1,810	6,370	1,030	360	721	602
9	319	1,150	1,200	2,110	902	2,360	1,640	4,740	791	357	588	607
10	325	1,040	1,200	1,870	746	2,080	2,030	3,420	665	349	503	455
11	479	985	1,130	1,670	758	1,990	1,840	2,670	581	752	481	380
12	567	1,330	3,250	1,610	840	1,810	1,600	2,220	549	963	457	534
13	486	3,650	4,010	1,440	3,690	4,950	1,480	2,960	589	520	390	1,000
14	405	3,650	3,100	1,840	5,980	7,020	1,760	4,260	1,330	417	346	6,550
15	542	3,400	2,490	3,140	3,770	7,760	1,600	2,860	2,110	385	321	5,310
16	544	3,010	1,960	2,250	2,890	7,780	1,360	2,360	1,630	365	318	3,230
17	453	2,370	1,930	1,830	2,480	5,340	1,310	2,090	1,200	352	319	4,100
18	412	1,970	1,970	1,520	2,980	3,990	1,640	1,740	955	351	285	2,810
19	396	1,670	1,860	1,350	3,840	3,550	1,310	1,490	840	405	296	2,160
20	388	1,500	2,970	1,170	6,070	3,600	1,180	1,330	832	626	296	3,700
21	453	1,720	2,390	1,150	9,350	2,990	1,100	1,160	824	466	320	3,200
22	1,420	1,210	2,790	1,110	9,390	2,690	1,040	1,030	704	388	1,020	2,300
23	1,060	1,230	4,830	1,130	11,600	2,450	962	938	609	356	893	1,700
24	759	1,050	6,850	1,060	6,940	2,170	907	892	549	349	650	1,400
25	655	930	4,540	1,030	4,810	1,830	851	867	517	331	505	1,100
26	606	890	3,500	1,180	4,520	1,750	807	815	495	348	443	1,000
27	550	870	2,940	1,020	8,680	1,610	778	758	465	370	432	3,000
28	519	890	2,320	900	9,290	1,780	758	732	457	349	636	1,900
29	507	1,300	1,930	900	-----	2,440	830	712	449	363	526	1,400
30	622	2,590	1,650	1,200	-----	2,360	756	683	584	575	463	1,100
31	1,420	-----	1,430	1,000	-----	2,050	-----	659	-----	1,350	428	-----
TOTAL	16,625	56,645	75,950	57,360	106,860	106,050	44,479	66,684	23,693	14,305	21,694	52,115
MEAN	536	1,888	2,450	1,850	3,816	3,421	1,483	2,151	790	461	700	1,737
MAX	1,420	4,100	6,850	7,020	11,600	7,780	2,400	7,640	2,110	1,350	2,900	6,550
MIN	317	870	1,130	900	746	1,610	756	659	449	331	285	331
(%)	-69.6	+132	+112	+8	+19.0	-10.4	-9.3	-3.7	-9.6	-79.1	+94.1	+10.6
MEAN#	466	2,020	2,562	1,851	3,835	3,411	1,474	2,147	780	382	794	1,748
CFSM#	.65	2.83	3.58	2.59	5.36	4.77	2.06	3.00	1.09	.53	1.11	2.44
IN.#	.75	3.16	4.13	2.99	5.58	5.50	2.30	3.46	1.22	.61	1.28	2.72
CAL YR 1970	TOTAL 648,188	MEAN 1,776	MAX 19,200	MIN 317	MEAN# 1,791	CFSM# 2.50	IN.# 33.99					
WTR YR 1971	TOTAL 642,460	MEAN 1,760	MAX 11,600	MIN 285	MEAN# 1,775	CFSM# 2.48	IN.# 33.70					

Change in contents, equivalent in cubic feet per second, in Quemahoning Creek, North Fork Bens Creek, Dalton Run, Mill Creek, Saltlick Run, Hinckston Run, and Laurel Run Reservoirs. Records of reservoir contents furnished by Manufacturers Water Co. and Greater Johnstown Water Authority.

Adjusted for change in contents.

03042000 Blacklick Creek at Josephine, Pa.

LOCATION.--Lat 40°28'24", long 79°11'01", Indiana County, on right bank on upstream side of old concrete dam at Josephine, 0.9 mile upstream from Two Lick Creek, and 5 miles northeast of Blairsville.

DRAINAGE AREA.--192 sq mi.

PERIOD OF RECORD.--January 1952 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 975.82 ft above mean sea level, datum of 1912. Prior to Aug. 25, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 331 cfs (23.41 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,120 cfs Feb. 22 (gage height, 8.45 ft); minimum, 36 cfs Oct. 8, 9 (gage height, 3.26 ft).
Period of record: Maximum discharge, 11,900 cfs Oct. 15, 1954 (gage height, 11.35 ft in gage well, 12.67 ft from outside floodmark), from rating curve extended above 5,500 cfs on basis of computation of peak flow over dam and slope-area measurement at gage height, 10.93 ft; minimum, 19 cfs Sept. 14, 1952, Nov. 4, 1953; minimum gage height, 3.15 ft Oct. 15, 1969.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mine pumpage above station.

REVISIONS (WATER YEARS).--WSP 1385: 1952-54(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	391	640	334	200	1,530	488	152	109	118	156	208
2	48	312	520	302	150	1,160	603	159	102	84	119	220
3	47	663	491	283	140	931	633	206	111	67	301	158
4	51	1,040	812	809	160	778	539	204	106	58	721	134
5	54	653	671	2,790	250	643	475	175	98	55	812	121
6	46	604	564	1,450	700	569	460	1,610	119	57	407	109
7	40	471	475	838	440	737	416	1,420	129	57	267	114
8	39	373	405	591	300	698	376	1,170	105	54	199	109
9	40	303	382	527	240	572	354	886	88	53	157	100
10	44	263	385	464	220	499	455	674	79	60	136	89
11	106	246	361	406	230	511	384	535	73	165	135	84
12	268	277	2,420	380	240	478	327	464	69	423	133	95
13	144	613	2,220	331	1,200	2,160	310	475	93	149	100	153
14	108	670	1,320	463	1,590	2,230	417	501	134	101	89	918
15	104	758	904	605	1,030	2,280	362	390	203	84	86	619
16	101	726	708	426	776	2,230	313	332	136	80	162	574
17	92	566	718	374	702	1,340	313	298	108	76	135	1,390
18	81	474	734	316	1,110	926	403	261	96	73	101	706
19	74	399	644	290	1,280	872	323	231	85	86	88	630
20	67	357	839	280	2,760	958	299	229	84	145	86	1,480
21	89	405	678	270	3,340	740	279	200	92	117	91	1,170
22	269	346	712	300	3,430	671	270	175	81	82	281	754
23	223	329	968	296	3,400	607	240	160	70	69	252	558
24	165	277	1,550	279	1,910	531	223	155	63	70	168	444
25	140	250	1,060	259	1,260	442	209	162	66	79	123	345
26	123	246	815	308	1,160	428	196	153	66	71	105	600
27	109	231	663	227	2,660	400	186	141	60	84	167	827
28	98	229	558	210	2,490	439	177	135	60	72	1,120	615
29	94	262	449	220	-----	592	174	124	61	82	504	462
30	148	980	387	340	-----	599	161	116	153	94	310	383
31	283	-----	326	250	-----	518	-----	117	-----	218	226	-----
TOTAL	3,348	13,714	24,379	15,218	33,368	28,069	10,365	12,010	2,899	3,083	7,737	14,169
MEAN	108	457	786	491	1,192	905	346	387	96.6	99.5	250	472
MAX	283	1,040	2,420	2,790	3,430	2,280	633	1,610	203	423	1,120	1,480
MIN	39	229	326	210	140	400	161	116	60	53	86	84
CFSM	.56	2.38	4.09	2.56	6.21	4.71	1.80	2.02	.50	.52	1.30	2.46
IN.	.65	2.66	4.72	2.95	6.47	5.44	2.01	2.33	.56	.60	1.50	2.75

CAL YR 1970 TOTAL 151,377 MEAN 415 MAX 5,320 MIN 39 CFSM 2.16 IN 29.33
WTR YR 1971 TOTAL 168,359 MEAN 461 MAX 3,430 MIN 39 CFSM 2.40 IN 32.62

PEAK DISCHARGE (BASE, 2,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-12	1800	7.50	3,680	2-27	2330	7.37	3,500
1-5	0730	7.27	3,360	3-14	0030	6.91	2,860
2-21	0130	7.88	4,250	3-15	2400	6.96	2,930
2-22	1800	8.45	5,120	5-6	1630	6.94	2,900

KISKIMINETAS RIVER BASIN

223

03042200 Little Yellow Creek near Strongstown, Pa.

LOCATION.--Lat 40°33'45", long 78°56'44", Indiana County, on right bank 100 ft downstream from concrete box culvert on U. S. Highway 422, 1.4 miles northwest of Strongstown, 6 miles upstream from mouth, and 11 miles southeast of Indiana.

DRAINAGE AREA.--7.36 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-60, and annual maximum, water year 1960. September 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,600 ft (from topographic map). Aug. 25, 1959, to Aug. 31, 1960, low-flow gage, and Nov. 6, 1959, to Aug. 31, 1960, crest-stage gage at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--11 years, 11.9 cfs (21.96 inches per year).

EXTREMES.--Current year: Maximum discharge, 411 cfs Aug. 28 (gage height, 4.67 ft); minimum, 0.50 cfs July 8, 9 (gage height, 1.30 ft).

Period of record: Maximum discharge, 541 cfs Mar. 10, 1964 (gage height, 5.06 ft); maximum gage height, 5.56 ft Mar. 5, 1963 (backwater from ice); minimum discharge, 0.1 cfs Aug. 17, 1965; minimum gage height, 1.10 ft Sept. 1, 1962.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	29	29	10	4.5	44	17	3.2	2.1	1.6	9.5	11
2	2.3	21	22	9.0	3.8	32	20	4.1	2.1	1.3	8.6	8.3
3	3.0	69	27	8.0	3.5	26	17	5.5	2.3	.88	30	6.5
4	2.1	54	42	56	4.5	20	13	5.3	2.0	.76	39	5.1
5	1.7	37	28	90	10	17	11	4.1	2.6	.70	29	4.3
6	1.5	32	23	42	30	14	10	81	4.7	.76	18	3.7
7	1.3	23	18	27	14	23	8.9	38	2.7	.65	12	3.9
8	1.0	17	14	22	11	20	8.0	42	2.1	.55	8.3	2.9
9	.96	13	13	17	9.0	17	7.5	27	1.7	1.2	6.3	2.5
10	2.0	12	12	14	7.0	15	8.9	21	1.4	1.2	4.9	2.3
11	11	12	18	13	6.4	14	6.8	17	1.2	.42	4.3	2.2
12	8.6	14	163	11	7.0	17	6.3	15	1.3	16	3.3	2.9
13	5.1	31	80	8.9	80	79	6.3	17	2.2	5.5	2.7	8.6
14	4.0	25	47	20	60	70	11	15	8.6	3.5	2.2	43
15	6.6	35	30	17	35	81	8.0	11	6.3	2.5	13	16
16	5.9	28	25	12	22	59	7.5	9.5	3.2	2.9	13	20
17	4.8	22	24	10	21	36	8.6	8.3	2.5	2.1	4.7	23
18	4.2	17	23	9.0	30	26	9.8	7.0	2.1	1.8	3.3	17
19	3.7	14	28	8.0	38	26	8.0	6.5	1.8	4.3	2.9	25
20	3.3	14	32	7.4	101	26	7.5	9.2	2.2	11	2.9	49
21	11	15	25	7.0	91	21	7.3	6.3	1.9	3.7	4.1	39
22	23	12	34	8.0	111	19	6.8	5.3	1.6	2.3	14	25
23	12	11	39	9.0	87	17	6.3	4.7	1.1	1.9	13	19
24	9.1	11	53	7.2	50	13	5.5	4.3	1.0	2.2	5.8	13
25	7.7	10	33	6.6	34	12	5.1	4.5	1.0	2.7	4.5	9.8
26	6.4	7.4	26	9.0	39	12	4.9	3.7	.94	2.1	3.7	18
27	5.7	8.0	21	5.0	102	13	4.3	3.3	.82	2.9	37	28
28	4.8	8.0	17	7.0	70	18	4.1	3.2	.82	1.6	116	17
29	4.8	28	14	6.0	-----	23	3.9	2.7	3.0	4.5	34	13
30	21	52	12	9.0	-----	21	3.5	2.6	4.5	6.8	21	10
31	30	-----	10	6.0	-----	18	-----	2.3	-----	29	15	-----
TOTAL	211.16	681.4	982	491.1	1,081.7	849	252.8	389.6	71.78	160.90	486.0	449.0
MEAN	6.81	22.7	31.7	15.8	38.6	27.4	8.43	12.6	2.39	5.19	15.7	15.0
MAX	30	69	163	90	111	81	20	81	8.6	42	116	49
MIN	.96	7.4	10	5.0	3.5	12	3.5	2.3	.82	.55	2.2	2.2
CFSM	.93	3.08	4.31	2.15	5.24	3.72	1.15	1.71	.32	.71	2.13	2.04
IN.	1.07	3.44	4.96	2.48	5.47	4.29	1.28	1.97	.36	.81	2.46	2.27

CAL YR 1970 TOTAL 5,775.76 MEAN 15.8 MAX 286 MIN .88 CFSM 2.15 IN 29.19
WTR YR 1971 TOTAL 6,106.44 MEAN 16.7 MAX 163 MIN .55 CFSM 2.27 IN 30.86

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-12	1430	3.95	208	8-28	0130	4.67	411
5-6	1030	3.85	185				

KISKIMINETAS RIVER BASIN

03042280 Yellow Creek near Homer City, Pa.

LOCATION.--Lat 40°34'18", long 79°06'13", Indiana County, on left bank 150 ft downstream from Ferrier Run, 0.3 mile upstream from Central Indiana County Water Authority dam, and 3.5 miles northeast of Homer City.

DRAINAGE AREA.--59.5 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,140 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, about 950 cfs Feb. 14; maximum gage height, 8.37 ft Feb. 14 (backwater from ice); minimum daily, 3.4 cfs July 8, 23, 26.

Period of record: Maximum discharge, about 1,300 cfs Jan. 30, 1968; maximum gage height, 8.37 ft Feb. 14, 1971 (backwater from ice); minimum discharge, 1.4 cfs July 19, 1969 (gage height, 1.99 ft).

REMARKS.--Records good except those for winter periods, which are fair. Natural flow of stream affected at times by construction upstream of Yellow Creek Dam acting as a retention basin prior to July 1971 and flow regulated subsequently by Yellow Creek Lake 4 miles upstream (see p. 234).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	149	143	159	90	255	204	31	16	15	4.5	6.6
2	31	143	137	155	84	250	200	31	20	7.3	4.3	6.6
3	36	240	143	152	76	245	195	41	20	5.3	8.8	6.2
4	30	209	159	240	70	245	187	39	19	4.3	9.9	5.9
5	26	179	155	310	80	240	208	34	18	4.1	7.3	5.9
6	17	175	149	222	130	240	204	200	25	3.6	5.3	5.9
7	20	159	149	200	110	245	195	180	25	3.6	4.8	5.9
8	22	152	146	191	100	240	191	190	18	3.4	4.5	5.9
9	17	143	143	187	94	240	183	170	14	4.8	4.3	6.9
10	20	140	140	179	92	236	175	160	12	8.8	4.1	12
11	60	137	146	175	90	236	167	150	11	30	4.3	12
12	95	134	315	208	90	240	159	140	9.9	18	4.1	12
13	61	143	260	195	300	376	155	187	12	4.5	4.1	14
14	51	140	209	204	800	310	152	167	26	4.1	4.1	27
15	65	146	200	191	700	270	143	149	41	3.6	4.5	28
16	65	146	202	183	640	255	131	140	22	3.8	4.5	32
17	52	143	200	183	600	245	116	131	17	3.6	3.8	35
18	48	140	191	179	430	245	95	119	14	3.6	3.8	34
19	44	137	191	175	209	245	68	107	13	4.5	3.8	34
20	38	134	187	167	358	245	63	85	11	5.1	4.1	36
21	54	131	187	159	352	240	61	57	9.9	3.8	4.5	37
22	134	128	191	155	436	240	57	47	9.9	3.8	6.2	35
23	125	125	195	155	388	240	51	40	8.2	3.4	6.2	35
24	90	119	200	149	295	236	47	38	6.6	3.6	4.5	35
25	68	113	191	146	260	231	44	35	6.2	3.8	4.3	34
26	56	104	187	143	255	227	41	34	5.9	3.4	4.5	40
27	50	101	183	130	285	227	38	26	5.6	3.6	6.2	45
28	46	75	175	110	270	222	36	29	5.3	3.6	14	39
29	44	90	175	120	-----	218	35	26	4.8	4.5	7.3	38
30	101	130	171	130	-----	218	33	24	16	4.5	6.6	37
31	140	-----	163	110	-----	209	-----	22	-----	5.3	6.2	-----
TOTAL	1,741	4,205	5,583	5,362	7,684	7,611	3,634	2,829	442.3	184.3	169.4	706.8
MEAN	56.2	140	180	173	274	246	121	91.3	14.7	5.95	5.46	23.6
MAX	140	240	315	310	800	376	208	200	41	30	14	45
MIN	17	75	137	110	70	209	33	22	4.8	3.4	3.8	5.9
MEAN [‡]	-	-	-	-	-	-	-	-	-	58.2	79.3	126
CFSM	.94	2.35	3.03	2.91	4.61	4.13	2.03	1.53	.25	‡.98	‡1.33	‡2.12
IN	1.08	2.62	3.49	3.35	4.80	4.76	2.26	1.76	.28	‡1.13	‡1.53	‡2.36

WTR 1970 TOTAL 44,385.8 MEAN 122 MAX 662 MIN 7.6 MEAN - CFSM 2.05 IN. 27.72
 1971 TOTAL 40,151.8 MEAN 110 MAX 800 MIN 3.4 MEAN[‡] 129 CFSM[‡] 2.17 IN.[‡] 29.42

[‡] Adjusted for change in contents in Yellow Creek Lake.

KISKIMINETAS RIVER BASIN

225

03042500 Two Lick Creek at Graceton, Pa.

LOCATION.--Lat 40°31'02", long 79°10'19", Indiana County, on right bank 0.8 mile upstream from highway bridge on road leading west from Graceton, 1.1 miles downstream from Tearing Run, 1.5 miles upstream from Cherry Run, and 8 miles northeast of Blairsville.

DRAINAGE AREA.--171 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 981.63 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 261 cfs (20.73 inches per year) adjusted for storage since December 1968.

EXTREMES.--Current year: Maximum discharge, 2,020 cfs Feb. 22 (gage height, 5.93 ft); maximum gage height, 6.66 ft Feb. 5 (backwater from ice); minimum daily discharge, 29 cfs June 10.

Period of record: Maximum discharge, 12,900 cfs Oct. 16, 1954 (gage height, 12.71 ft), from rating curve extended above 4,500 cfs on basis of contracted-opening measurement of peak flow at site 1.6 miles above gage, adjusted to gage site; minimum, 2.0 cfs Sept. 14, 15, 1952 (gage height, 1.27 ft); minimum daily, 8.7 cfs Sept. 14, 1952.

REMARKS.--Records good except those for winter periods, which are fair. Diurnal fluctuation caused by mine pumpage and by sewage-disposal plant above station. Flow regulated since December 1968 by Two Lick Creek Reservoir 10 miles upstream (capacity, 16,240 acre-ft) and since July 1971 by Yellow Creek Lake 11 miles upstream (see p. 234).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	428	376	331	343	230	920	610	94	86	74	67	59
2	407	341	425	326	200	755	366	102	83	69	62	56
3	116	556	781	320	180	705	355	113	90	62	92	53
4	55	493	848	844	170	896	345	106	85	62	94	52
5	47	441	766	1,410	600	860	338	100	85	61	77	50
6	61	556	729	1,080	450	695	330	513	94	61	66	48
7	96	749	511	973	310	554	324	418	94	58	61	48
8	103	341	290	900	396	506	313	436	42	36	59	48
9	96	320	286	739	670	474	310	373	33	62	58	235
10	121	311	275	374	575	470	306	345	29	58	58	118
11	167	304	305	330	145	488	292	324	72	217	66	90
12	221	319	989	320	185	488	285	316	72	96	56	92
13	170	357	1,060	326	926	736	282	334	70	62	56	96
14	156	339	1,040	418	797	1,310	289	313	77	56	53	176
15	185	376	965	355	709	1,240	254	418	108	54	58	123
16	173	362	951	330	675	1,160	217	765	76	59	54	150
17	159	451	1,030	322	722	929	217	554	70	50	53	145
18	150	722	751	311	805	484	196	226	67	54	50	130
19	142	696	442	301	922	481	153	211	67	66	52	133
20	134	688	419	293	1,280	509	143	190	72	72	53	138
21	202	666	408	286	1,260	509	140	145	72	56	61	145
22	324	549	482	278	1,510	663	138	133	62	54	83	130
23	283	281	474	292	1,400	896	128	123	61	54	81	126
24	235	268	495	273	1,470	710	123	118	59	61	54	125
25	202	255	471	273	1,710	429	118	118	67	67	53	123
26	182	250	455	309	1,500	422	110	110	66	64	52	169
27	169	244	443	260	586	415	106	102	67	64	56	166
28	156	225	569	230	670	415	104	96	66	53	76	143
29	155	265	837	210	-----	411	102	98	66	70	59	135
30	269	372	795	200	-----	542	98	94	69	66	56	130
31	368	-----	666	300	-----	770	-----	92	-----	77	53	-----
TOTAL	5,732	12,473	19,289	13,526	21,053	20,842	7,092	7,480	2,127	2,075	1,929	3,436
MEAN	185	416	622	436	752	672	236	241	70.9	66.9	62.2	115
MAX	428	749	1,060	1,410	1,710	1,310	610	765	108	217	94	235
MIN	47	225	275	200	145	411	98	92	29	36	50	48
(Δ)	+23.4	+14.1	-18.2	+22.8	+22.0	-36.1	-7	+22.8	-17.5	+32.7	+49.4	+89.9
MEAN Δ	208	430	604	459	774	636	235	264	53.4	99.6	112	205
CFSM Δ	1.22	2.51	3.53	2.68	4.53	3.72	1.37	1.54	.31	.58	.65	1.20
IN Δ	1.41	2.80	4.07	3.09	4.72	4.29	1.53	1.78	.35	.67	.75	1.34

CAL YR 1970 TOTAL 128,442 MEAN 352 MAX 1,840 MIN 47 MEAN Δ 350 CFSM Δ 2.05 IN Δ 27.78
WTR YR 1971 TOTAL 117,054 MEAN 321 MAX 1,710 MIN 29 MEAN Δ 338 CFSM Δ 1.98 IN Δ 26.80

Δ Change in contents, equivalent in cubic feet per second, in Two Lick Creek Reservoir and Yellow Creek Lake.
Records of contents in Two Lick Creek Reservoir furnished by Pennsylvania Electric Co.
 Δ Adjusted for change in reservoir contents.

KISKIMINETAS RIVER BASIN

03044000 Conemaugh River at Tunnelton, Pa.

LOCATION.--Lat 40°27'16", long 79°23'28", Indiana County, on right bank at downstream side of highway bridge at Tunnelton, 0.9 mile downstream from Boatyard Run, 2.0 miles downstream from Conemaugh River Dam, 3.8 miles southeast of Saltsburg, and 5.5 miles upstream from confluence with Loyalhanna Creek.

DRAINAGE AREA.--1,358 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 844.64 ft above mean sea level. Prior to Oct. 1, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 2,279 cfs (22.79 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 24,200 cfs Mar. 4 (gage height, 12.15 ft); minimum daily, 380 cfs July 20.

Period of record: Maximum discharge, 59,200 cfs Mar. 7, 1945 (gage height, 21.0 ft, from graph based on gage readings); minimum, 1 cfs Sept. 10, 1954 (gage height, 1.20 ft); minimum daily, 1 cfs Sept. 10, 1954.

REMARKS.--Records good. Flow regulated since 1952 by Conemaugh River Lake 2 miles upstream (see p.234) and by reservoirs above station, the ten most effective of which have a combined capacity of 67,810 acre-ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	890	1,440	2,990	4,610	1,800	7,100	3,560	1,120	974	854	786	1,190
2	887	1,820	4,140	1,940	1,750	11,600	3,410	1,120	808	844	982	974
3	855	2,250	3,720	1,970	1,220	19,400	3,460	1,150	720	830	1,200	962
4	707	2,470	3,730	2,130	850	23,200	3,460	1,320	753	808	1,460	926
5	566	3,650	3,980	2,710	1,420	16,400	3,310	1,550	775	786	1,820	890
6	485	5,240	3,930	5,390	2,070	8,720	3,120	1,990	786	665	1,900	842
7	432	5,110	3,730	8,930	2,120	6,190	2,930	4,800	1,190	540	1,900	808
8	434	4,860	2,740	8,630	2,130	6,010	2,490	7,000	1,630	502	1,880	775
9	443	4,350	1,730	8,180	2,150	6,710	2,320	7,340	1,360	478	1,660	786
10	463	2,810	1,830	7,580	2,180	4,740	2,400	8,750	914	486	1,400	819
11	549	1,710	1,880	4,910	2,140	3,620	2,540	8,410	764	550	1,390	808
12	769	1,740	2,210	2,010	2,080	3,560	2,540	6,710	764	1,080	1,360	775
13	913	2,590	2,640	2,140	2,300	2,950	2,470	5,130	775	1,170	1,340	797
14	879	4,500	4,190	1,400	2,670	5,000	2,420	5,130	819	914	1,320	1,330
15	810	4,540	5,810	3,530	4,260	6,280	2,470	5,110	1,360	590	1,290	2,150
16	833	4,610	5,750	4,840	7,160	3,010	2,400	4,980	1,940	494	1,250	2,620
17	843	4,500	5,700	4,610	8,480	5,820	2,260	4,830	1,910	395	1,230	2,730
18	794	4,290	5,630	4,170	8,160	11,200	2,280	4,520	1,430	402	1,190	4,630
19	739	4,020	5,520	2,800	7,160	12,500	2,350	2,880	914	416	1,150	5,750
20	688	3,630	5,400	1,800	3,870	11,800	2,200	1,960	914	380	1,100	5,710
21	676	3,240	5,320	1,800	3,040	10,900	1,730	1,960	926	446	1,080	5,710
22	908	2,520	3,990	1,810	3,350	8,410	1,540	1,930	938	530	1,100	5,640
23	1,280	1,710	2,630	1,850	6,590	6,710	1,600	1,880	926	720	1,360	3,780
24	1,350	1,790	4,370	1,880	9,670	5,050	1,580	1,810	926	709	1,570	2,590
25	1,330	1,790	6,000	1,890	13,600	3,720	1,550	1,700	914	560	1,530	2,560
26	1,280	1,770	6,010	1,740	18,000	3,370	1,500	1,580	902	438	1,470	2,550
27	1,200	1,740	5,950	1,960	12,500	2,970	1,400	1,240	890	446	1,410	3,520
28	1,110	1,720	5,860	1,900	7,000	2,770	1,160	1,050	878	446	1,720	4,430
29	1,020	1,690	7,040	1,840	-----	3,010	1,070	1,050	866	454	2,120	2,950
30	991	1,860	8,070	1,850	-----	3,390	1,110	1,050	854	600	2,070	2,450
31	1,160	-----	7,380	1,900	-----	3,540	-----	1,020	-----	742	1,700	-----
TOTAL	26,284	89,960	139,870	104,700	139,720	229,650	68,630	102,070	30,520	19,275	44,738	72,452
MEAN	848	2,999	4,512	3,377	4,990	7,408	2,288	3,293	1,017	622	1,443	2,415
MAX	1,350	5,240	8,070	8,930	18,000	23,200	3,560	8,750	1,940	1,170	2,120	5,750
MIN	432	1,440	1,730	1,400	850	2,770	1,070	1,020	720	380	786	775
(*)	+6.7	+190	+129	-64.7	+2,040	-1,880	-33.9	-10.8	+39.5	+45.8	+91.5	+336
MEAN#	855	3,189	4,641	3,312	7,030	5,528	2,254	3,282	1,056	668	1,534	2,751
CFSM#	.63	2.35	3.42	2.44	5.18	4.07	1.66	2.42	.78	.49	1.13	2.03
IN.#	.73	2.62	3.94	2.81	5.39	4.69	1.85	2.79	.87	.56	1.30	2.26
CAL YR 1970	TOTAL 1,098,568	MEAN 3,010	MAX 17,200	MIN 432	MEAN# 3,026	CFSM# 2.23	IN.# 30.26					
WTR YR 1971	TOTAL 1,067,869	MEAN 2,926	MAX 23,200	MIN 380	MEAN# 2,984	CFSM# 2.20	IN.# 29.81					

* Change in contents, equivalent in cubic feet per second, in Quemahoning Creek, North Fork Bens Creek, Dalton Run, Mill Creek, Saltlick Run, Hineckston Run, Laurel Run, and Two Lick Creek Reservoirs, and Yellow Creek and Conemaugh River Lakes. Records of reservoir contents furnished by Manufacturers Water Co., Greater Johnstown Water Authority, and Pennsylvania Electric Co.

Adjusted for change in reservoir contents.

03045000 Loyalhanna Creek at Kingston, Pa.

LOCATION.--Lat 40°17'33", long 79°20'27", Westmoreland County, on right bank 60 ft downstream from bridge on State Highway 217, at Kingston, 100 ft downstream from Miller Run, 1.9 miles upstream from Ninemile Run, and 3 miles southeast of Latrobe.

DRAINAGE AREA.--172 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only October to December 1939, published in WSP 1305.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,013.16 ft above mean sea level (Corps of Engineers bench mark). Prior to Oct. 1, 1969, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--32 years, 294 cfs (23.21 inches per year) adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 10,200 cfs May 6 (gage height, 10.24 ft); minimum daily, 29 cfs Oct. 9.

Period of record: Maximum discharge, 29,700 cfs Oct. 15, 1954 (gage height, 15.8 ft, present datum, from floodmarks), from rating curve extended above 8,700 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.1 cfs Sept. 4, 1953; minimum daily, 0.2 cfs Oct. 23, 24, 1953.

Maximum stage since at least 1918, 15.8 ft, present datum, Oct. 15, 1954. Flood of Mar. 17 or 18, 1936, reached a stage of about 15.5 ft, present datum, from information by local residents (discharge, 21,000 cfs, from rating curve extended above 8,200 cfs).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Latrobe Reservoir (capacity, 3,670 acre ft), and diversion works at Kingston. Figures of daily discharge do not include diversion from reservoir and at Kingston intake to Borough of Latrobe. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1335: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	384	314	239	210	773	275	100	90	80	259	214
2	54	314	276	209	190	612	323	116	85	100	239	194
3	65	582	316	195	180	530	313	160	96	76	557	163
4	51	607	603	1,280	190	459	291	134	95	63	2,340	136
5	43	459	430	2,440	520	392	269	123	104	57	1,440	120
6	34	383	379	1,090	685	350	258	5,050	753	54	624	105
7	34	301	310	673	436	695	242	1,950	1,020	54	358	101
8	31	244	266	475	350	579	217	1,540	588	46	228	90
9	29	202	244	415	260	446	202	962	392	41	182	81
10	33	184	224	350	230	380	256	683	286	44	145	73
11	101	173	211	298	230	350	206	514	217	382	129	76
12	105	227	1,240	286	270	370	188	429	207	295	109	103
13	66	339	1,030	244	1,740	1,760	183	544	649	116	92	331
14	52	425	721	554	1,270	1,400	334	563	3,550	83	81	4,640
15	50	489	535	554	771	1,230	261	427	2,620	65	73	1,780
16	52	425	438	415	525	1,070	239	383	1,050	56	72	1,560
17	47	362	772	370	579	769	233	338	622	50	63	1,750
18	43	306	787	300	921	576	243	286	430	46	54	1,000
19	40	266	617	250	1,130	665	204	244	383	120	59	850
20	39	258	510	240	2,210	722	190	244	310	439	67	1,010
21	130	313	430	230	1,900	588	165	215	239	145	392	775
22	360	250	893	230	2,670	538	182	188	194	92	1,580	564
23	213	238	1,050	340	2,490	478	166	167	173	71	722	435
24	166	196	1,430	277	1,470	418	155	155	148	69	358	338
25	133	174	936	279	1,010	333	143	167	127	66	221	251
26	117	187	720	330	850	337	129	146	111	56	170	595
27	108	179	520	230	1,100	322	119	126	100	54	796	592
28	91	162	410	210	1,000	333	123	115	116	43	2,410	480
29	88	182	351	200	-----	353	127	110	120	123	702	360
30	138	466	283	300	-----	325	107	107	89	161	420	288
31	240	-----	258	250	-----	291	-----	99	-----	752	284	-----
TOTAL	2,817	9,277	17,584	13,753	25,387	18,455	6,365	16,385	15,064	3,899	15,226	19,055
MEAN	90.9	309	567	444	907	595	212	529	502	126	491	635
MAX	360	607	1,430	2,440	2,670	1,760	334	5,050	3,550	752	2,410	4,640
MIN	29	162	211	195	180	291	107	99	85	41	54	73
(%)	+3.4	+11.2	+23.0	+7.4	+7.5	+7.7	+5.5	+8.5	+8.6	+6.1	+11.7	+9.1
MEAN#	94.3	320	590	451	914	603	218	538	510	132	503	644
CFSM#	.55	1.86	3.43	2.62	5.31	3.51	1.27	3.13	2.97	.97	2.92	3.74
IN.#	.63	2.08	3.95	3.02	5.53	4.05	1.42	3.61	3.31	.89	3.37	4.17

CAL YR 1970 TOTAL 140,927 MEAN 386 MAX 3,980 MIN 29 MEAN# 395 CFSM# 2.30 IN.# 31.20
 WTR YR 1971 TOTAL 163,267 MEAN 441 MAX 5,050 MIN 29 MEAN# 456 CFSM# 2.65 IN.# 36.03

PEAK DISCHARGE (BASE, 3,500 CFS, REVISED).

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-22	1530	7.14	4,380	8-22	0100	6.74	3,820
5- 6	1200	10.24	10,200	8-27	2400	7.74	5,320
6-14	0200	7.36	4,720	9-14	1200	10.14	9,920
6-14	2300	8.88	7,280	9-16	2130	6.59	3,610
8- 4	1830	6.91	4,050				

Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second; furnished by Latrobe Municipal Authority.

Adjusted for diversion and change in reservoir contents.

KISKIMINETAS RIVER BASIN

03047000 Loyalhanna Creek at Loyalhanna Dam, Pa.
(Formerly published as Loyalhanna Creek at Loyalhanna Creek Dam)

LOCATION.--Lat 40°27'53", long 79°27'05", Westmoreland County, on left bank at downstream side of highway bridge, 0.7 mile downstream from Loyalhanna Dam, 1.5 miles south of Saltsburg, and 4.0 miles upstream from confluence with Conemaugh River.

DRAINAGE AREA.--292 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 861.15 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--32 years, 465 cfs (21.63 inches per year) adjusted for storage since June 1942.

EXTREMES.--Current year: Maximum discharge, 3,610 cfs Sept. 18 (gage height, 5.96 ft); minimum daily, 19 cfs July 29.

Period of record: Maximum discharge, 11,700 cfs June 5, 1941 (gage height, 10.30 ft); minimum, 0.2 cfs Oct. 9, 10, 15, 16, 22-24, 1947, Sept. 16, 17, 1948 (gage height, -0.06 ft); minimum daily, 0.2 cfs Oct. 23, 1947.

REMARKS.--Records good. Flow completely regulated since 1942 by Loyalhanna Lake 0.7 mile upstream (see p. 234) and Latrobe Reservoir (combined capacity, 99,000 acre-ft).

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1435: 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	366	476	240	471	1,230	404	216	118	216	458	780
2	244	471	665	247	466	1,890	408	213	118	216	520	404
3	240	476	645	247	374	2,270	404	213	120	147	645	311
4	173	490	535	264	234	2,580	404	213	171	110	1,140	216
5	115	701	788	303	361	3,280	404	213	225	110	1,920	216
6	115	910	892	1,060	610	3,160	408	247	225	110	1,910	216
7	82	886	862	1,820	725	2,530	408	1,100	711	110	1,840	216
8	51	706	680	1,770	720	1,960	404	1,490	1,220	110	1,300	148
9	51	440	444	1,730	720	1,920	399	1,650	1,200	110	581	108
10	52	310	337	1,690	715	1,830	399	2,540	1,160	108	216	108
11	54	225	237	1,660	700	1,480	394	2,850	644	112	207	108
12	55	228	238	1,600	695	934	394	2,360	225	171	207	108
13	118	343	286	1,520	720	704	390	1,940	228	231	160	108
14	120	448	833	1,170	1,070	794	382	1,880	442	231	103	326
15	120	453	1,350	685	1,540	788	390	1,820	1,930	234	103	1,220
16	120	453	1,290	675	1,800	575	390	1,720	3,130	169	105	2,170
17	120	458	1,250	675	1,880	976	382	994	3,040	118	105	2,600
18	120	453	1,470	685	1,840	1,730	382	517	2,430	118	105	3,320
19	120	453	1,640	670	1,640	2,030	378	390	1,800	120	105	3,420
20	120	453	1,580	645	856	2,000	292	330	1,330	162	105	3,270
21	120	448	1,520	536	555	1,940	207	219	398	240	112	3,040
22	315	448	1,170	448	580	1,850	210	222	108	460	128	2,260
23	480	444	928	448	1,390	1,760	216	222	115	660	405	880
24	476	440	1,320	453	2,110	1,060	219	222	118	640	862	216
25	389	430	1,620	458	2,320	765	219	225	171	515	984	222
26	228	329	1,590	466	2,300	836	219	225	222	315	964	228
27	228	234	1,530	471	1,580	820	219	175	222	213	1,050	991
28	225	234	1,450	471	1,230	595	219	115	219	99	1,620	1,760
29	146	237	999	471	-----	407	219	118	219	19	1,960	977
30	76	240	630	471	-----	435	219	120	219	20	1,890	386
31	169	-----	430	471	-----	412	-----	118	-----	258	1,480	-----
TOTAL	5,319	13,207	29,765	24,520	30,202	45,541	9,982	24,877	22,478	6,452	23,290	30,333
MEAN	172	440	960	791	1,079	1,469	333	802	749	208	751	1,011
MAX	480	910	1,640	1,820	2,320	3,280	408	2,850	3,130	660	1,960	3,420
MIN	51	225	237	240	234	407	207	115	108	19	103	108
(%)	-16.8	+16.5	-7.1	+18.3	+479	-434	-19.4	+22.4	-9.0	+21.3	-7.1	-23.9
MEAN#	155	456	953	809	1,558	1,035	314	824	740	229	744	987
CFSM#	.53	1.56	3.26	2.77	5.34	3.54	1.08	2.82	2.53	.78	2.55	3.38
IN.#	.61	1.74	3.76	3.19	5.56	4.08	1.20	3.25	2.82	.90	2.94	3.77
CAL YR 1970	TOTAL 218,048	MEAN 597	MAX 5,930	MIN 49	MEAN# 593	CFSM# 2.03	IN.# 27.58					
WTR YR 1971	TOTAL 265,966	MEAN 729	MAX 3,420	MIN 19	MEAN# 728	CFSM# 2.49	IN.# 33.82					

* Change in contents, equivalent in cubic feet per second, in Latrobe Reservoir and Loyalhanna Lake. Records of contents in Latrobe Reservoir furnished by the Latrobe Municipal Authority.

Adjusted for change in reservoir contents.

03048500 Kiskiminetas River at Vandergrift, Pa.

LOCATION.--Lat 40°36'16", long 79°33'08", Westmoreland County, on left bank 0.5 mile upstream from bridge on State Highway 56 at Vandergrift, and 2.2 miles upstream from Pine Run.

DRAINAGE AREA.--1,825 sq mi.

PERIOD OF RECORD.--August 1937 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1920 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 769.40 ft above mean sea level (Corps of Engineers bench mark). Oct. 1, 1920, to Sept. 30, 1930, nonrecording gage; Oct. 1, 1930, to Sept. 30, 1932, water-stage recorder, at site two-thirds of a mile downstream at different datum.

AVERAGE DISCHARGE.--34 years, 2,957 cfs (22.00 inches per year) adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 28,300 cfs Mar. 4 (gage height, 16.37 ft); minimum daily, 506 cfs Oct. 9.

Period of record: Maximum discharge, 71,900 cfs Mar. 31, 1940 (gage height, 25.70 ft); minimum, 56 cfs Oct. 15, 16, 1952; minimum daily, 60 cfs Oct. 15, 1952.

Flood of Mar. 18, 1936, reached a stage of 41.64 ft, from floodmark at present site (discharge, 185,000 cfs, by slope-area measurement).

REMARKS.--Records good. Flow regulated since 1952 by Conemaugh River Lake 23 miles upstream, since 1942 by Loyalhanna Lake 20 miles upstream (see p. 234) and by other reservoirs above station, the 12 most effective of which have a combined capacity of 100,100 acre-ft. Figures of daily discharge do not include diversion from Beaver Run Reservoir to plants and communities downstream, nor into the Monongahela River basin. Records of chemical analyses and water temperatures at Leechburg for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,050	1,940	2,630	6,710	2,340	9,410	4,020	1,430	1,190	1,120	1,280	2,290
2	1,140	2,270	4,780	2,360	2,260	13,000	4,020	1,440	1,130	1,130	1,330	1,440
3	1,160	2,900	4,710	2,340	2,240	23,000	3,960	1,450	904	1,090	1,800	1,390
4	1,110	3,220	4,650	2,780	1,350	27,500	3,970	1,470	913	968	1,970	1,200
5	842	3,530	4,820	4,420	1,720	23,000	3,920	1,870	1,020	941	3,240	1,170
6	682	6,430	5,080	4,410	3,270	14,100	3,710	2,950	1,120	906	3,680	1,130
7	607	6,230	4,910	10,100	3,350	11,300	3,530	4,030	1,210	723	3,690	1,090
8	523	5,830	4,500	11,600	3,360	8,290	3,200	10,400	2,540	668	3,430	1,040
9	506	5,010	2,330	11,100	3,230	9,760	2,680	8,450	2,690	637	2,580	912
10	520	4,040	2,350	10,400	3,070	8,000	2,750	12,200	2,220	622	1,690	950
11	582	2,050	2,260	8,820	3,140	5,780	2,830	12,500	1,730	717	1,670	963
12	661	2,110	3,240	3,800	3,040	5,010	2,900	10,900	1,060	1,060	1,640	948
13	878	2,230	3,880	3,810	3,970	5,760	2,950	7,640	1,170	1,390	1,610	926
14	1,020	4,660	4,000	3,430	4,570	4,650	2,910	7,490	1,300	1,440	1,480	1,520
15	1,040	5,150	7,180	3,460	5,080	7,970	2,910	7,360	1,790	905	1,460	2,340
16	998	5,180	7,570	5,830	8,220	4,410	2,920	7,110	4,490	870	1,430	4,250
17	990	5,140	7,780	5,610	11,800	4,640	2,840	6,470	4,860	546	1,400	4,970
18	985	4,940	7,660	5,220	11,700	12,000	2,750	5,310	4,290	535	1,370	6,000
19	957	4,710	7,810	4,340	10,000	16,000	2,760	4,080	2,610	564	1,330	8,850
20	919	4,430	7,520	2,570	7,000	16,000	2,730	2,480	2,420	609	1,300	9,510
21	882	4,090	7,300	2,590	4,500	14,500	2,330	2,320	1,710	614	1,270	9,410
22	959	3,720	6,580	2,430	5,490	12,400	1,880	2,280	1,100	741	1,370	8,700
23	1,330	2,260	3,940	2,470	8,000	9,560	1,890	2,230	1,100	1,220	1,400	5,970
24	1,700	2,300	4,500	2,480	12,000	7,600	1,910	2,170	1,100	1,380	2,070	2,880
25	1,820	2,320	7,690	2,510	7,000	4,870	1,900	2,110	1,100	1,350	2,420	2,860
26	1,710	2,290	8,140	2,440	23,000	4,600	1,860	1,990	1,180	880	2,450	2,950
27	1,590	2,100	7,990	2,530	15,900	4,210	1,780	1,780	1,180	702	2,520	3,180
28	1,510	2,070	7,770	2,440	9,440	3,760	1,680	1,240	1,170	671	2,600	6,090
29	1,420	2,070	7,900	2,360	-----	3,510	1,460	1,250	1,150	515	3,570	4,750
30	1,280	2,270	9,650	2,540	-----	3,690	1,420	1,250	1,130	538	3,910	2,950
31	1,210	-----	8,830	2,400	-----	3,890	-----	1,230	-----	873	3,550	-----
TOTAL	32,581	107,490	179,950	140,300	190,040	302,070	82,290	136,880	52,577	26,925	66,510	102,629
MEAN	1,051	3,583	5,805	4,526	6,787	9,744	2,743	4,415	1,753	869	2,145	3,421
MAX	1,020	6,430	9,650	11,600	23,000	27,500	4,020	12,500	4,860	1,440	3,910	9,510
MIN	506	1,940	2,260	2,340	1,350	3,510	1,420	1,230	904	515	1,270	912
(\bar{x})	+5.0	+246	+234	+20.5	+2590	-2280	-40.9	+82.1	+47.3	+76.3	+103	+335
MEAN ∇	1,056	3,829	6,039	4,546	9,377	7,464	2,702	4,497	1,800	945	2,248	3,756
CFSM ∇	.58	2.10	3.31	2.49	5.14	4.09	1.48	2.46	.99	.52	1.23	2.06
IN. ∇	.67	2.34	3.82	2.87	5.35	4.72	1.65	2.84	1.10	.60	1.42	2.30
CAL YR 1970	TOTAL 1,370,139	MEAN 3,754	MAX 23,100	MIN 506	MEAN ∇ 3,827	CFSM ∇ 2.10	IN. ∇ 28.48					
WTR YR 1971	TOTAL 1,420,242	MEAN 3,891	MAX 27,500	MIN 506	MEAN ∇ 3,989	CFSM ∇ 2.19	IN. ∇ 29.68					

∇ Change in contents in Quemahoning Creek, North Fork Bens Creek, Dalton Run, Mill Creek, Saltlick Run, Hinckston Run, Laurel Run, and Two Lick Creek Reservoirs, and Yellow Creek and Conemaugh River Lakes, and Latrobe Reservoir, Loyalhanna Lake and Beaver Run Reservoir and diversion from Beaver Run Reservoir, equivalent in cubic feet per second. Records of diversion and reservoir contents furnished by Manufacturers Water Co., Greater Johnstown Water Authority, Pennsylvania Electric Co., Latrobe Municipal Authority, and Municipal Authority of Westmoreland County.

∇ Adjusted for diversion and change in reservoir contents.

BUFFALO CREEK BASIN

03049000 Buffalo Creek near Freeport, Pa.

LOCATION.--Lat 40°42'57", long 79°41'59", Butler County, on right bank 0.6 mile upstream from Little Buffalo Creek and 3 miles north of Freeport.

DRAINAGE AREA.--137 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Altitude of gage is 792 ft (by barometer). Prior to July 19, 1962, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 184 cfs (18.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,150 cfs Feb. 22 (gage height 5.00 ft); minimum, 5.5 cfs Aug. 19, 20.

Period of record: Maximum discharge, 14,000 cfs Oct. 15, 1954 (gage height, 13.60 ft, from floodmarks), from rating curve extended above 4,300 cfs on basis of slope-area measurement of peak flow; minimum observed, 1.3 cfs Oct. 16-18, 1960; minimum gage height, 0.69 ft Sept. 1, 1962.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	760	350	130	94	515	174	49	41	19	12	16
2	27	748	300	120	90	408	174	51	41	18	10	14
3	39	688	349	110	86	348	159	59	54	17	10	11
4	38	742	700	497	100	308	138	51	51	15	11	13
5	27	555	600	1,100	350	304	124	46	39	14	15	12
6	24	350	450	641	540	244	118	432	168	13	15	9.5
7	23	280	350	451	330	480	115	396	113	12	11	8.5
8	22	220	300	350	250	500	107	560	65	12	8.5	8.0
9	21	190	250	260	180	396	97	484	52	12	8.0	7.5
10	21	170	210	220	113	336	95	372	43	12	7.5	7.0
11	89	200	180	183	140	356	80	293	36	59	8.0	7.0
12	652	170	512	163	200	356	76	320	34	87	7.5	7.0
13	252	160	710	137	800	724	76	348	92	27	7.5	9.5
14	173	160	560	248	600	784	85	290	237	19	7.0	44
15	200	300	400	215	300	796	74	237	94	16	6.0	39
16	155	280	350	160	209	645	69	206	67	15	6.0	27
17	125	220	400	150	328	476	72	189	52	15	6.0	80
18	107	200	436	140	570	372	129	159	43	13	6.5	39
19	91	180	412	130	957	396	84	138	36	12	6.0	32
20	77	170	355	120	1,440	530	70	118	31	21	5.5	49
21	140	213	294	110	1,220	460	66	102	35	17	12	40
22	495	170	336	100	1,490	448	80	87	44	13	39	27
23	320	150	328	95	1,220	404	70	78	30	11	25	21
24	228	130	308	90	760	360	64	72	26	10	18	19
25	173	120	257	90	555	290	60	85	23	12	12	18
26	138	110	241	130	535	272	58	82	22	14	15	18
27	113	110	210	90	814	251	54	65	20	12	216	22
28	97	110	190	110	695	237	50	58	19	12	183	104
29	89	159	170	100	-----	234	59	54	19	11	46	39
30	404	496	150	120	-----	216	54	49	22	15	27	30
31	874	-----	140	100	-----	189	-----	44	-----	15	19	-----
TOTAL	5,262	8,511	10,798	6,660	14,966	12,635	2,731	5,574	1,649	570	786.0	778.0
MEAN	170	284	348	215	535	408	91.0	180	55.0	18.4	25.4	25.9
MAX	874	760	710	1,100	1,490	796	174	560	237	87	216	104
MIN	21	110	140	90	86	189	50	44	19	10	5.5	7.0
CFSM	1.24	2.07	2.54	1.57	3.91	2.98	.66	1.31	.40	.13	.19	.19
IN.	1.43	2.31	2.93	1.81	4.06	3.43	.74	1.51	.45	.15	.21	.21

CAL YR 1970 TOTAL 74,816.0 MEAN 205 MAX 2,690 MIN 11 CFSM 1.50 IN 20.32
WTR YR 1971 TOTAL 70,920.0 MEAN 194 MAX 1,490 MIN 5.5 CFSM 1.42 IN 19.26

PEAK DISCHARGE (BASE, 2,000 CFS).--Feb. 22 (1730) 2,150 cfs (5.00 ft).

03049500 Allegheny River at Natrona, Pa.

LOCATION.--Lat 40°36'55", long 79°43'07", Allegheny County, on right bank 520 ft upstream from dam at lock 4 at Natrona, 5.8 miles downstream from Kiskiminetas River, and at mile 24.3.

DRAINAGE AREA.--11,410 sq mi, approximately.

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

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 737.11 ft above mean sea level, (Corps of Engineers bench mark). Prior to Apr. 14, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 18,780 cfs (22.35 inches per year) adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 87,000 cfs Feb. 21 (gage height, 16.58 ft); minimum, 3,100 cfs Sept. 12 (gage height, 9.26 ft).

Period of record: Maximum discharge, 238,000 cfs Dec. 30, 1942 (gage height, 27.46 ft); minimum, 895 cfs Oct. 22, 1963; minimum gage height, 8.82 ft July 25, 26, 1966.

Flood of Mar. 18, 1936, reached a stage of 32.06 ft (discharge, 365,000 cfs, determined by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Allegheny Reservoir, and by Chautauqua, Tionesta, East Branch Clarion River, Mahoning Creek, Crooked Creek, Conemaugh River, and Loyalhanna Lakes (see pp. 233, 234) and by 15 smaller reservoirs (combined capacity, excluding that of Chautauqua Lake, 2,069,000 acre-ft). Slight diversion since 1952 from Beaver Run Reservoir into the Monongahela River basin. Records of chemical analyses and water temperatures at Oakmont for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1435: 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,300	37,800	42,400	24,000	5,890	73,700	22,700	17,500	6,500	5,210	4,540	7,240
2	12,700	38,300	40,700	18,400	5,850	67,800	22,000	17,600	7,000	5,620	4,160	5,740
3	12,000	38,900	34,600	18,300	5,820	79,600	29,500	16,300	6,580	5,910	4,930	4,870
4	11,100	55,200	36,600	19,800	5,950	78,300	31,800	15,700	6,860	5,440	5,380	4,320
5	9,860	58,000	47,500	34,600	8,430	73,600	27,000	15,000	8,100	4,980	6,850	3,950
6	10,300	51,500	46,400	37,400	13,700	64,000	25,700	18,500	7,730	4,600	7,040	3,440
7	10,200	49,800	42,500	41,200	14,200	60,000	24,100	22,600	8,400	4,430	6,910	3,290
8	13,200	46,400	38,500	36,600	14,900	54,500	22,200	28,300	12,500	4,270	6,720	3,740
9	12,300	40,900	33,900	34,100	15,700	50,800	20,100	30,200	13,000	4,490	5,440	3,740
10	10,300	35,700	32,500	32,100	14,900	45,400	19,400	34,200	11,500	4,820	4,600	3,590
11	8,700	30,600	32,400	28,400	12,300	40,600	21,200	32,800	9,210	5,100	4,820	3,540
12	16,400	29,800	39,400	23,100	11,700	35,400	20,500	29,700	7,350	4,870	4,930	3,440
13	25,000	30,800	46,900	20,200	16,900	33,800	20,400	28,300	6,030	5,210	4,160	3,690
14	38,100	34,600	41,300	19,600	17,700	30,900	22,000	29,500	6,150	5,620	3,690	6,400
15	37,000	35,400	41,200	20,100	18,400	41,600	24,000	27,400	8,120	4,980	3,590	9,870
16	36,400	46,600	42,900	21,800	24,100	49,700	23,600	24,100	14,500	4,540	3,540	13,100
17	34,400	41,100	43,200	20,200	26,600	52,900	21,800	22,200	14,400	4,210	4,110	12,600
18	32,200	36,500	41,900	16,800	29,500	52,100	19,700	20,300	12,900	3,840	3,900	13,200
19	28,700	37,200	40,600	15,200	34,700	49,700	17,700	17,700	9,500	3,950	3,590	14,200
20	26,000	34,700	40,300	12,500	43,300	48,400	16,900	13,600	8,210	4,540	3,390	13,400
21	24,000	36,500	42,000	11,200	63,500	45,500	24,600	11,500	7,240	4,710	3,590	13,700
22	26,700	37,200	40,000	9,820	56,800	41,300	32,400	10,200	7,240	4,650	4,320	13,400
23	28,600	34,100	36,900	10,800	61,900	37,000	31,500	8,800	7,240	5,160	5,040	10,800
24	28,300	31,800	32,300	10,900	65,600	34,300	26,300	7,720	6,720	4,930	6,590	6,910
25	26,100	30,200	35,800	11,200	64,000	30,300	15,900	8,240	6,340	4,710	6,720	6,320
26	23,300	29,000	35,100	11,700	71,400	27,300	12,200	8,750	6,400	4,000	6,400	6,410
27	20,000	26,500	33,300	10,100	77,700	24,500	12,500	9,510	5,560	4,110	7,790	6,950
28	17,600	26,900	30,200	8,630	80,600	24,400	12,500	8,680	5,160	3,900	8,210	11,200
29	16,200	31,900	28,800	7,860	-----	25,000	12,600	8,830	5,440	3,900	9,740	11,500
30	17,100	38,400	29,000	7,370	-----	27,700	14,500	8,090	5,270	4,110	10,300	9,590
31	29,800	-----	27,300	6,320	-----	25,600	-----	6,940	-----	4,540	9,660	-----
TOTAL	655,860	1,132.3M	1,176.4M	600,300	882,040	1,425.7M	647,300	558,760	247,150	145,350	174,650	234,140
MEAN	21,160	37,740	37,950	19,360	31,500	45,990	21,580	18,020	8,238	4,689	5,634	7,805
MAX	38,100	58,000	47,500	41,200	80,600	79,600	32,400	34,200	14,500	5,910	10,300	14,200
MIN	8,700	26,500	27,300	6,320	5,820	24,400	12,200	6,940	5,160	3,840	3,390	3,290
(*)	-574	+1,210	-2,480	-1,700	+4,110	-3,320	+4,550	-250	-492	-1,480	-1,160	-373
MEAN#	20,590	38,950	35,470	17,660	35,610	42,670	26,130	17,770	7,746	3,209	4,474	7,432
CFSM#	1.80	3.41	3.11	1.55	3.12	3.74	2.29	1.56	.68	.28	.39	.65
IN.#	2.08	3.80	3.59	1.79	3.25	4.31	2.55	1.80	.86	.32	.45	.73

CAL YR 1970 TOTAL 8,532,140 MEAN 23,380 MAX 106,000 MIN 3,250 MEAN# 23,430 CFSM# 2.05 IN.# 27.88
WTR YR 1971 TOTAL 7,879,950 MEAN 21,590 MAX 80,600 MIN 3,290 MEAN# 21,380 CFSM# 1.87 IN.# 25.43

* Change in contents in Allegheny Reservoir, and Chautauqua, Tionesta, East Branch Clarion River, Mahoning Creek, Crooked Creek, Yellow Creek, Conemaugh River, and Loyalhanna Lakes, and in 15 smaller reservoirs, and diversion from Beaver Run Reservoir into the Monongahela River basin, equivalent in cubic feet per second. Records of smaller reservoir contents furnished by Pennsylvania Electric Co., Manufacturers Water Co., Greater Johnstown Water Authority, Latrobe Municipal Authority, and Municipal Authority of Westmoreland County.

Adjusted for diversion and change in reservoir contents.

PINE CREEK BASIN

03049800 Little Pine Creek near Etna, Pa.

LOCATION.--Lat 40°31'13", long 79°56'18", Allegheny County, on right bank at downstream side of highway bridge on Saxonburg Boulevard, 0.7 mile upstream from mouth, and 1.5 miles northeast of Etna.

DRAINAGE AREA.--5.78 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete and steel-rail control. Datum of gage is 778.26 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 5.49 cfs (12.90 inches per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs Mar. 13 (gage height, 3.05 ft); maximum gage height, 5.76 ft Feb. 5 (ice jam); minimum daily discharge, 0.03 cfs Oct. 8, 9.

Period of record: Maximum discharge, 360 cfs Mar. 4, 1963 (gage height, 3.85 ft), from rating curve extended above 140 cfs on basis of slope-area measurement of peak flow; maximum gage height, 5.76 ft Feb. 5, 1971 (ice jam); no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	17	5.9	2.8	2.4	13	4.6	1.2	1.3	.46	.90	1.3
2	.11	15	4.8	2.5	2.2	10	4.3	1.7	1.5	.46	.82	.82
3	.19	22	14	3.0	2.1	8.8	4.0	1.5	1.5	.34	1.6	.82
4	.07	11	20	38	2.3	8.2	3.8	1.2	1.6	.40	1.4	.60
5	.05	8.0	12	47	35	9.4	3.6	1.2	1.5	.25	1.1	.46
6	.05	5.0	8.2	19	10	11	3.4	47	42	.13	.81	.40
7	.04	3.5	5.9	12	6.0	34	3.2	16	10	.09	.67	.34
8	.03	2.5	5.4	9.0	5.0	19	3.0	24	5.4	.06	.53	.29
9	.03	1.8	4.8	8.0	4.5	14	2.7	11	3.7	1.8	.46	.25
10	.48	2.0	3.7	6.5	4.2	12	2.4	7.6	3.1	.53	.40	.22
11	.67	2.0	12	5.4	4.0	16	2.0	6.0	2.0	34	.34	.29
12	.40	1.8	56	4.8	6.0	27	2.0	9.0	2.0	7.0	.22	.82
13	.22	1.8	54	4.2	50	98	2.0	13	6.5	2.0	.17	1.3
14	.90	1.8	23	7.6	15	39	3.1	8.2	5.4	1.5	.15	11
15	1.2	4.8	13	6.5	9.0	20	2.0	6.5	3.1	1.2	.15	1.8
16	.53	3.1	13	5.0	7.0	14	1.8	5.9	2.6	1.3	.13	3.1
17	.34	2.6	15	4.5	15	11	2.6	4.5	2.0	.90	.12	2.6
18	.25	2.0	11	4.0	29	10	2.0	3.9	1.7	.74	.10	1.6
19	.22	2.0	8.8	3.5	48	17	1.8	3.3	1.5	20	.08	2.0
20	.19	2.6	7.0	3.2	53	15	1.7	2.9	1.4	21	.07	1.6
21	5.6	2.0	5.9	2.9	33	15	1.5	2.6	1.4	4.8	.90	1.3
22	3.0	2.0	15	2.7	71	13	1.4	2.3	1.3	2.6	.99	1.2
23	1.7	2.0	12	2.6	51	11	1.4	2.1	1.2	1.7	1.3	1.1
24	1.3	1.8	12	2.5	30	10	1.4	2.0	1.1	2.0	.46	.90
25	1.1	1.8	9.4	2.4	22	8.6	1.4	3.1	.90	1.7	.46	.82
26	.90	1.8	7.6	4.0	21	7.8	1.4	2.0	.99	1.4	.90	1.7
27	.82	1.6	6.5	3.0	29	7.0	1.3	1.8	.74	1.1	13	1.4
28	.67	1.6	5.4	2.7	17	6.4	1.4	1.7	.67	.90	3.1	1.2
29	2.4	7.6	4.2	2.9	-----	5.8	1.3	1.6	.46	1.6	1.4	1.1
30	34	8.8	3.5	3.1	-----	5.4	1.3	1.6	.34	1.3	.99	1.4
31	23	-----	3.1	2.8	-----	5.0	-----	1.4	-----	1.2	.90	-----
TOTAL	80.55	143.3	382.1	228.1	583.7	501.4	69.8	197.8	108.90	114.46	34.62	43.73
MEAN	2.60	4.78	12.3	7.36	20.8	16.2	2.33	6.38	3.63	3.69	1.12	1.46
MAX	34	22	56	47	71	98	4.6	47	42	34	13	11
MIN	.03	1.6	3.1	2.4	2.1	5.0	1.3	1.2	.34	.06	.07	.22
CFSM	.45	.83	2.13	1.27	3.60	2.80	.40	1.10	.63	.64	.19	.25
IN.	.52	.92	2.46	1.47	3.76	3.23	.45	1.27	.70	.74	.22	.28

CAL YR 1970 TOTAL 2,076.29 MEAN 5.69 MAX 120 MIN .03 CFSM .98 IN 13.36
WTR YR 1971 TOTAL 2,488.46 MEAN 6.82 MAX 98 MIN .03 CFSM 1.18 IN 16.02

PEAK DISCHARGE (BASE, 150 CFS).--Mar. 13 (0215) 248 cfs (3.05 ft); July 11 (1345) 188 cfs (2.71 ft).

Reservoirs in Allegheny River basin

03012520 ALLEGHENY RESERVOIR.--Lat 41°50'17", long 79°00'10", Warren County, in Allegheny National Forest, at control house at Kinzua Dam on Allegheny River, 3 miles upstream from Hemlock Run, and 7 miles east of Warren. Drainage area, 2,180 sq mi. Period of record, October 1965 to current year. Prior to October 1966 published as Allegheny River Reservoir. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 696,160 acre-ft Apr. 19 (elevation, 1,337.51 ft); minimum, 153,210 acre-ft Mar. 12 (elevation, 1,277.14 ft). Extremes for period of record: Maximum contents, 719,560 acre-ft Apr. 10, 1969 (elevation, 1,339.17 ft); minimum, 4 acre-ft Oct. 1, 1965 (elevation, 1,200.4 ft).

Reservoir is formed by a concrete gravity dam with a gated spillway and with an earthfill section, rock-faced, at right side. Storage began October 1965. Capacity, 1,180,000 acre-ft between elevations 1,205.0 ft (invert of low level sluices) and 1,365.0 ft (full pool). Dead storage is 128 acre-ft. Minimum pool elevation, 1,240 ft (capacity, 24,240 acre-ft). Winter low-water pool elevation, 1,292 ft (capacity, 239,780 acre-ft). Summer low-water pool elevation, 1,328 ft (capacity, 572,610 acre-ft). Storage to summer pool normally occurs during period April to May. Depletion of low-water storage for augmenting flow in Allegheny River normally occurs during period July to December. Figures given herein represent total contents. Reservoir is used for flood control, low-flow augmentation and water-quality control of Allegheny River and downstream rivers, power generation, and recreation. Records furnished by Corps of Engineers.

03013500 CHAUTAUQUA LAKE.--Lat 42°14'20", long 79°29'50", Chautauqua County, N.Y., on right bank of outlet of Mud Creek, 25 ft upstream from highway bridge, about 500 ft from lake, and 1 mile south of Mayville, N.Y. Drainage area, 189 sq mi. Period of record, November 1949 to current year. Water-stage recorder. Datum of gage is 1,300 ft above mean sea level. Prior to Dec. 21, 1956, nonrecording gage at site near mouth of Big Inlet at same datum. Extremes for current year: Maximum daily gage height, 8.65 ft Mar. 16; minimum daily, 7.09 ft Jan. 24. Extremes for period of record: Maximum daily gage height, 10.65 ft Mar. 9, 1956; minimum daily, 6.29 ft Nov. 17, 1953.

Lake is regulated at outlet by Warner Dam. Capacity of lake not determined; area of water surface, 20.9 sq mi. Figures of change in contents computed from surface area multiplied by change in stage.

03019500 TIONESTA LAKE (formerly published as Tionesta Creek Reservoir).--Lat 41°28'25", long 79°26'20", Forest County, in Allegheny National Forest, at control tower, 0.8 mile upstream from Tionesta Dam on Tionesta Creek, 1.8 miles upstream from mouth, and 2 miles southeast of Tionesta. Drainage area, 478 sq mi. Period of record, December 1940 to current year. Water-stage recorder. Datum of gage is at mean sea level, datum of Corps of Engineers, which is 0.08 ft above mean sea level. Extremes for current year: Maximum contents, 44,030 acre-ft Nov. 2 (elevation, 1,125.60 ft); minimum, 3,280 acre-ft May 12 (elevation, 1,074.02 ft). Extremes for period of record: Maximum contents, 111,320 acre-ft Mar. 11, 1964 (elevation, 1,161.55 ft); minimum, 1,910 acre-ft Dec. 5, 1940 (elevation, 1,069.30 ft).

Reservoir is formed by an earthfill dam, rock-faced. Storage began in 1940 during construction. Dam completed Jan. 9, 1941. Capacity, 133,400 acre-ft between elevations 1,052.00 ft (sill of outlet gates) and 1,170.00 ft (full pool). Minimum pool elevation, 1,085.00 ft (capacity, 7,780 acre-ft). Figures given herein represent total contents. Reservoir is used for flood control and recreation. Records furnished by Corps of Engineers.

03027000 EAST BRANCH CLARION RIVER LAKE (formerly published as East Branch Clarion River Reservoir).--Lat 41°33'35", long 78°35'40", Elk County, at control tower at East Branch Clarion River Dam on East Branch Clarion River, 1.7 miles northeast of Glen Hazel, and 7.5 miles upstream from confluence with West Branch Clarion River. Drainage area, 72.4 sq mi (figure from Corps of Engineers). Period of record, June 1952 to current year. Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Extremes for current year: Maximum contents, 66,110 acre-ft May 13-14 (elevation, 1,670.69 ft); minimum, 31,230 acre-ft Dec. 30 (elevation, 1,633.55 ft). Extremes for period of record: Maximum contents, 73,230 acre-ft May 15, 1956 (elevation, 1,676.58 ft); minimum, 160 acre-ft Nov. 9, 1952 (elevation, 1,541.07 ft).

Reservoir is formed by an earthfill dam, rock-faced. Dam completed in 1952. Controlled storage began in June 1952. Capacity, 83,300 acre-ft between elevations 1,555 ft (sill of outlet gates) and 1,685 ft (full pool). Minimum pool elevation, 1,555 ft (capacity, 1,000 acre-ft). Winter low-water pool elevation, 1,651 ft (capacity, 45,600 acre-ft). Summer low-water pool elevation, 1,670 ft (capacity, 65,300 acre-ft). Storage to summer pool normally occurs during period Mar. 1 to Apr. 30. Depletion of low-water storage for augmenting flow in Clarion River occurs normally during period June to October. Figures given herein represent total contents. Reservoir is used for flood control, for low-flow augmentation of Clarion River and downstream rivers, and for recreation. Records furnished by Corps of Engineers.

03035500 MAHONING CREEK LAKE (formerly published as Mahoning Creek Reservoir).--Lat 40°55'18", long 79°16'41", Armstrong County, at control house at Mahoning Creek Dam on Mahoning Creek, 0.7 mile upstream from Camp Run, 1.5 miles south of Eddyville, and 3 miles upstream from Pine Run. Drainage area, 340 sq mi. Period of record, June 1941 to current year. Water-stage recorder. Datum of gage is at mean sea level, datum of Corps of Engineers, which is 0.64 ft above mean sea level. Extremes for current year: Maximum contents, 46,710 acre-ft Feb. 24 (elevation, 1,147.36 ft); minimum, 4,450 acre-ft Sept. 22 (elevation, 1,074.85 ft). Extremes for period of record: Maximum contents, 72,580 acre-ft Mar. 11, 1964 (elevation, 1,161.32 ft); minimum, 330 acre-ft July 2, 3, 1944 (elevation, 1,026.80 ft).

Reservoir is formed by a concrete gravity dam with a gated spillway. Storage began during construction sometime prior to June 15, 1941. Capacity, 74,100 acre-ft between elevations 1,015 ft (sill of outlet gates) and 1,162 ft (full pool); dead storage, 100 acre-ft. Minimum pool elevation, 1,075 ft (capacity, 4,480 acre-ft). Figures given herein represent total contents. Reservoir is used for flood control and recreation. Records furnished by Corps of Engineers.

03038500 CROOKED CREEK LAKE (formerly published as Crooked Creek Reservoir).--Lat 40°42'51", long 79°30'30", Armstrong County, at control tower at Crooked Creek Dam on Crooked Creek, 4 miles south of Ford City, and 7.2 miles upstream from mouth. Drainage area, 277 sq mi. Period of record, May 1940 to current year. Water-stage recorder. Datum of gage is at mean sea level, datum of Corps of Engineers, which is 2.07 ft below mean sea level. Extremes for current year: Maximum contents, 32,630 acre-ft Feb. 24 (elevation, 879.22 ft); minimum, 4,620 acre-ft Apr. 28 (elevation, 840.29 ft). Extremes for period of record: Maximum contents, 58,020 acre-ft Apr. 16, 1948 (elevation, 889.02 ft); minimum, 1,230 acre-ft Nov. 30, 1964 (elevation, 827.62 ft).

Reservoir is formed by an earthfill dam, rock-faced. Storage began in May 1940. Capacity, 93,900 acre-ft between elevations 809 ft (sill of outlet gates) and 920 ft (full pool). Minimum pool elevation, 840 ft (capacity, 4,510 acre-ft). Figures given herein represent total contents. Reservoir is used for flood control and recreation. Records furnished by Corps of Engineers.

ALLEGHENY RIVER BASIN

Reservoirs in Allegheny River basin--Continued

03042260 YELLOW CREEK LAKE.--Lat 40°35'27", long 79°03'11", Indiana County, in gatehouse at right end of Yellow Creek Dam on Yellow Creek, at Yellow Creek State Park, 3 miles southwest of Penn Run. Drainage area, 52.5 sq mi. Period of record, July to September 1971. Water-stage recorder. Datum of gage is at mean sea level (Pennsylvania Department of Environmental Resources bench mark). Extremes for current year: Maximum contents recorded (during initial filling) 13,840 acre-ft Sept. 30 (elevation, 1,280.04 ft); minimum not determined, occurred prior to July 11, when gates were closed to begin filling reservoir.

Reservoir is formed by an earthfill dam with concrete spillway. Storage began July 11, 1971. Usable capacity, 13,800 acre-ft between elevation 1245.5 ft (sill of 4-foot and 1.5-foot outlet gates) and 1280.0 ft (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

03043500 CONEMAUGH RIVER LAKE (formerly published as Conemaugh River Reservoir).--Lat 40°28'11", long 79°22'07", Indiana County, at face of dam on right bank at Conemaugh River Dam on Conemaugh River, 2 miles upstream from highway bridge at Tunnelton, and 7.5 miles upstream from Loyalhanna Creek. Drainage area, 1,351 sq mi. Period of record, October 1951 to current year. Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Prior to Dec. 18, 1952, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 136,910 acre-ft Feb. 24 (elevation, 950.02 ft); minimum, 4,210 acre-ft June 2 (elevation, 880.72 ft). Extremes for period of record: Maximum contents, 230,520 acre-ft Mar. 12, 1964 (elevation, 968.23 ft); minimum, 570 acre-ft Oct. 26, 1952 (elevation, 861.89 ft).

Reservoir is formed by a concrete gravity dam with a gated spillway and with an earth embankment at the right end. Fully controlled storage began November 1953. Capacity, 273,600 acre-ft between elevations 860 ft (sill of sluice gates) and 975 ft (full pool). Dead storage is 400 acre-ft. Minimum pool elevation, 880 ft (capacity, 4,000 acre-ft). Figures given herein represent total contents. Reservoir is used for flood control and recreation. Partly controlled storage maintained October 1951 to October 1953 when conduits were fully open and reservoir functioned as a detention basin or operations for flood control were made when damaging floods became imminent at downstream points. Records furnished by Corps of Engineers.

03046500 LOYALHANNA LAKE (formerly published as Loyalhanna Creek Reservoir).--Lat 40°27'25", long 79°27'07", Westmoreland County, at control house at Loyalhanna Dam on Loyalhanna Creek, 2 miles south of Saltsburg, and 4.7 miles upstream from mouth. Drainage area, 290 sq mi. Period of record, June 1942 to current year (fragmentary October 1943 to March 1946). Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Extremes for current year: Maximum contents, 32,620 acre-ft Feb. 24 (elevation, 948.44 ft); minimum, 1,560 acre-ft June 21 (elevation, 907.47 ft). Extremes for period of record: Maximum contents, 47,910 acre-ft Apr. 16, 1948 (elevation, 956.82 ft); little or no contents at times.

Reservoir is formed by a concrete gravity dam with a gated spillway and with an earth embankment at the left end. Storage began in June 1942. Capacity, 95,300 acre-ft between elevations 878 ft (sill of outlet gates) and 975 ft (full pool). Minimum pool elevation, 910 ft (capacity, 2,040 acre-ft). Figures given herein represent total contents. Reservoir is used for flood control and recreation. Records furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>03012500 Allegheny Reservoir</u>				<u>03013500 Chautauqua Lake</u>		
Sept. 30.....	1,328.11	573,940	-	-	-	-
Oct. 31.....	1,324.37	530,030	-714	-	-	+10.9
Nov. 30.....	1,328.53	579,060	+824	-	-	+151
Dec. 31.....	1,316.12	441,490	-2,240	-	-	-194
CAL YR 1970.....	-	-	0	-	-	+4.2
Jan. 31.....	1,304.90	337,040	-1,700	-	-	-109
Feb. 28.....	1,302.53	317,250	-356	-	-	+323
Mar. 31.....	1,305.04	338,230	+341	-	-	-154
Apr. 30.....	1,330.53	603,810	+4,460	-	-	+31.4
May 31.....	1,328.49	578,570	-410	-	-	-15.2
June 30.....	1,326.63	556,260	-375	-	-	+9.0
July 31.....	1,319.89	480,650	-1,230	-	-	-93.5
Aug. 31.....	1,314.02	420,550	-977	-	-	-4.4
Sept. 30.....	1,310.72	388,990	-530	-	-	-40.5
WTR YR 1971.....	-	-	-255	-	-	-10.3

ALLEGHENY RIVER BASIN

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Reservoirs in Allegheny River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
03019500 Tionesta Lake				03027000 E. Br. Clarion River Lake		
Sept. 30.....	1,077.00	4,400	-	1,648.69	43,460	-
Oct. 31.....	1,084.10	7,340	+47.8	1,650.24	44,860	+22.8
Nov. 30.....	1,090.72	10,840	+58.8	1,646.08	41,160	-62.2
Dec. 31.....	1,087.29	8,960	-30.6	1,633.81	31,420	-158
CAL YR 1970.....	-	-	-1.6	-	-	-7.7
Jan. 31.....	1,089.20	9,990	+16.8	1,636.70	33,570	+35.0
Feb. 28.....	1,119.23	36,050	+469	1,641.44	37,280	+66.8
Mar. 31.....	1,090.69	10,820	-410	1,654.00	48,380	+181
Apr. 30.....	1,083.56	7,080	-62.9	1,668.55	63,640	+256
May 31.....	1,088.36	9,530	+39.9	1,670.08	65,400	+28.6
June 30.....	1,090.12	10,500	+16.3	1,666.39	61,210	-70.4
July 31.....	1,088.05	9,370	-18.4	1,657.24	51,550	-157
Aug. 31.....	1,086.77	8,690	-11.1	1,644.15	39,520	-196
Sept. 30.....	1,090.21	10,550	+31.3	1,633.79	31,410	-136
WTR YR 1971.....	-	-	+8.5	-	-	-16.6
03035500 Mahoning Creek Lake				03038500 Crooked Creek Lake		
Sept. 30.....	1,082.70	5,930	-	847.13	7,420	-
Oct. 31.....	1,079.99	7,100	+19.0	848.81	8,290	+14.2
Nov. 30.....	1,090.05	7,510	+6.9	846.99	7,360	-15.6
Dec. 31.....	1,080.52	5,500	-32.7	842.32	5,370	-32.4
CAL YR 1970.....	-	-	-.4	-	-	-.2
Jan. 31.....	1,084.20	6,240	+12.0	843.80	5,950	+9.4
Feb. 28.....	1,137.62	34,170	+503	873.52	26,690	+373
Mar. 31.....	1,085.09	6,420	-451	841.68	5,130	-351
Apr. 30.....	1,076.42	4,730	-28.4	842.08	5,280	+2.5
May 31.....	1,080.80	5,560	+13.5	845.06	6,480	+19.5
June 30.....	1,078.55	5,120	-7.4	844.24	6,130	-5.9
July 31.....	1,080.13	5,430	+5.0	843.60	5,870	-4.2
Aug. 31.....	1,075.89	4,630	-13.0	843.36	5,770	-1.6
Sept. 30.....	1,076.67	4,770	+2.4	844.09	6,070	+5.0
WTR YR 1971.....	-	-	-1.6	-	-	-1.9
03042260 Yellow Creek Lake				03043500 Conemaugh River Lake		
Sept. 30.....	-	-	-	887.37	6,650	-
Oct. 31.....	-	-	-	893.68	9,900	+52.9
Nov. 30.....	-	-	-	897.70	12,490	+43.5
Dec. 31.....	-	-	-	900.35	14,630	+34.8
CAL YR 1970.....	-	-	-	-	-	+3.2
Jan. 31.....	-	-	-	892.44	9,200	-88.3
Feb. 28.....	-	-	-	946.05	120,520	+2,000
Mar. 31.....	-	-	-	890.28	8,060	-1,830
Apr. 30.....	-	-	-	887.34	6,640	-23.9
May 31.....	-	-	-	882.51	4,800	-29.9
June 30.....	-	-	-	891.63	8,760	+66.6
July 31.....	1,262.61	3,210	+52.2	900.11	14,430	+92.2
Aug. 31.....	1,271.75	7,750	+73.8	895.86	11,230	-52.0
Sept. 30.....	1,280.04	13,840	+102	909.95	25,270	+236
WTR YR 1971.....	-	-	+19.1	-	-	+25.7

ALLEGHENY RIVER BASIN

Reservoirs in Allegheny River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>03046500 Loyalhanna Lake</u>						
Sept. 30.....	917.96	4,370	-			
Oct. 31.....	915.72	3,560	-13.2			
Nov. 30.....	917.71	4,270	+11.9			
Dec. 31.....	913.39	2,860	-22.9			
CAL YR 1970.....	-	-	-5.3			
Jan. 31.....	916.90	3,970	+18.1			
Feb. 28.....	947.17	30,600	+479			
Mar. 31.....	916.67	3,890	-434			
Apr. 30.....	913.60	2,910	-16.5			
May 31.....	917.69	4,260	+22.0			
June 30.....	916.23	3,730	-8.9			
July 31.....	919.85	5,150	+23.1			
Aug. 31.....	918.29	4,500	-10.6			
Sept. 30.....	913.98	3,020	-24.9			
WTR YR 1971.....	-	-	-1.9			

03072000 Dunkard Creek at Shannopin, Pa.

LOCATION.--Lat 39°45'33", long 79°58'15", Greene County, on left bank at Shannopin, 1,300 ft upstream from highway bridge at mine buildings, 1.2 miles north of Dunkard, 3.5 miles upstream from mouth, and 4 miles southwest of Greensboro.

DRAINAGE AREA.--229 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Prior to December 1940 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder. Altitude of gage is 806 ft (by barometer).

AVERAGE DISCHARGE.--31 years, 261 cfs (15.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,920 cfs Feb. 13 (gage height, 9.50 ft); minimum, 1.4 cfs June 30 (gage height, 1.09 ft).

Period of record: Maximum discharge, 16,800 cfs June 4, 1941 (gage height, 14.02 ft), from rating curve extended above 10,000 cfs on basis of slope-area measurement of peak flow; minimum, 0.4 cfs Aug. 28, 1944.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mine pumpage above station.

REVISIONS (WATER YEARS).--WSP 1505: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	435	120	154	150	285	134	52	56	7.9	35	32
2	37	436	114	141	140	246	126	56	49	11	39	29
3	34	584	104	123	130	228	122	60	46	9.2	31	24
4	30	810	154	1,210	130	226	106	60	43	6.2	34	19
5	34	458	420	4,190	1,700	197	94	52	46	2.5	106	16
6	28	360	307	1,430	2,090	224	90	3,000	1,720	3.6	118	16
7	22	232	219	605	874	1,560	87	1,400	560	3.1	65	16
8	18	168	167	310	593	1,440	85	1,600	514	2.5	42	15
9	15	128	140	313	530	738	78	700	235	30	32	13
10	15	102	125	252	328	581	73	500	143	30	27	16
11	17	88	109	211	320	738	68	390	109	17	23	22
12	15	80	378	183	392	774	64	300	81	20	22	65
13	15	71	1,450	165	2,760	920	61	654	103	17	18	295
14	14	67	682	313	2,610	766	110	1,510	158	21	16	756
15	14	66	422	850	1,030	563	100	730	112	16	15	584
16	18	73	293	500	626	461	86	473	69	11	33	265
17	18	78	305	335	485	345	74	373	48	9.9	30	552
18	25	80	443	258	1,120	272	84	283	34	8.5	20	406
19	22	77	410	197	1,520	246	76	213	26	9.9	16	275
20	20	92	315	170	1,500	278	70	175	19	11	14	237
21	55	266	242	150	1,110	276	66	144	15	9.2	12	179
22	688	308	1,100	160	1,490	350	75	122	16	9.2	269	140
23	308	242	2,510	156	2,450	410	70	106	20	7.9	217	110
24	165	188	2,290	141	1,240	368	66	94	23	6.2	96	90
25	111	140	1,010	150	722	305	62	96	16	15	60	75
26	79	121	602	156	527	268	58	101	11	13	54	69
27	61	109	401	150	449	236	57	84	7.3	8.5	74	75
28	51	100	295	165	363	209	60	72	4.1	6.2	92	83
29	44	88	215	150	-----	192	66	64	2.5	26	71	68
30	47	85	175	180	-----	172	58	64	3.6	35	52	57
31	205	-----	165	160	-----	148	-----	64	-----	43	39	-----
TOTAL	2,273	6,132	15,682	13,628	27,379	14,022	2,426	13,592	4,289.5	426.5	1,772	4,599
MEAN	73.3	204	506	440	978	452	80.9	438	143	13.8	57.2	153
MAX	688	810	2,510	4,190	2,760	1,560	134	3,000	1,720	43	269	756
MIN	14	66	104	123	130	148	57	52	2.5	2.5	12	13
CFSM	.32	.89	2.21	1.92	4.27	1.97	.35	1.91	.62	.06	.25	.67
IN.	.37	1.00	2.55	2.21	4.45	2.28	.39	2.21	.70	.07	.29	.75

CAL YR 1970 TOTAL 95,792.5 MEAN 262 MAX 5,480 MIN 7.1 CFSM 1.14 IN 15.56
WTR YR 1971 TOTAL 106,221.0 MEAN 291 MAX 4,190 MIN 2.5 CFSM 1.27 IN 17.26

PEAK DISCHARGE (BASE, 4,000 CFS).--Jan. 5 (0500) 5,520 cfs (9.30 ft); Feb. 13 (2200) 5,920 cfs (9.50 ft).

NOTE.--No gage-height record Apr. 11 to May 11.

03072500 Monongahela River at Greensboro, Pa.

LOCATION.--Lat 39°47'15", long 79°55'26", Greene County, on left bank on land guide wall, 950 ft upstream from dam at lock 7, at Greensboro, 0.4 mile upstream from Georges Creek, 2.0 miles downstream from Dunkard Creek, 4.3 miles downstream from Cheat River, and at mile 85.2.

DRAINAGE AREA.--4,407 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1305.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 767.55 ft above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--33 years, 7,909 cfs (24.37 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 69,800 cfs Dec. 23 (gage height, 19.56 ft); minimum daily, 350 cfs June 27.

Period of record: Maximum discharge, 134,000 cfs Mar. 7, 1967 (gage height, 29.61 ft); minimum daily, 204 cfs Sept. 1-3, 5, 1946; minimum gage height, 10.23 ft Apr. 29, 1941.

Flood of July 1888 reached a stage of about 36 ft, from high-water profile by Corps of Engineers. Flood of Mar. 18, 1936, reached a stage of 28.4 ft (discharge, 130,000 cfs).

REMARKS.--Records good above 5,000 cfs and fair below except those below 1,000 cfs, which are poor. Flow regulated since 1938 by Tygart Lake 66 miles upstream (see p. 257) and since 1926 by Lake Lynn 8 miles upstream (combined capacity, 357,300 acre-ft).

REVISIONS (WATER YEARS).--WSP 1113: 1939(M), 1941(M). WSP 1435: 1939. WSP 1907: 1936(M), 1955(M).

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,700	6,090	3,930	8,410	8,500	9,780	7,340	806	3,750	891	3,900	1,780
2	2,280	5,890	4,370	9,010	7,160	12,900	7,120	760	4,450	2,380	4,680	1,730
3	1,550	10,200	5,560	9,490	7,100	11,600	3,910	2,410	3,180	950	4,720	1,340
4	963	10,700	6,420	19,000	8,160	12,100	3,040	2,740	3,840	500	9,580	891
5	1,570	12,000	6,330	57,800	24,000	11,600	4,910	2,970	4,220	480	17,300	1,280
6	2,200	14,500	4,160	38,100	28,800	9,420	5,060	14,700	11,800	700	14,800	1,320
7	2,040	11,500	5,120	27,000	17,300	17,100	5,800	25,400	8,520	1,890	6,910	2,680
8	1,890	11,100	5,650	21,900	20,500	20,500	3,630	33,100	7,830	1,160	2,590	1,450
9	2,020	12,900	3,370	17,800	20,500	19,700	3,530	31,500	6,880	1,610	2,860	5,240
10	1,620	10,000	3,440	14,400	17,400	17,600	5,550	24,200	6,540	635	2,960	1,580
11	1,680	9,200	4,540	13,200	16,600	15,100	2,730	19,000	2,950	938	1,920	2,540
12	2,380	9,820	8,060	10,600	15,500	15,000	4,550	13,300	1,870	727	2,240	2,760
13	2,130	12,100	13,700	9,750	23,600	15,900	5,310	20,800	1,670	732	1,820	33,400
14	2,440	9,290	11,000	14,800	30,600	16,300	5,610	31,400	4,650	1,180	972	47,100
15	2,210	8,630	12,400	25,300	23,400	15,900	5,750	23,600	6,750	700	740	41,700
16	2,000	9,460	10,800	24,200	22,400	13,200	4,620	17,500	3,800	450	1,080	29,500
17	1,720	8,570	12,300	18,900	19,800	10,500	3,770	14,700	2,490	560	1,560	34,900
18	1,320	6,480	16,800	15,600	19,000	8,920	3,150	6,810	2,180	480	640	28,700
19	2,040	4,220	14,100	10,900	19,700	10,200	3,280	7,330	820	1,860	1,200	19,700
20	1,830	5,870	8,310	8,100	21,300	10,100	4,040	5,070	838	1,780	1,460	18,000
21	3,740	5,870	11,800	6,510	18,900	7,750	3,180	4,870	2,300	1,190	700	17,400
22	6,180	4,030	37,100	7,700	23,500	10,900	2,920	3,910	1,820	2,140	3,760	13,800
23	4,690	5,440	61,500	5,540	34,700	12,200	2,350	3,390	1,400	1,800	4,320	11,400
24	2,240	3,360	44,900	5,360	30,600	14,000	1,660	3,880	1,820	908	3,440	6,510
25	1,710	4,680	34,200	10,900	21,700	11,500	693	3,540	1,290	640	1,140	5,010
26	2,540	2,340	27,100	9,860	22,500	10,700	2,540	3,070	450	2,000	3,420	6,310
27	1,930	3,980	22,200	10,900	18,300	7,640	2,280	2,610	350	768	2,370	9,940
28	1,810	3,010	19,200	8,700	13,200	6,790	2,160	1,890	928	720	4,640	9,640
29	1,740	2,210	17,100	5,510	-----	8,030	2,040	1,910	1,220	3,320	1,850	8,040
30	3,170	3,550	16,200	8,180	-----	10,200	1,660	1,360	596	3,920	3,390	8,600
31	5,480	-----	14,400	5,900	-----	8,500	-----	3,620	-----	6,800	1,380	-----
TOTAL	73,813	226,990	466,060	459,320	554,720	381,630	114,183	332,146	101,202	44,809	114,342	374,241
MEAN	2,381	7,566	15,030	14,820	19,810	12,310	3,806	10,710	3,373	1,445	3,688	12,470
MAX	6,180	14,500	61,500	57,800	34,700	20,500	7,340	33,100	11,800	6,800	17,300	47,100
MIN	963	2,210	3,370	5,360	7,100	6,790	693	760	350	450	640	891
(\bar{x})	-689	-164	-63.4	-291	+218	-115	+738	+730	-75.8	+30.9	-103	-308
MEAN \bar{x}	1,692	7,402	14,970	14,530	20,030	12,200	4,544	11,440	3,297	1,476	3,585	12,160
CFSM \bar{x}	.38	1.68	3.40	3.30	4.55	2.77	1.03	2.60	.75	.33	.81	2.76
IN. \bar{x}	.44	1.87	3.92	3.80	4.74	3.19	1.15	3.00	.84	.38	.93	3.08
CAL YR 1970	TOTAL 2,893,381	MEAN 7,927	MAX 61,500	MIN 460	MEAN \bar{x} 7,806	CFSM \bar{x} 1.77	IN. \bar{x} 24.06					
WTR YR 1971	TOTAL 3,243,456	MEAN 8,886	MAX 61,500	MIN 350	MEAN \bar{x} 8,876	CFSM \bar{x} 2.01	IN. \bar{x} 27.34					

* Change in contents, equivalent in cubic feet per second, in Tygart Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Power Service Corp.

* Adjusted for change in reservoir contents.

MONONGAHELA RIVER BASIN

239

03072590 Georges Creek at Smithfield, Pa.

LOCATION.--Lat 39°47'44", long 79°47'47", Fayette County, on right bank at downstream side of bridge on Georges Township Road at Smithfield, 1.6 miles upstream from Mountain Creek, and 2.5 miles southwest of Fairchance.

DRAINAGE AREA.--16.3 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 959.44 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 15.5 cfs (12.91 inches per year).

EXTREMES.--Current year: Maximum discharge, 800 cfs Sept. 14 (gage height, 6.38 ft); minimum, 0.48 cfs July 9, (gage height, 1.97 ft).

Period of record: Maximum discharge, 1,100 cfs Mar. 6, 1967 (gage height, 6.80 ft), from rating curve extended above 480 cfs; no flow Aug. 19, 1965, Sept. 14, 1966.

REMARKS.--Records good. Occasional regulation from unknown upstream source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	5.1	4.2	11	8.0	22	12	5.6	4.8	4.5	7.7	1.4
2	1.0	4.8	3.9	10	7.6	20	12	7.1	4.5	4.5	5.7	1.2
3	2.0	11	4.8	9.1	7.6	20	11	7.2	4.5	1.6	6.5	1.3
4	1.1	9.0	10	173	9.0	19	10	6.7	3.9	1.1	17	1.0
5	.91	9.5	8.1	149	71	18	9.3	6.3	3.6	.91	17	.91
6	.84	8.5	7.3	59	46	33	9.1	299	5.1	.91	9.5	.84
7	.78	7.7	6.5	37	32	128	9.3	138	9.0	.72	6.9	.78
8	.72	6.5	6.1	26	32	58	8.6	144	6.1	.56	5.4	.91
9	.91	6.1	5.7	22	30	38	7.9	75	4.2	7.3	4.5	.66
10	1.8	6.1	5.4	19	21	31	7.8	47	3.6	2.8	3.9	.78
11	1.7	5.7	5.4	16	20	30	7.0	33	3.2	4.2	9.5	7.3
12	1.2	4.8	40	14	23	29	6.4	30	3.4	3.4	6.1	11
13	1.2	6.5	27	13	122	41	6.9	130	15	1.5	4.2	116
14	1.4	9.0	19	20	118	45	14	96	8.5	8.1	3.4	350
15	2.0	9.5	14	17	50	41	11	55	6.1	2.1	2.8	170
16	2.1	9.5	16	14	34	33	10	42	5.1	1.4	2.6	110
17	1.6	8.5	63	13	54	27	11	41	4.2	1.2	2.1	71
18	1.2	8.1	50	12	72	23	11	30	3.6	1.0	1.8	52
19	2.0	7.3	32	11	72	27	9.4	26	3.2	4.8	1.7	47
20	1.2	7.3	22	11	54	29	8.7	21	2.8	3.4	1.6	39
21	20	6.9	21	10	74	26	9.0	18	2.8	1.4	1.6	36
22	11	6.1	98	9.4	106	26	9.6	15	3.0	.84	6.5	25
23	6.1	6.1	105	10	112	25	8.3	12	2.2	.61	6.5	20
24	5.1	5.1	113	11	80	22	8.0	10	1.9	.72	2.8	16
25	4.5	4.8	57	13	60	19	7.6	12	1.7	1.1	1.9	13
26	3.9	4.8	39	15	46	18	7.2	9.0	1.5	.84	3.2	15
27	3.4	4.8	28	12	39	17	6.7	7.7	1.4	1.3	1.9	10
28	3.0	4.5	21	11	28	16	7.1	6.5	1.4	.91	3.2	8.5
29	3.0	4.5	17	11	-----	16	6.8	6.1	1.2	13	1.9	7.7
30	3.9	4.8	14	13	-----	14	6.0	6.1	1.0	13	1.8	6.9
31	4.8	-----	12	9.0	-----	13	-----	5.4	-----	18	1.6	-----
TOTAL	95.36	202.9	875.4	780.5	1,468.2	924	268.7	1,347.7	122.5	107.72	152.8	1,141.18
MEAN	3.08	6.76	28.2	25.2	52.4	29.8	8.96	43.5	4.08	3.47	4.93	38.0
MAX	20	11	113	173	122	128	14	299	15	18	17	350
MIN	.72	4.5	3.9	9.0	7.6	13	6.0	5.4	1.0	.56	1.6	.66
CFSM	.19	.41	1.73	1.55	3.21	1.83	.55	2.67	.25	.21	.30	2.33
IN.	.22	.46	2.00	1.78	3.35	2.11	.61	3.08	.28	.25	.35	2.60

CAL YR 1970 TOTAL 6,184.74 MEAN 16.9 MAX 260 MIN .40 CFSM 1.04 IN 14.11
WTR YR 1971 TOTAL 7,486.96 MEAN 20.5 MAX 350 MIN .56 CFSM 1.26 IN 17.09

PEAK DISCHARGE (BASE, 400 CFS).--May 6 (0945) 632 cfs (5.81 ft); Sept. 14 (time unknown) 800 cfs (6.38 ft).

MONONGAHELA RIVER BASIN

03072840 Tenmile Creek near Clarksville, Pa.

LOCATION.--Lat 39°59'51", long 80°02'31", Greene County, on right bank 75 ft upstream from dam, 200 ft upstream from single-span steel-truss bridge, 1.5 miles north of Clarksville, and 2.3 miles upstream from South Fork Tenmile Creek.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--October 1968 to current year (monthly discharge only October, November 1968).

GAGE.--Water-stage recorder and concrete dam. Altitude of gage is 820 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 4,200 cfs May 6 (gage height, 5.49 ft); minimum not determined: minimum daily, 6.6 cfs Aug. 21.

Period of record: Maximum discharge, 4,200 cfs May 6, 1971 (gage height, 5.49 ft); minimum during period December 1968 to current year, 3.6 cfs July 1, 1969 (gage height, 0.30 ft).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	167	197	133	73	270	88	36	45	9.9	28	12
2	9.9	548	157	114	54	238	85	37	45	16	24	10
3	10	568	130	84	52	224	78	48	50	20	26	9.5
4	9.9	344	151	112	97	202	72	44	46	12	100	7.9
5	9.3	250	133	724	999	211	68	38	44	8.9	160	7.3
6	8.7	180	119	437	465	202	65	1,550	94	7.9	70	7.2
7	8.3	140	99	284	249	642	65	796	305	8.7	35	7.2
8	7.5	106	86	214	205	476	60	918	153	8.9	28	7.2
9	7.0	84	80	213	172	340	56	440	85	416	23	7.3
10	7.0	71	73	174	126	315	56	275	65	195	19	7.6
11	6.7	72	71	157	156	405	51	209	52	115	16	7.5
12	7.5	68	789	145	222	380	49	183	47	180	14	7.8
13	8.9	65	696	128	1,300	614	50	206	53	72	12	15
14	9.9	61	360	184	567	482	71	199	56	54	11	32
15	16	95	250	200	370	380	58	160	44	41	10	36
16	23	113	207	152	250	315	51	148	39	33	9.0	32
17	17	95	215	146	356	265	49	310	34	29	8.7	163
18	12	84	201	104	733	220	52	206	30	24	8.0	68
19	10	72	185	103	803	238	46	165	28	29	7.4	46
20	9.6	74	163	97	767	265	44	138	25	28	7.0	36
21	76	102	149	88	531	238	43	118	23	23	6.6	30
22	201	84	476	76	1,580	233	45	102	21	18	11	27
23	72	80	597	78	1,080	224	43	88	21	15	35	22
24	45	63	704	80	621	202	41	82	19	14	22	19
25	34	53	375	76	464	175	38	90	18	18	15	15
26	28	58	278	86	390	170	39	79	15	20	16	17
27	23	57	222	66	390	147	39	68	14	66	34	18
28	21	55	188	64	325	135	42	62	13	25	51	18
29	19	62	166	65	-----	124	43	60	12	23	25	14
30	31	276	145	120	-----	108	38	60	11	27	18	13
31	179	-----	133	102	-----	94	-----	53	-----	37	14	-----
TOTAL	938.2	4,147	7,795	4,806	13,397	8,534	1,625	6,968	1,507	1,594.3	863.7	719.5
MEAN	30.3	138	251	155	478	275	54.2	225	50.2	51.4	27.9	24.0
MAX	201	568	789	724	1,580	642	88	1,550	305	416	160	163
MIN	6.7	53	71	64	52	94	38	36	11	7.9	6.6	7.2
CFSM	.23	1.04	1.89	1.17	3.59	2.07	.41	1.69	.38	.39	.21	.18
IN.	.26	1.16	2.18	1.34	3.75	2.39	.45	1.95	.42	.45	.24	.20

CAL YR 1970 TOTAL 49,161.0 MEAN 135 MAX 1,900 MIN 6.7 CFSM 1.02 IN 13.75
WTR YR 1971 TOTAL 52,894.7 MEAN 145 MAX 1,580 MIN 6.6 CFSM 1.09 IN 14.79

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	* About
12-12	1745	3.92	1,550	2-22	1430	4.78	2,820	
1-5	* 0930	3.63	1,290	5-6	1545	5.49	4,200	
2-5	-	-	1,480	7-9	1845	3.69	1,350	
2-13	1145	4.40	2,100					

03073000 South Fork Tenmile Creek at Jefferson, Pa.

LOCATION.--Lat 39°55'23", long 80°04'22", Greene County, on right bank at downstream side of highway bridge, 1 mile southwest of Jefferson, and 3.1 miles downstream from Ruff Creek.

DRAINAGE AREA.-- 180 sq mi.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for October 1931, published in WSP 1305.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 852.54 ft above mean sea level, adjustment of 1907. Prior to Oct. 21, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--40 years, 194 cfs (14.64 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,640 cfs May 6 (gage height, 13.86 ft); minimum, 2.9 cfs Sept. 10 (gage height, 0.79 ft).

Period of record: Maximum discharge, 13,800 cfs June 4, 1941 (gage height, 18.45 ft, from floodmark in gage house), from rating curve extended above 8,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 0.05 cfs Sept. 3, 1938 (gage height, 0.36 ft).

REMARKS.--Records good except those for winter periods, which are fair. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1305: 1949. WSP 1435: 1932-34, 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	324	227	141	100	238	106	33	37	4.6	26	11
2	15	1,530	178	128	90	209	101	35	35	12	18	8.7
3	14	1,140	145	103	80	201	93	43	38	11	19	7.0
4	14	766	245	1,100	110	188	80	43	36	9.3	217	5.8
5	12	584	248	2,340	2,160	183	74	37	70	7.3	261	4.9
6	11	342	204	880	1,120	196	70	5,210	797	5.4	100	4.3
7	8.4	214	157	471	564	1,380	72	1,830	788	6.5	55	3.5
8	6.0	156	128	331	408	918	65	1,910	379	4.9	35	3.3
9	4.8	122	116	296	313	564	59	857	163	337	25	3.2
10	3.9	101	103	201	225	469	58	474	108	139	19	3.2
11	3.9	101	96	178	242	644	52	285	76	58	16	6.4
12	6.8	92	1,780	165	320	590	49	227	61	95	14	13
13	5.1	88	1,310	143	2,880	784	49	311	67	42	12	72
14	5.5	86	668	235	1,330	632	78	391	82	41	9.8	158
15	16	126	402	283	694	480	65	237	58	28	8.3	126
16	17	165	278	198	453	356	54	194	47	18	7.6	82
17	17	148	318	174	485	260	52	252	39	14	6.9	264
18	14	129	342	160	1,100	209	56	184	32	12	5.8	143
19	11	111	286	140	1,270	217	49	148	27	12	4.8	93
20	10	114	225	120	1,210	267	44	122	23	13	4.1	71
21	141	196	195	110	840	258	43	102	20	9.6	3.6	52
22	502	171	1,200	100	2,230	318	49	88	19	8.7	19	39
23	161	163	1,600	116	1,820	299	47	77	16	7.0	38	30
24	96	126	1,230	135	935	254	43	70	14	5.9	22	25
25	64	102	676	104	643	215	39	78	13	6.7	16	21
26	47	92	463	132	477	203	38	74	11	8.1	14	25
27	36	89	308	103	429	178	36	57	9.3	75	22	29
28	29	82	229	100	310	165	39	52	8.7	37	46	27
29	26	89	184	90	-----	153	40	49	7.5	25	29	22
30	38	293	169	130	-----	133	36	50	5.8	27	18	17
31	360	-----	159	110	-----	114	-----	45	-----	34	14	-----
TOTAL	1,715.4	7,842	13,869	9,017	22,838	11,275	1,736	13,565	3,087.3	1,114.0	1,105.9	1,370.3
MEAN	55.3	261	447	291	816	364	57.9	438	103	35.9	35.7	45.7
MAX	502	1,530	1,780	2,340	2,880	1,380	106	5,210	797	337	261	264
MIN	3.9	82	96	90	80	114	36	33	5.8	4.6	3.6	3.2
CFSM	.31	1.45	2.48	1.62	4.53	2.02	.32	2.43	.57	.20	.20	.25
IN.	.35	1.62	2.87	1.86	4.72	2.33	.36	2.80	.64	.23	.23	.28
CAL YR 1970	TOTAL 85,553.9	MEAN 234	MAX 4,180	MIN 3.2	CFSM 1.30	IN 17.68						
WTR YR 1971	TOTAL 88,534.9	MEAN 243	MAX 5,210	MIN 3.2	CFSM 1.35	IN 18.30						

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	1330	9.58	4,810	5- 6	1330	13.86	8,640
2-22	1630	8.77	4,170				

MONONGAHELA RIVER BASIN

03074300 Lick Run at Hopwood, Pa.

LOCATION.--Lat 39°52'04", long 79°41'40", Fayette County, on left bank at southeast edge of Hopwood, along road leading to Lick Hollow State Park, 0.4 mile upstream from road leading south from Hopwood to Fairchance, and 1.5 miles upstream from Benningtons Spring Run.

DRAINAGE AREA.--3.80 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1959-66. October 1966 to current year.

GAGE.--Water stage recorder, crest-stage gage, and concrete V-notch control. Altitude of gage is 1,200 ft above mean sea level (from crest-stage gage datum elevation at former site). Sept. 10, 1958, to Sept. 30, 1966, crest-stage gage at site 500 ft downstream at different datum.

AVERAGE DISCHARGE.--5 years, 5.82 cfs (20.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 371 cfs Sept. 14 (gage height, 3.85 ft in gage well, 4.87 ft from crest-stage gage), by slope-area measurement; minimum, 0.11 cfs Oct. 9, 10 (gage height, 1.20 ft).
Period of record: Maximum discharge, 371 cfs Sept. 14, 1971 (gage height, 3.85 ft in gage well, 4.87 ft from crest-stage gage), by slope-area measurement; minimum, 0.07 cfs Sept. 13, 14, 1970; minimum gage height, 1.17 ft Sept. 16, 1967, July 24, 25, Oct. 3, 1968, Sept. 13, 14, 1970.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	2.6	1.3	3.4	3.0	8.0	3.8	2.0	1.6	.40	1.5	.51
2	.23	2.1	1.3	3.0	2.5	6.8	3.8	2.4	1.7	.66	1.3	.45
3	.29	2.8	1.5	2.7	2.4	6.5	3.6	2.4	1.7	.58	1.5	.40
4	.23	2.4	3.0	30	2.4	5.6	3.3	2.3	1.6	.45	4.3	.40
5	.21	2.4	2.6	50	8.9	4.8	3.0	2.9	1.5	.45	4.3	.36
6	.18	2.0	2.4	25	9.5	5.3	2.9	150	2.0	.32	2.2	.29
7	.15	1.8	2.2	13	7.5	21	2.9	48	3.0	.25	1.6	.27
8	.14	1.5	1.8	8.7	7.1	13	2.7	47	2.5	.21	1.3	.25
9	.12	1.3	1.8	6.9	5.9	8.6	2.6	32	1.7	.45	1.2	.23
10	.36	1.5	1.7	5.6	4.6	7.3	2.5	19	1.6	.45	1.1	.19
11	.45	1.5	1.7	4.6	4.2	7.2	2.3	12	1.5	.87	1.6	.76
12	.36	1.5	13	4.0	5.5	8.5	2.2	9.4	1.5	.78	1.2	6.6
13	.25	1.8	10	3.5	29	23	2.5	32	2.5	.51	.87	33
14	.21	2.8	7.2	5.0	23	27	5.0	33	2.2	.66	.76	197
15	.40	3.0	5.5	4.8	13	21	4.5	21	2.0	.40	.66	55
16	.45	3.2	5.3	4.2	8.6	16	4.4	16	1.7	.36	.58	32
17	.32	2.8	19	4.2	10	11	4.4	16	1.5	.29	.51	28
18	.27	2.6	14	3.9	14	8.5	4.2	10	1.3	.27	.45	20
19	.25	2.2	10	3.5	28	11	3.8	8.9	1.2	.97	.40	19
20	.19	2.2	7.3	3.4	47	12	3.7	7.2	1.2	.87	.40	15
21	4.2	2.0	6.3	3.1	34	9.6	3.8	5.4	1.5	.45	.40	14
22	2.5	1.8	20	3.0	37	8.9	3.6	4.3	1.3	.32	.87	9.6
23	1.5	1.8	24	3.6	41	8.2	3.4	3.8	.87	.25	2.7	6.9
24	1.2	1.7	28	3.2	28	6.9	3.2	3.5	.66	.23	.97	5.4
25	1.0	1.3	18	3.3	17	6.0	3.0	3.5	.58	.27	.66	4.3
26	.94	1.3	11	4.2	12	5.6	2.7	3.0	.51	.25	.87	5.0
27	.92	1.3	8.0	3.8	11	5.0	2.4	2.5	.45	.45	1.2	4.0
28	.94	1.2	5.9	3.5	9.5	4.8	2.6	2.2	.87	.25	1.5	3.5
29	.96	1.5	4.6	3.3	-----	4.7	2.3	2.0	.58	2.7	.97	3.0
30	1.8	1.7	3.9	3.8	-----	4.3	2.1	2.0	.45	2.7	.76	3.0
31	2.8	-----	3.5	3.3	-----	3.9	-----	1.7	-----	3.5	.66	-----
TOTAL	24.07	59.6	245.8	227.5	425.6	300.0	97.2	507.4	43.27	21.57	39.29	468.41
MEAN	.78	1.99	7.93	7.34	15.2	9.68	3.24	16.4	1.44	.70	1.27	15.6
MAX	4.2	3.2	28	50	47	27	5.0	150	3.0	3.5	4.3	197
MIN	.12	1.2	1.3	2.7	2.4	3.9	2.1	1.7	.45	.21	.40	.19
CFSM	.21	.52	2.09	1.93	4.00	2.55	.85	4.32	.38	.18	.33	4.11
IN.	.24	.58	2.41	2.23	4.17	2.94	.95	4.97	.42	.21	.38	4.59

CAL YR 1970 TOTAL 2,101.81 MEAN 5.76 MAX 82 MIN .09 CFSM 1.52 IN 20.58
WTR YR 1971 TOTAL 2,459.71 MEAN 6.74 MAX 197 MIN .12 CFSM 1.77 IN 24.08

PEAK DISCHARGE (BASE, 100 CFS).--May 6 (0930) 357 cfs (3.08 ft); Sept. 14 (0715) 371 cfs (3.85 ft).

MONONGAHELA RIVER BASIN

243

03074500 Redstone Creek at Waltersburg, Pa.

LOCATION.--Lat 39°58'48", long 79°45'52", Fayette County, near center of span on downstream side of highway bridge at Waltersburg, 400 ft upstream from Bolden Run, and 0.9 mile upstream from Allen Run.

DRAINAGE AREA.--73.7 sq mi.

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for October 1942, published in WSP 1305.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 883.28 ft above mean sea level.

AVERAGE DISCHARGE.--29 years, 94.6 cfs (17.43 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,480 cfs May 6 (gage height, 7.13 ft); minimum observed, 18 cfs Oct. 18 (gage height, 0.66 ft).

Period of record: Maximum discharge, 4,400 cfs Oct. 15, 1954 (gage height, 11.83 ft), from rating curve extended above 2,100 cfs on basis of contracted-opening measurement of peak flow; minimum observed, 4.2 cfs Aug. 2, 1962; minimum gage height observed, 0.66 ft Oct. 18, 1970.

REMARKS.--Records fair. Some regulation at low flow by mine pumpage into stream above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1435: 1943-45(M), 1946, 1947(M), 1948(P), 1949-50(M), 1951(P), 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	32	34	76	50	135	66	33	46	27	35	25
2	22	34	31	68	48	120	64	36	45	32	27	24
3	27	62	31	72	65	125	63	41	46	26	39	25
4	22	39	56	706	242	104	56	39	42	24	98	25
5	22	37	42	849	221	115	54	83	41	23	53	22
6	22	36	37	325	186	110	54	1,650	47	24	32	25
7	22	27	35	200	137	152	54	603	64	24	27	24
8	22	26	33	148	128	252	49	608	52	22	24	24
9	22	27	32	132	123	186	48	346	42	71	23	23
10	26	24	31	110	106	168	47	214	38	41	24	24
11	26	24	43	98	106	172	43	179	36	46	35	24
12	22	26	344	91	143	160	46	160	38	39	25	32
13	22	27	145	80	827	221	46	390	142	28	22	239
14	23	28	84	84	458	214	70	349	75	27	23	1,180
15	24	29	70	92	236	224	52	226	48	25	22	388
16	22	33	68	80	186	166	51	188	42	24	24	363
17	22	28	195	81	251	134	54	192	39	23	23	340
18	18	28	164	73	409	113	50	146	34	23	22	162
19	22	27	110	64	381	127	47	127	34	27	22	179
20	23	30	88	62	444	134	46	112	32	28	22	123
21	172	30	123	63	138	120	46	98	34	24	22	120
22	74	27	465	60	694	116	50	90	38	24	80	97
23	34	28	384	78	571	116	45	80	32	23	242	84
24	29	26	342	64	364	107	43	76	32	22	37	76
25	28	24	226	69	265	95	41	88	32	23	31	55
26	24	25	160	98	209	92	40	68	28	22	32	84
27	24	25	120	74	195	87	39	62	27	25	31	68
28	24	25	108	69	166	84	41	57	28	22	41	58
29	24	26	92	73	-----	81	39	56	29	85	29	49
30	29	42	84	87	-----	76	33	55	27	39	28	49
31	31	-----	76	65	-----	69	-----	50	-----	58	27	-----
TOTAL	946	902	3,853	4,291	7,349	4,175	1,477	6,502	1,290	971	1,222	4,011
MEAN	30.5	30.1	124	138	262	135	49.2	210	43.0	31.3	39.4	134
MAX	172	62	465	849	827	252	70	1,650	142	85	242	1,180
MIN	18	24	31	60	48	69	33	33	27	22	22	22
CFSM	.41	.41	1.68	1.87	3.56	1.83	.67	2.85	.58	.42	.53	1.82
IN.	.48	.46	1.94	2.17	3.71	2.11	.75	3.28	.65	.49	.62	2.02

CAL YR 1970 TOTAL 32,499 MEAN 89.0 MAX 1,040 MIN 18 CFSM 1.21 IN 16.40
WTR YR 1971 TOTAL 36,989 MEAN 101 MAX 1,650 MIN 18 CFSM 1.37 IN 18.67

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1- 4	2000	5.15	1,480	5- 6	1130	7.13	2,480
2-13	1730	4.70	1,260	9-14	1500	5.34	1,580
2-22	1830	4.28	1,050				

03075000 Monongahela River at Charleroi, Pa.

LOCATION.--Lat 40°08'58", long 79°54'06", Westmoreland County, on right bank at end of land guide wall, 1,100 ft downstream from dam at lock 4 at Charleroi, 1.3 miles downstream from Maple Creek, and at mile 41.3.

DRAINAGE AREA.--5,213 sq mi.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge prior to 1940, adjusted for reservoir contents, published in WSP 1305.

GAGE.--Water-stage recorder and concrete dam which is 17.5 miles downstream. Datum of gage is 717.40 ft above mean sea level (Corps of Engineers bench mark). Prior to Oct. 1, 1967, water-stage recorder at site 0.4 mile upstream at datum 17.93 ft higher.

AVERAGE DISCHARGE.--38 years, 8,787 cfs (22.89 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 77,900 cfs Jan. 5 (gage height, 27.06 ft); minimum not determined; minimum daily, 400 cfs June 28.

Period of record: Maximum discharge, 158,000 cfs Mar. 7, 1967 (gage height, 41.63 ft, from floodmark in gage well, present datum); minimum not determined.

Maximum stage since 1887, 42.0 ft on lower gage, at old lock 1 mile downstream, or about 44.0 ft on present gage, July 11, 1888 (discharge, about 156,000 cfs).

REMARKS.--Records good above 20,000 cfs and fair below except those below 5,000 cfs, which are poor. Flow regulated by locks above station and since 1938 by Tygart Lake (see p. 257) and since 1926 by Lake Lynn (combined capacity, 357,300 acre-ft). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 758: Drainage area. WSP 783: 1888(M). WSP 1435: 1934, 1936. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,370	6,490	4,380	11,200	8,590	10,600	8,390	1,380	4,700	620	4,170	1,180
2	2,560	8,390	5,440	8,950	9,090	13,000	7,980	1,010	4,050	1,330	6,040	1,600
3	1,870	11,200	6,140	11,000	6,930	13,000	5,210	1,870	3,330	2,050	4,540	1,400
4	808	13,300	6,890	19,100	8,320	12,900	3,660	3,570	3,240	620	8,490	740
5	1,520	12,600	7,810	60,400	23,400	12,100	5,370	3,120	3,990	560	17,400	725
6	1,720	15,200	5,920	54,000	37,200	11,100	6,240	21,500	11,500	540	15,900	1,700
7	2,210	12,700	5,120	32,400	20,000	18,400	6,240	35,500	9,740	1,570	8,390	1,900
8	1,870	10,800	6,520	24,400	21,100	24,100	4,830	36,100	8,730	1,110	3,540	1,450
9	2,080	12,800	4,800	20,300	21,300	21,700	3,960	37,000	7,230	2,790	2,840	3,450
10	1,740	10,800	3,600	16,100	19,600	20,400	5,980	27,400	6,400	2,340	2,700	2,340
11	1,600	9,630	5,310	14,100	16,500	13,100	3,750	20,900	3,750	1,450	2,310	1,700
12	2,130	9,740	9,850	13,400	18,200	13,200	5,020	14,800	2,110	1,700	2,260	2,510
13	2,130	12,300	9,490	10,600	26,700	17,900	5,530	18,900	2,000	1,430	2,080	27,200
14	2,130	9,020	12,100	14,100	40,400	19,500	6,010	36,000	5,020	1,330	1,350	42,500
15	2,400	9,990	14,100	25,100	27,500	17,700	7,060	27,300	6,400	876	710	53,400
16	1,700	8,950	12,800	26,500	24,600	15,600	5,500	18,900	4,440	540	1,030	28,800
17	2,050	9,020	13,600	20,500	21,900	12,600	3,930	17,000	2,560	620	1,290	37,800
18	1,110	7,570	18,900	17,800	22,700	9,740	4,570	9,090	2,290	500	808	31,200
19	1,850	5,150	16,200	13,000	24,400	11,000	3,570	6,650	1,200	1,520	1,050	21,900
20	1,620	6,690	11,700	9,740	25,900	11,300	4,640	7,230	695	2,700	1,050	19,100
21	3,300	6,520	10,900	8,320	23,400	9,380	3,630	4,700	2,160	1,110	876	18,400
22	7,950	5,760	28,200	8,730	30,000	11,200	4,050	4,510	1,700	1,870	3,240	14,300
23	4,730	5,980	67,800	6,490	41,200	12,300	2,540	2,960	1,820	2,000	5,560	12,500
24	3,010	3,900	56,700	6,140	39,400	15,600	3,100	4,600	1,600	1,290	3,780	7,370
25	1,920	5,180	42,400	11,200	25,100	12,700	1,200	3,660	1,290	842	1,450	5,120
26	2,050	3,750	32,400	11,100	25,600	12,000	2,240	2,960	710	1,740	2,820	5,340
27	2,080	3,750	25,000	11,000	21,600	7,910	2,540	2,700	480	1,570	2,870	9,490
28	1,800	3,960	21,100	10,800	16,000	7,470	2,560	2,240	400	635	3,270	10,200
29	1,720	3,450	19,500	6,620	-----	8,660	2,870	2,000	1,030	2,840	2,960	8,220
30	2,730	4,200	17,600	8,490	-----	10,700	2,180	1,500	740	3,870	3,360	8,420
31	5,920	-----	16,600	8,080	-----	8,730	-----	2,110	-----	7,470	1,520	-----
TOTAL	74,678	248,790	518,870	519,660	646,630	416,490	134,350	379,160	105,305	51,433	119,654	381,955
MEAN	2,409	8,293	16,740	16,760	23,090	13,440	4,478	12,230	3,510	1,659	3,860	12,730
MAX	7,950	15,200	67,800	60,400	41,200	24,100	8,390	37,000	11,500	7,470	17,400	53,400
MIN	808	3,450	3,600	6,140	6,930	7,470	1,200	1,010	400	500	710	725
(#)	-689	-164	-63.4	-291	+218	-115	+738	+730	-75.8	+30.9	-103	-308
MEAN#	1,720	8,129	16,680	16,470	23,310	13,320	5,216	12,960	3,434	1,690	3,757	12,420
CFSM#	.33	1.56	3.20	3.16	4.47	2.56	1.00	2.49	.66	.32	.72	2.38
IN.#	.38	1.74	3.69	3.64	4.65	2.95	1.12	2.87	.74	.37	.83	2.66
CAL YR 1970	TOTAL 3,323,075	MEAN 9,104	MAX 67,800	MIN 577	MEAN# 8,983	CFSM# 1.72	IN.# 23.38					
WTR YR 1971	TOTAL 3,596,975	MEAN 9,855	MAX 67,800	MIN 400	MEAN# 9,845	CFSM# 1.89	IN.# 25.64					

* Change in contents, equivalent in cubic feet per second, in Tygart Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Power Service Corp.

Adjusted for change in reservoir contents.

03076500 Youghiogheny River at Friendsville, Md.

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, on left bank 0.7 mile upstream from bridge on State Highway 42 at Friendsville, and 1.5 miles upstream from Bear Creek.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above mean sea level. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mile downstream at datum 16.24 and 16.29 ft lower, respectively.

AVERAGE DISCHARGE.--37 years (1898-1904, 1940-1971), 627 cfs (28.86 inches per year), adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 5,720 cfs Dec. 22 (gage height, 6.04 ft); minimum, 29 cfs July 17, 18, 19 (gage height, 1.86 ft); minimum daily, 37 cfs July 18.

Period of record: Maximum discharge, 13,000 cfs Oct. 16, 1954 (gage height, 8.99 ft), from rating curve extended above 5,800 cfs on basis of slope-area measurement of peak flow; minimum daily, 8.2 cfs Sept. 11, 1966.

Maximum stage since 1898, 14.2 ft Mar. 29, 1924, from floodmarks, site and datum then in use, or 10.2 ft, present site and datum (discharge, about 15,600 cfs, from rating curve extended as explained above).

REMARKS.--Records good. Low and medium flow regulated since 1925 by Deep Creek Reservoir (see p.257). Records of water temperatures for the current year are published in part 2 of Water Resources Data for Maryland and Delaware.

REVISIONS (WATER YEARS).--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	427	374	377	761	1,530	740	176	246	229	211	369
2	227	428	334	481	740	1,370	596	174	229	242	354	334
3	124	522	331	426	720	1,190	581	314	228	164	344	314
4	111	777	537	1,470	701	1,140	499	337	238	92	569	150
5	151	749	505	4,720	881	1,180	532	313	153	66	689	119
6	114	739	432	3,000	2,020	1,150	531	1,650	218	150	471	139
7	139	518	485	1,800	1,100	1,480	543	2,330	376	143	196	330
8	135	414	454	1,300	800	1,530	564	2,970	351	131	140	336
9	127	382	448	800	620	1,220	532	2,770	263	139	274	304
10	96	374	481	635	580	1,210	566	1,710	227	72	261	310
11	73	312	460	761	560	1,170	522	1,190	210	74	280	129
12	188	310	770	796	520	1,150	533	934	114	149	387	577
13	165	313	1,230	738	1,230	1,580	504	1,600	123	166	306	1,330
14	155	247	1,020	2,120	2,030	2,090	572	1,630	977	147	99	3,400
15	141	270	801	3,460	1,330	2,270	525	1,080	754	131	73	3,510
16	174	355	690	1,640	954	2,000	478	875	537	123	218	1,900
17	85	344	798	1,140	893	1,520	353	833	405	47	208	1,920
18	73	315	1,120	1,020	1,330	1,220	363	708	341	37	133	1,090
19	99	304	849	740	1,540	1,220	406	612	205	125	181	882
20	128	331	1,020	620	2,260	1,680	422	517	203	171	237	1,260
21	136	360	1,030	600	3,110	1,330	398	458	263	218	127	1,360
22	269	312	3,330	560	2,910	1,270	411	326	291	185	323	1,140
23	253	353	4,940	540	3,410	1,360	384	289	248	168	423	938
24	166	335	3,960	560	2,430	1,160	277	344	129	56	300	796
25	111	301	2,270	628	1,680	1,010	221	332	113	48	288	553
26	123	243	1,520	906	1,690	974	283	317	97	155	466	487
27	163	300	1,080	760	2,120	880	322	296	87	170	1,630	799
28	152	248	941	700	2,070	875	382	274	159	149	1,050	573
29	164	243	792	660	-----	1,220	347	182	162	198	642	559
30	210	371	682	905	-----	1,010	319	190	229	220	531	553
31	435	-----	660	947	-----	885	-----	194	-----	358	430	-----
TOTAL	4,915	11,497	34,344	35,810	40,990	40,874	13,806	25,925	8,176	4,523	11,841	26,461
MEAN	159	383	1,108	1,155	1,464	1,319	460	836	273	146	382	882
MAX	435	777	4,940	4,720	3,410	2,270	740	2,970	977	358	1,630	3,510
MIN	73	243	331	377	520	875	221	174	87	37	73	119
†	-55.5	+5.0	+1.06	+74.6	+196	-101	-43.7	+114	-31.9	-76.6	-81.2	+35.3
MEAN‡	104	388	1,214	1,230	1,660	1,218	416	950	241	69.4	301	917
CFSM‡	.35	1.32	4.12	4.17	5.85	4.13	1.41	3.22	.82	.24	1.02	3.11
IN ‡	.41	1.47	4.74	4.81	5.86	4.76	1.57	3.71	.91	.27	1.18	3.47

CAL YR 1970 TOTAL 263,260 MEAN 721 MAX 5,900 MIN 72 MEAN‡ 731 CFSM‡ 2.48 IN‡ 33.64

WTR YR 1971 TOTAL 259,162 MEAN 710 MAX 4,940 MIN 37 MEAN‡ 720 CFSM‡ 2.44 IN‡ 33.12

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir, furnished by Pennsylvania Electric Co.

‡ Adjusted for change in contents.

03077500 Youghiogheny River at Youghiogheny River Dam, Pa.

LOCATION.--Lat 39°48'19", long 79°21'52", Somerset County, on right bank 800 ft upstream from bridge on State Highway 281, 0.2 mile downstream from Youghiogheny River Dam, 0.2 mile south of Confluence, 0.7 mile upstream from Casselman River, and at mile 73.2.

DRAINAGE AREA.--436 sq mi.

PERIOD OF RECORD.--September 1904 to September 1913 (gage heights only), October 1939 to current year. Monthly discharge only for October 1939 to April 1940, published in WSP 1305. Figures of daily discharge prior to January 1911, published in WSP 169, 205, 243, 263, and 283 are unreliable and should not be used. September 1904 to September 1922 (gage heights only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters. Published as "at Confluence" 1904-22.

GAGE.--Water-stage recorder. Datum of gage is 1,310.17 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--32 years (1939-71), 836 cfs (26.04 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 6,350 cfs Feb. 24; maximum gage height, 10.87 ft Sept. 15 (backwater from Casselman River); minimum daily discharge, 2.8 cfs Nov. 8.

Period of record: Maximum discharge, 13,700 cfs Mar. 5, 1948 (gage height, 11.28 ft); maximum gage height, 19.08 ft Oct. 15, 1954 (backwater from Casselman River); practically no flow at times during May and June 1950 when reservoir gates were closed.

REMARKS.--Records good. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 0.2 mile upstream (see p. 257).

COOPERATION.--Nine discharge measurements furnished by Corps of Engineers.

REVISIONS.--WSP 893: Drainage area; see PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802	193	791	1,910	1,210	4,300	599	217	307	539	593	846
2	868	198	855	1,910	490	4,280	388	217	405	539	593	846
3	868	84	1,010	1,870	386	4,260	115	217	405	539	594	846
4	868	6.8	1,010	1,040	385	2,900	115	217	405	539	599	846
5	868	5.0	1,010	435	391	1,980	115	218	405	539	855	846
6	868	4.0	1,010	1,160	395	1,740	115	225	405	535	1,020	846
7	868	3.4	1,010	2,050	689	907	115	1,250	405	529	1,010	812
8	868	2.8	1,010	2,010	835	582	115	1,460	405	529	1,010	1,060
9	868	56	1,010	2,010	572	582	115	1,920	405	535	1,010	1,380
10	857	193	1,010	1,980	405	582	115	4,110	405	539	1,000	1,620
11	857	193	1,010	1,980	680	582	115	5,350	405	534	1,010	1,510
12	857	193	590	1,970	846	584	115	4,770	405	529	1,000	1,070
13	780	193	355	1,950	846	607	258	4,240	408	529	1,000	638
14	780	193	688	1,950	794	706	505	4,240	405	520	994	415
15	813	193	1,010	2,000	233	658	604	3,350	405	518	989	1,190
16	813	173	1,010	2,010	233	665	604	2,150	492	518	989	2,820
17	813	193	1,010	2,010	611	847	604	1,020	582	518	989	3,680
18	805	199	1,010	1,980	1,180	1,210	604	225	582	516	989	2,940
19	802	201	1,010	1,980	904	1,200	604	211	582	509	918	2,090
20	794	204	1,010	1,970	445	1,230	604	217	582	509	846	2,120
21	694	209	1,010	1,970	455	1,220	604	217	594	508	846	4,260
22	260	209	529	1,950	466	1,210	604	217	567	544	851	6,220
23	91	215	241	1,950	1,020	1,630	604	217	593	582	856	6,060
24	304	217	241	1,940	3,970	2,130	604	217	594	583	846	3,440
25	518	507	1,280	1,870	6,280	2,120	604	217	604	585	593	1,120
26	518	802	2,050	1,800	6,280	2,110	409	217	604	582	648	1,120
27	518	792	2,010	1,920	5,140	2,100	217	217	611	582	714	1,520
28	518	783	1,980	1,910	4,460	2,090	217	217	615	586	725	1,950
29	518	788	1,980	1,900	-----	1,750	217	217	573	605	725	1,420
30	518	791	1,950	1,900	-----	950	217	217	531	594	780	1,070
31	326	-----	1,940	1,900	-----	593	-----	217	-----	596	846	-----
TOTAL	21,500	7,994.0	33,680	57,185	40,601	48,305	10,821	38,211	14,686	16,909	26,438	56,601
MEAN	694	266	1,086	1,845	1,450	1,558	361	1,233	490	545	853	1,887
MAX	868	802	2,050	2,050	6,280	4,300	604	5,350	615	605	1,020	6,220
MIN	91	2.8	241	435	233	582	115	211	307	508	593	415
MEAN [†]	171	537	1,670	1,754	2,367	1,680	588	1,416	326	215	529	1,496
CFSM [†]	.39	1.23	3.83	4.02	5.43	3.85	1.35	3.25	.75	.49	1.21	3.43
IN. [†]	.45	1.37	4.42	4.63	5.65	4.44	1.51	3.75	.84	.56	1.40	3.83

CAL YR 1970 TOTAL 347,303.9 MEAN 952 MAX 5,530 MIN 2.8 MEAN[†] 984 CFSM[†] 2.26 IN.[†] 30.63
WTR YR 1971 TOTAL 372,931.0 MEAN 1,022 MAX 6,280 MIN 2.8 MEAN[†] 1,056 CFSM[†] 2.42 IN.[†] 32.85

[†] Adjusted for change in contents in Deep Creek Reservoir and Youghiogheny River Lake. Records for Deep Creek Reservoir furnished by Pennsylvania Electric Co.

MONONGAHELA RIVER BASIN

247

03078000 Casselman River at Grantsville, Md.

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, on left bank at downstream side of highway bridge, 0.3 mile upstream from Slaubaugh Run, 0.7 mile downstream from U. S. Highway 40, and 1 mile northeast of Grantsville.

DRAINAGE AREA.--62.5 sq mi.

PERIOD OF RECORD.--July 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,089.03 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--24 years, 114 cfs (24.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,010 cfs Sept. 14 (gage height, 5.87 ft); minimum, 8.6 cfs July 5, 6.

Period of record: Maximum discharge, 8,400 cfs Oct. 15, 1954 (gage height, 10.70 ft), from rating curve extended above 1,600 cfs on basis of contracted-opening measurement at gage height 8.13 ft; no flow Aug. 31, 1962, result of regulation from unknown source.

REMARKS.--Records good except those for period of no gage-height record and those for winter months, which are poor. Records of chemical analyses for the current year are published in Part 2 of Water Resources Data for Maryland and Delaware.

REVISIONS (WATER YEARS).--WSP 1143: 1948.

DISCHARGE, IN CUBIC FEET PER SECND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	209	69	105	90	458	159	41	31	24	207	55
2	21	126	62	130	74	362	169	39	32	20	316	51
3	27	272	61	100	66	298	156	43	42	15	215	45
4	21	233	217	270	58	229	132	43	33	12	267	40
5	16	194	156	960	68	205	118	41	41	9.2	245	38
6	14	137	129	350	150	187	110	714	62	9.2	124	46
7	13	105	104	300	110	194	118	410	75	25	83	39
8	12	86	96	270	90	183	137	631	77	15	65	66
9	11	76	93	200	80	140	140	344	47	13	53	75
10	11	70	116	180	68	132	180	205	42	24	45	49
11	24	70	98	150	66	121	153	153	32	57	62	132
12	39	78	334	160	74	132	124	132	29	106	68	343
13	24	75	250	140	662	447	121	390	53	35	45	406
14	17	75	220	340	498	573	132	318	85	97	36	1,830
15	19	103	170	560	339	631	118	191	129	39	30	742
16	17	92	140	300	217	540	103	169	80	25	28	369
17	15	76	166	230	250	366	86	147	64	19	27	368
18	13	70	194	170	281	277	86	108	51	16	24	255
19	13	65	205	140	353	318	78	88	44	24	26	265
20	12	88	245	104	688	375	74	77	39	33	24	348
21	41	153	213	104	888	245	70	69	38	22	25	281
22	108	101	755	104	895	225	70	62	60	16	393	291
23	57	87	1,240	118	993	229	68	54	42	13	380	153
24	41	71	832	106	510	194	62	49	33	12	162	124
25	35	68	385	94	353	147	56	46	28	38	87	99
26	31	68	286	130	371	140	51	42	24	24	67	143
27	28	67	241	68	937	113	47	39	20	17	100	156
28	26	65	201	76	769	147	46	37	18	14	232	103
29	25	63	176	84	-----	277	47	35	17	35	110	85
30	104	82	135	140	-----	225	43	38	14	47	76	77
31	205	-----	120	120	-----	169	-----	37	-----	265	62	-----
TOTAL	1,064	3,125	7,749	6,303	9,998	8,279	3,054	4,792	1,382	1,120.4	3,684	7,074
MEAN	34.3	104	250	203	357	267	102	155	46.1	36.1	119	236
MAX	205	272	1,240	960	993	631	180	714	129	265	393	1,830
MIN	11	63	61	68	58	113	43	35	14	9.2	24	38
CFSM	.55	1.66	4.00	3.25	5.71	4.27	1.63	2.48	.74	.58	1.90	3.78
IN.	.63	1.86	4.61	3.75	5.95	4.93	1.82	2.85	.82	.67	2.19	4.21

CAL YR 1970 TOTAL 54,746.0 MEAN 150 MAX 2,250 MIN 8.6 CFSM 2.40 IN 32.58
 WIR YR 1971 TOTAL 57,624.4 MEAN 158 MAX 1,830 MIN 9.2 CFSM 2.53 IN 34.30

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	NOTE
12-23	1430	4.36	1,590	2-27	2000	3.95	1,260	NOTE.--No gage height record Dec. 30 to Feb. 11.
2-13	1800	4.30	1,540	5-6	1415	3.83	1,160	
2-20	2345	3.88	1,200	9-14	1215	5.87	3,010	

MONONGAHELA RIVER BASIN

03079000 Casselman River at Markleton, Pa.

LOCATION.--Lat 39°51'35", long 79°13'40", Somerset County, on right bank at downstream side of highway bridge at Markleton, 2 miles southwest of Casselman, and 7 miles downstream from Coxes Creek.

DRAINAGE AREA.--382 sq mi.

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurement only), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1920 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder. Datum of gage is 1,655.29 ft above mean sea level, adjustment of 1907. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--51 years (1920-71), 641 cfs (22.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,850 cfs Sept. 14 (gage height, 7.57 ft); minimum, 59 cfs July 25 (gage height, 1.16 ft).

Period of record: Maximum discharge, 50,000 cfs (estimated) Oct. 15, 1954 (gage height, 14.06 ft), on basis of summation of peak flows at nearby stations; minimum, 10 cfs Sept. 9, 1957; minimum gage height, 0.85 ft Sept. 30, Oct. 1, 1968.

REMARKS.--Records good except those for winter periods, which are fair. Slight diversion above station to city of Frostburg, Md., in the Potomac River basin. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1923-31. WSP 1435: 1932-34, 1935(M), 1936-38. WSP 1625: 1924(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	1,410	612	630	520	2,520	940	239	219	134	533	154
2	98	1,040	507	662	430	1,960	950	234	194	136	752	145
3	118	1,840	470	606	380	1,650	880	276	267	116	949	132
4	121	1,950	940	2,220	350	1,390	744	264	257	95	1,230	118
5	94	1,290	943	5,280	400	1,120	672	244	234	83	1,510	108
6	82	974	771	2,600	909	1,220	632	3,050	506	77	744	265
7	74	740	655	1,670	776	1,320	656	3,200	877	76	458	163
8	69	591	570	1,220	562	1,220	719	4,370	749	77	335	324
9	65	498	566	1,140	487	930	628	2,460	419	83	261	279
10	64	443	592	999	418	890	760	1,650	317	91	221	203
11	92	414	584	862	410	823	687	1,260	262	116	237	206
12	264	611	1,710	892	433	846	584	1,060	248	399	296	812
13	172	669	1,850	782	2,590	2,000	547	2,240	531	208	209	990
14	123	650	1,310	1,880	3,270	3,340	746	2,370	1,550	122	160	7,200
15	153	969	1,030	2,920	1,750	3,400	636	1,530	922	162	134	3,810
16	139	894	856	1,610	1,250	2,980	533	1,280	729	105	131	1,620
17	115	710	904	1,270	1,070	2,050	491	1,090	542	84	121	1,660
18	101	605	1,100	1,020	1,900	1,580	513	869	432	76	104	1,180
19	92	531	1,040	798	2,450	1,540	443	720	361	106	98	1,010
20	85	538	1,470	653	4,160	1,940	398	615	317	156	101	1,480
21	139	969	1,140	644	5,220	1,400	375	532	298	124	96	1,330
22	1,000	712	2,440	651	5,280	1,380	367	465	316	88	600	980
23	504	636	5,940	703	5,610	1,430	345	411	279	70	752	796
24	336	508	5,430	647	3,030	1,130	317	377	225	63	618	653
25	266	435	2,610	580	2,090	990	293	360	192	62	300	536
26	228	443	1,850	729	2,240	990	276	321	168	81	223	700
27	201	449	1,470	405	4,540	832	269	290	151	117	195	998
28	178	421	1,210	454	4,140	1,050	269	269	140	92	351	732
29	165	444	983	506	-----	1,380	300	254	129	264	340	639
30	363	903	815	800	-----	1,210	266	253	123	359	222	518
31	1,280	-----	716	700	-----	990	-----	246	-----	1,340	176	-----
TOTAL	6,891	23,287	43,084	36,533	56,665	47,501	16,236	32,799	11,954	5,162	12,457	29,741
MEAN	222	776	1,390	1,178	2,024	1,532	541	1,058	398	167	402	991
MAX	1,280	1,950	5,940	5,280	5,610	3,400	950	4,370	1,550	1,340	1,510	7,200
MIN	64	414	470	405	350	823	266	234	123	62	96	108
CFSM	.58	2.03	3.64	3.08	5.30	4.01	1.42	2.77	1.04	.44	1.05	2.59
IN.	.67	2.27	4.20	3.56	5.52	4.63	1.58	3.19	1.16	.50	1.21	2.90

CAL YR 1970 TOTAL 312,408 MEAN 856 MAX 13,000 MIN 59 CFSM 2.24 IN 30.42
WTR YR 1971 TOTAL 322,310 MEAN 883 MAX 7,200 MIN 62 CFSM 2.31 IN 31.39

PEAK DISCHARGE (BASE, 8,000 CFS).--Sept. 14 (1230) 9,850 cfs (7.57 ft).

03080000 Laurel Hill Creek at Ursina, Pa.

LOCATION.--Lat 39°49'17", long 79°19'16", Somerset County, on right bank 500 ft downstream from bridge on State Highway 53, at Ursina, and 2.7 miles upstream from mouth.

DRAINAGE AREA.--121 sq mi.

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurement only). October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1918 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,335.26 ft above mean sea level, unadjusted. Prior to July 18, 1939, nonrecording gage at bridge half a mile downstream at datum 6.20 ft lower.

AVERAGE DISCHARGE.--53 years (1918-71), 262 cfs (29.40 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,930 cfs Sept. 14 (gage height, 9.83 ft); minimum, 16 cfs July 26 (gage height, 0.84 ft).

Period of record: Maximum discharge, 10,900 cfs Oct. 15, 1954 (gage height, 10.63 ft), from rating curve extended above 6,100 cfs on basis of slope-area measurement of peak flow; minimum, 2.2 cfs Sept. 26, 1932.

REMARKS.--Records good except those for winter periods, which are fair. Slight regulation at low flow by mills above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 893: 1919-21, 1932-34. WSP 1305: 1922-31. WSP 1435: 1919-20. WSP 1625: 1932(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	777	278	201	170	922	327	84	65	52	134	76
2	30	527	238	226	150	697	407	85	60	46	109	98
3	42	566	223	201	120	572	397	105	65	40	641	79
4	38	623	351	1,050	130	478	352	124	88	34	816	67
5	31	437	321	1,620	250	408	307	112	138	32	759	55
6	27	339	277	921	484	319	289	2,600	281	30	362	53
7	25	265	239	609	389	460	269	1,830	900	28	221	126
8	21	220	222	414	269	410	234	1,770	529	25	158	176
9	19	187	199	357	200	332	208	1,060	310	27	119	100
10	19	166	205	305	170	293	263	651	228	29	94	72
11	29	161	208	259	160	275	237	455	179	35	112	97
12	44	165	834	236	170	296	206	370	161	88	92	373
13	42	173	968	213	844	876	190	964	281	47	67	486
14	32	167	610	555	936	1,190	340	1,110	1,050	32	57	5,640
15	33	297	434	797	684	1,230	278	651	623	25	50	2,490
16	39	323	344	496	437	1,140	243	486	408	20	46	1,240
17	34	265	391	423	409	769	231	379	296	18	43	1,230
18	30	238	431	319	562	548	229	290	229	19	40	741
19	27	214	376	245	698	581	194	240	184	37	39	566
20	26	209	482	212	1,140	589	174	210	283	55	39	816
21	93	252	391	209	1,570	450	164	180	185	45	39	760
22	425	214	832	202	1,720	419	160	159	160	28	209	527
23	217	202	1,380	247	2,070	394	143	138	120	21	283	395
24	146	175	1,490	263	1,260	326	130	128	99	17	182	303
25	117	178	925	210	793	288	119	120	83	17	107	236
26	99	157	623	227	719	264	109	110	73	18	83	302
27	84	142	457	140	1,370	240	103	95	66	39	76	404
28	74	137	364	140	1,410	299	103	86	61	29	138	283
29	70	157	308	150	-----	480	105	83	58	97	131	251
30	194	385	242	250	-----	417	96	78	51	85	89	209
31	511	-----	211	200	-----	347	-----	71	-----	281	73	-----
TOTAL	2,650	8,318	14,854	11,897	19,284	16,309	6,607	14,824	7,314	1,396	5,408	18,251
MEAN	85.5	277	479	384	689	526	220	478	244	45.0	174	608
MAX	511	777	1,490	1,620	2,070	1,230	407	2,600	1,050	281	816	5,640
MIN	19	137	199	140	120	240	96	71	51	17	39	53
CFSM	.71	2.29	3.96	3.17	5.69	4.35	1.82	3.95	2.02	.37	1.44	5.02
IN.	.81	2.56	4.57	3.66	5.93	5.01	2.03	4.56	2.25	.43	1.66	5.61
CAL YR 1970	TOTAL 116,355.0	MEAN 319	MAX 3,390	MIN 18	CFSM 2.64	IN 35.77						
WTR YR 1971	TOTAL 127,112.0	MEAN 348	MAX 5,640	MIN 17	CFSM 2.88	IN 39.08						

PEAK DISCHARGE (BASE, 3,000 CFS).--May 6 (1200) 3,980 cfs (5.25 ft); Sept. 14 (0830) 9,930 cfs (9.83 ft).

MONONGAHELA RIVER BASIN

03081000 Youghiogheny River below Confluence, Pa.

LOCATION.--Lat 39°49'39", long 79°22'22", Fayette County (revised), on left bank 1.0 mile downstream from Casselman River, 1.5 miles northwest of Confluence, and at mile 72.0.

DRAINAGE AREA.--1,029 sq mi.

PERIOD OF RECORD.--June 1940 to current year. Monthly discharge only for June 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,302.77 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--31 years, 1,912 cfs (25.23 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 28,400 cfs Sept. 14 (gage height, 13.08 ft); minimum daily, 601 cfs May 2.

Period of record: Maximum discharge, 69,500 cfs Oct. 15, 1954 (gage height, 19.92 ft), from rating curve extended above 25,000 cfs on basis of slope-area measurement of peak flow; minimum, 40 cfs Oct. 14, 1943 (gage height, 0.31 ft); minimum daily, 121 cfs Sept. 27, 1943.

Flood of Mar. 17 or 18, 1936, reached a stage of 21.6 ft, from floodmarks (discharge, 85,000 cfs).

REMARKS.--Records good. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 1 mile upstream (see p. 257).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	944	2,460	1,800	2,910	2,380	8,160	2,010	611	652	769	1,620	1,180
2	1,010	1,900	1,730	2,860	1,370	7,250	1,900	601	726	742	1,700	1,210
3	1,030	2,320	1,800	2,790	1,110	6,730	1,580	671	758	711	2,640	1,160
4	1,040	3,120	2,360	4,280	1,100	5,090	1,410	697	826	673	3,100	1,120
5	1,000	1,940	2,530	8,680	1,330	3,740	1,290	650	887	649	4,040	1,090
6	974	1,480	2,200	5,570	1,840	3,400	1,220	8,540	1,120	635	2,730	1,230
7	957	1,190	2,080	4,790	1,920	2,990	1,220	7,900	2,430	634	2,100	1,290
8	944	966	1,730	3,940	1,860	2,580	1,250	8,840	1,930	621	1,790	1,670
9	934	911	1,900	3,750	1,490	2,100	1,120	6,330	1,340	654	1,610	1,810
10	928	902	1,920	3,510	1,080	1,950	1,250	6,830	1,100	658	1,510	1,990
11	949	850	1,900	3,290	1,280	1,900	1,240	7,340	956	695	1,590	1,910
12	1,120	968	2,990	3,270	1,590	1,820	1,080	6,480	891	1,030	1,640	2,440
13	1,030	1,130	3,710	3,160	4,540	4,020	1,140	7,550	1,140	874	1,480	2,500
14	923	1,120	2,880	4,220	5,910	5,840	1,710	8,520	3,580	712	1,390	17,300
15	992	1,460	2,770	6,620	3,090	5,720	1,740	6,020	2,180	691	1,340	9,350
16	1,020	1,520	2,470	4,610	2,190	5,460	1,570	4,300	1,820	673	1,310	6,400
17	980	1,300	2,540	4,010	2,200	4,350	1,510	2,900	1,610	627	1,300	6,990
18	952	1,170	2,820	3,600	3,930	3,830	1,530	1,630	1,420	614	1,260	5,430
19	933	1,060	2,600	3,290	4,590	3,680	1,440	1,400	1,290	646	1,160	4,030
20	921	1,010	3,290	3,030	6,350	4,390	1,370	1,260	1,360	784	1,070	4,750
21	885	1,470	2,840	2,960	8,420	3,590	1,330	1,120	1,250	727	1,060	6,440
22	1,590	1,270	4,000	2,970	8,490	3,400	1,320	1,000	1,270	695	1,790	7,780
23	978	1,160	8,410	3,040	10,300	3,930	1,270	911	1,160	714	2,360	7,290
24	839	1,000	8,530	2,970	9,190	3,940	1,190	847	1,050	698	1,900	4,700
25	943	1,140	5,640	2,860	9,450	3,630	1,140	813	976	714	1,180	2,120
26	872	1,460	5,100	3,010	9,280	3,580	929	760	924	697	1,090	2,230
27	822	1,460	4,320	2,710	11,000	3,390	667	700	888	857	1,120	3,270
28	779	1,430	3,820	2,550	10,500	3,510	662	664	863	782	1,270	3,190
29	756	1,430	3,440	2,620	-----	3,760	696	639	797	1,110	1,370	2,560
30	954	2,090	3,170	3,080	-----	2,810	663	626	720	1,330	1,220	2,020
31	2,050	-----	3,010	3,200	-----	2,140	-----	611	-----	2,500	1,230	-----
TOTAL	31,049	42,687	100,560	114,150	127,780	122,680	38,447	97,761	37,914	24,916	51,970	116,450
MEAN	1,002	1,423	3,244	3,682	4,564	3,957	1,282	3,154	1,264	804	1,676	3,882
MAX	2,050	3,120	8,530	8,680	11,000	8,160	2,010	8,840	3,580	2,500	4,040	17,300
MIN	756	850	1,730	2,550	1,080	1,820	662	601	652	614	1,060	1,090
MEAN*	479	1,694	3,828	3,591	5,481	4,079	1,509	3,337	1,100	474	1,352	3,491
CFSM*	.47	1.65	3.72	3.49	5.33	3.96	1.47	3.24	1.07	.46	1.31	3.39
IN.*	.54	1.84	4.29	4.02	5.55	4.57	1.64	3.74	1.19	.53	1.51	3.78
CAL YR 1970	TOTAL 850,192		MEAN 2,329	MAX 17,400	MIN 609							
WTR YR 1971	TOTAL 906,364		MEAN 2,483	MAX 17,300	MIN 601		MEAN* 2,361	CFSM* 2.29	IN.* 31.18			
							MEAN* 2,516	CFSM* 2.44	IN.* 33.20			

* Adjusted for change in contents in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

MONONGAHELA RIVER BASIN

251

03082200 Poplar Run near Normalville, Pa.

LOCATION.--Lat 40°00'59", long 79°25'33", Fayette County, on right bank at downstream side of bridge on State Highways 711 and 381, 0.7 mile upstream from mouth, 1.8 miles northeast of Normalville, and 7 miles southwest of Donegal.

DRAINAGE AREA.--9.27 sq mi.

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,408.26 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 17.7 cfs (25.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,890 cfs Sept. 14 (gage height, 8.37 ft), from rating curve extended above 480 cfs as explained below; minimum, 0.30 cfs July 5 (gage height, 1.27 ft).
Period of record: Maximum discharge, 1,890 cfs Sept. 14, 1971 (gage height, 8.37 ft), from rating curve extended above 480 cfs on basis of slope-area measurement of peak flow; no flow July 30, 31, Aug. 16-20, Sept. 11, 1965, Aug. 7, 9, 1966.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	20	18	12	10	28	15	4.6	2.5	1.8	32	11
2	1.4	15	14	10	9.5	22	15	5.5	2.5	2.0	37	8.2
3	2.0	40	15	9.4	9.0	20	12	6.6	2.7	1.4	20	6.2
4	1.2	25	21	180	9.0	18	11	6.6	3.0	1.2	56	4.9
5	1.1	17	18	174	60	16	9.4	7.0	3.0	1.1	44	4.0
6	.98	13	15	58	45	15	8.6	287	35	.94	21	3.4
7	.88	9.8	13	36	29	43	8.2	100	45	.87	13	3.4
8	.88	7.8	11	25	23	29	7.4	135	28	.75	9.0	2.6
9	.76	6.6	9.8	21	18	23	6.6	61	16	1.0	6.2	2.2
10	.94	5.8	9.0	17	15	21	7.8	38	12	1.3	4.9	1.8
11	3.9	5.5	10	15	13	20	5.8	28	8.6	6.6	4.3	2.4
12	1.9	5.5	152	14	21	26	5.8	23	11	4.3	3.4	38
13	1.3	7.4	62	12	118	83	6.6	49	36	1.4	2.6	103
14	1.3	10	37	30	64	67	42	45	38	1.3	2.0	886
15	1.8	15	27	26	37	50	22	31	21	1.0	1.6	140
16	2.0	16	22	20	28	36	17	25	15	.87	1.6	122
17	2.0	13	74	17	40	28	16	20	12	.87	1.4	90
18	1.5	11	56	15	51	22	14	17	9.0	.94	1.2	49
19	1.2	9.4	42	13	72	41	12	14	7.0	1.3	1.4	45
20	1.1	9.8	33	11	170	43	11	12	5.8	5.5	1.4	44
21	20	9.8	26	10	103	33	11	10	5.2	1.4	1.5	33
22	35	8.6	69	9.0	166	31	10	9.0	4.9	1.0	18	23
23	15	8.6	89	22	150	29	9.0	8.0	3.7	.81	41	18
24	9.0	6.6	104	17	72	24	8.2	7.6	3.1	.87	11	14
25	6.6	6.6	51	14	50	22	7.4	9.0	2.4	2.0	6.6	11
26	5.6	6.2	35	30	45	20	6.6	7.0	2.0	1.0	5.8	15
27	5.0	5.8	26	20	54	20	5.8	5.0	1.8	.94	85	13
28	4.5	7.4	20	15	37	26	6.6	4.5	9.4	.70	142	9.8
29	4.0	15	16	13	-----	26	5.8	3.5	3.7	23	37	8.0
30	10	28	18	16	-----	21	5.2	3.5	2.4	23	22	7.1
31	15	-----	13	12	-----	17	-----	3.0	-----	37	15	-----
TOTAL	159.44	365.2	1,125.8	893.4	1,518.5	920	328.8	985.4	351.7	128.16	648.9	1,719.0
MEAN	5.14	12.2	36.3	28.8	54.2	29.7	11.0	31.8	11.7	4.13	20.9	57.3
MAX	35	40	152	180	170	83	42	287	45	37	142	886
MIN	.76	5.5	9.0	9.0	9.0	15	5.2	3.0	1.8	.70	1.2	1.8
CFSM	.55	1.32	3.92	3.11	5.85	3.20	1.19	3.43	1.26	.45	2.25	6.18
IN.	.64	1.47	4.52	3.59	6.09	3.69	1.32	3.95	1.41	.51	2.60	6.90
CAL YR 1970	TOTAL 7,298.52	MEAN 20.0	MAX 348	MIN .66	CFSM 2.16	IN 29.29						
WTR YR 1971	TOTAL 9,144.30	MEAN 25.1	MAX 886	MIN .70	CFSM 2.71	IN 36.70						

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-12	0930	4.23	389	9-12	2245	4.11	353
1-4	1500	4.08	344	9-14	0300	8.37	1,890
5-6	0930	5.12	662	9-16	1615	4.29	372
8-27	2345	4.94	602				

MONONGAHELA RIVER BASIN

03082500 Youghiogheny River at Connellsville, Pa.

LOCATION.--Lat 40°01'03", long 79°35'38", Fayette County, on left bank at downstream side of Crawford Avenue Bridge at Connellsville, 1.2 miles upstream from Mounts Creek, and at mile 44.0.

DRAINAGE AREA.--1,326 sq mi.

PERIOD OF RECORD.--July 1908 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 860.13 ft above mean sea level. Prior to Aug. 15, 1928, non-recording gage, and Aug. 15, 1928, to July 7, 1958, water-stage recorder at same site and datum. July 8, 1958, to Sept. 8, 1959, nonrecording gage at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--63 years, 2,507 cfs (25.67 inches per year), adjusted for storage since August 1925.

EXTREMES.--Current year: Maximum discharge, 65,300 cfs Sept. 14 (gage height, 18.64 ft); minimum daily, 741 cfs July 18; minimum gage height, 2.16 ft July 18, 19.

Period of record: Maximum discharge, 103,000 cfs Oct. 16, 1954 (gage height, 21.96 ft), from rating curve extended above 55,000 cfs; minimum, 11 cfs Sept. 23, 26, 27, 1908, Oct. 18, 1910 (gage height, 0.11 ft).

REMARKS.--Records good. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 29.4 miles upstream (see p. 257) and by several smaller reservoirs above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1912(M), 1914(M), 1916-17(M), 1918, 1922-25. WSP 1435: 1919-20. WSP 1725: 1916, 1932 (monthly, yearly summaries).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,000	2,940	2,550	3,630	3,000	10,500	2,810	974	906	965	2,620	1,560
2	1,140	2,650	2,230	3,450	2,000	8,910	2,760	952	1,030	982	2,210	1,520
3	1,160	2,280	2,340	3,390	1,500	8,070	2,390	1,030	1,050	929	3,160	1,440
4	1,190	4,220	2,890	6,450	1,600	6,730	2,150	1,080	1,170	864	4,070	1,380
5	1,140	2,850	3,410	15,400	2,200	4,580	1,960	1,060	1,330	813	5,890	1,330
6	1,090	2,200	3,000	8,720	3,500	4,410	1,830	13,800	1,500	788	3,950	1,370
7	1,070	1,770	2,760	7,080	3,000	4,530	1,810	13,800	3,320	780	2,940	1,470
8	1,050	1,480	2,530	5,400	2,600	4,090	1,790	13,900	2,900	763	2,430	1,830
9	1,030	1,260	2,450	4,700	2,100	3,340	1,670	9,200	2,110	822	2,140	1,940
10	1,050	1,290	2,420	4,300	1,600	3,040	1,660	8,400	1,630	873	1,970	2,280
11	1,080	1,210	2,430	4,090	1,700	2,970	1,780	8,990	1,390	876	1,930	2,170
12	1,220	1,160	3,960	3,970	2,200	2,830	1,580	7,930	1,280	1,270	2,150	2,560
13	1,300	1,450	5,790	3,860	5,700	5,130	1,500	9,070	1,810	1,250	1,900	5,290
14	1,010	1,510	4,040	4,380	9,860	8,620	2,360	12,100	4,930	949	1,740	32,100
15	1,130	1,670	3,800	8,480	5,270	7,880	2,670	8,550	3,520	830	1,660	16,400
16	1,170	2,180	3,330	5,990	3,710	7,570	2,370	5,690	2,680	843	1,610	9,080
17	1,140	1,860	3,790	5,000	3,040	5,900	2,250	4,710	2,360	770	1,570	9,250
18	1,090	1,650	4,410	4,400	5,100	5,130	2,240	2,780	2,020	741	1,530	7,780
19	1,060	1,520	3,790	4,000	6,610	4,900	2,100	2,360	1,780	776	1,490	5,390
20	1,030	1,420	4,250	3,700	9,230	6,180	1,950	2,070	1,780	1,010	1,280	5,870
21	1,190	1,760	3,900	3,500	13,400	5,120	1,880	1,860	1,720	941	1,250	6,970
22	1,920	1,790	5,120	3,400	12,100	4,690	1,850	1,680	1,870	826	2,120	8,780
23	1,640	1,590	10,900	3,300	16,200	4,900	1,780	1,530	1,580	845	3,230	8,110
24	1,030	1,450	13,300	3,200	12,800	5,050	1,700	1,410	1,410	829	2,740	6,730
25	1,220	1,270	7,970	3,200	12,500	4,570	1,630	1,370	1,290	844	1,660	2,920
26	1,110	1,820	6,840	3,500	11,700	4,470	1,570	1,290	1,210	833	1,400	2,860
27	1,030	1,830	5,590	3,100	13,200	4,240	1,110	1,170	1,150	979	1,600	3,740
28	967	1,790	4,850	3,000	13,700	4,250	1,060	1,080	1,250	990	3,720	3,860
29	928	1,820	4,290	3,200	-----	4,690	1,070	1,030	1,210	1,200	2,340	3,390
30	991	2,600	3,920	3,700	-----	3,930	1,060	1,000	973	1,980	1,810	2,640
31	2,110	-----	3,690	3,300	-----	3,060	-----	963	-----	3,370	1,700	-----
TOTAL	36,286	56,290	136,540	146,790	181,120	164,280	56,340	142,829	54,159	31,531	71,810	162,010
MEAN	1,171	1,876	4,405	4,735	6,469	5,299	1,878	4,607	1,805	1,017	2,316	5,400
MAX	2,110	4,220	13,300	15,400	16,200	10,500	2,810	13,900	4,930	3,370	5,890	32,100
MIN	928	1,160	2,230	3,000	1,500	2,830	1,060	952	906	741	1,250	1,330
MEAN#	648	2,147	4,989	4,644	7,386	5,421	2,105	3,790	1,641	687	1,992	5,009
CFSM#	.49	1.62	3.76	3.50	5.57	4.09	1.59	3.61	1.24	.52	1.50	3.78
IN.#	.56	1.81	4.33	4.04	5.80	4.72	1.77	4.16	1.38	.60	1.73	4.22
CAL YR 1970	TOTAL 1,133,946	MEAN 3,107	MAX 25,100	MIN 850	MEAN# 3,139	CFSM# 2.37	IN.# 32.12					
WTR YR 1971	TOTAL 1,239,985	MEAN 3,397	MAX 32,100	MIN 741	MEAN# 3,430	CFSM# 2.59	IN.# 35.12					

Adjusted for change in contents in Deep Creek Reservoir and Youghiogheny River Lake. Records for Deep Creek Reservoir furnished by Pennsylvania Electric Co.

03083000 Green Lick Run at Green Lick Reservoir, Pa.

LOCATION.--Lat 40°06'18", long 79°30'01", Fayette County, on left bank at upstream end of Green Lick Reservoir, 1.4 miles upstream from Latta Run, and 4 miles southeast of Mount Pleasant.

DRAINAGE AREA.--3.07 sq mi.

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

GAGE.--Water-stage recorder and four V-notch sharp-crested weir. Datum of gage is 1,254.7 ft above mean sea level (Penn Central Railroad bench mark).

AVERAGE DISCHARGE.--30 years, 5.41 cfs (23.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Sept. 14, by computation of peak flow over dam; minimum, 0.16 cfs July 28, 29; minimum gage height, 0.19 ft Oct. 9, 10.

Period of record: Maximum discharge, 1,400 cfs Aug. 13, 1943 (gage height, 5.1 ft, backwater from debris), by slope-area measurement; maximum gage height, 5.42 ft May 24, 1944 (backwater from debris); minimum discharge, 0.04 cfs Oct. 3, 1957; minimum gage height, 0.10 ft Oct. 3, 1957, July 28-31, Aug. 5, 6, 16, 17, 18, 1965.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1053: 1943(m). WSP 1305: 1942(M).

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	6.6	4.8	3.1	3.2	6.4	3.6	1.3	.80	.65	2.1	2.2
2	.53	4.4	3.9	2.6	2.6	5.1	3.6	1.8	.80	.85	3.4	1.7
3	.69	12	3.9	2.5	2.3	4.8	3.2	2.1	.85	.50	3.6	1.3
4	.53	7.6	5.4	52	2.1	4.0	2.7	1.8	.90	.39	26	1.1
5	.39	5.1	4.2	60	21	3.4	2.5	1.8	.90	.36	12	.90
6	.31	3.7	3.6	17	12	3.6	2.3	102	7.8	.33	4.5	.75
7	.28	2.8	3.0	9.3	7.4	18	2.3	31	10	.30	2.6	.65
8	.25	2.3	2.6	6.2	6.0	13	2.0	34	6.0	.28	1.7	.60
9	.28	2.0	2.6	5.1	4.6	9.0	1.9	16	3.4	.39	1.3	.50
10	.50	1.8	2.3	4.3	3.7	7.8	1.8	10	2.3	.33	.95	.45
11	1.2	1.7	2.6	3.7	3.4	8.1	1.6	7.0	1.7	5.0	.85	1.7
12	.72	1.6	4.0	3.2	6.0	9.5	1.5	6.0	1.9	2.3	.70	4.8
13	.51	2.5	17	2.8	46	38	1.7	13	22	.75	.55	22
14	.42	4.6	9.8	6.0	20	24	7.8	12	32	.50	.45	344
15	.48	6.0	6.8	5.3	11	17	4.5	8.1	11	.39	.39	31
16	.61	5.1	5.8	3.9	7.8	12	3.9	6.6	6.6	.36	.39	34
17	.61	3.7	18	3.6	13	9.3	3.7	5.4	4.5	.33	.33	29
18	.52	3.2	13	3.2	18	7.8	3.5	4.3	3.2	.30	.28	17
19	.43	2.7	9.8	2.8	30	12	3.0	3.6	2.5	.45	.30	15
20	.39	3.1	7.0	2.7	57	12	2.7	3.0	1.9	.90	.28	12
21	9.8	3.6	5.8	2.3	33	10	2.6	2.6	1.8	.42	1.3	10
22	8.8	3.0	18	2.2	51	9.5	2.6	2.2	1.9	.30	16	7.8
23	4.2	2.8	22	4.6	35	8.3	2.3	1.9	1.3	.28	21	6.4
24	2.8	2.3	27	3.6	18	7.0	2.1	1.7	1.0	.28	5.3	5.4
25	2.1	2.0	13	3.5	13	6.2	1.9	1.9	.90	.33	3.0	4.6
26	1.7	2.0	8.8	11	12	6.2	1.7	1.6	.75	.28	2.3	7.3
27	1.4	2.1	6.6	6.0	13	7.0	1.6	1.3	.70	.25	10	6.7
28	1.2	2.5	5.1	4.8	8.6	8.1	1.7	1.3	2.2	.19	28	6.0
29	1.1	4.6	4.2	4.0	-----	7.4	1.6	1.1	1.0	1.4	8.1	4.5
30	3.3	7.2	3.6	5.0	-----	6.0	1.4	1.1	.65	1.5	4.6	3.1
31	6.1	-----	3.2	4.0	-----	4.8	-----	.95	-----	5.1	3.1	-----
TOTAL	52.73	114.6	283.4	250.3	460.7	305.3	79.3	288.45	133.25	25.99	165.37	582.45
MEAN	1.70	3.82	9.14	8.07	16.5	9.85	2.64	9.30	4.44	.84	5.33	19.4
MAX	5.8	12	40	60	57	38	7.8	102	32	5.1	28	344
MIN	.25	1.6	2.3	2.2	2.1	3.4	1.4	.95	.65	.19	.28	.45
CFSM	.55	1.24	2.98	2.63	5.37	3.21	.86	3.03	1.45	.27	1.74	6.32
IN.	.64	1.39	3.43	3.03	5.58	3.70	.96	3.50	1.61	.31	2.00	7.06

CAL YR 1970 TOTAL 1,995.15 MEAN 5.47 MAX 98 MIN .25 CFSM 1.78 IN 24.18
 WTR YR 1971 TOTAL 2,741.84 MEAN 7.51 MAX 344 MIN .19 CFSM 2.45 IN 33.22

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-12	0915	2.09	106	6-13	2230	2.40	174
1-4	1845	2.15	118	8-27	2315	2.18	123
2-22	1015	2.08	105	9-14	0730	-	1,180
5-6	0915	2.65	252				

MONONGAHELA RIVER BASIN

03083500 Youghiogheny River at Sutersville, Pa.

LOCATION.--Lat 40°14'24", long 79°48'24", Allegheny County, on left bank 500 ft upstream from highway bridge at Sutersville, 2.1 miles downstream from Sewickley Creek, and at mile 15.2.

DRAINAGE AREA.--1,715 sq mi.

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 733.36 ft above mean sea level. Prior to June 1, 1939, non-recording gage at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--51 years, 2,930 cfs (23.21 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 68,200 cfs Sept. 14 (gage height, 24.70 ft); minimum 794 cfs July 18, 19 (gage height, 3.06 ft).

Period of record: Maximum discharge, 108,000 cfs Oct. 16, 1954 (gage height, 32.5 ft, from floodmark); minimum observed, 57 cfs Sept. 29, 30, 1922.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 58 miles upstream (see p. 257) and by several smaller reservoirs above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1924, 1926(M), 1931(M). WSP 1435: 1935-36.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,110	3,240	3,180	4,050	2,700	10,900	3,150	1,150	976	997	3,250	1,780
2	1,120	3,370	2,650	3,810	2,300	9,180	3,050	1,090	989	1,120	2,230	1,640
3	1,220	2,910	2,610	3,700	2,000	8,380	2,820	1,080	1,120	1,030	3,020	1,640
4	1,210	4,580	3,170	5,870	2,200	7,850	2,470	1,100	1,140	944	4,680	1,510
5	1,190	3,740	3,900	20,200	3,000	5,300	2,240	1,200	1,360	883	7,020	1,420
6	1,150	2,800	3,510	12,100	4,500	5,100	2,080	11,800	2,320	850	5,170	1,360
7	1,110	2,230	3,170	8,130	4,000	6,160	2,020	19,600	4,190	830	3,540	1,500
8	1,090	1,820	2,900	6,440	3,500	5,800	1,980	13,800	4,150	819	2,600	1,620
9	1,060	1,520	2,740	5,600	2,500	4,600	1,960	10,800	2,990	832	2,200	1,940
10	1,070	1,410	2,670	5,130	2,100	4,020	1,820	8,830	2,160	940	2,020	2,140
11	1,260	1,370	2,680	4,770	2,200	4,050	1,970	9,140	1,740	1,200	1,870	2,260
12	1,200	1,300	5,630	4,480	3,500	3,940	1,850	8,640	1,560	1,750	2,060	2,400
13	1,340	1,430	8,010	4,360	7,000	5,860	1,700	8,140	2,220	1,490	1,920	5,310
14	1,210	1,610	5,560	4,500	16,000	9,430	2,190	12,500	6,890	1,190	1,700	30,600
15	1,170	1,690	4,720	8,260	13,800	8,620	3,000	9,350	5,570	956	1,750	32,900
16	1,200	2,270	4,160	6,760	6,720	8,240	2,730	6,420	3,500	901	1,730	11,600
17	1,210	2,160	4,850	5,420	4,260	6,860	2,530	5,660	2,880	877	1,440	11,800
18	1,160	1,900	5,630	4,900	6,600	6,020	2,520	3,490	2,430	812	1,390	10,400
19	1,110	1,720	4,910	4,430	8,370	5,460	2,410	2,810	2,090	1,000	1,340	6,740
20	1,080	1,690	4,720	4,000	10,200	6,700	2,100	2,420	1,890	1,880	1,260	6,380
21	1,380	1,850	4,720	3,900	13,700	6,100	1,990	2,150	1,910	1,320	1,290	6,780
22	2,410	2,190	5,590	3,840	14,200	5,460	1,980	1,910	1,930	1,040	2,390	9,060
23	2,480	1,910	10,400	3,500	19,100	5,380	1,920	1,700	1,780	929	3,310	8,590
24	1,490	1,720	14,900	3,500	14,700	5,780	1,820	1,540	1,590	922	3,440	7,940
25	1,260	1,460	9,640	3,400	13,400	5,260	1,750	1,490	1,410	921	2,220	3,940
26	1,300	1,690	7,920	3,700	12,000	5,080	1,680	1,420	1,300	929	1,750	3,120
27	1,180	2,010	6,490	3,400	12,700	4,900	1,470	1,270	1,210	979	2,050	3,950
28	1,100	2,000	5,600	3,200	13,700	4,770	1,200	1,180	1,190	1,070	3,850	4,250
29	1,050	1,990	4,920	3,600	-----	5,110	1,200	1,110	1,440	1,130	3,050	3,880
30	1,150	2,650	4,440	4,000	-----	4,580	1,200	1,080	1,150	1,940	2,300	3,010
31	1,760	-----	4,150	3,300	-----	3,620	-----	1,020	-----	2,770	1,950	-----
TOTAL	39,830	64,230	160,150	166,250	220,950	188,510	62,800	154,890	67,075	35,251	79,790	191,460
MEAN	1,265	2,141	5,166	5,363	7,891	6,081	2,093	4,996	2,236	1,137	2,574	6,382
MAX	2,480	4,580	14,900	20,200	19,100	10,900	3,150	19,600	6,890	2,770	7,020	32,900
MIN	1,050	1,300	2,610	3,200	2,000	3,620	1,200	1,020	976	812	1,260	1,360
MEAN#	762	2,412	5,750	5,272	8,808	6,203	2,320	5,179	2,072	807	2,250	5,991
CFSM#	.44	1.41	3.35	3.07	5.14	3.62	1.35	3.02	1.21	.47	1.31	3.49
IN.#	.51	1.57	3.86	3.54	5.35	4.17	1.51	3.48	1.35	.54	1.51	3.89

CAL YR 1970 TOTAL 1,288,650 MEAN 3,531 MAX 29,900 MIN 940 MEAN# 3,563 CFSM# 2.08 IN.# 28.20
WTR YR 1971 TOTAL 1,431,186 MEAN 3,921 MAX 32,900 MIN 812 MEAN# 3,954 CFSM# 2.31 IN.# 31.28

Adjusted for change in contents in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

03084000 Abers Creek near Murrys ville, Pa.

LOCATION.--Lat 40°27'01", long 79°42'50", Allegheny County, on right bank at downstream side of highway bridge, 30 ft upstream from small tributary, 2 miles northwest of Murrys ville, and 5 miles northwest of Export.

DRAINAGE AREA.--4.39 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 936.73 ft above mean sea level (Pennsylvania Department of Transportation bench mark). Prior to Oct. 1, 1950, water-stage recorder at site 800 ft upstream at different datum.

AVERAGE DISCHARGE.--23 years, 5.04 cfs (15.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 267 cfs June 6 (gage height, 3.82 ft); minimum, 0.47 cfs Oct. 9, 10.

Period of record: Maximum discharge, 1,600 cfs July 5, 1950 (gage height, 7.72 ft, from floodmarks at present site), from rating curve extended above 910 cfs on basis of contracted-opening measurement of peak flow; no flow at times during some years.

REMARKS.--Records good except those for winter periods or no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	8.6	5.4	2.4	1.7	7.6	3.1	1.3	1.1	5.2	.98	1.2
2	.73	7.4	5.0	2.3	1.6	7.1	3.7	1.7	1.8	1.2	.91	1.1
3	.68	19	11	2.5	1.6	5.4	3.1	1.3	1.3	.91	1.1	1.1
4	.55	8.2	30	50	1.7	5.0	2.9	1.2	1.1	.84	4.4	1.0
5	.55	5.0	9.0	36	36	4.5	2.9	3.1	1.1	.72	1.3	.98
6	.51	3.8	5.0	11	6.7	8.9	2.6	79	32	.78	1.0	.91
7	.51	3.1	4.3	6.4	4.1	22	2.6	14	8.4	.78	.84	.84
8	.51	2.7	3.8	4.5	3.5	11	2.4	13	4.4	.84	.72	.78
9	.47	2.5	3.3	3.5	3.3	9.0	2.6	6.7	2.3	2.6	.72	.72
10	1.2	2.7	3.0	3.0	3.1	8.9	2.6	4.7	1.7	.91	.65	.65
11	1.2	2.5	5.0	2.8	3.0	10	2.4	3.4	1.3	19	.65	.72
12	.73	2.5	50	2.8	4.5	19	2.4	4.4	2.1	2.1	.60	1.0
13	.73	2.7	30	3.1	45	44	3.1	8.0	17	1.3	.60	1.1
14	1.6	3.1	11	8.8	16	17	3.1	4.7	9.0	1.1	.58	10
15	1.3	4.5	8.0	4.4	8.8	12	2.1	3.1	4.4	1.2	.58	1.4
16	.90	2.5	7.0	3.1	6.0	8.8	2.1	2.8	2.8	1.5	.55	8.4
17	.78	2.2	11	2.8	16	7.1	3.1	2.3	2.2	.98	.52	3.1
18	.73	2.0	9.4	2.6	22	6.0	2.4	1.8	1.7	.98	.52	1.9
19	.73	1.8	7.8	2.4	36	15	1.9	1.7	1.3	8.9	.55	3.1
20	.68	3.0	6.0	2.2	35	11	1.9	1.5	1.3	3.4	.58	2.9
21	4.7	5.2	5.4	2.1	19	11	1.5	1.5	2.4	1.2	24	1.5
22	3.6	4.5	18	2.0	67	9.3	1.3	1.4	1.2	1.0	3.1	1.2
23	2.0	3.8	12	1.9	32	8.0	1.2	1.3	1.2	.91	1.4	1.2
24	1.5	3.2	9.0	1.8	15	7.1	1.3	1.3	1.1	5.7	.98	1.0
25	1.2	2.9	7.0	1.8	13	6.0	1.3	2.5	1.1	1.4	1.1	.98
26	1.1	2.6	6.0	3.4	12	5.1	1.3	1.2	1.1	1.2	1.9	2.6
27	.95	2.6	5.1	2.3	17	4.4	1.2	1.2	.98	1.0	36	1.5
28	.82	3.0	4.5	2.0	10	4.4	1.3	1.2	.98	.84	5.7	1.2
29	2.5	4.5	3.5	2.1	-----	4.1	1.2	1.2	.84	1.5	2.6	1.0
30	13	6.0	3.0	2.4	-----	3.4	1.2	1.1	.84	1.4	1.7	1.0
31	10	-----	2.6	1.9	-----	3.1	-----	1.1	-----	1.2	1.4	-----
TOTAL	57.14	128.1	301.1	180.3	440.6	305.2	65.8	174.7	110.04	72.59	98.23	56.08
MEAN	1.84	4.27	9.71	5.82	15.7	9.85	2.19	5.64	3.67	2.34	3.17	1.87
MAX	13	19	50	50	67	44	3.7	79	32	19	36	10
MIN	.47	1.8	2.6	1.8	1.6	3.1	1.2	1.1	.84	.72	.52	.65
CFSM	.42	.97	2.21	1.33	3.58	2.24	.50	1.28	.84	.53	.72	.43
IN.	.48	1.09	2.55	1.53	3.73	2.59	.56	1.48	.93	.62	.83	.48

CAL YR 1970 TOTAL 1,951.34 MEAN 5.35 MAX 90 MIN .47 CFSM 1.22 IN 16.54
WTR YR 1971 TOTAL 1,989.88 MEAN 5.45 MAX 79 MIN .47 CFSM 1.24 IN 16.86

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-6	0800	3.78	259	8-21	2230	3.76	255
6-6	0500	3.82	267	8-27	0800	3.61	225

NOTE:--No gage-height record
Nov. 15 to Dec. 17.

03085000 Monongahela River at Braddock, Pa.

LOCATION.--Lat 40°23'28", long 79°51'30", Allegheny County, near right bank on river guide wall 300 ft upstream from dam at lock 2, at Braddock, 1,700 ft downstream from Turtle Creek, and 11.2 miles upstream from confluence with Allegheny River.

DRAINAGE AREA.--7,337 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder and fixed-crest concrete dam control with streamward lock chamber usable as floodway during high flow since 1951. Datum of gage is 707.16 ft above mean sea level. Prior to Aug. 13, 1951, at site 700 ft upstream at same datum.

AVERAGE DISCHARGE.--33 years, 12,010 cfs (22.23 inches per year) adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 96,800 cfs Sept. 15 (gage height, 21.27 ft, result of floodway opening); maximum gage height, 21.60 ft Jan. 5; minimum discharge, not determined; minimum daily discharge, 1,690 cfs July 18.

Period of record: Maximum discharge, 201,000 cfs June 5, 1941 (gage height, 31.20 ft); minimum, 559 cfs Sept. 20, 22, 23, 1946; minimum daily, 703 cfs Sept. 3, 4, 22, 1946; minimum gage height, 12.01 ft Oct. 7-13, 1943.

Flood of Mar. 18, 1936 reached a stage of 38.8 ft, from floodmarks (discharge, 210,000 cfs).

REMARKS.--Records good. Flow regulated by locks and hydroelectric plants, since 1938 by Tygart Lake, since 1926 by Lake Lynn, since 1925 by Deep Creek Reservoir, and since 1943 by Youghiogheny River Lake (see p.257) combined capacity, 704,300 acre-ft. Figures of daily discharge include slight diversion from Beaver Run Reservoir in the Kiskiminetas River basin to the Borough of Jeannette in the Monongahela River basin. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	GCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,190	9,600	7,340	16,200	11,200	23,000	11,900	2,840	5,820	2,050	8,710	3,180
2	3,740	12,500	8,080	12,000	11,500	22,600	10,800	2,190	5,760	2,420	7,770	3,420
3	3,100	13,800	8,430	13,800	8,520	23,200	9,340	2,630	5,120	3,760	7,160	3,320
4	2,290	17,600	9,350	19,900	9,750	21,400	6,830	4,350	5,010	2,170	11,100	2,500
5	2,630	16,800	11,900	71,600	22,800	18,800	6,870	4,080	5,870	1,920	23,500	2,220
6	2,710	18,000	9,760	70,900	43,600	17,800	8,240	28,700	14,800	1,750	21,900	3,080
7	3,170	15,400	7,930	40,600	30,000	22,000	7,650	60,000	15,500	1,750	13,500	3,190
8	2,870	13,200	9,250	30,400	23,000	31,100	7,530	49,200	14,400	2,520	7,670	3,480
9	2,980	13,800	7,620	26,300	23,000	27,000	6,110	50,700	11,500	2,610	5,060	4,480
10	2,960	12,800	6,090	22,000	22,000	25,300	6,890	37,900	9,800	4,230	4,800	5,640
11	2,840	11,300	7,480	18,900	17,000	21,800	6,580	30,700	7,210	3,210	4,710	3,570
12	3,230	11,000	14,100	17,800	18,000	21,500	6,330	24,400	4,300	3,740	4,210	5,180
13	3,510	13,100	28,200	15,000	20,000	24,900	7,010	24,900	4,820	3,150	4,030	22,900
14	3,640	11,300	18,400	17,900	53,400	29,400	7,100	47,000	13,800	2,620	3,190	57,200
15	3,700	12,300	18,600	30,000	39,400	27,700	9,890	37,800	14,000	2,320	2,600	83,300
16	3,000	11,400	16,800	33,400	30,700	25,200	8,270	27,600	9,960	1,790	2,730	41,200
17	3,210	11,100	17,700	26,400	27,500	20,900	6,980	23,500	6,710	1,770	3,000	47,300
18	2,600	10,100	23,400	22,400	29,400	16,700	6,900	15,700	5,490	1,690	2,680	41,300
19	2,870	6,940	21,000	17,900	35,100	17,000	5,270	10,700	4,090	2,460	2,550	30,900
20	2,880	7,830	16,900	14,000	35,800	18,600	6,330	10,900	2,980	5,310	2,490	23,700
21	4,490	7,840	14,900	12,700	38,200	17,400	5,660	7,930	3,640	3,000	2,610	25,100
22	9,660	8,120	28,100	12,100	42,700	16,400	5,810	7,420	4,550	2,820	5,170	23,100
23	8,070	7,110	73,600	11,200	59,400	18,400	4,490	5,880	4,120	3,360	7,930	22,100
24	5,400	6,100	71,200	10,600	56,200	21,200	4,540	6,230	3,760	2,720	7,900	16,300
25	3,310	5,910	51,800	13,700	40,300	19,000	3,080	6,010	3,420	2,160	4,610	10,400
26	3,340	5,640	39,300	15,400	37,100	17,500	3,190	5,290	2,750	2,420	4,170	8,720
27	3,420	4,720	31,700	14,800	34,900	14,600	4,030	4,740	2,190	3,080	5,710	12,700
28	2,560	5,940	26,000	13,900	31,400	13,100	3,580	4,150	2,190	2,100	6,160	14,700
29	3,000	5,290	23,800	9,960	-----	13,500	3,690	3,360	2,260	3,160	7,830	12,900
30	3,900	6,050	21,800	11,300	-----	15,800	3,300	3,220	2,680	5,700	5,160	11,600
31	7,390	-----	12,600	12,600	-----	13,800	-----	3,240	-----	9,400	4,190	-----
TOTAL	116,060	312,590	663,130	675,660	851,870	636,600	194,190	553,260	198,500	93,160	204,800	548,680
MEAN	3,744	10,420	21,390	21,800	30,420	20,540	6,473	17,850	6,617	3,005	6,606	18,290
MAX	9,660	18,000	73,600	71,600	59,400	31,100	11,900	60,000	15,500	9,400	23,500	83,300
MIN	2,290	4,720	6,050	9,960	8,520	13,100	3,080	2,190	2,190	1,690	2,490	2,220
(*)	-1,230	+88.4	+501	-401	+1,120	-11.5	+945	+892	-262	-321	-449	-720
MEAN#	2,514	10,510	21,890	21,400	31,540	20,530	7,418	18,740	6,355	2,684	6,157	17,570
CFSM#	.34	1.43	2.98	2.92	4.30	2.80	1.01	2.55	.87	.37	.84	2.39
IN.#	.39	1.60	3.44	3.37	4.48	3.23	1.13	2.94	.97	.43	.97	2.67
CAL YR 1970	TOTAL 4,626,100	MEAN 12,670	MAX 91,600	MIN 2,260	MEAN# 12,560	CFSM# 1.71	IN# 23.24					
WTR YR 1971	TOTAL 5,048,500	MEAN 13,830	MAX 83,300	MIN 1,690	MEAN# 13,830	CFSM# 1.88	IN# 25.62					

* Change in contents in Tygart Lake, Lake Lynn and Deep Creek Reservoir, and Youghiogheny River Lake, and Deep Creek Reservoir, equivalent in cubic feet per second. Records of contents in Lake Lynn, in Pennsylvania Electric Co., and Municipal Authority of Westmoreland County, respectively.

Adjusted for change in reservoir contents and diversion.

Reservoirs in Monongahela River basin

03055500 TYGART LAKE.--Lat 39°18'50", long 80°02'00", Taylor County, W. Va., at dam on Tygart Valley River, 2.2 miles upstream from Threefork Creek, and 2.4 miles upstream from Grafton, W. Va. Drainage area, 1,184 sq mi. Period of record, April 1938 to current year. Prior to October 1960 published as "Tygart Reservoir". Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 220,960 acre-ft Sept. 15 (elevation, 1,144.71 ft); minimum, 16,560 acre-ft Mar. 28 (elevation, 1,017.58 ft). Extremes for period of record: Maximum contents, 243,600 acre-ft July 26, 1958 (elevation, 1,152.72 ft); minimum since October 1939, 8,330 acre-ft Jan. 25, 1940 (elevation, 1,005.15 ft). Reservoir is formed by concrete gravity dam completed and accepted February 1938, storage began May 15, 1938. Capacity, 285,000 acre-ft (from sedimentation resurvey made in 1959) between elevations 991.5 ft (sill of valves) and 1,167.0 ft (crest of spillway) above mean sea level. Dead storage, 2,700 acre-ft. Figures given herein represent total contents. Conservation pool elevation is 1,010.0 ft and water below elevation 991.5 ft cannot be withdrawn. Reservoir is used for flood control, for supplementary supply for navigation on Monongahela River during periods of low flow, and for recreation. Records furnished by Corps of Engineers.

03076000 DEEP CREEK RESERVOIR.--Lat 39°30'34", long 79°23'28", Garrett County, Md., on Deep Creek at dam, 1.8 miles upstream from mouth, and 7 miles north of Oakland, Md. Drainage area, 64.7 sq mi. Period of record, July 1925 to current year (prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385). Water-stage recorder at right end of spillway. Datum of gage is at mean sea level (unadjusted). Extremes for current year: Maximum contents, 88,100 acre-ft Mar. 3 (elevation, 2,460.70 ft); minimum, 64,300 acre-ft Dec. 5 (elevation, 2,454.00 ft). Extremes for period of record: Maximum contents, 93,260 acre-ft July 24, 25, 1949 (elevation, 2,462.075 ft); minimum observed, 11,760 acre-ft Sept. 30, 1925 (elevation, 2,433.45 ft). Reservoir is formed by an earthfill dam completed January 1925. Usable capacity, 92,975 acre-ft between elevations 2,425 ft (top of intake to outlet tunnel) and 2,462 ft (crest of spillway). Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power. Records furnished by Pennsylvania Electric Co.

03077000 YOUGHIOGHENY RIVER LAKE (formerly published as Youghiogheny River Reservoir).--Lat 39°47'56", long 79°22'06", Somerset County, remote control recorder at control house at dam, 1.2 miles upstream from Confluence, Pa., since June 1951. Water-stage recorder and transmitter at lat 39°45'21", long 79°24'00", at bridge on U. S. Highway 40, 500 ft upstream from Stuck Hollow Run, 0.6 mile upstream from Tub Run, on Youghiogheny River, 7.5 miles upstream from Youghiogheny River Dam, Pa. Drainage area, 434 sq mi. Period of record, October 1943 to current year. Water-stage recorder. Datum of gage is at mean sea level. Prior to Mar. 9, 1948, nonrecording gage at dam at same datum. Mar. 9, 1948, to present, water-stage recorder also at transmitter site at same datum. Extremes for current year: Maximum contents, 180,480 acre-ft May 9 (elevation, 1,447.81 ft); minimum, 51,220 acre-ft Oct. 30 (elevation, 1,391.96 ft). Extremes for period of record: Maximum contents, 210,250 acre-ft May 16, 1967 (elevation, 1,457.23 ft); minimum, 845 acre-ft Oct. 11, 1943 (elevation, 1,328.8 ft). Reservoir is formed by an earthfill dam, rock-faced. Storage began during construction sometime prior to July 1943; storage for low-flow augmentation commenced January 1948. Dam completed October 1943. Capacity, 254,000 acre-ft between elevations 1,319.50 ft (invert at intake to outlet tunnel) and 1,470.00 ft (full pool). Minimum pool elevation is 1,344.0 ft, capacity, 5,230 acre-ft. Winter low-water pool elevation is 1,419.0 ft, capacity, 103,000 acre-ft. Summer low-water pool elevation is 1,439.0 ft, capacity, 154,500 acre-ft. Storage to summer pool normally occurs during period Mar. 15 to Apr. 15. Depletion of low-water storage for Youghiogheny River flow augmentation occurs normally during the period July through November. Figures given herein represent total contents. Reservoir is used for flood control, for low-flow augmentation of Youghiogheny River and downstream rivers, and for recreation. Records furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
03055500 Tygart Lake				03076000 Deep Creek Reservoir		
Sept. 30.....	1,083.75	94,240	-	2,455.10	68,100	-
Oct. 31.....	1,056.75	55,820	-625	2,454.10	64,700	-55.3
Nov. 30.....	1,045.09	42,150	-230	2,454.20	65,000	+5.0
Dec. 31.....	1,049.37	46,980	+78.6	2,456.10	71,500	+106
CAL YR 1970.....	-	-	-106	-	-	+10.4
Jan. 31.....	1,024.99	22,590	-397	2,457.40	76,100	+74.8
Feb. 28.....	1,046.39	43,600	+378	2,460.40	87,000	+196
Mar. 31.....	1,034.71	31,400	-198	2,458.70	80,800	-101
Apr. 30.....	1,068.29	71,130	+668	2,458.00	78,200	-43.7
May 31.....	1,095.78	114,380	+703	2,459.90	85,200	+114
June 30.....	1,093.34	110,110	-71.8	2,459.40	83,300	-31.9
July 31.....	1,094.57	112,250	+34.8	2,458.10	78,600	-76.4
Aug. 31.....	1,090.72	105,650	-107	2,456.70	73,600	-81.3
Sept. 30.....	1,083.09	93,180	-210	2,457.30	75,700	+35.3
WTR YR 1971.....	-	-	-1.5	-	-	+10.5

MONONGAHELA RIVER BASIN

Reservoirs in Monongahela River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>03077000 Youghiogheny River Lake</u>			
Sept. 30.....	1,408.54	80,580	-
Oct. 31.....	1,392.37	51,850	-467
Nov. 30.....	1,401.80	67,680	+266
Dec. 31.....	1,416.35	97,060	+478
CAL YR 1970.....	-	-	+21.2
Jan. 31.....	1,411.62	86,870	-166
Feb. 28.....	1,428.80	126,890	+721
Mar. 31.....	1,433.99	140,590	+223
Apr. 30.....	1,439.77	156,700	+271
May 31.....	1,441.25	160,960	+69.3
June 30.....	1,438.51	153,120	-132
July 31.....	1,432.86	137,550	-253
Aug. 31.....	1,427.13	122,640	-242
Sept. 30.....	1,416.44	97,260	-427
WTR YR 1971	-	-	+23.0

03085500 Chartiers Creek at Carnegie, Pa.

LOCATION.--Lat 40°24'00", long 80°05'54", Allegheny County, at center of right span at downstream side of highway bridge at Carnegie, 0.3 mile downstream from Robinson Run, and 8.9 miles upstream from mouth.

DRAINAGE AREA.--257 sq mi.

PERIOD OF RECORD.--October 1919 to September 1933, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Nonrecording gage. Datum of gage is 761.03 ft above mean sea level (Penn Central Railroad bench mark). Prior to Dec. 15, 1931, nonrecording gage at site half a mile downstream at different datum. Jan. 8, 1932, to Sept. 30, 1933, nonrecording gage at site 1 mile downstream at different datum. Nov. 20, 1940, to Aug. 18, 1967, water-stage recorder at site 400 ft upstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--45 years (1919-33, 1940-71), 281 cfs (14.85 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,440 cfs May 6 (gage height, 7.64 ft, from graph based on gage readings); minimum daily, 62 cfs Sept. 10.

Period of record: Maximum discharge, 13,500 cfs Aug. 6, 1956 (gage height, 16.37 ft, site and datum then in use); minimum observed, 16 cfs Aug. 9, 1926, and at times in September 1932.

Flood of Mar. 17, 1936, reached a stage of 11.0 ft, at site 1 mile downstream at different datum (discharge, 9,600 cfs).

REMARKS.--Records fair. Some regulation at low flow by mine drainage, reservoirs, and industrial usage above station.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1053: Drainage area. WSP 1305: 1922-24(M), 1926, 1927-31(M). WSP 1435: 1920, 1921(M), 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	485	274	209	140	625	325	120	160	98	88	78
2	66	625	226	195	130	635	306	123	157	104	88	68
3	72	675	226	186	140	575	292	138	171	91	123	84
4	66	555	374	873	160	550	274	129	157	86	182	74
5	64	378	302	1,520	1,640	505	257	123	150	82	171	70
6	66	250	266	775	794	525	261	3,230	213	82	120	66
7	64	216	230	515	349	1,100	253	1,550	615	84	101	72
8	68	198	209	418	292	890	241	1,060	385	82	101	66
9	64	177	198	364	274	670	229	812	217	449	104	70
10	94	153	180	360	242	625	205	585	182	415	98	62
11	442	192	216	324	212	734	197	475	164	605	96	70
12	219	174	921	306	353	505	193	515	209	384	92	90
13	84	177	965	279	1,640	1,820	197	575	561	178	98	130
14	86	159	590	475	763	1,120	217	570	502	138	86	150
15	174	216	450	400	441	830	193	440	249	115	92	100
16	95	223	392	306	374	734	185	405	197	115	88	180
17	76	195	410	262	501	640	189	570	171	98	86	230
18	66	174	369	230	1,000	590	182	465	157	98	88	120
19	66	153	320	220	1,220	610	168	395	144	203	92	110
20	64	177	297	210	1,200	605	164	345	141	240	96	100
21	451	168	292	210	935	570	160	301	160	115	90	90
22	354	162	648	200	2,260	590	157	265	135	98	190	84
23	156	144	795	190	2,210	540	154	245	126	93	200	80
24	107	127	790	180	1,180	490	147	241	120	93	90	66
25	93	114	500	190	932	450	135	257	112	104	80	66
26	86	125	414	200	818	425	132	225	106	104	130	110
27	82	119	351	170	890	410	129	205	106	101	180	90
28	76	127	297	170	806	400	132	197	109	88	130	80
29	92	152	270	160	-----	380	129	185	109	93	90	86
30	349	396	238	180	-----	345	120	174	96	106	80	98
31	695	-----	216	160	-----	325	-----	171	-----	112	78	-----
TOTAL	4,610	7,186	12,226	10,437	21,896	19,813	5,923	15,091	6,081	4,854	3,428	2,840
MEAN	149	240	394	337	782	639	197	487	203	157	111	94.7
MAX	695	675	965	1,520	2,260	1,820	325	3,230	615	605	200	230
MIN	64	114	180	160	130	325	120	120	96	82	78	62
CFSM	.58	.93	1.53	1.31	3.04	2.49	.77	1.89	.79	.61	.43	.37
IN.	.67	1.04	1.77	1.51	3.17	2.87	.86	2.18	.88	.70	.50	.41

CAL YR 1970 TOTAL 98,365 MEAN 269 MAX 2,970 MIN 56 CFSM 1.05 IN 14.24
WTR YR 1971 TOTAL 114,385 MEAN 313 MAX 3,230 MIN 62 CFSM 1.22 IN 16.56

PEAK DISCHARGE (BASE, 2,500 CFS).--Feb. 22 (2000) 3,850 cfs (7.00 ft); May 6 (1930) 4,440 cfs (7.64 ft).

NOTE.--No gage-height record Aug. 17 to Sept. 30.

03086000 Ohio River at Sewickley, Pa.

LOCATION.--Lat 40°31'53", long 80°11'21", Allegheny County, on left bank 200 ft upstream from highway bridge at Sewickley, 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, approximately.

PERIOD OF RECORD.--October 1933 to current year.

GAGE.--Water-stage recorder and fixed-crest concrete dam control 1.5 miles downstream. Datum of gage is 690.00 ft above mean sea level, adjustment of 1912. Prior to Nov. 22, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--38 years, 31,690 cfs (22.07 inches per year) adjusted for storage since May 1938.

EXTREMES.--Current year: Maximum discharge, 138,000 cfs Feb. 24 (gage height, 9.85 ft); minimum daily, 5,680 cfs July 7, 18.

Period of record: Maximum discharge, 574,000 cfs Mar. 18, 1936 (gage height, 34.75 ft, from floodmark in gage house); minimum, 1,800 cfs Sept. 4, 1957 (gage height, 2.60 ft).

REMARKS.--Records good. Some regulation by locks, and by many reservoirs above station (see pp. 233, 234, 257). Combined capacity of reservoirs excluding that of Chautauqua Lake but including Lake Lynn and Deep Creek Reservoir and 15 smaller reservoirs, 2,773,000 acre-ft. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1305: 1938-40 (adjusted monthly runoff). WSP 1435: 1934.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	17,000	47,700	49,600	41,300	17,700	105,000	35,400	20,200	13,000	7,690	13,900	10,700	
2	17,500	51,400	49,400	32,000	18,000	92,400	33,300	20,200	13,800	7,690	11,700	9,600	
3	15,700	53,400	44,100	33,000	15,300	106,000	36,800	19,700	12,500	9,930	11,900	8,240	
4	14,000	70,700	46,000	41,000	17,200	106,000	39,900	21,700	12,700	7,160	16,700	6,530	
5	13,000	77,300	59,000	102,000	34,800	99,000	34,900	20,000	14,800	6,740	30,300	6,910	
6	13,700	69,700	56,400	118,000	57,300	84,800	34,200	51,300	25,600	6,380	29,200	6,710	
7	13,800	65,400	51,100	85,000	43,200	85,700	32,600	86,100	25,700	5,680	21,100	6,430	
8	16,100	59,500	48,000	66,900	39,600	89,500	30,800	76,800	27,400	7,240	15,200	7,560	
9	16,600	54,700	42,500	61,600	41,500	81,000	27,500	81,600	25,900	7,790	11,200	8,080	
10	14,400	48,900	39,000	54,000	39,600	71,900	26,700	71,700	23,100	9,720	9,310	9,510	
11	12,400	43,000	40,200	48,300	32,800	63,800	28,300	62,600	18,100	13,700	10,000	7,220	
12	18,900	41,000	56,000	42,500	35,100	58,900	27,600	55,200	13,400	10,000	9,250	9,360	
13	28,100	43,200	77,800	35,900	48,300	65,700	28,100	52,600	13,600	8,540	8,910	24,300	
14	41,300	45,600	61,000	38,400	74,000	62,500	28,900	75,500	22,300	8,130	6,800	60,100	
15	41,300	46,800	60,100	49,000	56,600	69,300	33,600	65,400	23,100	7,760	6,750	98,500	
16	39,300	56,300	59,700	55,600	54,200	73,800	32,600	52,500	25,000	6,670	6,350	55,600	
17	37,600	53,300	61,100	47,100	54,400	76,300	29,900	46,500	22,500	5,940	6,860	60,200	
18	34,900	47,100	65,300	40,000	59,900	69,300	27,400	37,400	20,400	5,680	6,930	54,800	
19	31,900	44,200	61,600	34,200	71,700	68,200	23,700	29,900	14,900	7,790	6,520	46,700	
20	29,600	42,800	56,900	27,700	80,400	67,900	24,500	26,000	11,500	11,200	5,720	38,400	
21	30,400	43,500	56,700	24,200	104,000	64,600	27,900	20,700	11,500	7,280	6,470	39,600	
22	36,300	46,300	69,000	22,200	104,000	58,800	37,800	18,600	12,300	7,740	10,200	37,200	
23	36,700	41,600	110,000	22,800	130,000	56,100	36,500	16,200	11,500	9,100	13,200	34,800	
24	34,500	38,900	110,000	21,600	131,000	56,900	32,200	15,000	10,600	8,290	14,100	24,900	
25	30,400	36,200	89,900	26,000	110,000	50,200	21,300	15,500	10,300	6,870	11,800	17,900	
26	27,500	35,000	75,400	27,400	112,000	45,800	16,200	14,500	9,310	6,580	10,600	16,700	
27	24,700	31,800	65,100	24,700	118,000	40,400	17,300	15,300	8,000	7,600	15,000	20,000	
28	21,200	33,500	56,600	23,100	118,000	38,100	17,100	14,000	7,260	5,990	15,400	26,200	
29	20,400	37,100	52,700	19,200	-----	38,600	17,100	13,000	7,530	7,120	17,600	24,800	
30	23,000	44,200	51,100	19,800	-----	43,400	18,400	12,500	8,200	9,860	14,900	23,000	
31	36,800	-----	47,400	20,500	-----	40,900	-----	11,000	-----	13,800	14,000	-----	
TOTAL	789,000	1,450.1M	1,868.7M	1,305.0M	1,818.6M	2,130.8M	858,500	1,139.2M	475,800	251,660	387,870	800,550	
MEAN	25,450	48,340	60,280	42,100	64,950	68,740	28,620	36,750	15,860	8,118	12,510	26,690	
MAX	41,300	77,300	110,000	118,000	131,000	106,000	39,900	86,100	27,400	13,800	30,300	98,500	
MIN	12,400	31,800	39,000	19,200	15,300	38,100	16,200	11,000	7,260	5,680	5,720	6,430	
(%)	-1,800	+1,300	-1,980	-2,100	+5,230	-3,330	+5,500	+642	-754	-1,800	-1,610	-1,090	
MEAN#	23,650	49,640	58,300	40,000	70,180	65,410	34,120	37,390	15,110	6,318	10,900	25,600	
CFSM#	1.21	2.55	2.99	2.05	3.60	3.35	1.75	1.92	.77	.32	.56	1.31	
IN.#	1.40	2.85	3.45	2.36	3.75	3.86	1.95	2.21	.86	.37	.65	1.46	
CAL YR 1970	TOTAL 13,395,470		MEAN 36,700		MAX 198,000		MIN 6,670		MEAN# 36,640		CFSM# 1.88		IN.# 25.52
WTR YR 1971	TOTAL 13,275,780		MEAN 36,370		MAX 131,000		MIN 5,680		MEAN# 36,160		CFSM# 1.85		IN.# 25.17

Change in contents, equivalent in cubic feet per second, in Allegheny Reservoir, Chautauqua, Tionesta, East Branch Clarion River, Mahoning Creek, Crooked Creek, Yellow Creek, Conemaugh River, Loyalhanna, and Tygart Lakes, Lake Lynn, Deep Creek Reservoir, Youghiogheny River Lake, and 15 smaller reservoirs. Records of reservoir contents furnished by Pennsylvania Electric Co., Manufacturers Water Co., Greater Johnstown Water Authority, Latrobe Municipal Authority, Municipal Authority of Westmoreland County, and Allegheny Power Service Corp.

Adjusted for change in reservoir contents.

BIG SEWICKLEY CREEK BASIN

261

03086100 Big Sewickley Creek near Ambridge, Pa.

LOCATION.--Lat 40°36'27", long 80°09'49", Allegheny County, on left bank at downstream side of bridge, 1.3 miles downstream from East Branch Big Sewickley Creek, and 3.5 miles northeast of Ambridge.

DRAINAGE AREA.--15.6 sq mi.

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1963-67. October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 810 ft (from topographic map). Aug. 31, 1962, to Sept. 20, 1967, crest-stage gage at same site and at datum 10 ft lower.

EXTREMES.--Current year: Maximum discharge, 485 cfs July 11 (gage height, 5.34 ft), from rating curve extended above 200 cfs as explained below; maximum gage height, 5.92 ft Feb. 19 (backwater from ice); minimum discharge, 0.04 cfs Aug. 19 (gage height, 2.55 ft).

Period of record: Maximum discharge, 990 cfs Mar. 4, 1963 (gage height, 6.67 ft, present datum), from rating curve extended above 200 cfs on the basis of slope-area measurement of peak flow; maximum gage height, 7.22 ft Jan. 29, 1968 (backwater from ice); no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	49	24	8.0	6.4	35	13	3.2	4.0	4.0	1.7	4.2
2	.72	46	18	7.0	6.0	29	12	4.2	4.2	3.6	1.4	1.5
3	2.1	54	46	8.0	5.8	24	11	4.9	4.4	2.1	2.0	.90
4	.85	44	83	90	6.2	22	9.8	4.0	3.8	1.6	2.4	.66
5	.60	29	49	88	140	23	9.1	4.0	3.8	1.5	2.1	.55
6	.49	19	33	40	25	33	9.1	130	126	1.4	1.2	.35
7	.49	15	24	30	15	113	8.8	59	68	1.0	.78	.26
8	.39	11	19	25	13	68	8.4	51	28	.78	.66	.26
9	.30	9.5	16	19	12	44	8.1	32	16	1.2	.45	.19
10	.60	20	13	17	11	43	7.7	23	12	1.0	.30	.19
11	2.2	26	24	14	11	51	6.7	19	9.1	119	.45	1.2
12	1.9	21	128	12	16	74	6.7	31	12	27	.35	3.2
13	2.4	19	83	11	110	225	7.0	37	61	11	.19	4.9
14	2.1	19	55	15	50	109	7.7	30	64	7.4	.11	5.4
15	3.2	36	36	12	30	76	6.2	23	31	5.4	.09	2.6
16	1.9	28	32	11	24	54	5.9	20	20	5.4	.14	5.1
17	1.7	21	35	10	22	38	6.4	17	16	4.0	.07	4.0
18	1.7	17	28	9.4	35	29	5.9	14	12	3.2	.07	2.4
19	1.3	14	25	8.8	80	43	5.4	12	9.4	4.4	.05	6.4
20	1.2	14	20	8.4	150	44	5.4	10	7.7	5.6	.06	5.9
21	24	12	18	8.0	93	38	5.4	8.8	15	2.8	1.0	3.8
22	14	11	32	8.2	220	37	4.9	7.7	8.4	2.4	2.4	2.2
23	7.0	9.5	32	8.2	170	32	4.4	6.7	6.4	2.1	1.5	2.0
24	4.5	11	27	7.6	87	29	4.4	6.4	5.4	3.6	.55	1.5
25	3.3	9.1	22	7.2	64	26	4.2	8.8	4.4	4.0	.45	1.0
26	2.8	7.4	19	8.0	58	22	4.0	6.4	4.0	2.6	1.5	2.1
27	2.4	7.0	18	7.2	68	20	3.6	5.6	3.6	2.3	1.5	1.8
28	2.2	6.4	15	7.8	48	19	3.8	5.1	3.2	1.7	1.2	1.4
29	2.3	22	13	8.0	-----	18	3.4	4.9	2.6	2.3	1.1	2.0
30	75	38	11	8.6	-----	16	3.2	4.6	2.1	2.4	.55	3.6
31	119	-----	9.0	7.2	-----	14	-----	4.4	-----	2.1	1.2	-----
TOTAL	283.36	644.9	1,007.0	529.6	1,576.4	1,448	201.6	597.7	567.5	238.88	27.52	71.56
MEAN	9.14	21.5	32.5	17.1	56.3	46.7	6.72	19.3	18.9	7.71	.89	2.39
MAX	119	54	128	90	220	225	13	130	126	119	2.4	6.4
MIN	.30	6.4	9.0	7.0	5.8	14	3.2	3.2	2.1	.78	.05	.19
CFSM	.59	1.38	2.08	1.10	3.61	2.99	.43	1.24	1.21	.49	.06	.15
IN.	.68	1.54	2.40	1.26	3.76	3.45	.48	1.43	1.35	.57	.07	.17
CAL YR 1970	TOTAL 5,629.31	MEAN 15.4	MAX 302	MIN .03	CFSM .99	IN 13.42						
WTR YR 1971	TOTAL 7,194.02	MEAN 19.7	MAX 225	MIN .05	CFSM 1.26	IN 17.15						

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-22	1115	5.03	389	7-11	1245	5.34	485
3-13	0215	5.01	383				

BEAVER RIVER BASIN

03101500 Shenango River at Pymatuning Dam, Pa.

LOCATION.--Lat 41°29'53", long 80°27'37", Crawford County, on left bank 500 ft downstream from Sugar Run, 900 ft downstream from Pymatuning Dam, 1.5 miles northwest of Jamestown, and at mile 84.9.

DRAINAGE AREA.--167 sq mi.

PERIOD OF RECORD.--June 1934 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 970.00 ft above mean sea level, adjustment of 1907.

AVERAGE DISCHARGE.--37 years, 195 cfs (15.86 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 684 cfs Nov. 15 (gage height, 6.21 ft); minimum daily, 19 cfs Mar. 4.

Period of record: Maximum discharge, 1,540 cfs Sept. 4, 1937 (gage height, 9.2 ft); minimum, 0.1 cfs June 30 to July 3, 1934.

REMARKS.--Records excellent. Flow regulated by Pymatuning Reservoir since 1933 (see p. 272).

REVISIONS (WATER YEARS).--WSP 823: 1934-36. WSP 1083: 1936(M), 1937, 1940(M), 1941-45. WSP 1335: 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	420	511	507	96	31	77	158	95	98	119	126
2	260	406	504	506	95	26	145	157	95	98	119	126
3	260	412	505	505	94	22	176	156	95	98	119	126
4	260	414	549	556	95	19	159	155	95	98	120	126
5	260	438	514	549	118	20	191	154	94	98	120	126
6	260	457	505	512	135	23	204	159	95	98	120	126
7	260	452	502	445	115	64	204	158	93	98	120	128
8	260	447	499	349	106	31	203	163	100	98	119	127
9	260	448	500	306	102	27	202	161	96	98	119	126
10	260	464	499	305	103	25	202	157	96	98	120	127
11	260	469	500	216	101	25	201	155	93	98	120	127
12	260	489	519	148	101	26	200	158	89	98	120	125
13	300	527	527	115	107	47	201	142	96	98	119	127
14	305	524	506	100	107	69	212	120	89	98	119	127
15	360	631	501	99	104	66	204	98	93	113	119	126
16	350	543	499	97	58	44	201	98	93	119	123	126
17	350	513	521	97	35	31	203	98	93	119	126	126
18	345	507	516	96	44	26	207	97	98	119	126	126
19	345	504	503	96	109	32	202	98	98	119	126	126
20	345	505	500	96	238	38	200	98	98	119	126	110
21	375	512	527	96	117	29	200	98	100	118	126	102
22	394	504	553	96	80	33	200	98	98	119	126	134
23	392	501	561	96	129	26	187	98	96	119	126	130
24	389	500	565	96	51	23	178	94	98	120	126	130
25	386	499	559	96	42	22	179	99	98	120	126	130
26	385	499	556	96	64	26	178	97	98	119	126	130
27	387	526	555	95	101	30	178	95	97	119	126	131
28	385	529	555	96	48	31	180	95	98	119	126	130
29	389	529	553	96	-----	32	181	94	97	120	126	131
30	408	537	551	96	-----	32	167	94	98	120	126	131
31	477	-----	525	96	-----	38	-----	94	-----	120	126	-----
TOTAL	10,187	14,706	16,240	6,755	2,695	1,014	5,622	3,796	2,872	3,393	3,805	3,789
MEAN	329	490	524	218	96.3	32.7	187	122	95.7	109	123	126
MAX	477	631	565	556	238	69	212	163	100	120	126	134
MIN	260	406	499	95	35	19	77	94	89	98	119	102
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 85,927	MEAN 235	MAX 631	MIN 31	CFSM -	IN. -						
WTR YR 1971	TOTAL 74,874	MEAN 205	MAX 631	MIN 19	CFSM -	IN. -						

BEAVER RIVER BASIN

263

03102500 Little Shenango River at Greenville, Pa.

LOCATION.--Lat 41°25'19", long 80°22'35", Mercer County, on left bank 1,700 ft downstream from Williamson Crossing Bridge, 1 mile northeast of Greenville, and 2.0 miles upstream from mouth.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 953.46 ft above mean sea level, adjustment of 1912. Prior to Nov. 4, 1915, nonrecording gage; Nov. 4, 1915, to Sept. 30, 1918, water-stage recorder; Nov. 7, 1919, to Aug. 31, 1923, and Nov. 19, 1925, to June 20, 1934, nonrecording gage at site 1 mile downstream at datum 8.96 ft lower.

AVERAGE DISCHARGE.--58 years, 138 cfs (18.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,290 cfs Feb. 21 (gage height, 7.49 ft); minimum, 3.6 cfs Aug. 18, Sept. 11 (gage height, 0.88 ft).

Period of record: Maximum discharge, 8,540 cfs Jan. 22, 1959 (gage height, 14.30 ft), from rating curve extended above 3,200 cfs on basis of slope-area measurement at gage height 12.26 ft; minimum, 2.9 cfs July 31, 1934 (gage height, 0.58 ft).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1914, 1922-23, 1926-29. WSP 1335: 1923(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	884	275	72	54	427	133	66	29	15	13	9.4
2	34	409	200	70	50	285	159	59	27	14	12	10
3	37	268	167	66	46	210	155	53	59	13	11	21
4	37	365	515	250	50	131	111	48	77	12	11	19
5	31	253	412	500	90	161	90	44	37	12	10	12
6	27	167	220	300	150	165	80	67	218	11	10	14
7	25	129	157	150	120	494	74	117	285	10	8.9	9.4
8	24	96	133	110	110	475	67	127	325	9.8	7.6	7.6
9	23	79	135	90	100	278	62	173	204	10	7.6	8.0
10	21	102	133	64	94	225	61	96	97	12	7.6	6.0
11	26	243	115	67	92	218	59	70	62	13	7.6	4.8
12	48	175	223	75	90	198	59	90	48	16	6.4	5.2
13	295	169	451	80	90	298	63	169	63	15	6.8	9.4
14	466	155	295	120	88	454	151	100	100	12	6.8	34
15	310	571	185	110	84	736	117	80	62	14	6.0	48
16	210	764	147	98	80	578	82	64	46	12	6.4	26
17	109	330	283	90	76	343	75	56	38	12	5.6	18
18	77	185	368	80	110	243	135	50	33	11	4.8	14
19	59	139	253	74	250	268	93	46	29	10	4.8	11
20	47	131	208	80	900	412	70	43	27	11	6.0	11
21	50	253	110	76	1,920	293	61	41	64	10	6.8	9.4
22	106	185	100	72	1,030	295	57	38	71	8.9	8.0	10
23	94	127	220	68	1,280	248	53	36	41	8.9	12	8.0
24	66	88	170	68	912	188	51	36	30	14	15	5.6
25	52	85	140	59	487	153	53	131	25	16	10	5.2
26	44	79	110	68	557	163	53	109	24	16	11	5.2
27	34	123	90	63	872	195	50	65	22	13	16	6.4
28	35	195	90	70	868	260	61	51	19	12	16	7.2
29	33	233	80	66	-----	275	88	43	17	12	14	11
30	127	406	76	64	-----	193	82	37	16	12	13	11
31	669	-----	74	60	-----	153	-----	33	-----	14	9.4	-----
TOTAL	3,263	7,388	6,135	3,280	10,650	9,015	2,505	2,238	2,195	381.6	291.1	376.8
MEAN	105	246	198	106	380	291	83.5	72.2	73.2	12.3	9.39	12.6
MAX	669	884	515	500	1,920	736	159	173	325	16	16	48
MIN	21	79	74	59	46	131	50	33	16	8.9	4.8	4.8
CFSM	1.01	2.37	1.90	1.02	3.65	2.80	.80	.69	.70	.12	.09	.12
IN.	1.17	2.64	2.19	1.17	3.81	3.22	.90	.80	.79	.14	.10	.13

CAL YR 1970 TOTAL 52,485.0 MEAN 144 MAX 2,080 MIN 12 CFSM 1.38 IN 18.77
WTR YR 1971 TOTAL 47,718.5 MEAN 131 MAX 1,920 MIN 4.8 CFSM 1.26 IN 17.07

PEAK DISCHARGE (BASE, 1,500 CFS).--Feb. 21 (0315) 2,290 cfs (7.49 ft).

BEAVER RIVER BASIN

03102850 Shenango River near Transfer, Pa.

LOCATION.--Lat 41°21'13", long 80°23'53", Mercer County, on left bank at downstream side of covered wooden bridge, 200 ft downstream from highway bridge, 0.6 mile downstream from Big Run, 2.5 miles northeast of Transfer, and at mile 71.8.

DRAINAGE AREA.--337 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 913.94 ft above mean sea level, (Pennsylvania Department of Transportation bench mark).

AVERAGE DISCHARGE.--6 years 408 cfs (16.44 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 3,670 cfs Feb. 20 (gage height, 7.36 ft); minimum, 118 cfs July 8, 9 (gage height, 2.17 ft).

Period of record: Maximum discharge, 5,010 cfs Dec. 28, 1968 (gage height, 9.72 ft); minimum, 33 cfs July 20-22, 1968 (gage height, 1.71 ft).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1933 by Pymatuning Reservoir (see p. 272) and by mills above station.

REVISIONS (WATER YEARS).--WRD Penna.1967: 1966(M). Revised figures of discharge, in cubic feet per second, for high-water periods in water years 1966 and 1967, superseding those published in WRD Penna. 1966 and 1967, are given herewith:

Date	Discharge				Date	Discharge				Date	Discharge			
1966					1966-Con.					1966-Con.				
Feb. 11	2,810				Feb. 13	2,170				Dec. 7	1,820			
12	2,050				14	2,390				8	2,200			
Month	Cfs-days	Observed			Change in contents (equivalent in cfs)	Adjusted			Runoff in Inches					
		Maximum	Minimum	Mean		Mean	Per Square Mile							
February 1966	23,345	2,810	380	834	+112	946	2.81	2.93						
WTR YR 1966	135,910	2,810	68	372	-	358	1.06	14.45						
December 1966	16,784	2,200	160	541	+205	746	2.21	2.55						
CAL YR 1966	131,384	2,810	68	360	-	369	1.09	14.85						
WTR YR 1967	129,143	2,250	69	354	-	395	1.17	15.89						
DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971														
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	332	1,660	971	704	180	691	265	267	138	128	128	135		
2	321	1,010	874	685	180	460	364	256	138	125	128	136		
3	322	861	846	675	180	348	437	246	237	122	128	158		
4	320	992	1,530	1,040	180	248	369	237	214	120	128	170		
5	311	830	1,190	1,600	300	296	349	230	155	120	127	173		
6	305	763	902	975	400	289	360	312	473	120	126	173		
7	300	704	805	760	330	973	351	350	492	120	125	170		
8	299	655	771	600	300	787	338	424	633	120	125	166		
9	296	629	778	480	270	468	327	446	382	128	125	165		
10	296	706	768	420	250	383	322	320	228	120	124	165		
11	304	885	748	394	240	379	316	275	183	122	126	163		
12	338	800	965	258	250	357	308	344	163	125	124	165		
13	731	871	1,300	260	260	603	315	407	187	125	123	183		
14	836	846	1,000	357	230	921	478	292	220	120	123	206		
15	766	1,860	840	379	220	1,170	419	217	179	125	123	216		
16	626	1,730	792	247	190	905	357	195	160	138	123	194		
17	500	1,080	1,050	257	170	573	357	185	151	133	128	183		
18	444	859	1,140	273	220	399	455	171	148	130	127	176		
19	418	787	940	252	500	452	384	163	142	132	128	175		
20	394	785	855	227	2,000	688	341	156	140	133	131	175		
21	424	926	800	254	2,970	496	324	152	199	132	130	134		
22	549	838	888	218	1,650	529	314	146	191	130	130	184		
23	535	754	1,050	210	2,170	422	299	143	157	133	139	179		
24	486	706	974	210	1,370	327	273	143	142	138	134	175		
25	451	694	846	190	814	278	275	282	138	133	133	173		
26	437	690	807	190	981	294	275	253	135	133	137	176		
27	430	791	781	190	1,670	334	268	193	132	132	141	177		
28	424	924	776	190	1,290	401	294	169	130	131	137	177		
29	424	948	760	190	-----	409	334	158	130	131	135	172		
30	633	1,250	763	190	-----	320	312	149	128	130	137	160		
31	1,760	-----	755	190	-----	263	-----	142	-----	130	135	-----		
TOTAL	15,012	27,834	28,265	13,065	19,765	15,463	10,180	7,423	6,245	3,959	4,008	5,154		
MEAN	484	928	912	421	706	499	339	239	208	128	129	172		
MAX	1,760	1,860	1,530	1,600	2,970	1,170	478	446	633	138	141	216		
MIN	296	629	748	190	170	248	265	142	128	120	123	134		
CFSM	-	-	-	-	-	-	-	-	-	-	-	-		
IN.	-	-	-	-	-	-	-	-	-	-	-	-		
CAL YR 1970	TOTAL 173,354	MEAN 475	MAX 3,300	MIN 101	CFSM -	IN. -								
WTR YR 1971	TOTAL 156,373	MEAN 428	MAX 2,970	MIN 120	CFSM -	IN. -								

BEAVER RIVER BASIN

265

03103500 Shenango River at Sharpsville, Pa.

LOCATION.--Lat 41°15'58", long 80°28'22", Mercer County, on left bank 800 ft upstream from double highway bridge at Sharpsville, 0.7 mile downstream from Shenango River Dam, 1.8 miles upstream from McCullough Run, and at mile 55.1.

DRAINAGE AREA.--584 sq mi.

PERIOD OF RECORD.--March 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 861.57 ft above mean sea level.

AVERAGE DISCHARGE.--33 years, 704 cfs (16.37 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 4,360 cfs Feb. 24 (gage height, 6.95 ft); minimum daily, 188 cfs Apr. 12-20.

Period of record: Maximum discharge, 15,700 cfs Jan. 22, 1959 (gage height, 15.97 ft); minimum, 38 cfs Sept. 4, 1941; minimum daily, 43 cfs Sept. 3, 1941.

Flood of Mar. 26, 1913, reached at stage of 19.3 ft, from Pymatuning survey profile map (discharge not determined).

REMARKS.--Records good. Flow regulated by Pymatuning Reservoir since 1933 and by Shenango River Lake, 0.7 mile upstream, since 1967 (see pp. 272, 273).

COOPERATION.--Eight discharge measurements furnished by Corps of Engineers.

REVISIONS.--WRD Penna. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	535	1,800	852	360	3,540	289	320	316	302	244	235
2	366	921	1,750	852	360	3,450	289	320	316	298	244	235
3	366	924	1,780	852	360	3,680	289	320	311	298	244	230
4	366	1,250	1,800	857	360	3,710	293	320	311	298	244	230
5	366	1,870	1,820	888	362	3,510	293	320	311	298	244	230
6	366	2,140	1,820	912	371	2,990	293	320	316	288	244	230
7	366	2,110	1,800	916	379	2,360	293	400	316	298	244	248
8	366	2,090	1,780	916	559	2,330	293	462	316	298	244	266
9	366	1,890	1,760	916	747	2,270	244	547	320	298	244	266
10	366	1,540	1,740	914	743	1,700	192	610	320	298	244	262
11	366	1,530	1,710	908	743	764	192	610	320	298	244	262
12	408	1,520	1,700	902	741	771	188	610	316	298	239	262
13	457	1,520	1,710	889	742	778	188	610	316	298	239	262
14	457	1,510	1,710	881	737	792	188	610	316	298	239	262
15	649	1,520	1,700	628	736	820	188	610	311	275	239	262
16	910	1,540	1,690	366	984	844	188	610	311	248	239	262
17	908	1,790	1,680	366	1,230	860	188	610	311	248	239	262
18	908	2,050	1,680	366	1,210	868	188	603	311	248	239	262
19	908	2,040	1,680	366	1,040	868	188	456	307	248	239	262
20	906	2,020	1,670	366	538	884	188	316	307	248	235	262
21	904	2,010	1,660	366	423	892	192	316	307	248	235	262
22	900	1,990	1,640	365	449	892	192	316	307	248	235	262
23	900	1,970	1,630	366	1,220	900	192	316	306	248	235	262
24	900	1,950	1,630	365	3,050	900	192	316	307	248	235	262
25	896	1,920	1,610	362	4,290	900	192	316	307	248	235	262
26	892	1,880	1,400	364	4,210	892	192	316	302	248	235	262
27	892	1,850	1,190	363	3,900	892	192	316	302	248	235	262
28	891	1,820	1,070	360	3,600	892	262	316	302	248	235	262
29	885	1,810	852	360	-----	652	316	316	302	244	235	262
30	887	1,810	852	360	-----	350	316	316	302	248	235	262
31	518	-----	852	360	-----	284	-----	316	-----	248	235	-----
TOTAL	20,002	51,320	49,206	18,904	34,444	46,235	6,890	13,060	9,323	8,405	7,416	7,672
MEAN	645	1,711	1,587	610	1,230	1,491	230	421	311	271	239	256
MAX	910	2,140	1,820	916	4,290	3,710	316	610	320	302	244	266
MIN	366	535	852	360	360	284	188	316	302	244	235	230
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1970	TOTAL 282,735	MEAN 775	MAX 3,230	MIN 199	CFSM -	IN. -						
WTR YR 1971	TOTAL 272,877	MEAN 748	MAX 4,290	MIN 188	CFSM -	IN. -						

03104760 Harthegig Run near Greenfield, Pa.

LOCATION.--Lat 41°11'10", long 80°19'38", Mercer County, on right bank at upstream end of wingwall of culvert on Legislative Route 43010 overpass of U. S. Interstate Highway 80, 1.3 miles upstream from mouth, 2 miles southeast of Greenfield, and 6 miles southwest of Mercer.

DRAINAGE AREA.--2.26 sq mi.

PERIOD OF RECORD.--Annual maximum, water years 1965-68. October 1968 to current year. Prior to October 1968 published as Little Neshannock Creek tributary near Greenfield and as Hathagig Run near Greenfield, October 1968 to September 1969.

GAGE.--Water-stage recorder, crest-stage gage, and culvert control. Datum of gage is 1,121.16 ft above mean sea level (Pennsylvania Department of Transportation bench mark). July 14, 1964, to Oct. 4, 1968, crest-stage gage at same site at datum 8.00 ft lower.

EXTREMES.--Current year: Maximum discharge, 141 cfs Feb. 20 (gage height, 1.98 ft), from rating curve extended above 57 cfs; minimum, 0.02 cfs Aug. 17, 19; minimum gage height, 1.02 ft July 6, 14, 15, 17, Aug. 17, 19.

Period of record: Maximum discharge, about 200 cfs Dec. 28, 1968, from rating curve extended above 57 cfs; maximum gage height, 2.96 ft Dec. 28, 1968 (ice jam); minimum discharge, 0.02 cfs Aug. 17, 19, 1971; minimum gage height, 1.02 ft July 6, 14, 15, 17, Aug. 17, 19, 1971.

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WRD Pa. 1970: 1969 (P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	9.6	5.1	1.2	.29	3.7	1.6	.73	.19	.14	.05	.05
2	.14	6.6	3.0	1.1	.26	2.7	2.1	.88	.19	.14	.05	.05
3	.09	11	4.7	1.0	.26	2.4	1.6	.88	.19	.14	.05	.05
4	.09	9.0	16	2.5	.30	2.2	1.3	.81	.17	.14	.05	.05
5	.09	4.7	5.1	20	13	2.4	1.4	.75	.17	.14	.05	.05
6	.09	4.3	2.9	6.0	8.9	4.4	1.5	9.9	.42	.14	.05	.05
7	.09	2.6	2.0	1.5	5.9	21	1.0	3.2	.87	.14	.05	.05
8	.09	1.7	2.0	.90	2.3	9.4	.75	6.1	2.1	.14	.05	.05
9	.09	1.5	2.3	.70	1.5	4.5	.90	2.6	.49	.14	.05	.05
10	.14	12	1.7	.60	.90	3.5	1.2	1.3	.25	.14	.05	.05
11	.58	7.8	7.8	.58	.70	4.6	1.3	.93	.17	.17	.05	.05
12	.19	7.8	20	.72	1.5	7.0	1.2	9.6	.14	.09	.05	.05
13	2.3	7.8	9.6	.88	6.0	20	.71	3.5	.20	.09	.05	.58
14	1.1	9.0	4.7	3.4	2.0	15	1.0	1.5	.17	.09	.05	.35
15	2.9	24	2.9	1.9	1.3	9.0	.74	.88	.19	.09	.05	.09
16	.72	8.4	3.2	1.1	1.5	5.1	.66	.72	.14	.09	.05	.09
17	.46	3.9	9.6	.80	3.0	3.2	1.8	.58	.12	.09	.05	.09
18	.26	2.9	6.1	.60	7.4	2.4	2.2	.46	.11	.09	.05	.09
19	.26	2.0	3.9	.46	34	6.1	1.2	.35	.09	.11	.05	.09
20	.19	5.1	2.9	.46	61	5.6	.83	.32	.09	.11	.14	.19
21	1.1	6.1	2.0	.46	17	4.8	.76	.30	4.6	.09	.09	.14
22	1.5	3.2	4.3	.46	33	5.0	.72	.28	.72	.05	.05	.09
23	.90	2.0	4.7	.72	26	3.2	.66	.27	.35	.05	.09	.09
24	.40	1.3	3.5	.72	8.0	2.8	.62	.26	.26	.05	.05	.09
25	.25	1.1	2.8	.88	10	2.6	.72	.45	.26	.05	.05	.09
26	.18	1.3	2.2	4.5	16	4.5	.72	.32	.26	.05	.05	.09
27	.19	1.7	1.8	5.6	18	5.1	.72	.28	.26	.05	.05	.46
28	.14	3.5	1.5	.77	6.0	4.7	.74	.26	.14	.05	.05	.19
29	.19	15	1.4	.52	-----	3.1	.76	.24	.14	.09	.05	.19
30	13	13	1.3	.40	-----	2.3	.85	.22	.14	.05	.05	.14
31	33	-----	1.2	.34	-----	1.7	-----	.19	-----	.05	.05	-----
TOTAL	60.81	189.9	142.2	61.77	286.01	174.0	32.26	49.06	13.59	3.05	1.72	3.74
MEAN	1.96	6.33	4.59	1.99	10.2	5.61	1.08	1.58	.45	.098	.056	.12
MAX	33	24	20	20	61	21	2.2	9.9	4.6	.17	.14	.58
MIN	.09	1.1	1.2	.34	.26	1.7	.62	.19	.09	.05	.05	.05
CFSM	.87	2.80	2.03	.88	4.51	2.48	.48	.70	.20	.04	.02	.05
IN.	1.00	3.13	2.34	1.02	4.71	2.86	.53	.81	.22	.05	.03	.06

CAL YR 1970 TOTAL 1.119.02 MEAN 3.07 MAX 33 MIN .09 CFSM 1.36 IN 18.42
WTR YR 1971 TOTAL 1.018.11 MEAN 2.79 MAX 61 MIN .05 CFSM 1.23 IN 16.76

PEAK DISCHARGE (BASE, 100 CFS, REVISED).--Feb. 20 (1230) 141 cfs (1.98 ft).

03105500 Beaver River at Wampum, Pa.

LOCATION.--Lat 40°53'19", long 80°20'14", Lawrence County, on right bank at downstream side of bridge on State Highway 288 at Wampum, 2.9 miles upstream from Connoquenessing Creek, and at mile 15.4.

DRAINAGE AREA.--2,235 sq mi.

PERIOD OF RECORD.--July 1914 to September 1918, August 1932 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 736.24 ft above mean sea level (Penn Central Railroad bench mark). Prior to Sept. 30, 1914, nonrecording gage at site 500 ft downstream at datum 0.76 ft lower. Oct. 1, 1914, to Sept. 30, 1918, nonrecording gage at site 1 mile upstream at datum 0.84 ft higher. Aug. 26, 1932, to Nov. 16, 1938, nonrecording gage at present site and datum. Since 1932, auxiliary gage 10 miles downstream at station at Beaver Falls which is used during periods of backwater from Connoquenessing Creek.

AVERAGE DISCHARGE.--43 years (1914-18, 1932-71), 2,299 cfs (13.97 inches per year) adjusted for storage since 1932.

EXTREMES.--Current year: Maximum discharge, 18,500 cfs Feb. 20 (gage height, 12.73 ft); minimum, 800 cfs Sept. 25 (gage height, 3.20 ft); minimum daily, 820 cfs Sept. 25.

Period of record: Maximum discharge, 50,100 cfs May 28, 1946, from slope-rating curve extended above 28,000 cfs on basis of contracted-opening measurement at gage height 21.44 ft; maximum gage height, 24.86 ft Jan. 22, 1959 (backwater from Connoquenessing Creek); minimum discharge observed, 74 cfs July 30, 1933 (gage height, 1.70 ft); minimum daily, 97 cfs July 22, Aug. 23, 1933.

Maximum stage since 1912, 29.9 ft Mar. 26, 1913, from floodmark (discharge, about 87,000 cfs).

REMARKS.--Records good. Flow regulated since 1942 by Berlin Lake, since 1916 by Milton Reservoir, since 1966 by Michael J. Kirwan Reservoir, since 1944 by Mosquito Creek Lake, since 1929 by Meander Creek Reservoir, since 1933 by Pymatuning Reservoir, and since 1967 by Shenango River Lake 40 miles upstream (see pp.272,273).

REVISIONS (WATER YEARS).--WSP 728: Drainage area. WSP 1385: 1933-40, 1946, 1951-52. WSP 1725: 1960 (adjusted runoff).

DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	5,230	5,240	2,650	962	9,180	1,770	980	870	1,010	970	850
2	1,020	3,750	4,390	2,410	905	7,760	1,780	990	870	1,030	940	890
3	1,090	3,440	4,050	2,240	930	7,400	1,770	970	1,190	1,020	960	910
4	1,000	3,590	6,240	3,760	961	7,500	1,650	960	970	990	970	900
5	962	3,620	6,020	6,070	2,980	7,700	1,470	920	890	950	1,010	880
6	963	3,690	5,270	4,400	4,920	8,300	1,340	2,310	1,690	950	960	860
7	981	3,470	4,430	3,080	3,730	11,300	1,280	2,760	1,860	950	910	940
8	960	3,230	4,030	2,400	2,890	10,300	1,230	2,860	2,160	940	910	940
9	970	3,060	3,960	2,170	2,310	7,260	1,200	2,560	1,770	1,040	900	930
10	970	3,040	3,910	2,120	2,010	6,440	1,160	2,100	1,320	1,080	910	890
11	1,630	3,430	3,970	2,050	1,950	5,080	1,050	1,740	1,000	1,560	950	930
12	1,920	3,260	6,420	2,020	2,020	4,660	1,010	1,950	860	1,410	930	950
13	3,190	3,330	8,050	1,940	2,330	6,240	1,000	2,430	920	1,090	890	1,410
14	2,330	3,370	6,800	2,530	2,200	7,300	1,190	2,130	1,090	1,000	890	1,770
15	2,220	6,080	5,360	2,630	2,170	7,060	1,250	1,740	1,080	910	880	1,400
16	2,100	6,480	4,690	1,920	2,050	6,300	1,200	1,520	1,060	940	880	1,190
17	1,920	5,120	5,430	1,500	2,540	5,100	1,140	1,510	1,010	930	880	1,010
18	1,740	4,480	5,690	1,300	3,710	4,040	1,450	1,450	980	900	880	910
19	1,610	4,300	5,220	1,240	7,960	3,890	1,390	1,370	970	910	870	940
20	1,560	4,230	4,760	1,190	15,000	4,580	1,200	1,100	950	1,160	960	950
21	1,790	4,660	4,350	1,160	15,800	4,480	1,090	980	1,730	1,040	1,460	980
22	2,200	4,190	4,400	1,120	13,600	4,720	1,020	940	1,580	990	1,280	980
23	1,880	3,900	4,870	1,120	16,000	4,240	950	900	1,200	970	1,440	950
24	1,710	3,610	4,800	1,070	11,700	3,620	910	880	970	1,070	1,090	870
25	1,590	3,450	4,250	1,110	9,440	3,280	880	1,040	990	1,040	950	820
26	1,540	3,380	3,920	1,310	10,700	3,150	880	1,110	970	1,000	970	880
27	1,500	3,400	3,430	1,190	12,600	3,180	860	1,060	950	1,030	1,090	890
28	1,450	3,540	3,300	1,120	11,600	3,180	850	950	940	940	1,000	1,120
29	1,430	3,930	3,000	1,130	-----	3,130	930	940	930	980	1,020	1,010
30	2,510	6,330	2,810	1,150	-----	2,550	990	940	940	1,010	970	1,070
31	7,920	-----	2,750	1,050	-----	2,020	-----	900	-----	1,030	890	-----
TOTAL	55,676	120,630	145,810	62,150	165,968	174,940	35,890	44,990	34,710	31,870	30,610	30,020
MEAN	1,796	4,021	4,704	2,005	5,927	5,643	1,196	1,451	1,157	1,028	987	1,001
MAX	7,920	6,480	8,050	6,070	16,000	11,300	1,780	2,860	2,160	1,560	1,460	1,770
MIN	960	3,040	2,750	1,050	905	2,020	850	880	860	900	870	820
MEAN [‡]	1,617	3,907	4,258	1,885	8,437	5,435	1,306	1,379	813	236	275	604
CFSM [‡]	.72	1.75	1.91	.84	3.77	2.43	.58	.62	.36	.11	.12	.27
IN. [‡]	.83	1.95	2.20	.97	3.93	2.80	.65	.71	.40	.13	.14	.30

CAL YR 1970 TOTAL 960,206 MEAN 2,631 MAX 12,300 MIN 850 MEAN[‡] 2,634 CFSM[‡] 1.18 IN.[‡] 16.00
WTR YR 1971 TOTAL 933,264 MEAN 2,557 MAX 16,000 MIN 820 MEAN[‡] 2,474 CFSM[‡] 1.11 IN.[‡] 15.01

[‡] Adjusted for change in contents in Berlin Lake, Milton Reservoir, Michael J. Kirwan Reservoir, Mosquito Creek Lake, Meander Creek Reservoir, Pymatuning Reservoir, and Shenango River Lake.

BEAVER RIVER BASIN

03106000 Connoquenessing Creek near Zelienople, Pa.

LOCATION.--Lat 40°49'01", long 80°14'33", Beaver County, on right bank at downstream side of highway bridge at Hazen, 0.3 mile upstream from Brush Creek, 4 miles southeast of Ellwood City, and 6 miles west of Zelienople.

DRAINAGE AREA.--356 sq mi.

PERIOD OF RECORD.--October 1919 to current year. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania. Published as "at Hazen" 1915-16, 1929-63, and as "near Hazen" 1917-28. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 852.31 ft above mean sea level, adjustment of 1912. Prior to June 23, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--52 years, 458 cfs (17.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,480 cfs Feb. 22 (gage height, 9.61 ft); minimum, 17 cfs Aug. 19, 20 (gage height, 0.81 ft).

Period of record: Maximum discharge, 23,000 cfs June 29, 1924 (gage height, 16.66 ft), from rating curve extended above 18,000 cfs; minimum observed, 6.0 cfs July 21-23, 1936; minimum gage height, 0.76 ft Aug. 8, Sept. 16-17, 1966.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by mills above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 893: 1937-38, 1939(M). WSP 1305: 1922-26, 1928. WSP 1335: 1920-21, 1924(M). WSP 1335: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	2,300	813	329	150	1,040	374	116	87	57	45	42
2	74	2,380	711	303	140	837	356	114	85	63	39	36
3	101	1,740	758	262	140	727	355	121	99	64	46	128
4	121	1,670	2,020	667	160	626	316	119	106	51	66	104
5	81	1,220	1,430	2,060	1,300	609	291	108	90	48	65	56
6	66	924	1,060	1,290	1,980	566	272	600	586	45	51	43
7	68	726	804	853	652	1,500	256	805	1,080	43	40	37
8	62	581	665	614	468	1,380	248	755	469	43	32	34
9	54	478	601	605	337	972	227	735	303	41	32	30
10	52	527	547	511	280	815	216	560	221	43	29	29
11	361	772	508	443	260	855	206	452	163	223	28	46
12	1,260	680	1,900	383	250	839	181	404	134	421	26	77
13	727	700	2,110	320	300	1,840	174	530	162	129	27	247
14	545	712	1,490	411	400	1,740	196	444	563	80	26	378
15	518	1,060	1,060	498	700	1,610	184	356	450	65	26	315
16	426	986	855	349	500	1,350	161	313	291	73	25	152
17	330	815	1,030	295	400	1,030	162	292	219	71	28	209
18	274	672	932	260	700	792	246	256	170	57	22	160
19	232	594	815	230	2,600	764	215	223	134	54	18	168
20	192	522	737	210	4,100	1,170	175	196	113	62	19	446
21	404	568	628	200	3,290	971	166	169	338	78	25	264
22	1,090	460	670	190	3,820	955	163	148	304	53	363	180
23	724	414	771	180	4,520	843	155	131	176	43	194	130
24	535	348	696	170	2,070	763	143	119	124	39	131	108
25	420	314	596	160	1,250	668	138	135	115	48	68	91
26	342	293	555	180	1,250	597	132	175	101	60	61	95
27	284	289	495	170	1,680	539	125	131	85	67	73	131
28	244	290	463	160	1,460	497	122	115	77	67	115	107
29	212	346	417	170	-----	483	123	104	71	49	88	87
30	1,080	1,090	341	160	-----	453	122	101	63	56	59	97
31	3,950	-----	332	150	-----	410	-----	95	-----	57	47	-----
TOTAL	14,914	24,471	26,810	12,783	35,157	28,241	6,200	8,922	6,979	2,350	1,914	4,027
MEAN	481	816	865	412	1,256	911	207	288	233	75.8	61.7	134
MAX	3,950	2,380	2,110	2,060	4,520	1,840	374	805	1,080	421	363	446
MIN	52	289	332	150	140	410	122	95	63	39	18	29
CFSM	1.35	2.29	2.43	1.16	3.53	2.56	.58	.81	.65	.21	.17	.38
IN.	1.56	2.56	2.80	1.34	3.67	2.95	.65	.93	.73	.25	.20	.42

CAL YR 1970 TOTAL 179,911 MEAN 493 MAX 4,850 MIN 29 CFSM 1.38 IN 18.80
WTR YR 1971 TOTAL 172,768 MEAN 473 MAX 4,520 MIN 18 CFSM 1.33 IN 18.05

PEAK DISCHARGE (BASE, 5,000 CFS).--Feb. 22 (2130) 6,480 cfs (9.61 ft).

BEAVER RIVER BASIN

269

03106300 Muddy Creek near Portersville, Pa.

LOCATION.--Lat 40°57'47", long 80°07'41", Butler County, on left bank at upstream side of highway bridge on blacktop road at Portersville Station, 0.1 mile north of U. S. Highway 422, 0.5 mile downstream from Lake Arthur Dam, and 3 miles north of Portersville.

DRAINAGE AREA.--51.2 sq mi.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,155.20 ft above mean sea level. Prior to Apr. 8, 1963, non-recording gage at site 1,000 ft downstream at different datum. Apr. 8 to May 1, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--8 years, 63.6 cfs (16.87 inches per year) adjusted for storage since May 1969.

EXTREMES.--Current year: Maximum discharge, 480 cfs Feb. 23 (gage height, 3.90 ft); minimum daily, 1.3 cfs Sept. 24, 25.

Period of record: Maximum discharge, 1,640 cfs Mar. 10, 1964 (gage height, 8.18 ft), from rating curve extended above 820 cfs on basis of slope-area measurement of peak flow; minimum, 0.4 cfs Sept. 17, 1966; minimum gage height, 1.11 ft June 18, 1967.

REMARKS.--Records good. Some regulation from October 1966 to May 1969 and completely regulated thereafter by Lake Arthur 0.5 mile upstream (see p. 273). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	338	103	71	35	338	89	22	23	16	5.1	6.3
2	10	350	97	68	32	303	85	22	23	16	4.2	6.7
3	11	343	103	63	30	273	78	22	24	14	5.5	7.1
4	9.0	315	125	80	31	253	73	20	24	12	6.3	7.5
5	9.0	298	145	109	48	218	68	22	23	10	6.3	7.1
6	8.1	260	135	119	65	195	65	45	56	7.1	4.5	7.5
7	7.8	220	140	116	71	210	55	58	87	5.9	3.4	9.3
8	7.7	200	135	107	76	203	54	73	89	5.1	3.0	9.8
9	8.4	170	125	99	85	188	51	82	85	5.5	2.2	10
10	7.9	180	119	93	78	172	47	83	80	6.3	4.5	9.8
11	31	200	116	85	71	162	47	83	71	14	7.5	10
12	61	200	138	80	66	158	46	87	63	16	7.9	9.8
13	100	190	153	74	76	173	44	97	62	12	7.9	10
14	115	180	158	78	82	183	42	93	62	9.3	7.9	7.5
15	112	200	160	76	76	198	41	91	63	8.3	7.1	4.0
16	107	200	165	71	73	203	37	85	59	8.3	7.1	4.2
17	99	190	160	66	74	198	39	83	53	6.3	7.1	4.2
18	87	173	163	62	78	188	41	76	48	5.5	7.1	4.5
19	82	163	153	58	101	185	40	69	44	5.5	7.1	6.3
20	76	153	145	54	183	185	38	63	40	5.5	7.1	4.8
21	87	142	140	52	265	180	35	56	42	4.8	7.1	2.6
22	103	160	135	50	360	173	31	50	40	4.0	7.1	2.8
23	105	140	133	47	463	163	31	46	37	3.4	7.5	1.9
24	97	130	119	45	463	155	26	44	33	3.6	7.1	1.3
25	91	120	119	44	418	143	25	42	30	4.2	6.7	1.3
26	85	110	107	45	388	130	24	39	26	4.2	6.7	1.9
27	74	100	103	44	390	119	25	36	24	4.2	7.1	1.8
28	68	101	101	42	373	112	23	34	23	4.0	7.1	1.8
29	133	100	89	41	-----	105	22	32	20	5.1	7.1	3.0
30	250	101	89	41	-----	99	22	28	18	5.9	6.3	4.5
31	303	-----	76	38	-----	93	-----	24	-----	4.5	6.3	-----
TOTAL	2,354.5	5,727	3,943	2,118	4,551	5,658	1,344	1,707	1,372	236.5	194.9	169.3
MEAN	76.0	191	127	68.3	163	183	44.8	55.1	45.7	7.63	6.29	5.64
MAX	303	350	165	119	463	338	89	97	89	16	7.9	10
MIN	7.7	100	76	38	30	93	22	20	18	3.4	2.2	1.3
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1970	TOTAL 20,677.6	MEAN 56.7	MAX 388	MIN 7.7	CFSM -	IN. -
WTR YR 1971	TOTAL 29,375.2	MEAN 80.5	MAX 463	MIN 1.3	CFSM -	IN. -

BEAVER RIVER BASIN

03106500 Slippery Rock Creek at Wurtensburg, Pa.

LOCATION.--Lat 40°53'02", long 80°14'02", Lawrence County, on left bank at downstream side of highway bridge at Camp Allegheny, 2 miles north of Wurtensburg, and 2.8 miles upstream from mouth.

Drainage area.--398 sq mi.

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 831.40 ft above mean sea level, adjustment of 1907. Jan. 1, 1912, to Sept. 30, 1922, nonrecording gage at site 1.5 miles downstream at datum 13.77 ft lower and Oct. 1, 1922, to Sept. 30, 1940, nonrecording gage at site 2 miles downstream at datum 18.92 ft lower.

AVERAGE DISCHARGE.--60 years, 552 cfs (18.83 inches per year) adjusted for storage since May 1969.

EXTREMES.--Current year: Maximum discharge, 6,260 cfs Feb. 22 (gage height, 6.67 ft); minimum, not determined; minimum daily, 50 cfs Aug. 20.

Period of record: Maximum discharge, 19,000 cfs Jan. 25, 1937 (gage height, 12.05 ft, from floodmark, site and datum then in use), from rating curve extended above 8,000 cfs; minimum observed, 16 cfs Sept. 13, 1932.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation since May, 1969 by Lake Arthur 13 miles upstream (see p. 273). Records of chemical analyses, water temperatures, and suspended sediment loads for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 743: Drainage area. WSP 1305: 1914-18, 1920-22, 1923-24(M), 1925-28, 1930. WSP 1385: 1932, 1935, 1936(M), 1937-39. WSP 1625: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	3,490	1,300	470	230	2,270	606	223	154	142	99	77
2	106	2,700	858	440	230	1,690	605	221	157	155	87	74
3	121	2,200	759	390	220	1,360	601	230	178	143	85	82
4	116	2,100	1,590	848	260	1,070	516	224	176	125	110	74
5	109	1,760	1,570	2,020	841	972	457	209	147	110	100	69
6	96	1,430	1,150	1,370	1,470	1,020	427	932	1,000	101	90	65
7	92	1,170	873	730	1,270	1,810	394	1,340	878	99	80	64
8	86	889	739	555	934	1,840	365	1,330	949	92	74	60
9	83	731	703	525	631	1,350	341	1,280	932	95	66	58
10	83	745	684	495	500	1,110	341	869	456	186	62	59
11	618	1,150	668	450	450	1,070	329	652	310	219	58	58
12	1,290	1,150	1,760	445	400	1,090	304	620	257	206	56	64
13	1,620	1,020	2,250	370	420	1,500	293	736	266	176	54	153
14	1,480	999	1,720	505	500	1,830	311	688	553	156	54	437
15	1,090	1,600	1,280	706	540	2,010	326	505	451	140	56	315
16	783	1,740	1,040	460	480	1,830	295	410	313	115	62	183
17	541	1,320	1,300	350	440	1,500	296	380	255	100	59	131
18	428	1,010	1,400	293	700	1,200	448	355	222	91	54	116
19	355	810	1,200	280	1,700	1,170	389	302	202	89	52	120
20	310	744	1,040	270	3,800	1,480	306	272	187	123	50	191
21	455	1,010	883	260	5,010	1,360	278	250	466	183	64	291
22	990	913	862	260	5,060	1,280	267	234	733	122	120	197
23	810	681	1,060	250	5,670	1,120	257	221	362	95	250	142
24	570	561	946	250	4,060	946	237	209	238	88	240	114
25	460	503	760	240	2,630	818	228	219	197	92	100	99
26	390	481	652	270	2,460	777	228	239	178	95	56	98
27	341	494	590	250	3,280	790	222	222	170	93	70	101
28	311	538	580	240	3,240	820	222	197	162	86	130	125
29	285	671	530	260	-----	827	232	185	147	96	100	188
30	1,010	1,550	495	250	-----	754	235	172	137	124	88	179
31	3,990	-----	455	240	-----	669	-----	164	-----	123	78	-----
TOTAL	19,127	36,160	31,703	14,742	47,426	39,333	10,356	14,090	10,833	3,860	2,704	3,984
MEAN	617	1,205	1,023	476	1,694	1,269	345	455	361	125	87.2	133
MAX	3,990	3,490	2,250	2,020	5,670	2,270	606	1,340	1,000	219	250	437
MIN	83	481	455	240	220	669	222	164	137	86	50	58
(f)	+38.0	-8.6	-5.7	-9.4	+61.9	-42.0	-22.5	+1.6	-3.4	-7.8	-10.2	+10.6
MEAN#	655	1,196	1,017	467	1,756	1,227	322	457	358	117	77.0	144
CFSM#	1.65	3.00	2.56	1.17	4.41	3.08	.81	1.15	.90	.29	.19	.36
IN.#	1.90	3.35	2.95	1.35	4.59	3.55	.90	1.33	1.00	.33	.22	.40
CAL YR 1970	TOTAL 241,454		MEAN 662		MAX 4,990	MIN 80	MEAN# 691	CFSM# 1.74	IN.# 23.56			
WTR YR 1971	TOTAL 234,320		MEAN 642		MAX 5,670	MIN 50	MEAN# 642	CFSM# 1.61	IN.# 21.87			

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	# Adjusted for change in contents in Lake Arthur.
10-31	1030	5.65	4,380	2-22	2000	6.67	6,260	
2-20	2100	6.20	5,560					

BEAVER RIVER BASIN

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03107500 Beaver River at Beaver Falls, Pa.

LOCATION.--Lat 40°45'48", long 80°18'55", Beaver County, on left bank at Beaver Falls, 200 ft upstream from pumping plant of Beaver Falls Municipal Authority, 7.0 miles downstream from Connoquenessing Creek, and at mile 5.5.

DRAINAGE AREA.--3,106 sq mi.

PERIOD OF RECORD.--October 1935 to current year (fragmentary records only prior to October 1956). Gage-height records collected at same site since 1908 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 727.48 ft above mean sea level, (Corps of Engineers bench mark). Prior to Dec. 3, 1941, nonrecording gage at site 200 ft downstream at same datum.

AVERAGE DISCHARGE.--15 years (1956-71), 3,221 cfs (14.08 inches per year) adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 28,100 cfs Feb. 22 (gage height, 9.70 ft); minimum not determined; minimum gage height, 3.84 ft Aug. 19, 20; minimum daily discharge, 949 cfs Aug. 19.

Period of record: Maximum discharge, 69,900 cfs Jan. 22, 1959 (gage height, 14.42 ft); minimum not determined.

Flood of Mar. 27, 1913 reached a stage of 17.4 ft (discharge, 103,000 cfs, from rating curve extended above 60,000 cfs).

REMARKS.--Records good above 2,000 cfs and fair below except those below 1,200 cfs, which are poor. Flow regulated since 1942 by Berlin Lake, since 1916 by Milton Reservoir, since 1966 by Michael J. Kirwan Reservoir, since 1943 by Mosquito Creek Lake, since 1929 by Meander Creek Reservoir, since 1933 by Pymatuning Reservoir, since 1967 by Shenango River Lake, and since 1969 by Lake Arthur (see pp. 272, 273).

REVISIONS (WATER YEARS).--WSP 1725: 1960 (adjusted runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	1,250	11,900	7,430	3,600	1,520	13,000	2,860	1,430	1,400	1,340	1,210	1,060			
2	1,190	9,310	6,010	3,310	1,450	10,600	2,820	1,430	1,370	1,320	1,200	1,020			
3	1,260	7,590	5,480	3,040	1,390	9,460	2,840	1,450	1,510	1,320	1,210	1,050			
4	1,260	7,590	9,340	4,800	1,380	9,070	2,640	1,450	1,530	1,310	1,230	1,140			
5	1,210	6,760	9,340	10,300	4,060	8,990	2,360	1,440	1,500	1,290	1,230	1,060			
6	1,170	6,090	7,680	7,610	8,960	9,570	2,150	2,630	2,400	1,270	1,200	1,010			
7	1,150	5,400	6,280	5,030	5,670	13,600	2,030	5,330	4,480	1,240	1,090	1,030			
8	1,150	4,780	5,480	3,750	4,450	14,000	1,950	4,870	3,590	1,230	1,060	1,030			
9	1,120	4,380	5,220	3,430	3,380	9,990	1,860	4,990	3,250	1,220	1,040	1,030			
10	1,110	4,350	5,150	3,360	2,910	8,450	1,810	3,890	2,260	1,230	1,070	992			
11	2,460	5,420	5,000	3,200	2,830	7,120	1,700	3,160	1,680	1,900	1,050	1,040			
12	4,580	5,150	9,410	3,090	2,950	6,570	1,610	3,050	1,530	2,330	1,030	1,140			
13	5,290	5,080	12,800	2,880	3,530	9,580	1,550	3,900	1,550	1,580	1,000	1,600			
14	4,620	5,150	10,400	3,450	3,790	11,100	1,680	3,550	2,270	1,510	996	2,570			
15	3,990	8,500	7,900	4,000	3,490	11,000	1,840	2,930	2,300	1,460	992	2,240			
16	3,610	9,370	6,660	3,070	3,240	9,930	1,750	2,550	1,880	1,410	965	1,610			
17	3,110	7,410	7,450	2,420	3,450	8,030	1,650	2,420	1,650	1,370	974	1,370			
18	2,740	6,260	8,050	2,030	5,430	6,240	2,070	2,320	1,530	1,330	970	1,290			
19	2,490	5,740	7,290	1,940	11,400	5,780	2,160	2,150	1,510	1,290	949	1,260			
20	2,340	5,470	6,600	1,880	20,900	7,300	1,810	1,830	1,490	1,280	988	1,590			
21	2,830	6,090	5,950	1,840	24,000	6,930	1,620	1,590	2,630	1,280	1,370	1,610			
22	4,620	5,540	5,780	1,850	21,000	6,940	1,540	1,530	2,930	1,280	1,870	1,430			
23	3,830	4,970	6,630	1,890	25,400	6,410	1,510	1,510	2,010	1,260	2,000	1,290			
24	3,190	4,510	6,470	1,770	18,300	5,480	1,490	1,490	1,570	1,250	1,630	1,160			
25	2,840	4,210	5,750	1,810	13,700	4,930	1,470	1,540	1,510	1,250	1,240	1,110			
26	2,620	4,110	5,210	2,060	14,300	4,640	1,440	1,670	1,500	1,230	1,180	1,130			
27	2,450	4,150	4,640	1,870	16,600	4,580	1,420	1,610	1,470	1,230	1,230	1,170			
28	2,320	4,300	4,390	1,690	16,400	4,540	1,400	1,510	1,440	1,220	1,220	1,310			
29	2,240	4,800	4,060	1,800	-----	4,510	1,400	1,490	1,400	1,210	1,210	1,300			
30	4,280	8,730	3,710	1,800	-----	3,930	1,410	1,470	1,360	1,210	1,160	1,370			
31	15,100	-----	3,610	1,650	-----	3,250	-----	1,440	-----	1,210	1,080	-----			
TOTAL	93,420	183,110	205,670	96,220	245,880	245,520	55,840	73,620	58,500	41,860	36,644	39,012			
MEAN	3,014	6,104	6,635	3,104	8,781	7,920	1,861	2,375	1,950	1,350	1,182	1,300			
MAX	15,100	11,900	12,800	10,300	25,400	14,000	2,860	5,330	4,480	2,330	2,000	2,570			
MIN	1,110	4,110	3,610	1,650	1,380	3,250	1,400	1,430	1,360	1,210	949	992			
MEAN#	2,873	5,981	6,183	2,975	11,350	7,670	1,943	2,305	1,603	550	460	914			
CFSM#	.92	1.93	1.99	.96	3.65	2.47	.63	.74	.52	.18	.15	.29			
IN.#	1.06	2.15	2.29	1.11	3.80	2.85	.70	.85	.58	.21	.17	.32			
CAL YR	1970	TOTAL	1,419,530	MEAN	3,889	MAX	21,300	MIN	1,070	MEAN#	3,922	CFSM#	1.26	IN.#	17.14
WTR YR	1971	TOTAL	1,375,296	MEAN	3,768	MAX	25,400	MIN	949	MEAN#	3,684	CFSM#	1.19	IN.#	16.09

Adjusted for change in contents in Berlin Lake, Milton Reservoir, Michael J. Kirwan Reservoir, Mosquito Creek Lake, Meander Creek Reservoir, Pymatuning Reservoir, Shenango River Lake, and Lake Arthur.

BEAVER RIVER BASIN

Reservoirs in Beaver River basin

03090000 BERLIN LAKE (formerly published as Berlin Reservoir).--Lat 41°02'46", long 81°00'10", in T. 1 N., R. 6 W., Portage County (corrected), Ohio, at dam on Mahoning River, 3.2 miles northwest of Berlin Center, Ohio. Drainage area, 248 sq mi. Period of record, December 1942 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 77,030 acre-ft Feb. 24 (elevation, 1,029.23 ft); minimum, 16,920 acre-ft Sept. 30 (elevation, 1,005.05 ft). Extremes for period of record: Maximum contents, 91,150 acre-ft July 8, 1943 (elevation, 1,032.0 ft); minimum, 1,540 acre-ft Jan. 10, 1944 (elevation, 978.82 ft).

Reservoir is formed by earth dam with concrete spillway. Storage began in December 1942. Capacity at top of crest gates (elevation, 1,032.0 ft), 91,150 acre-ft. No dead storage. Figures given herein represent usable contents. Reservoir is used for flood control, to augment flow of Mahoning River during periods of low flow, and for recreation. Water used for industrial purposes in vicinity of Warren and Youngstown, Ohio. Records furnished by Corps of Engineers.

03091000 MILTON RESERVOIR.--Lat 41°07'38", long 80°58'40", in T. 2 N., R. 5 W., Mahoning County, Ohio, at dam on Mahoning River, 0.8 mile southwest of Pricetown, Ohio. Drainage area, 273 sq mi. Period of record, December 1923 to current year. Monthend contents for some periods, published in WSP 1305. Water-stage recorder. Datum of gage is at mean sea level (levels by city of Youngstown). Prior to Oct. 7, 1941, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 30,750 acre-ft Mar. 5 (elevation, 951.78 ft); minimum, 11,180 acre-ft Mar. 29 (elevation, 939.04 ft). Extremes for period of record: Maximum contents, 35,020 acre-ft June 29, 1924 (elevation, 953.8 ft); minimum, 1,220 acre-ft Jan. 23, 1954 (elevation, 924.27 ft, from graph based on gage readings).

Reservoir is formed by earth dam with concrete spillway. Storage began in 1916. Capacity at spillway level (elevation, 951 ft), 29,150 acre-ft. No dead storage. Figures given herein represent usable contents. Reservoir is used to augment flow of Mahoning River during periods of low flow and for recreation. Water used for industrial purposes in vicinity of Warren and Youngstown, Ohio. Capacity table computed from base data furnished by city of Youngstown, Ohio, Division of Water.

03092450 MICHAEL J. KIRWAN RESERVOIR.--Lat 41°09'24", long 81°04'47", in T. 3 N., R. 6 W., Portage County, Ohio, at dam on West Branch Mahoning River, 0.5 mile southwest of Wayland, Ohio. Drainage area, 80.5 sq mi. Period of record, December 1966 to current year. Prior to October 1969 published as "West Branch Reservoir". Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 55,590 acre-ft Feb. 24 (elevation, 985.10 ft); minimum, 34,550 acre-ft Sept. 30 (elevation, 975.95 ft). Extremes for period of record: Maximum contents, 61,800 acre-ft May 21, 1969 (elevation, 987.39 ft); minimum, 5,370 acre-ft Jan. 5, 1967 (elevation, 953.50 ft).

Reservoir is formed by earth dam with concrete spillway. Storage began in December 1966. Capacity of reservoir at spillway level (elevation, 993.0 ft), 78,740 acre-ft; at minimum pool (elevation, 951.0 ft), 3,830 acre-ft. Dead storage, 85 acre-ft. Flow is controlled by gates in concrete conduits through dam. Reservoir is used for flood control, to augment flow of Mahoning River during periods of low flow, and for recreation. Records furnished by Corps of Engineers.

03095000 MOSQUITO CREEK LAKE (formerly published as Mosquito Creek Reservoir).--Lat 41°17'58", long 80°45'31", in T. 5 N., R. 3 W., Trumbull County, Ohio, at dam on Mosquito Creek, 3 miles southwest of Cortland, Ohio. Drainage area, 97.5 sq mi. Period of record, October 1943 to current year. Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 79,310 acre-ft May 13 (elevation, 901.26 ft); minimum, 47,390 acre-ft Sept. 27, 30 (elevation, 896.59 ft). Extremes for period of record: Maximum contents, 99,100 acre-ft (corrected) June 3, 1947 (elevation, 903.65 ft); minimum, 8,600 acre-ft (corrected) Nov. 16, 1944 (elevation, 886.97 ft).

Reservoir is formed by earth dam. A natural wasteway (elevation, 903.5 ft) discharges into Grand River basin. Storage began October 1943. Capacity established at reservoir-full level (elevation 904.00 ft), 102,200 acre-ft. Dead storage, below 881.0 ft, 2,000 acre-ft. Figures given herein represent usable contents. Reservoir is used for flood control and to augment flow of Mahoning River during periods of low flow, and for recreation. Flow is controlled by gates in concrete conduits through dam. Water used for industrial purposes in vicinity of Warren and Youngstown, Ohio, and for municipal supply of city of Warren, Ohio. Records furnished by Corps of Engineers.

03097000 MEANDER CREEK RESERVOIR.--Lat 41°09'12", long 80°46'45", in T. 3 N., R. 3 W., Trumbull County, Ohio, on right side of spillway near center of dam on Meander Creek, 0.8 mile northwest of Mineral Ridge, Ohio. Drainage area, 83.9 sq mi. Period of record, November 1929 to current year. Monthend contents for some periods, published in WSP 1305. Water-stage recorder. Datum of gage is at mean sea level (levels by Mahoning Valley Sanitary District). Extremes for current year: Maximum contents, 37,950 acre-ft Feb. 23 (elevation, 907.61 ft); minimum, 22,550 acre-ft Sept. 30 (elevation, 899.41 ft). Extremes for period of record: Maximum contents, 41,800 acre-ft Jan. 21, 1959 (elevation, 909.25 ft); minimum, 9,370 acre-ft Feb. 28, 1954 (elevation, 898.78 ft).

Reservoir is formed by earth dam with concrete spillway. Storage began in 1929. Capacity at spillway level (elevation, 905 ft), 32,410 acre-ft. No dead storage. Figures given herein represent usable contents. Water used for municipal supply of cities of Niles and Youngstown, Ohio. Gage-height record furnished by Corps of Engineers. Capacity table computed from base data furnished by Mahoning Valley Sanitary District.

03100500 PYMATUNING RESERVOIR.--Lat 41°29'54", long 80°27'47", Crawford County, in gatehouse at Pymatuning Dam on Shenango River, 1.8 miles northwest of Jamestown, Pa., and at mile 85.1. Drainage area, 158 sq mi. Period of record, October 1932 to current year. Contents prior to October 1938 published in WSP 1305. Water-stage recorder. Datum of gage is at mean sea level, adjustment of 1907. Prior to Nov. 20, 1934, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 196,660 acre-ft Apr. 9 (elevation, 1,008.59 ft); minimum, 131,440 acre-ft Jan. 13 (elevation, 1,003.85 ft). Extremes for period of record: Maximum contents, 208,120 acre-ft May 14, 1956 (elevation, 1,009.36 ft); minimum, 30 acre-ft Oct. 15, 16, 19, 1933 (elevation, 975.70 ft) but may have been less during water year 1933 when Pymatuning Dam was under construction.

Reservoir is formed in two parts. The main dam is earthfill with stone facing, provided with regulating gates (outlet gate sill elevation at 975.3 ft), and a spillway with crest elevation at 1,008.0 ft. An auxiliary dam 15 miles upstream from the main dam with spillway elevation at 1,010 ft has a fixed crest weir section in the earthfill causeway. Storage began Jan. 23, 1934 when all regulating gates were closed. Capacity, 188,040 acre-ft between elevations 975.3 ft and 1,008.0 ft. Dead storage, 10,150 acre-ft (93 acre-ft behind main dam below elevation 975.3 ft and 10,060 acre-ft behind upstream dam below elevation 1,010 ft). Upstream pool was filled (all dead storage accumulated) on March 5, 1934. Figures given herein represent usable contents. Reservoir is used to regulate flow in Shenango River, for flood control, and for recreation. Dams built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

03103400 SHENANGO RIVER LAKE (formerly published as Shenango River Reservoir).--Lat 41°15'54", long 80°27'47", Mercer County, at control house at right end of Shenango River Dam on Shenango River, at Sharpsville, Pa., 2.5 miles upstream from McCullough Run and at mile 55.8. Drainage area, 583 sq mi. Period of record, January 1967 to current year. Water-stage recorder. Datum of gage is at mean sea level, datum of Corps of Engineers, which is 0.67 ft above mean sea level. Extremes for current year: Maximum contents, 56,400 acre-ft Feb. 24 (elevation, 900.02 ft); minimum, 13,630 acre-ft Mar. 10 (elevation, 886.27 ft). Extremes for period of record: Maximum contents, 70,940 acre-ft Feb. 3, 1968 (elevation, 903.23 ft); minimum, 773 acre-ft Feb. 13, 1967 (elevation, 874.78 ft).

Reservoir is formed by a concrete gravity dam with a fixed crest spillway. Fully controlled storage began in January 1967. Flow is controlled by gates in conduits through spillway section. Capacity of reservoir at full pool (elevation, 919.0 ft) is 191,360 acre-ft; at minimum pool (elevation, 885.0 ft) 11,080 acre-ft. Winter low-water pool elevation is normally at minimum pool; normally, summer low-water pool elevation is 896.0 ft (capacity, 41,000 acre-ft). Storage to summer pool normally occurs during period Mar. 15 to Apr. 30. Figures given herein represent total contents. Reservoir is used for flood control, low-flow augmentation, water-quality control of Shenango River and downstream rivers, and recreation. Records furnished by Corps of Engineers.

03106280 LAKE ARTHUR.--Lat 40°57'45", long 80°07'17", Butler County, in gatehouse at left end of spillway of Lake Arthur Dam on Muddy Creek, at Moraine State Park, 3 miles northeast of Portersville, Pa. Drainage area, 50.8 sq mi. Period of record, May 1969 to current year. Water-stage recorder. Datum of gage is at mean sea level (Pennsylvania Department of Environmental Resources bench mark). Prior to Aug. 23, 1969, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 43,150 acre-ft Feb. 24 (elevation, 1,191.69 ft); minimum, 36,670 acre-ft Sept. 11 (elevation, 1,189.69 ft). Extremes for period of record: Maximum contents, 39,940 acre-ft Apr. 27, 1970 (elevation, 1,190.73 ft); minimum not determined, occurred prior to May 15, 1969, when gate was closed to begin filling reservoir.

Reservoir is formed by an earthenfill dam with concrete spillway; storage began May 15, 1969. Usable capacity, 37,000 acre-ft between elevations 1,160 ft (sill of 6-foot outlet gate) and 1,189.8 ft (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

MONTHLY ELEVATION AND CONTENTS AT 24007 WALKER LAKE OCTOBER 1970 TO SEPTEMBER 1971						
Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
		<u>03090000 Berlin Lake</u>		<u>03091000 Milton Reservoir</u>		
Sept. 30.....	1,010.43	24,000	-	947.44	22,550	-
Oct. 31.....	1,013.96	30,050	+98.4	943.53	16,630	-96.3
Nov. 30.....	1,020.51	45,080	+253	941.82	14,430	-37.0
Dec. 31.....	1,018.11	38,890	-101	940.82	13,230	-19.5
CAL YR 1970.....	-	-	-6	-	-	-6.7
Jan. 31.....	1,017.02	36,360	-41.1	939.41	11,600	-26.5
Feb. 28.....	1,028.77	74,890	+694	944.33	17,720	+110
Mar. 31.....	1,024.94	59,160	-256	940.29	12,600	-83.3
Apr. 30.....	1,020.49	45,020	-238	948.19	23,860	+189
May 31.....	1,021.21	47,050	+33.0	947.48	22,620	-20.2
June 30.....	1,021.38	47,550	+8.4	948.10	23,700	+18.2
July 31.....	1,017.60	37,700	-160	947.89	23,330	-6.0
Aug. 31.....	1,011.04	24,950	-207	947.85	23,260	-1.1
Sept. 30.....	1,005.05	16,920	-135	947.95	23,430	+2.9
WTR YR 1971.....	-	-	-9.8	-	-	+1.2
		<u>03092450 Michael J. Kirwan Reservoir</u>		<u>03095000 Mosquito Creek Lake</u>		
Sept. 30.....	982.26	48,420	-	899.12	63,560	-
Oct. 31.....	981.42	46,400	-32.9	899.12	63,560	0
Nov. 30.....	980.79	44,920	-24.9	899.18	63,980	+7.1
Dec. 31.....	979.75	42,550	-38.5	899.13	63,630	-5.7
CAL YR 1970.....	-	-	+10.4	-	-	+8.8
Jan. 31.....	979.84	42,750	+3.3	899.02	62,850	-12.7
Feb. 28.....	983.70	51,990	+166	901.19	78,760	+286
Mar. 31.....	984.40	53,780	+29.1	901.14	78,360	-6.5
Apr. 30.....	984.28	53,470	-5.2	901.13	78,290	-1.2
May 31.....	984.40	53,780	+5.0	901.12	78,210	-1.3
June 30.....	981.79	47,280	-109	900.32	72,170	-102
July 31.....	979.72	42,480	-78.1	898.68	60,580	-188
Aug. 31.....	978.02	38,770	-60.3	897.22	51,170	-153
Sept. 30.....	975.95	34,550	-70.9	896.59	47,390	-63.5
WTR YR 1971.....	-	-	-19.2	-	-	-22.3

BEAVER RIVER BASIN

Reservoirs in Beaver River basin-Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1970 to SEPTEMBER 1971

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
<u>03097000 Meander Creek Reservoir</u>				<u>03100500 Pymatuning Reservoir</u>		
Sept. 30.....	901.95	26,730	-	1,005.58	154,170	-
Oct. 31.....	900.57	24,400	-37.9	1,005.13	148,140	-98.0
Nov. 30.....	901.74	26,370	+33.1	1,005.07	147,340	-13.4
Dec. 31.....	903.94	30,360	+64.9	1,004.21	136,080	-183
CAL YR 1970.....	-	-	+16.2	-	-	-18.3
Jan. 31.....	903.57	29,670	-11.2	1,004.01	133,500	-42.0
Feb. 28.....	906.67	35,870	+112	1,006.51	166,890	+601
Mar. 31.....	906.35	35,180	-11.2	1,008.25	191,680	+403
Apr. 30.....	905.02	32,450	-45.9	1,007.90	186,590	-85.5
May 31.....	904.50	31,440	-16.4	1,007.69	183,570	-49.1
June 30.....	903.27	29,100	-39.3	1,007.36	178,840	-79.5
July 31.....	901.88	26,610	-40.5	1,006.55	167,440	-185
Aug. 31.....	900.45	24,210	-39.0	1,005.87	158,100	-152
Sept. 30.....	899.41	22,550	-27.9	1,005.75	156,470	-27.4
WTR YR 1971.....	-	-	-5.8	-	-	+3.2
<u>03103400 Shenango River Lake</u>				<u>03106280 Lake Arthur</u>		
Sept. 30.....	897.42	46,200	-	1,190.07	37,820	-
Oct. 31.....	897.22	45,450	-12.2	1,190.80	40,160	+38.0
Nov. 30.....	891.20	25,700	-332	1,190.64	39,650	-8.6
Dec. 31.....	887.22	15,680	-163	1,190.53	39,300	-5.7
CAL YR 1970.....	-	-	-6.5	-	-	+29.4
Jan. 31.....	887.51	16,340	+10.7	1,190.35	38,720	-9.4
Feb. 28.....	897.50	46,500	+543	1,191.40	42,160	+61.9
Mar. 31.....	892.36	29,070	-283	1,190.62	39,580	-42.0
Apr. 30.....	897.55	46,680	+296	1,190.20	38,240	-22.5
May 31.....	897.17	45,260	-23.1	1,190.23	38,340	+1.6
June 30.....	896.51	42,840	-40.7	1,190.17	38,140	-3.4
July 31.....	894.13	34,620	-134	1,190.02	37,660	-7.8
Aug. 31.....	892.18	28,530	-99.0	1,189.81	37,030	-10.2
Sept. 30.....	890.60	24,040	-75.0	1,190.02	37,660	+10.6
WTR YR 1971.....	-	-	-30.6	-	-	-2

03108000 Raccoon Creek at Moffatts Mill, Pa.

LOCATION.--Lat 40°37'40", long 80°20'16", Beaver County, on left bank at downstream side of highway bridge at Moffatts Mill, 1.4 miles downstream from Gums Run, 4 miles south of Vanport, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--178 sq mi.

PERIOD OF RECORD.--September 1941 to current year. May 1915 to July 1932 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 719.16 ft above mean sea level (Corps of Engineers bench mark). May 27, 1915, to July 31, 1932, and Sept. 2 to Dec. 3, 1941, nonrecording gages at same site and datum.

AVERAGE DISCHARGE.--30 years, 182 cfs (13.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,690 cfs May 6 (gage height, 6.53 ft); minimum, 13 cfs Oct. 9, 10; minimum gage height, 1.47 ft. Sept. 10, 11.
Period of record: Maximum discharge, 8,590 cfs Jan. 27, 1952 (gage height, 9.71 ft); minimum, 4.5 cfs Aug. 24, 25, 1965; minimum gage height, 1.28 ft Aug. 26, 1962.
Flood of Apr. 15, 1922, reached a stage of 9.80 ft (discharge, 10,000 cfs). Flood of Mar. 5, 1920, also reached a stage of 9.80 ft (backwater from ice).

REMARKS.--Records good except those for winter periods, which are fair.

REVISIONS (WATER YEARS).--WSP 1385: 1941-43.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	413	161	160	68	452	171	70	70	35	42	19
2	18	384	140	149	64	394	167	68	66	63	35	19
3	21	321	153	145	64	367	151	68	79	35	35	35
4	21	298	339	435	72	340	131	70	68	28	47	18
5	16	226	291	1,040	490	313	128	66	63	24	45	17
6	14	167	251	563	942	326	123	1,640	77	22	36	16
7	14	130	199	386	368	874	123	1,400	160	28	31	15
8	14	105	168	302	235	754	114	682	109	24	28	15
9	13	90	157	309	151	570	109	500	68	96	26	15
10	13	122	140	253	135	485	109	385	54	128	25	15
11	21	315	143	215	154	535	94	313	49	952	24	22
12	34	243	646	194	176	540	94	317	50	766	25	72
13	35	198	721	164	456	2,090	99	443	112	237	21	96
14	34	173	478	223	455	1,260	120	394	147	141	20	96
15	33	287	360	225	335	826	91	322	70	96	21	63
16	37	278	307	172	260	625	86	272	56	84	21	44
17	32	222	337	161	263	500	86	344	50	72	19	94
18	26	182	293	111	697	416	89	250	45	61	18	51
19	23	154	271	100	969	421	89	201	44	56	18	84
20	21	139	246	94	1,290	452	84	171	40	99	17	144
21	50	154	218	88	1,040	407	81	147	47	66	20	74
22	189	120	302	84	1,600	402	81	126	42	52	35	51
23	69	115	475	82	1,970	380	81	112	38	47	47	42
24	48	87	402	80	1,030	349	79	106	36	49	29	38
25	38	75	326	78	706	299	77	126	35	94	20	32
26	33	91	298	84	625	290	72	114	33	63	29	33
27	30	87	258	80	640	259	72	94	31	52	47	63
28	27	84	224	78	550	245	72	86	31	44	44	45
29	32	95	199	84	-----	229	77	81	29	42	29	44
30	153	191	192	90	-----	205	72	81	26	56	22	104
31	775	-----	166	78	-----	175	-----	77	-----	47	19	-----
TOTAL	1,902	5,546	8,861	6,307	15,805	15,780	3,022	9,126	1,825	3,659	895	1,476
MEAN	61.4	185	286	203	564	509	101	294	60.8	118	28.9	49.2
MAX	775	413	721	1,040	1,970	2,090	171	1,640	160	952	47	144
MIN	13	75	140	78	64	175	72	66	26	22	17	15
CFSM	.34	1.04	1.61	1.14	3.17	2.86	.57	1.65	.34	.66	.16	.28
IN.	.40	1.16	1.85	1.32	3.30	3.30	.63	1.91	.38	.76	.19	.31

CAL YR 1970 TOTAL 64,188 MEAN 176 MAX 1,940 MIN 13 CFSM .99 IN 13.41
WTR YR 1971 TOTAL 74,204 MEAN 203 MAX 2,090 MIN 13 CFSM 1.14 IN 15.51

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-6	0100	4.85	1,950	3-13	1400	5.52	2,620
2-19	0500	4.50	1,600	5-6	2400	6.53	3,690
2-22	2300	5.66	2,760	7-11	2030	5.06	2,160

BUFFALO CREEK BASIN

03111150 Brush Run near Buffalo, Pa.

LOCATION.--Lat 40°11'54", long 80°24'28", Washington County, on right bank at upstream side of highway bridge, 2.2 miles upstream from Dunkle Run, 3.0 miles upstream from mouth, 3.2 miles southwest of Buffalo, and 8 miles west of Washington.

DRAINAGE AREA.--10.3 sq mi.

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 954.22 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--11 years, 8.16 cfs (10.76 inches per year).

EXTREMES.--Current year: Maximum discharge, 448 cfs May 6 (gage height, 5.51 ft), from rating curve as explained below; maximum gage height, 5.69 ft Feb. 5 (backwater from ice); minimum discharge, 0.10 cfs Sept. 11 (gage height, 1.62 ft).

Period of record: Maximum discharge, 1,180 cfs Feb. 13, 1966 (gage height, 7.73 ft), from rating curve extended above 210 cfs on basis of slope-area measurement at gage height 7.26 ft; maximum gage height, 7.93 ft Mar. 4, 1963 (backwater from ice); no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	32	10	8.7	4.5	17	5.7	2.0	3.0	.94	.67	.16
2	.61	28	8.6	7.8	4.0	16	5.9	2.3	2.8	1.2	.55	.14
3	.67	32	9.6	7.8	5.0	14	5.4	2.7	3.5	.62	6.0	.40
4	.50	23	16	90	9.0	13	5.0	2.3	3.0	.45	4.2	.26
5	.45	16	12	64	120	13	4.8	8.0	2.7	.39	3.2	.22
6	.40	11	9.3	28	16	14	4.7	144	9.0	.36	1.8	.22
7	.35	8.6	7.9	20	9.8	52	4.6	29	25	.30	1.2	.61
8	.35	6.8	6.8	15	6.1	29	4.3	41	15	.22	.87	.22
9	.30	5.8	6.8	12	5.8	22	4.1	23	9.0	6.8	.67	.16
10	.35	12	6.0	11	5.2	20	4.1	16	7.0	3.8	.61	.14
11	.73	13	7.2	10	5.0	24	3.7	13	6.0	20	.61	.10
12	1.2	11	69	9.3	28	24	3.7	14	7.0	6.5	.45	5.4
13	.87	9.3	39	9.1	101	61	3.6	16	24	3.0	.30	3.4
14	1.4	9.6	24	20	26	34	4.4	13	9.3	2.2	.22	4.2
15	3.1	21	17	13	15	26	3.5	10	5.4	1.4	.30	2.1
16	1.4	16	16	10	9.0	20	3.4	13	4.2	2.1	.30	7.2
17	1.0	12	16	8.0	63	17	3.2	16	3.6	1.4	.25	5.0
18	.87	9.6	14	7.0	84	14	3.5	11	3.0	1.0	.20	2.6
19	.80	8.2	13	6.4	67	16	2.9	9.3	2.6	1.0	.17	2.7
20	.73	9.6	11	5.8	52	16	2.8	8.2	2.2	1.4	.15	3.2
21	14	9.6	9.9	5.4	31	14	2.8	6.8	2.1	.80	.20	2.7
22	8.6	8.2	52	5.2	144	14	2.8	6.0	2.2	.61	1.5	2.0
23	4.0	6.8	44	5.0	77	13	2.6	5.6	1.8	.55	1.0	1.6
24	2.7	6.8	42	5.0	38	11	2.5	5.4	1.6	1.6	.40	1.2
25	2.2	5.8	25	5.4	29	10	2.4	6.2	1.4	2.7	.22	1.0
26	1.9	5.4	18	5.9	27	9.5	2.4	4.6	1.2	1.2	.87	1.6
27	1.6	5.6	15	5.4	31	8.6	2.3	4.4	1.2	.94	1.4	1.6
28	1.6	5.4	13	5.0	21	8.2	2.7	4.2	.94	.61	1.0	1.1
29	1.6	8.6	13	4.7	-----	7.5	2.3	4.2	.77	.73	.50	.94
30	30	14	12	6.0	-----	6.5	2.2	8.6	.70	1.0	.35	.87
31	69	-----	12	5.0	-----	5.9	-----	4.0	-----	1.2	.26	-----
TOTAL	153.89	370.7	575.1	420.9	1,033.4	570.2	108.3	453.8	161.21	67.02	30.42	53.04
MEAN	4.96	12.4	18.6	13.6	36.9	18.4	3.61	14.6	5.37	2.16	.98	1.77
MAX	69	32	69	90	144	61	5.9	144	25	20	6.0	7.2
MIN	.30	5.4	6.0	4.7	4.0	5.9	2.2	2.0	.70	.22	.15	.10
CFSM	.48	1.20	1.81	1.32	3.58	1.79	.35	1.42	.52	.21	.10	.17
IN.	.56	1.34	2.08	1.52	3.73	2.06	.39	1.64	.58	.24	.11	.19

CAL YR 1970 TOTAL 3,709.47 MEAN 10.2 MAX 209 MIN .22 CFSM .99 IN 13.40
 WTR YR 1971 TOTAL 3,997.98 MEAN 11.0 MAX 144 MIN .10 CFSM 1.07 IN 14.44

PEAK DISCHARGE (BASE, 170 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1- 4	1600	4.27	215	2-18	1615	4.47	247
2- 5	-	-	*266	2-22	1015	5.18	381
2-13	0645	4.88	321	5- 6	0230	5.51	448

* About

04213000 Conneaut Creek at Conneaut, Ohio

LOCATION.--Lat 41°55'37", long 80°36'15", Ashtabula County, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 miles upstream from mouth.

DRAINAGE AREA.--175 sq mi.

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 610.30 ft above mean sea level, unadjusted. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 248 cfs (19.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,880 cfs Feb. 21 (gage height, 6.62 ft); maximum gage height, 10.84 ft Feb. 21 (backwater from ice); minimum daily discharge, 5.0 cfs Aug. 19.

Period of record: Maximum discharge, 17,000 cfs Jan. 22, 1959 (gage height, 11.70 ft); maximum gage height, 12.94 ft Mar. 4, 1934 (backwater from ice); minimum discharge, 0.2 cfs July 31, Aug. 1, 1933, Aug. 1, 2, 1934.

REMARKS.--Records good except those for January and February which are poor. Water-quality records for the current year are published in Part 2 of Water Resources Data for Ohio.

REVISIONS (WATER YEARS).--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	1,450	821	100	100	856	184	170	38	73	12	38
2	126	570	351	95	95	420	245	132	38	42	11	26
3	99	428	270	90	95	293	408	122	168	30	10	21
4	129	1,520	651	650	95	204	253	116	165	25	9.4	19
5	168	1,170	1,180	2,070	200	158	174	104	85	21	8.8	37
6	284	463	427	1,300	650	210	134	90	121	19	8.2	56
7	1,420	306	262	282	900	710	115	91	360	18	7.7	56
8	484	209	201	200	650	1,030	105	118	1,580	17	7.4	31
9	181	157	199	130	350	412	93	142	1,160	16	7.2	25
10	116	136	458	170	230	325	87	171	277	15	6.8	21
11	93	244	357	140	280	316	96	115	139	14	6.6	17
12	125	345	597	130	260	268	96	100	90	13	6.3	14
13	742	527	1,020	120	290	283	90	128	81	13	5.9	27
14	2,890	1,010	727	150	330	500	258	171	67	12	5.7	51
15	2,080	1,550	371	190	370	1,890	414	119	84	12	5.5	679
16	1,190	2,680	271	150	340	1,720	213	90	63	11	5.4	220
17	548	1,190	374	130	330	842	149	74	53	11	5.2	99
18	337	371	767	120	400	440	131	65	44	10	5.1	60
19	220	243	487	120	850	408	144	59	37	10	5.0	47
20	157	194	307	110	2,300	782	118	59	32	9.7	6.0	43
21	126	391	233	110	3,300	555	96	58	50	9.4	22	218
22	138	673	172	110	2,540	456	84	61	228	9.2	73	336
23	283	315	169	120	1,890	500	77	50	100	9.0	75	130
24	226	197	299	120	1,990	358	75	45	58	40	34	72
25	156	167	258	130	988	253	76	79	42	23	37	48
26	121	159	180	140	956	210	84	128	34	22	23	38
27	98	306	170	130	1,760	223	83	117	28	30	76	32
28	83	1,710	150	120	2,140	278	95	83	25	19	174	30
29	75	1,850	130	110	-----	319	135	66	42	16	102	186
30	91	1,180	120	110	-----	268	180	54	93	14	119	174
31	522	-----	110	100	-----	208	-----	45	-----	13	65	-----
TOTAL	13,492	21,711	12,089	7,747	24,679	15,695	4,492	3,022	5,382	596.3	945.2	2,851
MEAN	435	724	390	250	881	506	150	97.5	179	19.2	30.5	95.0
MAX	2,890	2,680	1,180	2,070	3,300	1,890	414	171	1,580	73	174	679
MIN	75	136	110	90	95	158	75	45	25	9.0	5.0	14
CFSM	2.49	4.14	2.23	1.43	5.03	2.89	.86	.56	1.02	.11	.17	.54
IN.	2.87	4.62	2.57	1.65	5.25	3.34	.95	.64	1.14	.13	.20	.61

CAL YR 1970 TOTAL 118,631 MEAN 325 MAX 3,700 MIN 17 CFSM 1.86 IN 25.22
WTR YR 1971 TOTAL 112,701.5 MEAN 309 MAX 3,300 MIN 5.0 CFSM 1.77 IN 23.96

PEAK DISCHARGE (BASE, 2,900 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-14	2000	6.48	3,670	2-21	2000	6.62	3,880
11-16	1500	6.10	2,940				

STREAMS TRIBUTARY TO LAKE ERIE

04213040 Raccoon Creek near West Springfield, Pa.

LOCATION.--Lat 41°56'42", long 80°26'51", Erie County, on right bank 12 ft upstream from highway bridge on Sanford Road, 1.4 miles east of West Springfield, 4.4 miles upstream from mouth, and 7 miles southwest of Girard.

DRAINAGE AREA.--2.53 sq mi.

PERIOD OF RECORD.--Annual maximum, water years 1962-68. October 1968 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and culvert control. Altitude of gage is 715 ft (from topographic map). May 9, 1961, to Oct. 2, 1968, crest-stage gage at same site and datum.

EXTREMES.--Current year: Maximum discharge, 93 cfs Feb. 20 (gage height, 4.07 ft); no flow on many days.

Period of record: Maximum discharge, 408 cfs Dec. 28, 1968 (gage height, 6.06 ft), from rating curve extended above 26 cfs on basis of contracted-opening measurement of peak flow; no flow on many days.

REMARKS.--Records good except those for winter periods, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	4.0	6.1	2.1	.92	3.6	2.4	1.9	.20	.07	.10	.02
2	.58	4.5	5.0	2.0	.86	2.5	6.0	1.7	5.0	.07	.10	.02
3	1.0	23	4.9	2.0	.84	1.9	3.3	1.7	18	.07	.10	.02
4	1.8	15	15	32	.90	2.1	2.4	1.5	1.9	.07	.10	.02
5	.76	6.1	6.1	13	8.0	2.4	1.7	1.3	.66	.07	.10	.02
6	16	4.3	4.5	4.6	7.0	4.8	1.6	1.4	8.7	.07	.07	.02
7	2.7	3.6	3.7	2.9	5.0	16	1.5	1.2	12	.07	.04	.02
8	1.2	3.0	3.6	2.7	3.0	5.5	1.3	2.9	18	.07	.02	.01
9	.76	2.6	6.8	3.2	4.0	3.7	1.4	2.1	3.6	.07	.01	.01
10	.76	3.9	5.0	2.9	3.0	3.3	2.0	1.2	1.4	.07	0	0
11	1.1	4.3	13	2.6	2.5	3.0	1.6	.96	.76	.07	0	.16
12	8.1	5.8	18	2.7	3.0	3.2	1.5	1.5	.58	.07	0	.20
13	23	9.4	11	1.9	3.7	5.4	4.3	1.3	.58	.07	0	.07
14	23	9.2	6.3	5.2	3.0	12	9.2	.96	.58	.07	0	.16
15	19	47	5.0	4.0	2.6	10	3.4	.66	.50	.07	0	.16
16	6.0	11	4.8	2.4	2.5	8.5	2.2	.58	.36	.07	0	.04
17	4.5	4.9	10	2.1	5.0	5.8	2.1	.43	.30	.07	0	.01
18	3.3	3.5	5.5	1.8	15	4.2	2.1	.36	.25	.07	0	.01
19	2.6	3.0	4.3	1.5	39	8.3	1.5	.25	.25	.07	0	.01
20	2.2	7.0	2.9	1.1	67	7.8	1.4	.86	.25	.07	0	.04
21	2.4	20	2.1	1.3	16	6.6	1.3	.36	1.1	.07	0	.15
22	3.6	20	2.0	1.9	12	7.1	1.2	.36	.30	.07	.07	.07
23	3.2	30	4.3	1.9	20	5.4	1.1	.25	.25	.07	.10	.03
24	2.5	25	5.8	1.5	7.8	3.7	1.3	1.1	.25	.13	.07	.01
25	2.2	10	3.9	1.3	7.5	2.6	1.6	3.3	.25	.10	.07	.01
26	2.1	5.0	3.2	1.2	12	2.5	1.3	.86	.25	.10	.07	.01
27	1.9	15	2.9	1.1	13	2.4	1.1	.86	.25	.10	.20	.01
28	1.7	20	2.5	1.6	6.0	2.9	3.3	.58	.25	.07	.02	.35
29	1.7	15	2.3	1.2	-----	2.6	3.0	.36	.96	.07	.02	.15
30	3.7	29	2.1	1.1	-----	2.4	2.5	.30	.10	.07	.02	.07
31	6.3	-----	2.0	1.0	-----	2.0	-----	.25	-----	.10	.02	-----
TOTAL	150.36	364.1	174.6	107.8	271.12	154.2	70.6	33.34	77.83	2.35	1.30	1.88
MEAN	4.85	12.1	5.63	3.48	9.68	4.97	2.35	1.08	2.59	.076	.042	.063
MAX	23	47	18	32	67	16	9.2	3.3	18	.13	.20	.35
MIN	.58	2.6	2.0	1.0	.84	1.9	1.1	.25	.10	.07	0	0
CFSM	1.92	4.78	2.23	1.38	3.83	1.96	.93	.43	1.02	.03	.02	.02
IN.	2.21	5.35	2.57	1.59	3.99	2.27	1.04	.49	1.14	.03	.02	.03

CAL YR 1970 TOTAL 1,657.67 MEAN 4.54 MAX 76 MIN 0 CFSM 1.79 IN 24.37
 #TR YR 1971 TOTAL 1,409.48 MEAN 3.86 MAX 67 MIN 0 CFSM 1.53 IN 20.72

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Delaware River basin						
01428800	West Branch Lackawaxen River at Aldenville, Pa.	Lat 41°38'38", long 75°21'36", Wayne County, at bridge on State Highway 170, 0.3 mile southeast of Aldenville, 4.5 miles north of Prompton.	48.9	1970-71	5- 6-71	102
01432500	Shohola Creek near Shohola, Pa.	Lat 41°27'20", long 74°55'25", Pike County, 1.4 miles above mouth and 1.4 miles south of Shohola.	83.6	1920-28/ 1957 1959-67 1969-71	5-10-71	131
01439400	Toms Creek at Egypt Mills near Bushkill, Pa.	Lat 41°07'29", long 74°57'14", Pike County, at bridge on U.S. Highway 209 at Egypt, 0.3 mile upstream from mouth and 3 miles northwest of Bushkill.	3.34	1970-71	10- 9-70 5-12-71	.21 8.5
01440250	Shawnee Creek at Shawnee on Delaware, Pa.	Lat 41°00'42", long 75°06'40", Monroe County, at bridge on State Highway 945, in village of Shawnee on Delaware, 0.6 mile upstream from mouth and 3 miles east of East Stroudsburg.	4.58	1970-71	10- 9-70 5-12-71	.37 4.1
01440500	Paradise Creek at Henryville, Pa.	Lat 41°06'00", long 75°15'05", Monroe County, at bridge on State Highway 191, 200 ft upstream from Cranberry Creek, and 0.5 mile northwest of Henryville.	30.2	1908-14 1966-71	5- 5-71	42
01441000	McMichaels Creek at Stroudsburg, Pa.	Lat 40°58'45", long 75°12'05", Monroe County, at dismantled railroad bridge, 0.2 mile upstream from Little Pocono Creek, and 0.8 mile southwest of Stroudsburg.	65.3	1911-38/ 1970-71	5- 5-71	68
01441500	Pocono Creek near Stroudsburg, Pa.	Lat 40°59'10", long 75°13'35", Monroe County, at bridge on Bridge Street, 1.3 miles west of Stroudsburg.	41.0	1911-19/ 1970-71	5- 5-71	47
01443100	Jacoby Creek at Portland, Pa.	Lat 40°55'00", long 75°06'19", Northampton County, at county highway bridge, 0.6 mile southwest of Portland and 0.7 mile upstream from mouth.	6.17	1970-71	10- 9-70 5-12-71	3.0 8.6

/ Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

			Measurements			
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Discharge (cfs)
Delaware River basin--Continued						
01446650	Martins Creek below Little Martins Creek at Martins Creek, Pa.	Lat 40°47'02", long 75°11'08", Northampton County, at bridge on U.S. Highway 611 in village of Martins Creek and 0.9 mile upstream from mouth.	43.4	1932 1970-71	10- 9-70 5-19-71	13 75
01446900	Bushkill Creek near Easton, Pa.	Lat 40°42'38", long 75°14'46", Northampton County, at bridge just west of Bushkill Drive at Colilton, 0.8 mile downstream from Schoeneck Creek, and 2 miles north of Easton.	72.0	1970-71	5- 4-71	74
01448100	Sandy Run near White Haven, Pa.	Lat 41°00'31", long 75°46'08", Luzerne County, at bridge on L.R. 40118, 800 ft upstream from Pond Creek, and 3.8 miles south of White Haven.	10.9	1970-71	5- 4-71	14
01449355	Middle Creek at Kresgeville, Pa.	Lat 40°54'03", long 75°29'50", Monroe County, at bridge on U.S. Highway 209, at Kresgeville, 0.5 mile downstream from Dotters Creek, and 0.5 mile upstream from mouth.	18.6	1970-71	5- 5-71	23
01451110	Hockendauqua Creek near Northampton, Pa.	Lat 40°42'50", long 75°29'45", Northampton County, at bridge on county road, 1.7 miles north of Northampton, and 3.3 miles upstream from mouth.	38.1	1970-71	5- 4-71	26
01451165	Catasauqua Creek at Catasauqua, Pa.	Lat 40°38'52", long 75°28'06", Lehigh County, at bridge on North Dauphin Street, Catasauqua, 0.1 mile upstream from mouth.	15.7	1970-71	5- 4-71	8.7
01457790	Cooks Creek at Durham Furnace, Pa.	Lat 40°34'56", long 75°12'20", Bucks County, on east side of Red Brick Road, 0.1 mile north of State Highway 212, 0.5 mile upstream from mouth and Durham Furnace.	29.4	1934 1944 1949-50 1970-71	8-10-71	20
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek and Beaver Creek, 1.5 miles east of Ottsville, and 5.3 miles above mouth.	14.7	1971	10- 9-70 5-19-71	.29 17
01459150	Tohickon Creek near Quakertown, Pa.	Lat 40°26'26", long 76°18'42", Bucks County, 1,000 ft downstream from highway bridge and mouth of Morgan Creek and 1 mile east of Quakertown.	27.5	1970-71	8-10-71	3.6
01462300	Jericho Creek at Washington Crossing, Pa.	Lat 40°18'40", long 74°54'23", Bucks County, at bridge on State Highway 32, 0.3 mile upstream from mouth and 2.5 miles northwest of Washington Crossing.	9.52	1971	10- 9-70 5-19-71 8-10-71	a.01 13 .03
01470758	Moselem Creek near Shoemakersville, Pa.	Lat 40°30'10", long 75°52'47", Berks County, at bridge on county road, 0.4 mile upstream from mouth, 2.8 miles west of Moselem Springs, and 5 miles east of Shoemakersville, Pa.	13.5	1970-71	5- 5-71	18
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, at Lobachsville, 0.5 mile upstream from mouth, 0.5 mile below West Branch Pine Creek, and 2 miles north of Manatawny.	15.6	1970-71	5- 4-71 9-24-71	11 12
01475850	Crum Creek near Newtown Square, Pa.	Lat 39°58'35", long 75°26'13", Delaware County, at Castle Rock Bridge on State Highway 3, 0.6 mile upstream from Preston Run, 0.8 mile upstream from Geist Reservoir and 2 miles west of Newtown Square.	15.8	1932 1949 1970-71	8-10-71	11

* Also a crest-stage partial-record station.

a Estimated.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Delaware River basin--Continued						
01478150	East Branch White Clay Creek at Landenberg, Pa.	Lat 39°46'40", long 75°46'18", Chester County, at county highway bridge at Landenberg, 1.4 miles downstream from Egypt River and 4 miles southeast of West Grove.	25.6	1970-71	8- 9-71	18
01479700	West Branch Red Clay Creek near Kennett Square, Pa.	Lat 39°48'39", long 75°42'19", Chester County, at county highway bridge on Kaolin Road, 1 mile upstream from East Branch Red Clay Creek, 1.4 miles east of Kaolin and 2.5 miles south of Kennett Square.	17.0	1970-71	8-10-71	12
Susquehanna River basin						
01516300	Tioga River at Covington, Pa.	Lat 41°44'42", long 77°04'49", Tioga County, at bridge on L.R. 58060, 0.1 mile west of Covington.	105	1970-71	5-12-71	255
01530850	Bentley Creek at Ridgebury, Pa.	Lat 41°58'25", long 76°43'12", Bedford County, at bridge on L.R. 08068, at Ridgebury, and 300 ft downstream from Three Falls Glen.	47.2	1970-71	5-11-71	76
01533100	Sugar Run Creek at Sugar Run, Pa.	Lat 41°38'31", long 76°13'55", Bradford County, at bridge on rural road, 0.3 mile east of Sugar Run, and 0.4 mile upstream from mouth.	56.6	1970-71	5-11-71	31
01533840	Tunkhannock Creek at Glenwood, Pa.	Lat 41°39'03", long 75°43'15", Susquehanna County, at bridge on State Highway 374 at Glenwood, and 0.4 mile upstream from East Branch Tunkhannock Creek.	107	1951 1970-71	5- 5-71	142
01533960	South Branch Tunkhannock Creek near East Benton, Pa.	Lat 41°34'23", long 75°40'00", Lackawanna County, at bridge on county road, 0.4 mile south of East Benton, and 0.6 mile upstream from Corder Pond tributary.	29.3	1970-71	5- 5-71	25
01534170	East Branch Lackawanna River at Uniondale, Pa.	Lat 41°43'08", long 75°28'49", Susquehanna County, at bridge on L.R. 57041, 0.3 mile east of intersection of State Highway 171 and L.R. 57041, and 0.7 mile east of Uniondale.	17.3	1951 1970-71	5- 5-71	50
01535540	Spring Brook near Spring Brook, Pa.	Lat 41°17'07", long 75°35'33", Lackawanna County, at bridge on private road, 1.5 miles south of Spring Brook, 1.8 miles upstream of Watres Reservoir dam.	8.98	1970-71	5- 4-71	22
01536200	Abrahams Creek near Dallas, Pa.	Lat 41°20'41", long 75°54'00", Luzerne County, at culvert on L.R. 40131, 1.7 miles upstream from Frances Slocum State Park dam, and 3 miles east of Dallas.	2.79	1970-71	5- 5-71	2.6
01537900	Little Wapwallopen Creek near Wapwallopen, Pa.	Lat 41°05'43", long 76°07'18", Luzerne County, at bridge on State Highway 239, 1 mile downstream from Pond Creek, and 2 miles north of Wapwallopen.	39.4	1970-71	5- 4-71	54
01538520	Little Nescopeck Creek at Sybertsville, Pa.	Lat 41°00'12", long 76°04'25", Luzerne County, at bridge on county road, at Sybertsville, and 0.6 mile upstream from mouth.	13.8	1970-71	5- 4-71	1.5
01538970	Fishing Creek at Forks, Pa.	Lat 41°06'27", long 76°21'44", Columbia County, at bridge on L.R. 19068, at Forks, 0.2 mile upstream from Huntingdon Creek.	114	1970-71	5-10-71	182

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Susquehanna River basin--Continued						
01540350	Catawissa Creek at Catawissa, Pa.	Lat 40°57'00", long 76°27'56", Columbia County, at bridge on Second Street, at Catawissa, and 0.2 mile upstream from mouth.	149	1949-50 1970-71	6-10-71	104
01541250	Anderson Creek at Curwensville, Pa.	Lat 40°58'20", long 78°31'20", Clearfield County, at bridge on State Highway 453, at Curwensville, 800 ft upstream from mouth.	77.8	1945 1960 1963-64 1970-71	10-27-70 5- 4-71	69 67
01541325	Clearfield Creek at Flinton, Pa.	Lat 40°43'05", long 78°31'38", Cambria County, at bridge on L.R. 11063, 0.2 mile upstream from Beaverdam Run, and 0.5 mile northwest of Flinton.	98.1	1970-71	5- 5-71	74
01541331	Killbuck Run near St. Augustine, Pa.	Lat 40°39'42", long 78°34'55", Cambria County, 800 ft upstream from mouth, and 3.3 miles north of St. Augustine.	7.13	1968-71	5- 5-71	3.9
01542330	Black Moshannon Creek near Philipsburg, Pa.	Lat 40°52'43", long 78°04'36", Centre County, at bridge on Shirk Road, 0.5 mile southeast of Black Moshannon State Airport, and 6 miles east of Philipsburg.	2.33	1970-71	5- 4-71	2.8
01543700	First Fork Sinnemahoning Creek at Wharton, Pa.	Lat 41°31'08", long 78°01'40", Potter County, at bridge on State Highway 872, 0.8 mile southwest of Wharton, and 1 mile downstream from East Fork Sinnemahoning Creek.	182	1968-71	5- 5-71	254
01545610	Left Branch Young Womans Creek near Renovo, Pa.	Lat 41°22'19", long 77°42'01", Clinton County, at bridge on L.R. 18022, 400 ft upstream from mouth and 4 miles northeast of Renovo.	35.9	1970-71	5- 5-71	49
01545680	Tangascootack Creek near Lock Haven, Pa.	Lat 41°10'32", long 77°32'53", Clinton County, at bridge on State Highway 120, 600 ft upstream from mouth, and 7 miles northwest of Lock Haven.	36.5	1970-71	5- 5-71	26
01547280	Antis Run near Milesburg, Pa.	Lat 40°58'35", long 77°44'42", Centre County, at bridge on U.S. Highway 220, at Curtin, 500 ft upstream from mouth, and 3.7 miles east of Milesburg.	1.56	1956-57 1970-71	5- 4-71	.49
01547600	Romola Branch near Howard, Pa.	Lat 41°03'27", long 77°41'10", Centre County, at bridge on L.R. 14009, at Romola, 200 ft upstream from mouth and 3.4 miles northwest of Howard.	5.05	1956-57 1970-71	5- 4-71	2.2
01549550	Little Pine Creek near English Center, Pa.	Lat 41°24'46", long 77°19'19", Lycoming County, at bridge on L.R. 41021, 2.4 miles southwest of English Center, Pa.	135	1968-71	5-24-71	179
01549790	Larrys Creek at Larrys Creek, Pa.	Lat 41°13'10", long 77°13'12", Lycoming County, at bridge on U.S. Highway 220, at Larrys Creek, 0.2 mile upstream from mouth.	89.0	1970-71	5- 3-71	106
01551830	Loyalsock Creek near Forksville, Pa.	Lat 41°28'10", long 76°35'05", Sullivan County, at bridge on State Highway 154, at Worlds End, 1.8 miles southeast of Forksville.	131	1970-71	5-11-71	182
01553110	White Deer Hole Creek at Allenwood, Pa.	Lat 41°06'14", long 76°53'54", Union County, at bridge on county road 0.9 mile upstream from mouth, and 0.4 mile south of Allenwood.	66.4	1970-71	4-28-71	83
01553480	Buffalo Creek at Lewisburg, Pa.	Lat 40°58'19", long 76°53'30", Union County, at bridge on U.S. Highway 15, at Lewisburg, and 0.6 mile upstream from mouth.	134	1970-71	5- 3-71	132

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Susquehanna River basin--Continued						
01555250	Mahanoy Creek at Dornsife, Pa.	Lat 40°44'40", long 76°47'28", Northumberland County, at bridge on State Highway 225 at Dornsife, 1.9 miles upstream from Schwaben Creek.	117	1949-50 1970-71	5-10-71	148
01555570	Wiconisco Creek near Elizabethville, Pa.	Lat 40°33'40", long 76°48'30", Dauphin County, at bridge on State Highway 225, and 1 mile north of Elizabethville.	60.7	1949-50 1970-71	5- 5-71	72
01555780	Frankstown Branch Juniata River at East Freedom, Pa.	Lat 40°21'23", long 78°25'41", Blair County, at bridge on State Highway 164, 400 ft upstream from South Dry Run, and 0.2 mile east of East Freedom.	47.4	1970-71	5- 5-71	28
01559750	Raystown Branch Juniata River near Manns Choice, Pa.	Lat 40°01'03", long 78°37'07", Bedford County, at bridge on State Highway 31, 0.3 mile upstream from Shawnee Branch, and 2 miles northwest of Manns Choice.	50.8	1952-53 1970-71	10- 1-70 7- 8-71	13 13
01559756	Shawnee Branch at Schellsburg, Pa.	Lat 40°02'17", long 78°39'16", Bedford County, at covered bridge, 0.3 mile upstream from mouth, and 0.9 mile southwest of Schellsburg.	18.6	1968-71	10- 1-70 7- 8-71	3.2 3.5
01564550	Blacklog Creek near Orbisonia, Pa.	Lat 40°13'55", long 77°52'25", Huntingdon County, at bridge on U.S. Highway 522, 0.5 mile downstream from Shade Creek, and 1.4 miles southeast of Orbisonia.	65.0	1970-71	4-30-71	32
01566900	Buffalo Creek near Newport, Pa.	Lat 40°29'37", long 77°08'20", Perry County, at bridge on L.R. 50013, 0.4 mile upstream from mouth, and 1.2 miles north of Newport.	69.5	1948 1970-71	5- 5-71	27
01571110	Yellow Breeches Creek near Walnut Bottom, Pa.	Lat 40°05'47", long 77°23'34", Cumberland County, at bridge on State Highway 174, 0.7 mile northeast of Walnut Bottom.	16.4	1970-71	4-28-71	4.1
01571185	Mountain Creek at Pine Grove Furnace, Pa.	Lat 40°01'51", long 77°18'18", Cumberland County, at bridge on county road, 0.2 mile south of Pine Grove Furnace, and 0.5 mile upstream from Toms Run.	13.9	1970-71	4-28-71	18
01571190	Mountain Creek near Mount Holly Springs, Pa.	Lat 40°05'36", long 77°11'14", Cumberland County, 0.6 mile upstream from reservoir dam, and 2 miles south of Mount Holly Springs.	37.4	1970-71	4-28-71	40
01571820	Swatara Creek at Ravine, Pa.	Lat 40°34'57", long 76°24'25", Schuylkill County, at bridge on State Highway 125, at Ravine, and 0.5 mile downstream from Lower Rauch Creek.	43.3	1962-63 1965 1970-71	5- 5-71	39
01572950	Swatara Creek tributary near Harper Tavern, Pa.	Lat 40°26'28", long 76°36'00", Lebanon County, at bridge just west of State Highway 443 in Indiantown Gap Military Reservation, 1.9 miles upstream from State Memorial Lake dam, and 2.5 miles north of Harper Tavern.	5.48	1970-71	5- 5-71	5.7
01573940	Beaver Creek at Rossville, Pa.	Lat 40°04'39", long 76°54'56", York County, at bridge on Squire Gratz Road, 4,000 ft upstream from mouth, and 1 mile north of Rossville.	8.21	1968-71	4-28-71	3.4
01578360	East Branch Octoraro Creek near Mt. Vernon, Pa.	Lat 39°49'50", long 76°01'05", Lancaster County, at county bridge, 0.2 mile downstream from Muddy Run, 1 mile upstream from Octoraro Lake, and 1.5 miles north of Mt. Vernon.	75.6	1970-71	8- 9-71	59

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Susquehanna River basin--continued						
01578440	West Branch Octoraro Creek at White Rock, Pa.	Lat 39°49'29", long 76°05'25", Lancaster County, at county highway bridge at White Rock 1 mile upstream from Octoraro Lake, 1.2 miles downstream from Kings Run, and 4 miles west of Mt. Vernon.	39.6	1970-71	8- 9-71	27
Potomac River basin						
01600400	Shaffers Run near Fairhope, Pa.	Lat 39°50'57", long 78°47'53", Somerset County, at bridge on L.R. 05012, 0.8 mile upstream from mouth, and 1 mile north of Fairhope.	9.77	1970-71	5-11-71	26
*01600700	Little Wills Creek at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96, at Bard.	10.2	1970-71	5-11-71	21
01608900	Town Creek at Chaneyville, Pa.	Lat 39°48'31", long 78°29'46", Bedford County, at ford on county road, 1.2 miles downstream from confluence of Elk Lick and Wilson Run, and 1.2 miles south of Chaneyville.	36.3	1970-71	5-12-71	71
01610130	West Branch Sideling Hill Creek at Purcell, Pa.	Lat 39°47'11", long 78°21'53", Bedford County, at bridge on L.R. 05009, 0.2 mile south of Purcell, and 0.4 mile upstream from mouth.	21.3	1970-71	4-29-71	6.2
01613080	Little Tonoloway Creek at Warfordsburg, Pa.	Lat 39°45'30", long 78°11'19", Fulton County, at bridge on U.S. Highway 522, 0.2 mile upstream from Cove Run, and 0.5 mile north of Warfordsburg.	44.8	1968-71	4-29-71	12
01613450	Licking Creek near Hustontown, Pa.	Lat 40°00'54", long 78°02'33", Fulton County, 200 ft upstream from Fortune Teller Creek, and 2.8 miles south of Hustontown.	20.4	1970-71	4-29-71	8.2
01614140	Back Creek near Chambersburg, Pa.	Lat 39°53'36", long 77°44'30", Franklin County, at bridge on L.R. 28052, 1.2 miles west of Turkey Foot, and 5 miles southwest of Chambersburg.	63.0	1968-71	4-29-71	25
*01638900	White Run near Gettysburg, Pa.	Lat 39°47'45", long 77°11'50", Adams County, at concrete bridge on U.S. Highway 140, 1 mile upstream from mouth, and 2.5 miles southeast of Gettysburg.	12.4	1970-71	4-28-71	.88
Browns Run basin						
03012580	Browns Run at Warren, Pa.	Lat 41°49'21", long 79°06'33", Warren County, at site 300 ft below Morrison Run, and 0.5 mile southeast of Warren borough limit.	24.1	1970-71	5- 6-71 9- 2-71	172 3.1
West Hickory Creek basin						
03016100	West Hickory Creek near West Hickory, Pa.	Lat 41°34'32", long 79°26'20", Forest County, at highway bridge 1.5 miles above mouth, and 1.6 miles northwest of West Hickory.	18.0	1970-71	5- 7-71 9- 2-71	34 2.0

* Also a crest-stage partial-record station.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Tionesta Creek basin						
*03017800	Minister Creek near Truemans, Pa.	Lat 41°37'17", long 79°09'12", Forest County, in Allegheny National Forest, at bridge on State Highway 666, 0.4 mile above mouth, and 1 mile west of Truemans.	10.8	1970-71	5- 6-71 9- 2-71	18 2.1
French Creek basin						
03021400	West Branch French Creek near Hornby, Pa.	Lat 42°06'08", long 79°49'20", Erie County, at bridge on State Highway 89, 2.4 miles southeast of Hornby, and 10 miles above mouth.	43.7	1970-71	5- 5-71 8-31-71	41 5.3
03022800	Cussewago Creek at Crossingville, Pa.	Lat 41°49'52", long 80°14'28", Crawford County, at highway bridge at Crossingville, and 0.3 mile above West Branch.	12.6	1970-71	5- 5-71 8-30-71	9.2 .40
Clarion River basin						
03028900	Elk Creek at Ridgway, Pa.	Lat 41°25'31", long 78°43'38", Elk County, at bridge on State Highway 120 at Ridgway, and 0.6 mile above mouth.	61.2	1970-71	5- 6-71 8-30-71	101 15
*03029200	Clear Creek near Sigel, Pa.	Lat 41°19'17", long 79°04'39", Jefferson County, at bridge on State Highway 949 in Clear Creek State Park, 1,500 ft upstream from Phyllis Run, and 4 miles northeast of Sigel.	8.67	1971	6-18-71 8-30-71	4.0 1.1
03030600	Piney Creek at Piney, Pa.	Lat 41°10'12", long 79°28'20", Clarion County, at bridge on State Highway 854 at Piney, 0.1 mile above mouth, and 4 miles northwest of Reidsburg.	72.2	1933 1970-71	5- 7-71 8-31-71	144 12
Redbank Creek basin						
03031620	Laborde Branch near Du Bois, Pa.	Lat 41°06'18", long 78°42'51", Clearfield County, at highway bridge, 0.6 mile downstream from Luthersburg Branch, and 2 miles east of Maple Street Hospital in Du Bois.	15.0	1971	5-21-71 8-30-71	15 1.4
03031650	Kyle Run near Falls Creek, Pa.	Lat 41°09'37", long 78°51'51", Jefferson County, at highway bridge, 0.6 mile upstream from Kyle Lake, and 3.2 miles west of the Falls Creek water tower.	2.09	1971	5-21-71 8-30-71	1.7 .13
Pine Creek basin						
03036300	North Fork Pine Creek near Mosgrove, Pa.	Lat 40°52'38", long 79°24'00", Armstrong County, at bridge on State Highways 28 and 66 at Slabtown (Baum), 4 miles east of Mosgrove, and 4.6 miles upstream from mouth.	3.42	1971	6- 1-71 8-31-71	.73 .58
Kiskiminetas River basin						
03039700	Dark Shade Creek at Central City, Pa.	Lat 40°06'18", long 78°47'55", Somerset County, at highway bridge at Central City, and 3.4 miles above Clear Shade Creek.	8.51	1970-71	5- 5-71 8-30-71	12 2.6

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

			Measurements			
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Discharge (cfs)
Kiskiminetas River basin--continued						
03045300	McCune Run at Keystone State Park, Pa.	Lat 40°22'26", long 79°22'25", Westmoreland County, at culvert in Keystone State Park, 200 ft above head of Keystone Lake, and 3 miles southeast of New Alexandria.	1.73	1970-71	5- 5-71 8-30-71	0.48 .80
03048300	Beaver Run near Slickville, Pa.	Lat 40°26'25", long 79°32'39", Westmoreland County, at highway bridge, 0.2 mile above Beaver Run Reservoir and 2 miles southwest of Slickville.	19.1	1970-71	5- 4-71 8-30-71	5.3 7.9
Bull Creek basin						
03049610	Bull Creek at Tarentum, Pa.	Lat 40°36'54", long 79°45'36", Allegheny County, at bridge on dirt road, 0.3 mile above Little Bull Creek, and 0.9 mile north of Tarentum.	36.8	1970-71	5- 4-71 8-30-71	8.6 12
Pucketa Creek basin						
03049630	Pucketa Creek at New Kensington, Pa.	Lat 40°33'05", long 79°45'03", Allegheny County, at bridge 0.7 mile above mouth, 1 mile southeast of New Kensington.	25.4	1970-71	5- 4-71 8-30-71	6.9 15
Pine Creek basin						
03049810	Pine Creek at Etna, Pa.	Lat 40°29'42", long 79°56'26", Allegheny County, at highway bridge on ramp leading to 62nd Street Bridge at Etna, and 0.8 mile above mouth.	66.8	1950-52 1970-71	5- 4-71 8-31-71	23 11
Monongahela River basin						
03072700	Whiteley Creek at Kirby, Pa.	Lat 39°48'08", long 80°07'02", Greene County, at bridge on U.S. Highway 19 at Kirby, and 1.4 miles above Dyers Fork.	8.74	1939 1949-51 1970-71	5-19-71 8-31-71	5.8 .13
03072830	Daniels Run at Marianna, Pa.	Lat 40°01'37", long 80°05'26", Washington County, at Penn Central Railroad bridge, 0.2 mile above mouth, and 0.5 mile northeast of Marianna.	17.3	1948-51 1970-71	5-17-71 8-31-71	19 1.6
03075040	Pigeon Creek at Monongahela, Pa.	Lat 40°11'26", long 79°55'50", Washington County, at bridge east of State Highway 481, 0.8 mile south of Monongahela, and 1.1 miles above mouth.	58.4	1951 1970-71	5-19-71 8-31-71	59 14
03075090	Peters Creek at Large, Pa.	Lat 40°17'31", long 79°54'56", Allegheny County, at bridge on State Highway 51 at Large, and 3 miles above mouth.	42.6	1966-67 1970-71	5-19-71 8-31-71	46 21
03079600	Laurel Hill Creek near Bakersville, Pa.	Lat 40°00'32", long 79°14'04", Somerset County, at bridge at head of Laurel Lake, 2.3 miles southwest of Bakersville, and 3.3 miles below Kooser Run.	38.2	1970-71	5- 5-71 8-30-71	28 28
03083100	Jacobs Creek at Jacobs Creek, Pa.	Lat 40°07'23", long 79°44'14", Westmoreland County, 0.3 mile above highway bridge at Jacobs Creek, and 0.4 mile above mouth.	94.9	1950 1965-67 1970-71	5- 5-71 8-30-71	32 74

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Beaver River basin						
03099900	Paden Creek near Pennline, Pa.	Lat 41°44'16", long 80°28'17", Crawford County, at bridge on road west at Steamburg, 2.7 miles northeast of Pennline, and 4.7 miles upstream from mouth.	6.55	1971	5- 5-71 8-30-71	3.1 2.9
03106030	Slippery Rock Creek at Boyers, Pa.	Lat 41°06'34", long 79°54'30", Butler County, at bridge 0.5 mile above Blacks Creek, and 0.5 mile west of Boyers.	28.4	1967-71	5- 5-71 8-31-71	15 5.3
Raccoon Creek basin						
03107700	Traverse Creek at Raccoon Creek State Park, Pa.	Lat 40°30'04", long 80°25'17", Beaver County, at highway bridge 0.2 mile southeast of Raccoon Creek State Park Headquarters, 1.8 miles north-east of Frankfort Springs, and 3.5 miles above mouth.	14.6	1970-71	5- 5-71 8-31-71	1.9 .78
Beaver Creek basin						
03109300	North Fork Little Beaver Creek at Darlington, Pa.	Lat 40°48'22", long 80°25'22", Beaver County, at bridge on State Highway 551 at Darlington, and 12 miles below Honey Creek.	88.7	1949-51 1970-71	5- 5-71 8-31-71	33 9.1

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
		Delaware River basin					
01431000	Middle Creek near Hawley, Pa.	Lat 41°29'05", long 75°13'20", Wayne County, at bridge on L.R. 63022, 0.1 mile below Red Shale Brook, 2 miles northwest of Hawley, and 2.5 miles above mouth.	78.4	1945-60 [‡] 1961-71	5-13-71	5.56	1,950
01431680	Mill Brook near Paupack, Pa.	Lat 41°23'15", long 75°14'20", Pike County, at culvert on State Highway 507, 400 ft above mouth, 1.8 miles south of Paupack. Datum of gage is 1,183.84 ft above mean sea level.	4.84	1960-71	2-14-71	5.55	180
01438300	Vandermark Creek at Milford, Pa.	Lat 41°19'35", long 74°47'50", Pike County, at stone bridge on Broad Street in Milford, and 0.4 mile above mouth. Datum of gage is 490.50 ft above mean sea level.	5.36	1962-71	10-23-70	2.35	56
01440300	Mill Creek at Mountainhome, Pa.	Lat 41°09'50", long 75°16'00", Monroe County, at stone-arch bridge on macadam road 0.5 mile east of Mountainhome, and 1.5 miles above mouth.	5.84	1961-71	10-23-70	5.92	108
01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 40863, 1.5 miles southeast of Bath, and 2.5 miles upstream from mouth. Datum of gage is 372.06 ft above mean sea level.	5.35	1962-68 [‡] 1969-71	5-31-71	3.54	61
01454600	Polk Valley Run at Hellertown, Pa.	Lat 40°34'05", long 75°19'45", Northampton County, at concrete bridge on L.R. 48093, 0.7 mile above mouth, and 1.5 miles southeast of Hellertown.	2.14	1963-71	8-28-71	4.26	96
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek and Beaver Creek, 1.5 miles east of Ottsville, and 5.3 miles above mouth.	14.7	1962-71	8-28-71	7.12	4,490
01465780	Poquessing Creek above Byberry Creek at Philadelphia, Pa.	Lat 40°14'10", long 74°58'33", Philadelphia County, on left bank 2,200 ft upstream from Byberry Creek, Philadelphia. Datum of gage is 17.26 ft above mean sea level.	13.2	1965-70 [‡] 1971	8-28-71	10.98	4,120
01465795	Byberry Creek at Grant Avenue, Philadelphia, Pa.	Lat 40°03'45", long 74°59'47", Philadelphia County, on left bank 120 ft upstream from Grant Avenue Bridge, 1,300 ft west of Frankford Avenue, Philadelphia. Datum of gage is 26.17 ft above mean sea level.	7.13	1964-70 [‡] 1971	8-28-71	9.98	2,540

* Also a low-flow partial-record station.

‡ Operated as a continuous-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Delaware River basin--continued							
01467043	Stream "A" at Philadelphia, Pa.	Lat 40°05'27", long 75°03'15", Philadelphia County, at concrete-box culvert on Bloomfield Avenue in Philadelphia, Pa.	1.20	1965-71	8-28-71	16.47	507
01467045	Pennypack Creek below Verree Road, Philadelphia, Pa.	Lat 40°05'04", long 75°03'34", Philadelphia County, on left bank 600 ft downstream from Verree Road and 1 mile downstream from Rockledge Branch, Philadelphia. Datum of gage is 67.26 ft above mean sea level.	42.8	1965-70 71	8-28-71	12.73	5,200
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, 0.5 mile above mouth, 0.5 mile below West Branch Pine Creek, and 2 miles north of Manatawny.	15.6	1961-71	2-13-71	6.08	534
01473100	Zacharias Creek near Skippack, Pa.	Lat 40°12'26", long 75°21'57", Montgomery County, at concrete weir, 1.2 miles above mouth, and 2.2 miles southeast of Skippack.	7.27	1960-71	9-13-71	10.8	a10,000
01473880	Pine Run tributary at Fort Washington, Pa.	Lat 40°08'13", long 75°11'21", Montgomery County at corrugated half-round culvert on Delaware Road in Fort Washington Industrial Park at Fort Washington, and 300 ft above mouth.	2.01	1962-71	8-28-71	8.02	198
01473900	Wissahickon Creek at Fort Washington, Pa.	Lat 40°07'26", long 75°13'13", Montgomery County, on concrete bridge on State Highway 73, 0.5 mile downstream from Sandy Run, and 1 mile south of Fort Washington.	40.8	1961-68 71 1969-71	9-13-71	13.32	4,250
01473980	Wissahickon Creek at Livezey Lane, Philadelphia, Pa.	Lat 40°02'59", long 75°12'52", Philadelphia County, on left bank 300 ft upstream from Green Valley Boat Club, 500 ft downstream from Chreshiem Creek in Philadelphia. Datum of gage is 78.55 ft above mean sea level.	59.2	1965-70 71	9-13-71	6.27	5,390
01478200	Middle Branch White Clay Creek near Landenberg, Pa.	Lat 39°46'54", long 75°48'03", Chester County, at bridge on L.R. 15017, 1.4 miles above mouth, and 1.8 miles west of Landenberg.	12.7	1960-71	2-13-71	9.28	1,820
01480610	Sucker Run near Coatesville, Pa.	Lat 39°58'20", long 75°51'06", Chester County, at concrete bridge on South Park Avenue at State Highway 372, 1.6 miles above mouth, and 2 miles west of Coatesville.	2.57	1964-71	2-13-71	5.11	a300
01480680	Marsh Creek near Lyndell, Pa.	Lat 40°03'58", long 75°43'38", Chester County, at bridge on L.R. 15018 at Milford Mills, 1 mile northeast of Lyndell, 1.8 miles upstream from mouth, and 4.2 miles north of Downingtown.	17.8	1960-69 71 1970-71	2-13-71	6.05	1,020

* Also a low-flow partial-record station.

≠ Operated as a continuous-record station.

a Indirect measurement.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Susquehanna River basin							
01516800	Manns Creek near Mansfield, Pa.	Lat 41°49'19", long 77°05'50", Tioga County, at bridge on gravel road, 0.5 mile above mouth, and 1.8 miles northwest of Mansfield.	3.01	1960-71	3-15-71	5.45	440
01531250	North Branch Sugar Creek tributary near Columbia Cross Roads, Pa.	Lat 41°50'25", long 76°49'38", Bradford County, at bridge on secondary road, 14 miles upstream from mouth and 1.5 miles west of Columbia Cross Roads.	8.83	1962-68 ^a 1969-71	3-15-71	4.83	904
01532200	South Branch Towanda Creek at New Albany, Pa.	Lat 41°35'25", long 76°26'00", Bradford County, at bridge on gravel road, 0.1 mile below French Creek, 0.7 mile above Beaver Run and 0.8 mile south of New Albany.	13.3	1963-71	2- 7-71	5.47	644
01533250	Tuscarora Creek near Silvara, Pa.	Lat 41°42'25", long 76°07'10", Bradford County, at culvert on gravel road, 1 mile northeast of Silvara, 1.1 miles above Mill Creek, and 4.6 miles above mouth.	11.8	1963-71	3-17-63 2- 7-65 2-11-66 5-11-67 11- 2-67 4- 5-69 4- 2-70 3-15-71	6.19 5.76 7.76 5.22 7.09 5.84 9.00 6.54	c225 c186 c351 c126 c297 c194 c460 253
01533800	Butler Creek at Gibson, Pa.	Lat 41°48'10", long 75°38'45", Susquehanna County, at concrete bridge on State Highway 547, at Gibson, and 6 miles above mouth. Datum of gage is 1,189.29 ft above mean sea level.	7.38	1963-71	-	b	b
01538800	Huntington Creek near Pikes Creek, Pa.	Lat 41°18'40", long 76°08'50", Luzerne County, at bridge on State Highway 118, 1.5 miles above Mitchler Run, and 2.8 miles west of Pikes Creek.	4.94	1960-71	11-13-70	6.80	225
01542720	Wilson Run at Penfield, Pa.	Lat 41°12'58", long 78°35'00", Clearfield County, at wooden bridge, 200 ft north of State Highway 153, 0.8 mile northwest of Penfield, and 0.7 mile above mouth.	8.34	1962-71	3-31-62 3-18-63 3-10-64 3-30-65 2-13-66 9-28-67 5-29-68 1-31-69 4- 2-70 3-15-71	2.58 3.02 4.39 2.45 3.28 3.50 2.40 2.55 3.22 2.57	c168 c264 c592 c150 c326 c370 c150 c180 c314 184
01544450	Germania Branch at Germania, Pa.	Lat 41°38'49", long 77°39'22", Potter County, at concrete bridge on private road, 50 ft below Baders Hollow, 0.3 mile east of Germania and 4.6 miles above mouth.	2.40	1964-71	9- 7-71	2.19	74
01548020	Bull Run near Loganton, Pa.	Lat 41°00'30", long 77°19'35", Clinton County, at pipe culvert on State Route 477, and 2 miles southeast of Loganton.	1.99	1963-71	2-13-71	6.19	50
01552100	Mill Creek near Warrensville, Pa.	Lat 41°20'10", long 76°57'45", Lycoming County, at bridge on L.R. 41044, 1.2 miles northwest of Warrensville, and 6 miles above mouth.	11.9	1961-71	10-22-70	3.15	408
01553050	White Deer Hole Creek near Elimsport, Pa.	Lat 41°07'05", long 77°04'00", Lycoming County, at bridge on L.R. 41001, 2.5 miles west of Elimsport, and 12.5 miles above mouth. Datum of gage is 650.84 ft above mean sea level.	18.2	1961-71	11-13-70	6.39	202

^a Operated as a continuous-record station.

b Peak discharge did not reach bottom of gage.

c Revised.

Annual maximum discharge at crest-stage partial-record stations--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cfs)
Susquehanna River basin--continued							
01555800	McDonald Run near East Freedom, Pa.	Lat 40°22'35", long 78°25'55", Blair County, at concrete culvert on U.S. Highway 220, 0.4 mile above mouth, and 1.5 miles north of East Freedom. Datum of gage is 1,014.18 ft above mean sea level.	1.54	1959-71	11-13-70	3.62	132
01556400	Sandy Run near Bellwood, Pa.	Lat 40°33'47", long 78°20'35", Blair County, at bridge on private road, 0.6 mile above mouth, and 2.5 miles south of Bellwood.	5.58	1962-71	11- 3-70	3.36	90
01556500	Little Juniata River at Tipton, Pa.	Lat 40°37'40", long 78°17'38", Blair County, at Tipton, 100 ft below bridge on State Highway 220, and 150 ft below Tipton Run. Datum of gage is 946.76 ft above mean sea level.	93.7	1946-62 [‡] 1963-71	2-23-71	5.43	1,860
01557100	Schell Run at Tyrone, Pa.	Lat 40°40'00", long 78°15'00", Blair County, 0.2 mile above U.S. Highway 220 between 5th Street and Shippen Street, Tyrone. Datum of gage is 919.11 ft above mean sea level.	1.68	1958-62 [‡] 1963-71	11- 3-70	1.36	32
01563800	Elders Branch near Hustontown, Pa.	Lat 40°05'20", long 78°02'55", Fulton County, at timber bridge on gravel road, 2.2 miles above mouth, and 5 miles northeast of Hustontown.	3.46	1960-71	11-12-70	5.35	166
01565920	Lick Run near East Waterford, Pa.	Lat 40°21'15", long 77°38'55", Juniata County, at culvert on L.R. 34070, 0.7 mile above mouth, and 1.5 miles southwest of East Waterford.	8.38	1962-71	11-23-70	4.48	296
01569340	Newburg Run at Newburg, Pa.	Lat 40°07'40", long 77°32'50", Cumberland County, at concrete bridge on State Highway 696, 0.4 mile above mouth, and 0.8 mile south of Newburg.	5.29	1964-71	2-22-71	d5.04	181
01572900	Reeds Creek near Ono, Pa.	Lat 40°24'25", long 76°33'15", Lebanon County, at concrete culvert on U.S. Highway 22, 1 mile west of Ono, and 1.1 miles above mouth.	8.63	1962-71	2-13-71	6.36	990
01576320	Stony Run at Reamstown, Pa.	Lat 40°12'44", long 76°07'30", Lancaster County, at double-arch bridge, 0.1 mile southeast of U.S. Highway 222, 0.1 mile northwest of Reamstown, and 0.7 mile above mouth.	3.55	1964-71	8- 3-71	5.08	536
01578200	Conowingo Creek near Buck, Pa.	Lat 39°50'35", long 76°11'45", Lancaster County, at concrete bridge on L.R. 36135, 2 miles above Jackson Run, and 2.5 miles southeast of Buck.	8.71	1963-71	2-13-71	6.57	533
Potomac River basin							
*01600700	Little Wills Creek at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96 at Bard. Datum of gage is 1,264.2 ft above mean sea level.	10.2	1961-71	2-13-71	7.69	296
*01638900	White Run near Gettysburg, Pa.	Lat 39°47'45", long 77°11'50", Adams County, at concrete bridge on U.S. Highway 140, 1 mile above mouth, and 2.5 miles southeast of Gettysburg. Datum of gage is 414.65 ft above mean sea level.	12.4	1961-71	2-23-71	7.87	831

* Also a low-flow partial-record station.

‡ Operated as a continuous-record station.

d Based on gage difference relation.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Conewango Creek basin							
03015080	Akeley Run near Russell, Pa.	Lat 41°55'55", long 79°05'38", Warren County, at highway bridge 1.1 miles upstream from Widdlefield Run, and 2.5 miles east of Russell. Datum of gage is 1,367.84 ft above mean sea level.	9.64	1962-71	10-13-70	2.16	602
Brokenstraw Creek basin							
03015390	Hare Creek near Corry, Pa.	Lat 41°56'29", long 79°38'41", Erie County, at concrete dam of Corry Water Co., 1.1 miles above Bear Creek, and 1.5 miles north of Corry.	12.3	1964-71	1971	b	450
Tionesta Creek basin							
*03017800	Minister Creek near Truemans, Pa.	Lat 41°37'17", long 79°09'12", Forest County, in Allegheny National Forest, at bridge on State Highway 666, 0.4 mile above mouth, and 1 mile west of Truemans.	10.8	1961-71	11- 3-70	2.36	202
Oil Creek basin							
03020440	West Branch Caldwell Creek near Grand Valley, Pa.	Lat 41°45'31", long 79°34'08", Warren County, at bridge 2 miles above Three Bridge Run, and 3 miles northwest of Grand Valley.	4.37	1964-71	2-27-71	8.10	272
Richey Run basin							
03026400	Richey Run at Emlenton, Pa.	Lat 41°10'53", long 79°41'25", Clarion County, at highway bridge 1 mile east of Emlenton, and 1.2 miles above mouth.	5.88	1963-71	2-20-71	2.11	244
Clarion River basin							
*03029200	Clear Creek near Sigel, Pa.	Lat 41°19'17", long 79°04'39", Jefferson County, at bridge on State Highway 949 in Clear Creek State Park, 1,500 ft above Phyllis Run, and 4 miles northeast of Sigel.	8.67	1960-71	11- 3-70	4.64	187
Redbank Creek basin							
03031780	Mill Creek near Brockway, Pa.	Lat 41°14'53", long 78°50'08", Jefferson County, at culvert on State Highway 28, and 2 miles west of Brockway.	2.12	1965-71	2-20-71	5.29	122
Kiskiminetas River basin							
03042170	Stoney Run at Indiana, Pa.	Lat 40°36'31", long 79°09'49", Indiana County, at southwest edge of Indiana, 300 ft west of U.S. Highway 119, and 0.1 mile below Marsh Run.	4.39	1964-71	7-11-71	6.51	249

* Also a low-flow partial-record station.

b Peak stage did not reach bottom of gage.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Buffalo Creek basin							
03049100	Little Buffalo Creek at Cabot, Pa.	Lat 40°45'57", long 79°46'01", Butler County, at highway bridge at Cabot, 500 ft above main bridge, and 3.5 miles above Sarver Run.	4.66	1959-71	2-13-71	-	d180
Monongahela River basin							
03072880	Browns Creek near Nineveh, Pa.	Lat 39°56'27", long 80°17'21", Greene County, at highway bridge just below Brush Fork, and 1.8 miles southeast of Nineveh, Pa.	17.5	1963-71	5- 6-71	-	e900
03083600	Gillespie Run near Sutersville, Pa.	Lat 40°13'59", long 79°49'06", Allegheny County, at upstream highway bridge at Mustard, 0.4 mile above mouth, and 0.7 mile west of Sutersville.	4.04	1959-71	5- 6-71	2.87	195
Streams tributary to Lake Erie							
04213200	Mill Creek at Erie, Pa.	Lat 42°05'54", long 80°04'35", Erie County, at bridge on West 38th Street, 100 ft west of State Highway 505, at Erie.	9.16	1964-71	2-20-71	10.28	373

d Based on gage difference relation.

e About.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a square (■).

Discharge measurements made at miscellaneous sites during water year 1971

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Measurements Discharge (cfs)
Delaware River basin						
Marshall Creek	Brodhead Creek	Lat 40°59'50", long 75°00'30", Monroe County, at bridge on rural road at Minisink Hills, 600 ft upstream from mouth.	26.8	1958-70	2-24-71 3- 9-71	197 112
Sawmill Run	Pohopoco Creek	Lat 40°50'42", long 75°38'52", Carbon County, near mouth, 0.1 mile downstream from gaging station on Pohopoco Creek, 0.5 mile downstream from Beltzville Dam, and 2.2 miles northeast of Parryville.	6.76	-	6-17-71 6-17-71	14 13
Bushkill Creek	Delaware River	Lat 40°41'45", long 75°12'18", Northampton County, at mouth at Easton.	80.0	1968-70	10-14-70 3-11-71 5-20-71 8-25-71 9-30-71	40 349 123 58 145
Monocacy Creek	Lehigh River	Lat 40°42'29", long 75°23'54", Northampton County, 0.2 mile west of State Highway 512 at Clyde, and 1.3 miles south of Bath.	-	-	5-13-70 9-10-70 5- 4-71	*13 *10 *8.6
Little Lehigh Creek	Lehigh River	Lat 40°31'51", long 75°36'04", Lehigh County, at bridge on State Highway 100, 1 mile south of Trexlertown.	-	-	5-13-70 9-10-70 5-14-71	19 1.4 15
Cedar Creek	Little Lehigh Creek	Lat 40°35'19", long 75°29'27", Lehigh County, near mouth at Allentown.	15.0	1968	10-13-70	*12
Poquessing Creek	Delaware River	Lat 40°04'10", long 74°58'33", Philadelphia County, 2,200 ft upstream from Byberry Creek, Philadelphia.	13.2	1964-70	10- 7-70	.99
Byberry Creek	Poquessing Creek	Lat 40°03'45", long 74°59'47", Philadelphia County, at Grant Avenue Bridge, 1,300 ft west of Frankford Avenue, Philadelphia.	7.13	1964-70	10- 7-70	.72
Poquessing Creek	Delaware River	Lat 40°03'25", long 74°59'08", Philadelphia County, 600 ft upstream from Delaware River Expressway and 3,000 ft upstream from mouth, Philadelphia.	21.4	1965-70	10- 7-70	2.3
Pennypack Creek	. . . do. . .	Lat 40°05'23", long 75°04'10", Philadelphia County, 20 ft downstream from Pine Road, and 300 ft upstream from mouth of Stream "A", Philadelphia.	37.9	1964-70	10- 5-70 8-11-71	13.8 *19
Do. . .	. . . do. . .	Lat 40°05'04", long 75°03'34", Philadelphia County, 600 ft downstream from Verree Road, and 1 mile downstream from Rockledge Branch, Philadelphia.	42.8	1964-70	10- 5-70	12.9
Do. . .	. . . do. . .	Lat 40°03'00", long 75°01'59", Philadelphia County, 400 ft downstream from Rhawn Street Bridge, 0.8 mile upstream from Wooden Bridge Run, Philadelphia.	49.8	1965-70	10- 5-70 8-11-71	12.4 *23.9

≠ Operated as a continuous-recording station.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Delaware River basin--Continued						
Wooden Bridge Run	Pennypack Creek	Lat 40°03'19", long 75°01'22", Philadelphia County, 200 ft upstream from Penn Central Railroad bridge, and 1,500 ft upstream from mouth, Philadelphia.	3.35	1965-70 [†]	10- 5-70 8-11-71	1.36 *2.8
Rock Creek	Tacony Creek	Lat 40°04'54", long 75°09'03", Montgomery County, 1,600 ft upstream from Washington Lane, Cheltenham Township, about 1.2 miles above mouth.	1.15	-	10- 8-70 11- 9-70 12- 7-70 1-11-71 2- 8-71 3- 8-71 4-19-71 5-10-71	.63 .49 .69 .93 1.79 1.34 .98 .97
Tacony Creek	Frankford Creek	Lat 40°02'47", long 75°06'41", Philadelphia County, 20 ft downstream from county line, 0.4 mile upstream from Adams Avenue Bridge, Philadelphia.	16.2	1965-70 [†]	8-11-71	*8.2
Frankford Creek	Delaware River	Lat 40°00'25", long 75°05'33", Philadelphia County, 400 ft upstream from Torresdale Avenue, 1.5 miles west of Frankford Arsenal, and 1.7 miles upstream from mouth.	33.8	1965-70 [†]	10- 7-70	8.3
Wolf Creek	Mill Creek	Lat 40°44'42", long 76°10'50", Schuylkill County, above Pottsville Reservoir, 1.6 miles north of St. Clair.	-	-	10-14-70	*3.3
Maiden Creek	Schuylkill River	Lat 40°26'22", long 75°55'41", Berks County, at Wileys Bridge, 1 mile downstream from Lake Ontelaunee, and 2 miles north of Temple.	-	-	10-13-70	19
Pigeon Creek	. . . do. . .	Lat 40°12'03", long 75°37'10", Chester County, at bridge on Ellis Woods Road, 1.8 miles west of Parker Ford, and 3 miles upstream from mouth.	12.0	1970	10-30-70 2-13-71 2-18-71 4- 7-71 8-17-71 9-14-71	*5.7 838 18 47 *6.3 68
Stony Run	. . . do. . .	Lat 40°10'01", long 75°32'57", Chester County, at bridge on Pikeland Avenue, 0.3 mile south of Spring City, and 2.2 miles upstream from mouth.	4.07	1970	10-30-70 2-18-71 2-18-71 4- 7-71 5-13-71 6-22-71 8-17-71 9-13-71 9-13-71	*.68 *3.6 *3.3 20 21 *1.8 *2.2 607 340
Stony Creek	. . . do. . .	Lat 40°07'20", long 75°20'42", Montgomery County, at Markley Street Bridge, at Norristown and 0.6 mile upstream from mouth.	21.2	-	9-13-71	12,900a
Naylor Creek	Cobbs Creek	Lat 39°58'13", long 75°18'11", Delaware County, 200 ft upstream from West Chester Pike in Haverford Township, west of Philadelphia.	-	-	10- 7-70 11-12-70 12- 9-70 1-13-71 2-10-71 3-10-71 4-21-71 5-12-71 6- 9-71 7-14-71 8- 4-71 9-15-71	.24 2.50 .45 .67 .69 .86 .72 .60 .61 .49 .53 1.15
Little Crum Creek	Crum Creek	Lat 39°53'42", long 75°20'19", Delaware County at Michigan Avenue, Ridley Township.	1.15	-	10- 7-70 11-12-70 12- 9-70 1-13-71 2-10-71 3-10-71 4-21-71 5-12-71	.15 2.53 .57 .62 .74 1.24 .77 .54

[†] Operated as a continuous-recording station.
a Indirect measurement.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Delaware River basin--Continued						
East Branch Brandywine Creek	Brandywine Creek	Lat 39°58'07", long 75°40'25", Chester County, at bridge on U.S. Highway 322, and 3 miles southeast of Downingtown.	-	-	2-14-71	928
Susquehanna River basin						
Meshoppen Creek	Susquehanna River	Lat 41°39'04", long 75°55'18", Susquehanna County, at bridge on rural road, just upstream from mouth of Thomas Creek, 1.2 miles southeast of Lynn.	-	1967-70	5- 5-71	*38
Nescopeck Creek	. . . do. . .	Lat 41°03'06", long 76°13'59", Luzerne County, at bridge on State Highway 339, at mouth, at Nescopeck.	172	1965 1967-70	5-10-71	230
West Branch Susquehanna River	. . . do. . .	Lat 40°35'54", long 78°44'41", Cambria County, at bridge on property of Barnes and Tucker Mine, downstream from inflow from borehole at Bakerton.	-	-	8-10-71 8-10-71	*6.6 *6.0
DO. . .	. . . do. . .	Lat 40°36'21", long 77°45'11", Cambria County, at bridge on local road, just upstream from mouth of Lesle Run, at Bakerton.	-	-	10- 5-70	*.88
Lesle Run	West Branch Susquehanna River	Lat 40°36'22", long 78°45'09", Cambria County, at bridge on macadam road in Bakerton, 200 ft upstream from mouth.	.99	-	10- 5-70	*.28
West Branch Susquehanna River	Susquehanna River	Lat 40°37'42", long 78°45'56", Cambria County, at bridge on gravel road, 0.3 mile northwest of Watkins, and 1.3 miles southwest of Spangler.	-	-	10- 6-70 8-10-71 8-10-71	*12 *7.3 *6.8
Fox Run	West Branch Susquehanna River	Lat 40°38'19", long 78°46'05", Cambria County, at Spangler, at bridge on road to Bakerton, 800 ft upstream from mouth.	7.74	-	10- 5-70	*3.3
West Branch Susquehanna River	Susquehanna River	Lat 40°38'39", long 78°46'44", Cambria County, at Spangler, at bridge on road to Moss Creek, about 1,500 ft upstream from Browns Run.	-	-	10- 5-70	*14
Browns Run	West Branch Susquehanna River	Lat 40°38'44", long 78°46'54", Cambria County, at Spangler, at bridge leading to mine, and about 600 ft upstream from mouth.	2.61	-	10- 5-70	8.5
West Branch Susquehanna River	Susquehanna River	Lat 40°39'28", long 78°47'26", Cambria County, at Barnesboro, at bridge on road to Long Run, and 0.4 mile up- stream from Walnut Run.	-	-	10- 6-70	*27
Walnut Run	West Branch Susquehanna River	Lat 40°39'42", long 78°47'00", Cambria County, at Barnesboro, at bridge on Maple St., and 500 ft upstream from mouth.	4.41	-	10- 6-70	*4.2
Porter Run	. . . do. . .	Lat 40°40'09", long 78°47'11", Cambria County, at North Barnesboro, at bridge on U.S. Highway 219 and about 900 ft upstream from mouth.	1.09	-	10- 6-70	*.56
West Branch Susquehanna River	Susquehanna River	Lat 40°40'05", long 78°47'29", Cambria County, at North Barnesboro, at bridge 800 ft south of U.S. Highway 219.	1.09	-	10- 6-70	*31

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Susquehanna River basin--Continued						
Moss Creek	West Branch Susquehanna River	Lat 40°39'03", long 78°48'45", Cambria County, at Marsteller, on road to Spangler, and 2 miles southwest of Barnesboro.	-	-	8- 9-71	2.4
Do. . .	. . . do. . .	Lat 40°39'37", long 78°48'51", Cambria County, at Long Run, at bridge on macadam road, just upstream from Long Run, and 1.6 miles west of Barnesboro.	-	-	10- 6-70 8- 9-71	*3.1 *2.3
West Branch Susquehanna River	Susquehanna River	Lat 40°41'06", long 78°48'28", Cambria County, at bridge on U.S. Highway 219, 0.4 mile north of Garman.	-	-	10- 6-70	*37
Douglas Run	West Branch Susquehanna River	Lat 40°41'31", long 78°48'43", Cambria County, at bridge on rural road, about 0.4 mile upstream from mouth, and 0.8 mile north of Garman.	-	-	10- 6-70	*1.1
Emeigh Run	. . . do. . .	Lat 40°41'57", long 78°48'11", Cambria County, at bridge on U.S. Highway 219, about 300 ft upstream from mouth, and 0.6 mile west of Emeigh.	3.84	-	10- 6-70	*.42
West Branch Susquehanna River	Susquehanna River	Lat 40°42'25", long 78°48'08", Cambria County, at bridge on State Highway 240, 1.3 miles south of Cherry Tree.	-	-	10- 6-70 8-10-71	*38 *18
Peg Run	West Branch Susquehanna River	Lat 40°42'29", long 78°48'23", Cambria County, at bridge on State Highway 240, about 1,300 ft upstream from mouth, and 1.2 miles south of Cherry Tree.	2.24	-	10- 6-70	*.32
Cush Cushion Creek	. . . do. . .	Lat 40°43'33", long 78°48'20", Indiana County, near mouth, at Cherry Tree.	12.5	1970	10- 6-70 8-10-71	*5.1 *1.2
West Branch Susquehanna River	Susquehanna River	Lat 40°43'34", long 78°48'20", Indiana County, at bridge on State Highway 580, at Cherry Tree.	-	1970	10- 5-70 10- 7-70 10-12-70 11- 9-70 12-29-70 1-21-71 3-15-71 4-20-71 6- 1-71 7-14-71 8- 9-71 8-23-71	*43 *42 127 111 134 *77 510 *64 *33 *25 *22 *44
Kings Run	West Branch Susquehanna River	Lat 40°44'05", long 78°47'47", Clearfield County, at bridge on U.S. Highway 219 at Stifflertown, about 400 ft upstream from mouth.	2.42	-	10- 7-70	*.33
West Branch Susquehanna River	Susquehanna River	Lat 40°44'09", long 78°47'50", Clearfield County, at bridge on rural road, 0.35 mile northeast of Stifflertown, just downstream from Kings Run.	-	-	10- 7-70 8-10-71	*42 *19
Shryock Run	West Branch Susquehanna River	Lat 40°45'13", long 78°47'22", Clearfield County, at bridge on rural road, near mouth, and 1.4 miles northeast of Stifflertown.	6.39	1970	10- 8-70	*1.7
Beaver Run	. . . do. . .	Lat 40°46'26", long 78°46'41", Clearfield County, at bridge on U.S. Highway 219, 0.5 mile south of Patchinville.	-	1970	10- 8-70	*8.4
Saw Mill Run	. . . do. . .	Lat 40°47'55", long 78°46'57", Clearfield County, at bridge on U.S. Highway 219, 500 ft upstream from mouth, 1 mile south of Burnside.	4.37	1970	10- 8-70	*.68

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Susquehanna River basin--Continued						
Cush Creek	West Branch Susquehanna River	Lat 40°49'55", long 78°47'21", Clearfield County, at bridge on U.S. Highway 219, at Dowler Junction, near mouth, and 1.3 miles north of Burnside.	21.4	1970	10- 8-70	*8.9
Deer Run	. . . do. . .	Lat 40°52'13", long 78°45'19", Clearfield County, at bridge on rural road, at mouth, 0.8 mile south of McGees Mills.	8.11	-	10- 7-70	*1.1
West Branch Susquehanna River	Susquehanna River	Lat 40°52'51", long 78°45'54", Clearfield County, at covered bridge on county road at McGees Mills.	-	1970	10- 5-70 10- 7-70 10-12-70 1-25-71 4-20-71 6- 1-71 7-14-71 8-10-71 8-23-71	*82 *68 332 *167 *148 *81 136 *46 95
Bear Run	West Branch Susquehanna River	Lat 40°52'52", long 78°45'43", Clearfield County, at bridge on U.S. Highway 219, at McGees Mills and 500 ft upstream from mouth.	19.4	1970	10- 7-70	*5.4
Whisky Run	. . . do. . .	Lat 40°53'06", long 78°45'19", Clearfield County, at bridge on U.S. Highway 219, 500 ft upstream from mouth, and 0.4 mile northeast of McGees Mills.	6.53	1970	10- 7-70	*2.0
Chest Creek	. . . do. . .	Lat 40°52'06", long 78°43'15", Clearfield County, at bridge on rural road at Mahaffey, and 0.9 mile upstream from mouth.	-	1945 1970	10- 7-70	*31
Haslett Run	. . . do. . .	Lat 40°53'49", long 78°41'06", Clearfield County, at bridge on U.S. Highway 219, 0.5 mile upstream from mouth, 0.5 mile west of Bower, and 2.7 miles northeast of Mahaffey.	-	1970	10- 7-70	*1.5
Curry Run	. . . do. . .	Lat 40°54'33", long 78°40'04", Clearfield County, near mouth, at Curry Run.	14.1	1970	10- 7-70	*4.0
Bell Run	. . . do. . .	Lat 40°55'02", long 78°38'55", Clearfield County, at bridge on State Highway 969, at Bells Landing, and 0.3 mile upstream from mouth.	16.3	1944/ 1946-48/ 1950-55/ 1957/ 1970	10- 7-70	*3.9
Montgomery Creek	. . . do. . .	Lat 41°00'14", long 78°27'43", Clearfield County, at bridge on old U.S. Highway 322, at Hyde, 0.25 mile upstream from mouth.	16.5	1959-69/	10-27-70	28
West Branch Susquehanna River	Susquehanna River	Lat 41°01'38", long 78°25'02", Clearfield County, 500 ft upstream from bridge on county road, 1 mile east of Clearfield and 1.2 miles upstream from Clearfield Creek.	-	-	10-27-70	b265
Wolf Run	West Branch Susquehanna River	Lat 41°01'47", long 78°24'30", Clearfield County, at bridge on State Highway 879, 500 ft upstream from mouth, and 1.6 miles east of Clearfield.	1.71	-	10-27-70	*1.3
Lick Run	. . . do. . .	Lat 41°03'01", long 78°23'10", Clearfield County, at bridge on State Highway 879, 0.3 mile upstream from mouth, and 1.8 miles southwest of Shawville.	27.5	-	10-27-70	47

/ Operated as low-flow partial-record station.

b Affected by regulation.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Susquehanna River basin--Continued						
Trout Run	West Branch Susquehanna River	Lat 41°04'10", long 78°21'37", Clearfield County, at bridge on State Highway 879, at Shawville, 100 ft upstream from mouth.	41.8	1944 1946-48 1950-55 1957 1963	10-27-70	*71
Millstone Run	. . . do. . .	Lat 41°03'02", long 78°20'21", Clearfield County, at bridge on rural road, 0.1 mile upstream from mouth, and 1.7 miles southeast of Shawville.	6.38	-	10-27-70	*4.8
Surveyor Run	. . . do. . .	Lat 41°04'27", long 78°19'38", Clearfield County, at bridge on State Highway 879, at Surveyor, and 200 ft upstream from mouth.	6.01	1962-63	10-27-70	*6.3
Bald Hill Run	. . . do. . .	Lat 41°04'33", long 78°18'14", on gravel road just south of State Highway 879, 0.5 mile upstream from mouth, and 0.5 mile southwest of Bald Hill.	-	1963	10-27-70	*2.4
Unnamed tributary	. . . do. . .	Lat 41°04'03", long 78°15'58", Clearfield County, at bridge on rural road, 0.6 mile upstream from mouth, and 1.3 miles southeast of Leontes Mills.	-	-	10-27-70	*.28
Moravian Run	. . . do. . .	Lat 41°02'53", long 78°15'37", Clearfield County, 0.2 mile upstream from mouth, and 1.7 miles northeast of Shiloh.	18.5	-	10-28-70	*7.3
Deer Creek	. . . do. . .	Lat 41°04'44", long 78°14'09", Clearfield County, at bridge on rural road, 800 ft upstream from mouth, and 2 miles southwest of Frenchville.	23.6	-	10-28-70	*30
Rolling Stone Run	. . . do. . .	Lat 41°03'29", long 78°09'33", Clearfield County, at mouth, at Rolling Stone.	1.73	-	10-28-70	*1.9
Mowry Run	. . . do. . .	Lat 41°03'20", long 78°09'19", Clearfield County, at mouth, at Rolling Stone.	1.01	-	10-28-70	*.47
Moshannon Creek	. . . do. . .	Lat 41°02'12", long 78°03'29", Clearfield County, at bridge on State Highway 53, 2.8 miles west of Moshannon.	255	1945 1949	10-28-70	211
Mosquito Creek	. . . do. . .	Lat 40°07'03", long 78°06'35", Clearfield County, at mouth, at Karthaus.	71.2	1940-70	10-14-70 10-28-70 12- 1-70 2-26-71 3-18-71 4-15-71 6- 1-71 9-15-71	107 *95 135 328 383 263 *55 *18
Cooks Run	. . . do. . .	Lat 41°16'42", long 77°53'08", Clinton County, at bridge on State Highway 120, 300 ft upstream from mouth, and 1.7 miles northeast of Keating.	25.6	1949	10-29-70	*16
Twomile Run	Kettle Creek	Lat 41°18'58", long 77°51'33", Clinton County, at bridge on county road, 400 ft upstream from mouth, and 1.4 miles northwest of Westport.	9.13	-	10-29-70	*10
Drury Run	West Branch Susquehanna River	Lat 41°19'35", long 77°46'37", Clinton County, at bridge on State Highway 120 at Drury Run, and 300 ft upstream from mouth.	18.5	-	10-29-70	*23

* Operated as low-flow partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Susquehanna River basin--Continued						
Fishing Creek	Bald Eagle Creek	Lat 40°58'49", long 77°29'00", Clinton County, at bridge on macadam road, 3.1 miles west of Tylersville.	55.8	-	6-29-71 8-10-71 9-16-71	*44 *38 *40
Do. . .	. . . do. . .	Lat 41°06'35", long 77°29'10", Clinton County, on Peale Street Bridge at Mill Hall, and 0.9 mile upstream from mouth.	179	1962-69/	10-26-70	*116
Warrior Run	West Branch Susquehanna River	Lat 41°04'28", long 76°50'01", Northumberland County, at bridge on township road, 0.8 mile east of McEwensville, and 1.2 miles upstream from mouth.	20.1	1970	10- 8-70 11-20-70 12-22-70 2-12-71 2-23-71 3-26-71 5-17-71 6-16-71 6-18-71 7-30-71 9-13-71	*3.9 35 40 *11 367 34 24 *9.1 *6.9 *9.7 *5.8
Armstrong Creek	Susquehanna River	Lat 40°29'00", long 76°52'55", Dauphin County, 0.1 mile downstream from unnamed tributary, 1 mile south of Fisherville, and 1.8 miles west of Enders.	-	1966-70	4-29-71	10
Powell Creek	. . . do. . .	Lat 40°27'50", long 76°48'45", Dauphin County, at bridge on rural road, 0.5 mile south of Union Church, 2.8 miles southwest of Carsonville.	-	1966-70	4-29-71	13
Mile Run	Shawnee Branch	Lat 40°02'53", long 78°38'02", Bedford County, at bridge on rural road, 600 ft upstream from mouth, and 0.4 mile east of Schellsburg.	2.13	1968-69	5-11-71	*1.2
Bloody Run	Raystown Branch Juniata River	Lat 40°00'55", long 78°22'26", Bedford County, at bridge on Third Street, Everett, and 0.4 mile upstream from mouth.	-	1969	#11-26-69 #12-31-69 #2- 2-70 #2- 2-70 #4- 2-70 #9-28-70 12-23-70 1-19-71 6-14-71 9- 7-71	*.35 *2.5 11 14 43 *42 14 *1.6 *9.1 *3.4
Three Springs Creek	Aughwick Creek	Lat 40°12'48", long 77°55'34", Huntingdon County, at mouth, and 3.5 miles northeast of Three Springs.	31.4	1940-70c	3-18-71	59
Yellow Breeches Creek	Susquehanna River	Lat 40°13'34", long 76°51'32", Cumberland-York County line, at mouth, at New Cumberland.	219	d	9- 8-71	*137
Swatara Creek	. . . do. . .	Lat 40°28'38", long 76°31'26", Lebanon County, at bridge on macadam road, just north of State Highway 72, at Swatara Gap, 2 miles north of Lickdale.	169	1962-63 1966-70	4-29-71	*16
Fox Run	Little Conewago Creek	Lat 40°00'39", long 76°48'24", York County, at bridge on L.R. 66002, 0.5 mile upstream from mouth, and 2.4 miles east of Dover.	-	-	12-21-70 4-23-71 6-17-71 8-23-71	12 *3.5 25 *42
East Branch Codorus Creek	South Branch Codorus Creek	Lat 39°52'10", long 76°39'52", York County, at bridge on State Highway 214, 600 ft upstream from Barshinger Creek, and 2.5 miles northeast of Loganville.	-	-	12-21-70 4-26-71 6-10-71 8-24-71	25 24 28 *14

/ Operated as low-flow partial-record station.

Not published previously.

c Most years during period.

d Many years.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Susquehanna River basin--Continued						
Kreutz Creek	Susquehanna River	Lat 40°00'56", long 76°32'26", York County, at footbridge at Cool Brook Country Club, 0.8 mile southwest of Wrightsville.	-	-	12- 2-70 4-23-71 6-17-71 8-24-71	30 30 54 *19
Potomac River basin						
Conococheague Creek	Potomac River	Lat 39°47'30", long 77°45'16", Franklin County, at bridge on State Highway 16, just below mouth of Muddy Run, and 1.4 miles west of Greencastle.	-	1970	3-23-71	658
Marsh Creek	Monocacy River	Lat 39°50'25", long 77°17'46", Adams County, at bridge on L.R. 01002, about 3,000 ft upstream from Little Marsh Creek, and 3.5 miles west of Gettysburg.	24.6	-	10-14-70 10-22-70 11- 6-70 12-22-70 1-27-71 2-22-71 2-23-71 3- 1-71 4-14-71 4-15-71 6-11-71 7-15-71 8-25-71	*3.5 73 *17 194 *22 605 282 88 *18 *18 *15 *5.5 *2.6
Little Marsh Creek	Marsh Creek	Lat 39°49'49", long 77°19'04", Adams County, at bridge on L.R. 01002, 6,000 ft upstream from mouth, and 4.6 miles west of Gettysburg.	20.5	-	10-14-70 10-22-70 11- 6-70 12-22-70 1-27-71 2-23-71 3- 1-71 4-14-71 6-11-71 7-15-71 8-25-71	*1.8 55 *13 185 31 240 103 *19 *19 *5.3 *2.2
Toms Creek	Monocacy River	Lat 39°46'05", long 77°26'01", Adams County, at bridge on macadam road, 200 ft upstream from Copper Run, and 3.7 miles southwest of Fairfield.	4.80	-	10-14-70 10-22-70 11-16-70 12-22-70 1-27-71 2-13-71 2-22-71 3- 1-71 4-15-71 6-16-71 7-15-71 8-25-71	*.67 8.7 8.8 27 7.1 42 73 26 *4.8 13 *2.2 *.90
Clarion River basin						
Clarion River	Allegheny River	Lat 41°25'15", long 78°44'10", Elk County, at bridge on State Highway 948 in Ridgway, 50 ft below Elk Creek.	303	1940-53 [≠] 1954-70	11- 9-70 12- 7-70 1-12-71 2-17-71 3-22-71 4-26-71 5-26-71 7- 7-71 8-13-71 9-15-71	1,130 1,250 400 251 747 293 268 206 186 284

[≠] Operated as a continuous-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Discharge (cfs)
Clarion River basin--Continued						
Clarion River	Allegheny River	Lat 41°07'47", long 79°33'16", Clarion County, at bridge on State Highway 58 at Callensburg, and 0.3 mile above Licking Creek.	-	1970	10-14-70 11-23-70	8,150 4,760
Monongahela River basin						
Indian Creek	Youghiogheny River	Lat 39°58'24", long 79°27'11", Fayette County, at bridge on State Highway 381, at head of Mill Run Reservoir, 0.2 mile upstream from Mill Run, and 1.8 miles south of Normalville.	97.1	-	9-14-71	15,300a
Do.	do.	Lat 39°58'52", long 79°27'19", Fayette County, at dam at Mill Run Reservoir, 0.5 mile down- stream from Mill Run, and 1.3 miles south of Normalville.	110	-	9-14-71	15,100a
Dunbar Creek	do.	Lat 39°59'03", long 79°36'41", Fayette County, 120 ft upstream from highway bridge at Dunbar, 1.2 miles downstream from Gist Run, and 1.8 miles upstream from mouth.	34.7	-	9-14-71	4,160a

a Indirect measurement.

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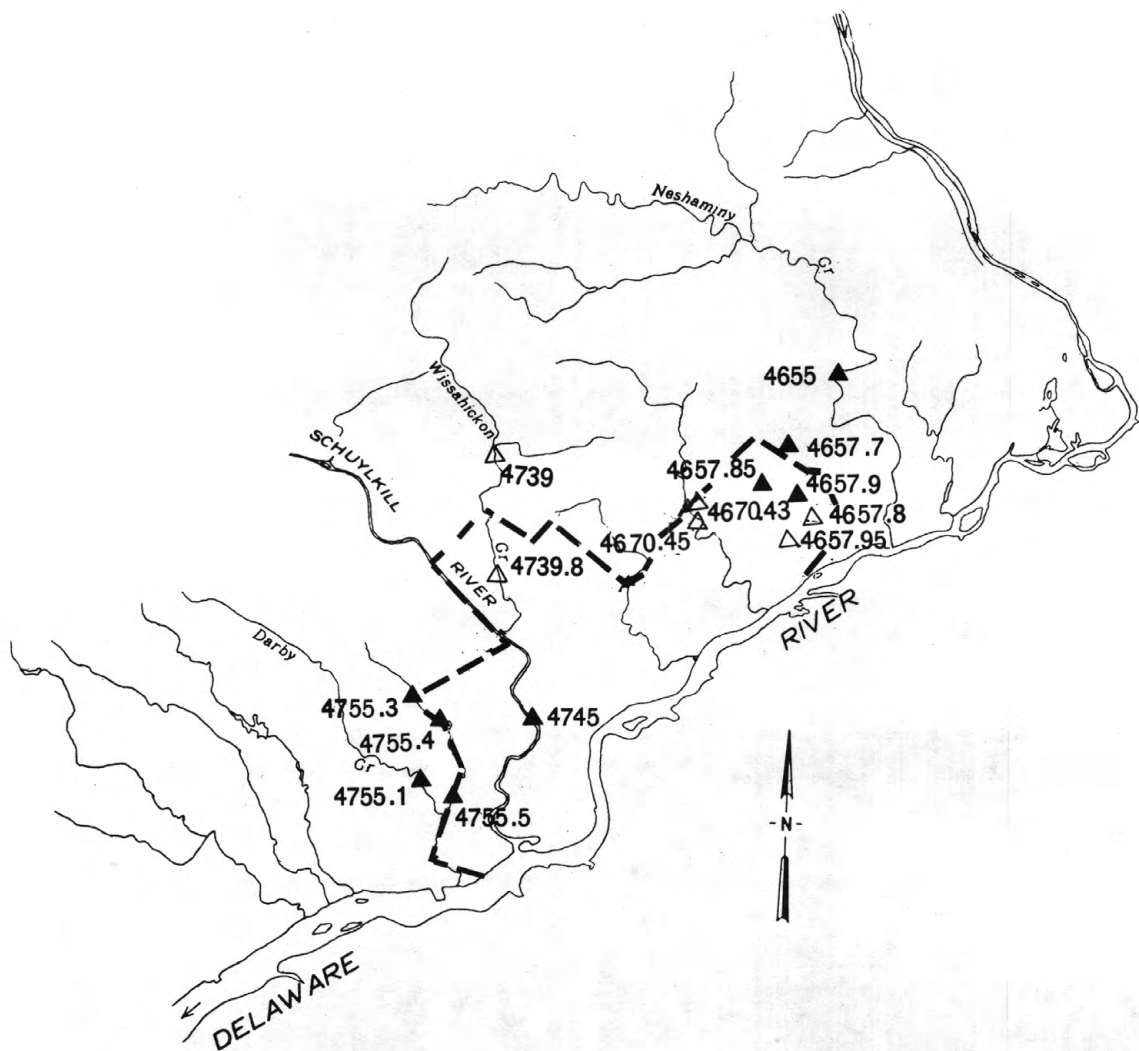
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EXPLANATION

- ▲ Continuous-record station
- △ Crest-stage station

Figure 3.--Map showing location of Philadelphia area gaging stations.

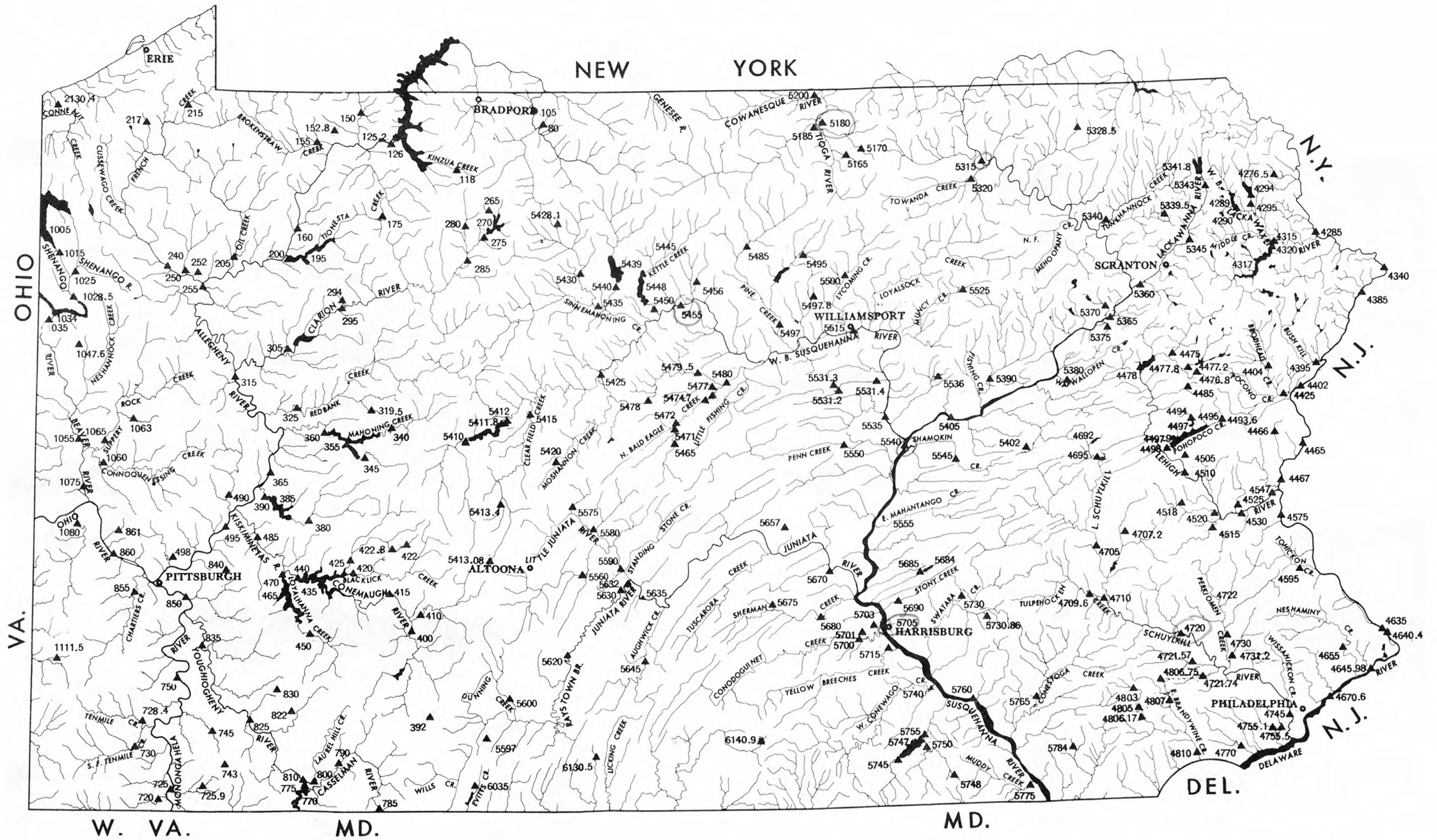


Figure 4.--Map showing location of gaging stations.

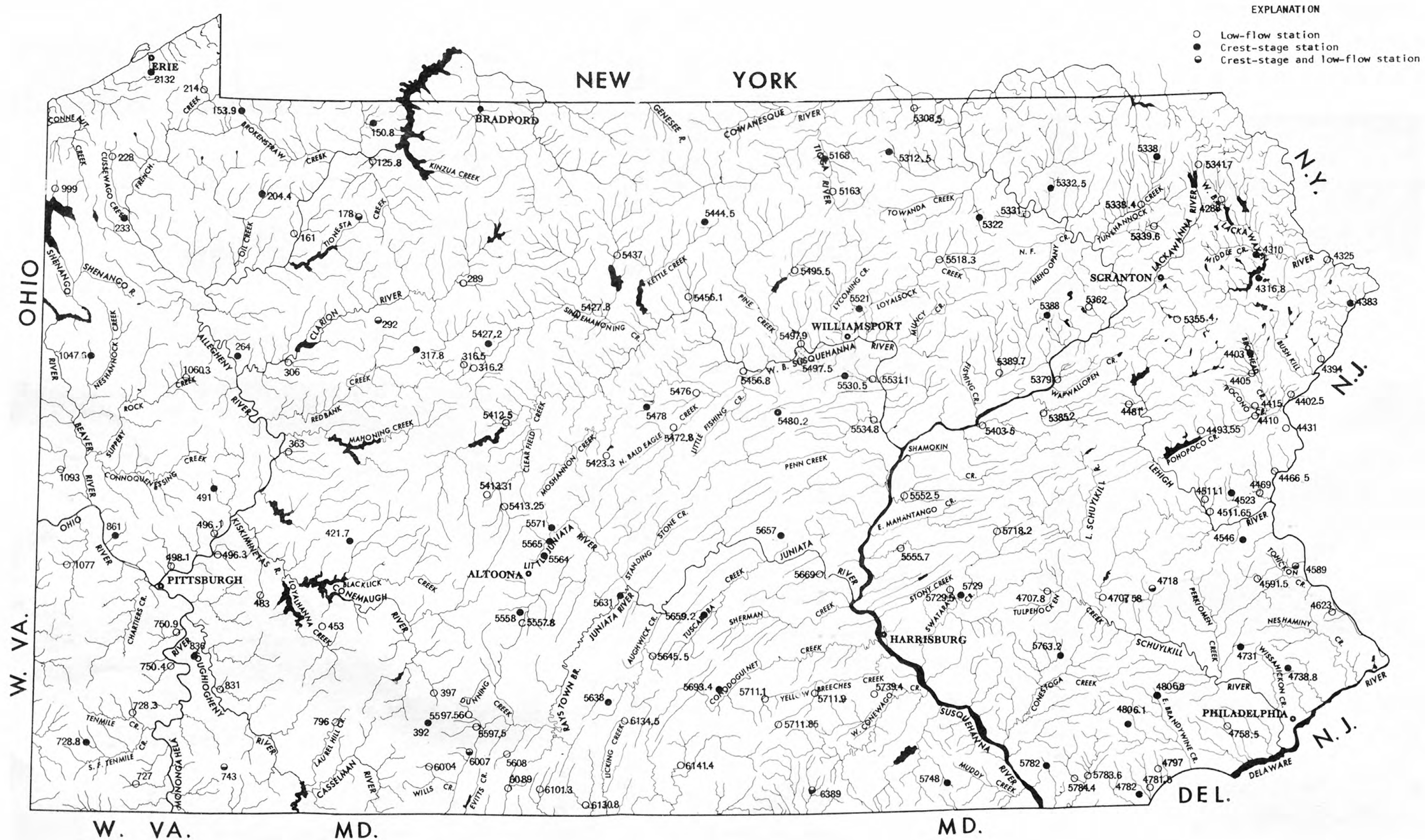


Figure 5.--Map showing location of partial-record stations.

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