Water Resources Data West Virginia Water Year 1985

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WV-85-1
Prepared in cooperation with the State of West Virginia
and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

OCTOBER

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1985

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Water Resources Data West Virginia Water Year 1985

by W.N. Embree, E.A. Friel, and F.M. Taylor

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WV-85-1
Prepared in cooperation with the State of West Virginia
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in West Virginia write to
District Chief, Water Resources Division
U.S. Geological Survey
603 Morris Street
Charleston, West Virginia 25301

1987

PREFACE

This volume of the annual hydrologic data report for West Virginia is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface-and ground-water data-collection networks in each State, Puerto Rico, and Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. The following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of West Virginia and with other agencies under the general supervision of D. H. Appel, District Chief.

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16. Abstract (Limit: 200 words)

Water resources data for the 1985 water year for West Virginia consist of records of stage, discharge, and water quality of streams; contents of reservoirs; and water levels and water quality of observation wells. This report contains discharge records for 75 streamflow-gaging stations; stage only records for 12 gaging stations, and 2 crest-stage partial-record stations; (2) contents for 2 reservoirs, and change in contents for 1 reservoir; (3) water-quality records for 24 streamflow-gaging stations; (4) water-level records for 33 observation wells; and (5) water-quality records for 17 observation wells. Locations of these sites are shown on figures 4 and 5. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in West Virginia.

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Department of Commerce

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ILLUSTRATIONS

Letter after station name designates type of data: (d) discharge, (e) gage-height, (c) chemical, (sK) conductance, (pH) pH units, (t) temperature, (DO) dissolved oxygen, (U) turbidity, (s) sediment, (b) biological, (l) elevation and content

* Records furnished by Mid-Atlantic District, U.S. Geological Survey.

* Records furnished by Mid-Atlantic District, U.S. Geological Survey.

WATER RESOURCES DATA - WEST VIRGINIA, 1985

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of West Virginia each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - West Virginia."

This report includes records on both surface and ground water in the State. Specifically, it contains: (1) Discharge records for 75 streamflow-gaging stations; stage only records for 12 gaging stations, and 2 crest-stage partial-record stations; (2) contents for 2 reservoirs, and change in contents for 1 reservoir; (3) water-quality records for 24 streamflow-gaging stations; (4) water-level records for 33 observation wells; and (5) water-quality records for 17 observation wells. Locations of these sites are shown on figures 4 and 5. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in West Virginia.

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

Prior to introduction of this series and for several water years concurrent with it, water resources data for West Virginia were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6A and 6B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report WV-85-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (304) 347-5130.

COOPERATION

The U.S. Geological Survey and agencies of the State of West Virginia have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

West Virginia Department of Natural Resources, R. R. Potesta, Director through
Division of Water Resources, D. W. Robinson, Chief, and
Division of Reclamation, J. E. Pitsenbarger, Chief

West Virginia State Department of Highways, W. S. Ritchie, Commissioner.

West Virginia Geological and Economic Survey, R. B. Erwin, Director.

Morgantown Water Commission, T. E. Urquhart, Manager.

Washington Public Service District, C. I. Parsons, Manager

Assistance with funds or services was given by the U.S. Army Corps of Engineers, U.S. Soil Conservation Service, National Park Service, and Federal Power Commission.

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

The following organizations aided in collecting records: Appalachian Power Company and the Monongahela Power Company.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow during the 1985 water year generally was above normal throughout the State. Figures 1 and 2 show monthly and annual mean discharges at four sites in different parts of the State. Precipitation information was obtained from "Monthly Reports of River and Flood Conditions," National Weather Service, Charleston, West Virginia.

Streamflow in October, November, and December generally was above normal throughout the State, except for December in the southwestern part. Precipitation generally was above normal statewide during October, November, and December. No flooding occurred although three-quarter-bankfull to near-bankfull conditions occurred at the end of October and December in the east-central parts of the State.

Streamflow in January was below normal statewide and above normal statewide in February. Precipitation was below normal statewide during January and February. No flooding occurred, although bankfull conditions were common throughout the State near the end of February due to snow-melt runoff.

Streamflow in March was slightly below normal throughout the State. Precipitation for the month was above normal in the northern half and below normal in the southern half of the State. River stages on the Tygart River at Dailey reached flood stage on March 12, and other central river basins were near bankfull. Small-stream flooding occurred on March 30 and 31 in northern and central counties. Streamflow and precipitation during April were well below normal statewide. Precipitation totals for the month were about 60 percent of normal totals.

Streamflow in May, June, and July generally was above or near normal throughout the State, except for the eastern part of the State. Precipitation was above normal in May and July and near normal in June. Minor flooding occurred in the Cheat and Tygart River basins on May 31 and July 9. In both instances, streams crested less than 1 foot above flood stages. Isolated thunderstorms during these months resulted in scattered small-stream flooding across the State.

Streamflow in August was near normal throughout the State and slightly below normal in the northwestern part of the State. Precipitation generally was above normal in the southern half of the State and below normal in the northern half of the State. Streamflow and precipitation in September were below normal across the State. Most reporting precipitation stations reported less than 1 inch total for the month.

Water-quality data were collected periodically at five NASQAN and seven project sites during the year. The amount of data was insufficient to provide a summary statement.

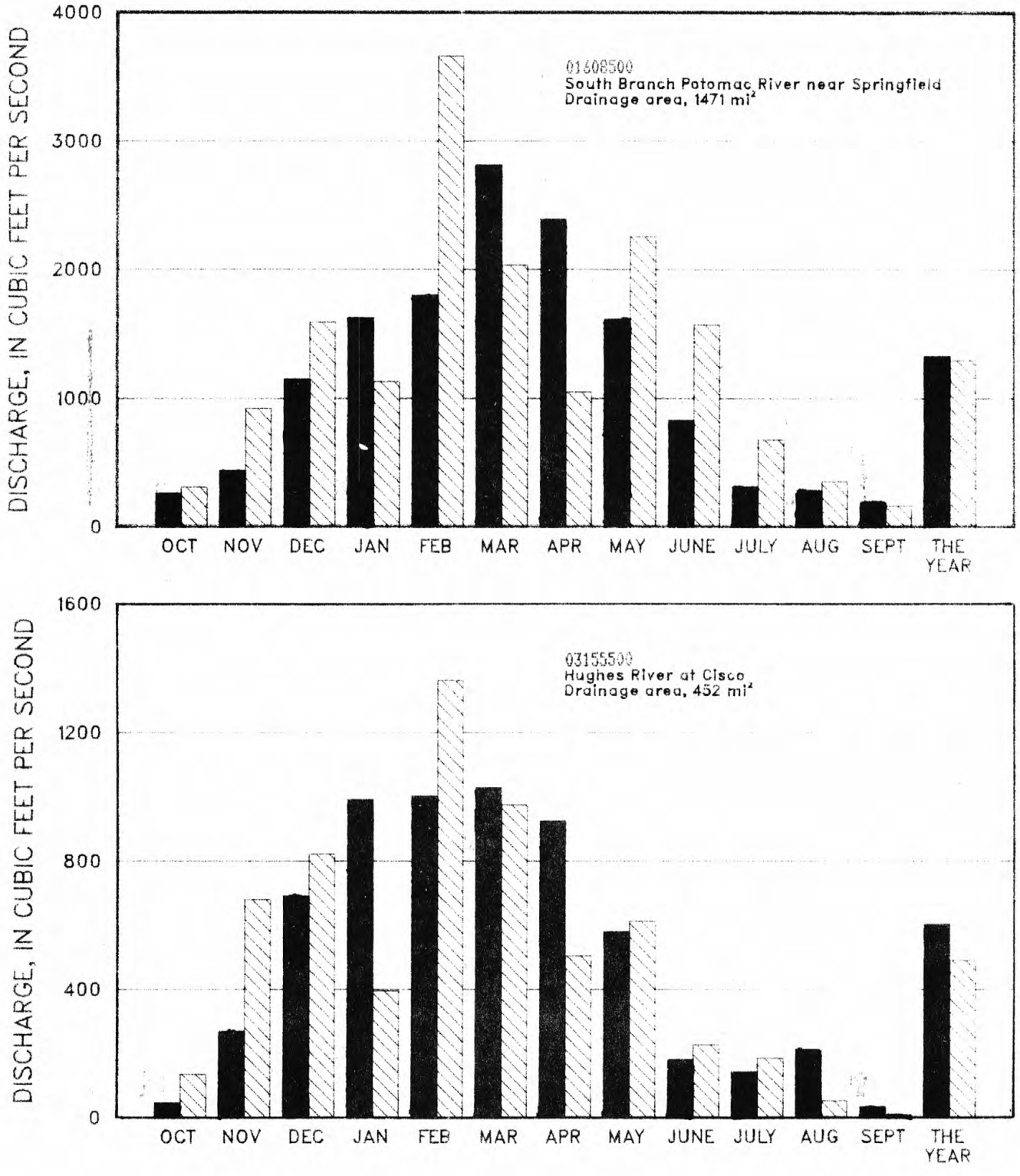
Ground-water levels in the 1985 water year generally were below normal throughout the State, but rose throughout some areas in the northern section of the State. A graphical illustration of water levels for three observation wells is shown in figure 6.

In October, the water levels declined and were below average except in the northeastern and southwestern parts of the State. In November and December, water levels rose and were above average in most of the State.

In January, water levels declined and were below average except in the western areas of the State. In February, water levels remained above average in the northeastern half of the State but were below average in the southwestern half of the State.

In March, water levels declined and remained below normal throughout September except in some western, central, and northern counties, where monthly water levels were sometimes above normal.

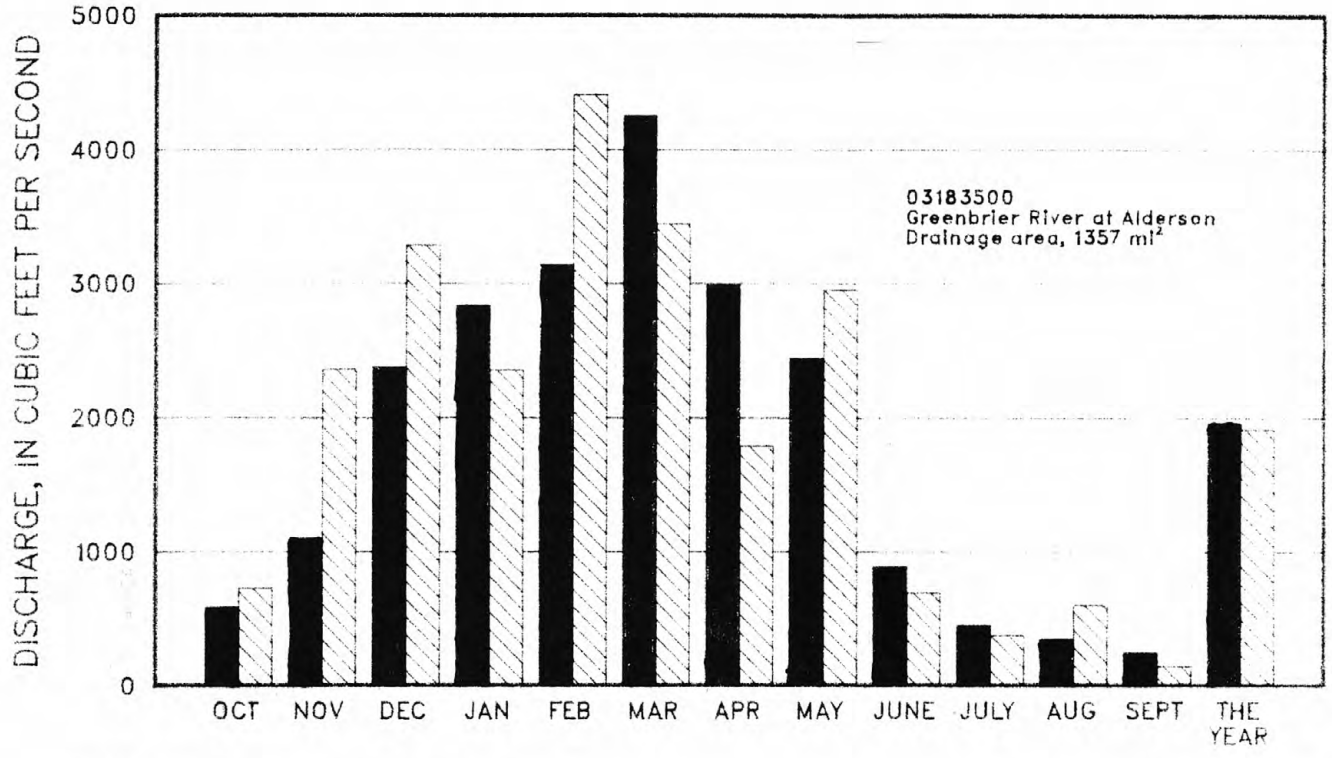
The index well in Gilmer County, near the center of the State, was above average all year except for the spring months.

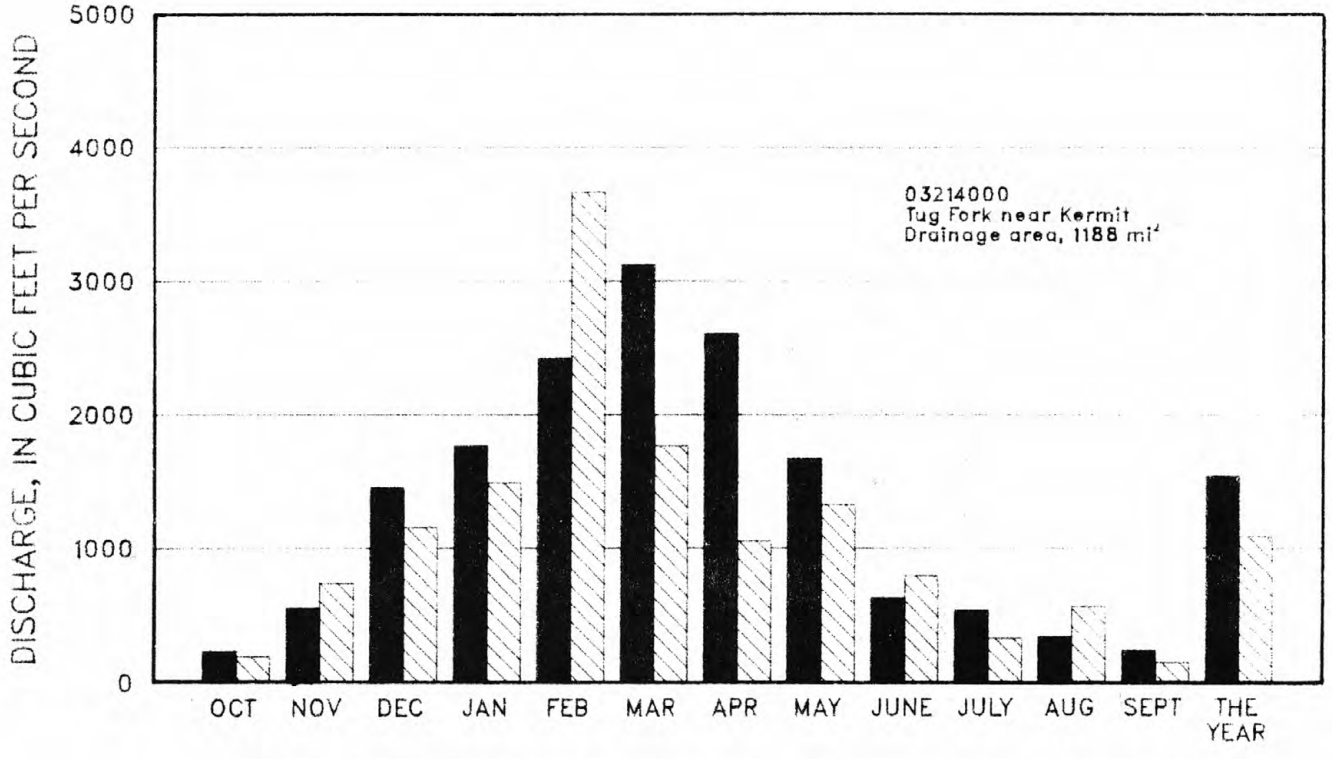


Median of monthly and yearly mean discharges for water years 1951–80.

Monthly and yearly mean discharges during 1985 water year.

Figure 1.--Discharge at the South Branch Potomac River and the Hughes River index gaging stations during the 1985 water year compared to median discharge for the period 1951-80.





Median of monthly and yearly mean discharges for water years 1951-80.
Monthly and yearly mean discharges during 1985 water year.

Figure 2.--Discharge at the Greenbrier River and the Tug Fork River index gaging stations during the 1985 water year compared to median discharge for the period 1951-80.

SPECIAL NETWORKS AND PROGRAMS

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

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

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

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

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 4 and 5. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 03198000, which appears just to the left of the station name, includes the two-digit Part number "03" plus the six-digit downstream-order number "198000." The Part number designates the major river basin; for example, Part "03" is the Kanawha River basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 3 below.)

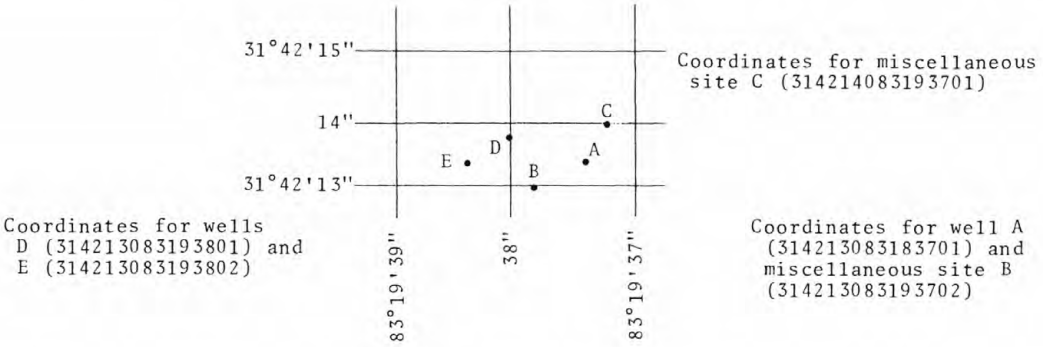


Figure 3. System for numbering wells and miscellaneous sites (latitude and longitude).

Well records furnished by the State of West Virginia also include the well number that is based on an indexing system used by the West Virginia State Water Control Board.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figure 4.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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

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

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

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

For some gaging stations, there are periods when no gage-height 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 from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

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

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

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

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

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the West Virginia District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

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

Classification of records

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

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 4.

Arrangement of Records

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

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the West Virginia District Office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the West Virginia District Office whose address is given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the West Virginia District Office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in West Virginia are shown in figure 5.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

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

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only waterlevel lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

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

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

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

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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

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

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

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) 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 or 0.02 32 cubic meters per second.

Cubic foot per second day ($(ft^3)/d$) 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

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

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

Drainage area of a stream at a 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 specified.

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

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

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

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

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

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (µG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

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

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

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

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

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

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

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A13. *Computation of continuous records of streamflow,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS-TWRI Book 3, Chapter B3. 1980. 106 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment.* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics.* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy.* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water.* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples.* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sedments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis.* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels.* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells.* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters.* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

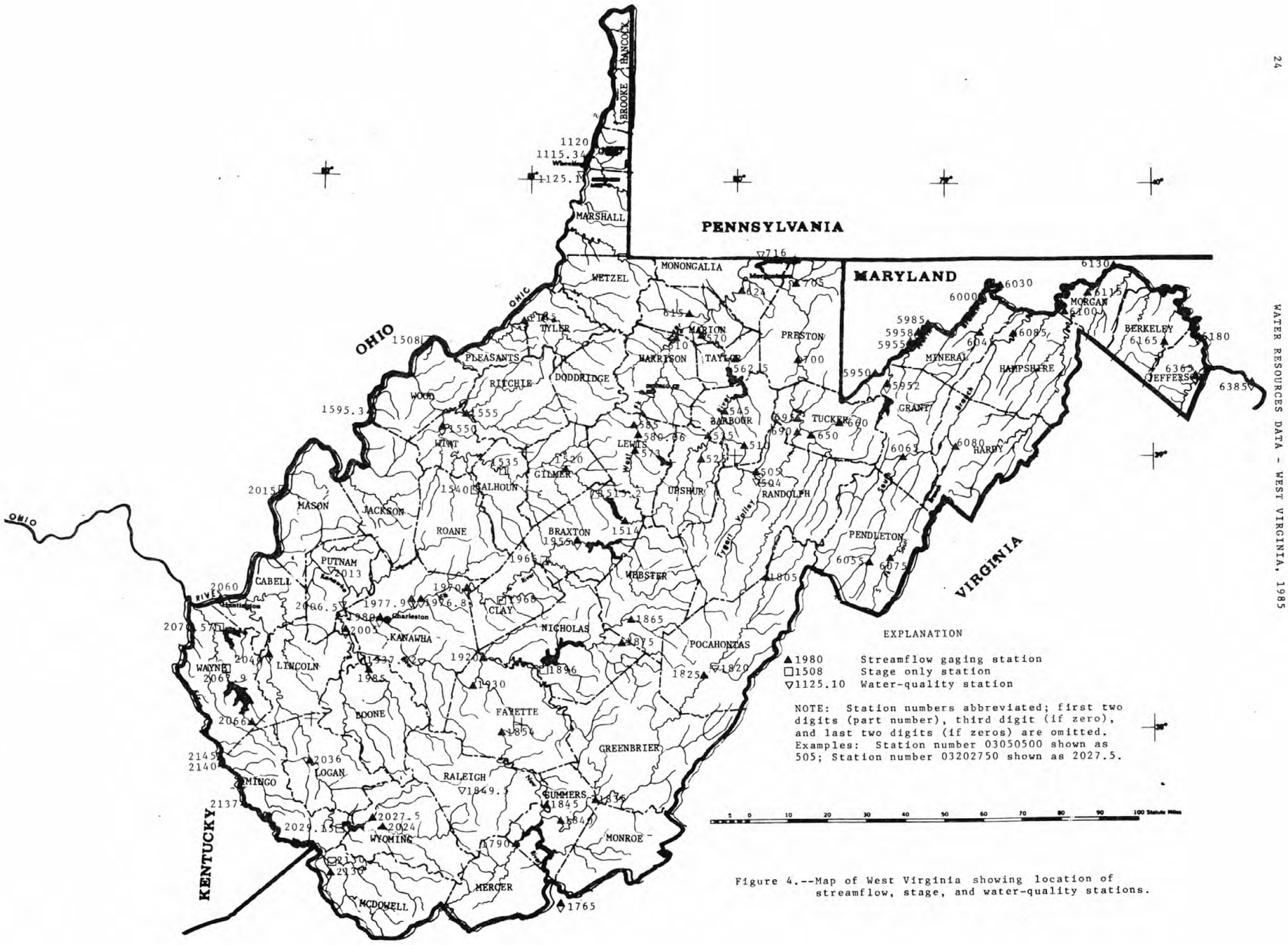


Figure 4.--Map of West Virginia showing location of streamflow, stage, and water-quality stations.

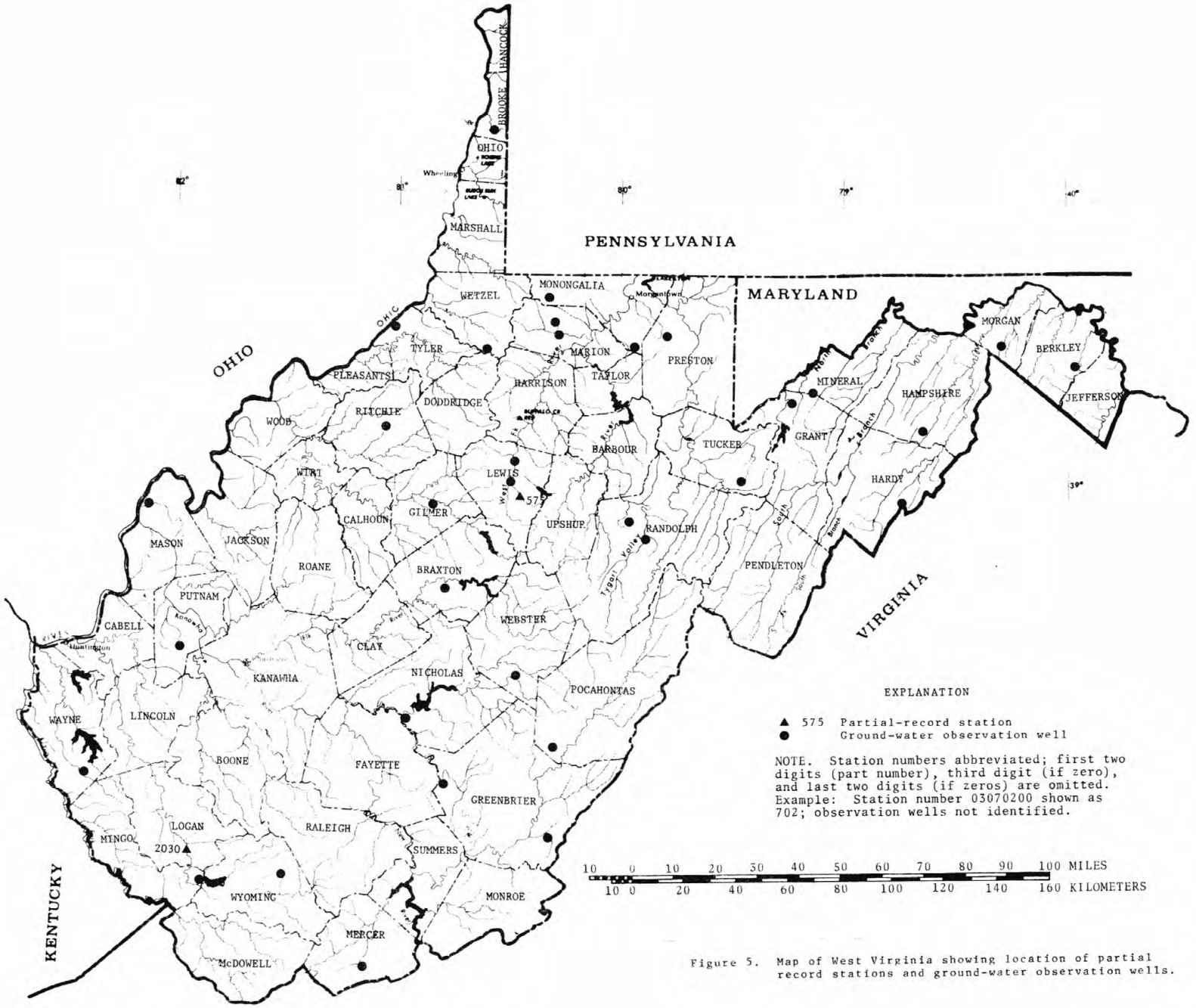


Figure 5. Map of West Virginia showing location of partial record stations and ground-water observation wells.

SURFACE-WATER RECORDS

REMARK CODES.--The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD

LOCATION.--Lat 39°18'07", long 79°18'26", Garrett County, Hydrologic Unit 02070002, on left bank 0.3 mi southeast of Steyer, 0.4 mi downstream from Steyer Run, 2.0 mi northeast of Gorman, and at mile 81.8.

DRAINAGE AREA.--73.0 mi².

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 23. Records good except those for period with ice effect, Jan. 7 to Feb. 23, which are poor. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--29 years, 173 ft³/s, 32.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s, May 31, 1985, gage height, 12.12 ft, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 2.9 ft³/s, Sept. 10, 1965, gage height, 2.03 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks; discharge, 11,300 ft³/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 24	1845	2,850	6.89	July 10	1400	2,940	6.98
May 31	1015	*9,860	*12.12				

Minimum discharge, 8.7 ft³/s, Sept. 30, gage height, 2.14 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	98	475	168	58	396	547	71	722	50	386	32
2	60	103	310	177	57	345	366	166	335	65	229	26
3	37	95	281	165	57	311	298	818	242	108	150	18
4	28	80	231	159	56	280	246	303	221	72	111	17
5	24	184	188	172	56	428	209	213	570	72	89	17
6	19	154	185	148	55	275	188	173	472	79	84	16
7	21	125	153	135	54	215	170	147	408	56	72	13
8	21	104	207	120	54	268	171	128	470	55	116	12
9	22	92	146	110	54	261	169	110	291	1090	87	11
10	19	90	126	100	53	203	160	90	219	1440	68	17
11	19	106	236	94	53	243	213	80	187	674	57	21
12	18	101	231	86	120	804	236	78	271	320	48	22
13	18	90	223	80	280	463	202	73	351	221	46	23
14	15	80	194	74	240	344	179	62	253	170	45	19
15	13	80	184	70	200	267	163	54	203	305	61	16
16	21	127	159	66	190	220	268	56	196	185	54	14
17	24	96	144	64	175	197	227	83	157	136	51	15
18	35	88	129	62	165	170	190	97	153	113	44	17
19	25	115	741	60	160	142	169	77	138	92	42	18
20	25	107	637	58	160	136	151	58	172	75	40	21
21	24	89	574	56	155	130	133	53	124	77	44	18
22	37	81	507	55	270	126	119	52	104	84	37	14
23	107	98	331	54	700	226	114	113	94	161	35	12
24	155	89	285	54	1630	400	115	104	83	89	35	15
25	114	80	768	53	1720	331	122	73	74	70	55	17
26	76	76	374	54	998	245	100	55	64	97	37	14
27	59	97	293	55	843	210	90	47	55	165	34	18
28	49	630	245	56	557	190	86	46	53	91	31	19
29	254	660	206	57	---	242	82	72	52	76	27	11
30	188	344	204	58	---	661	75	56	45	67	24	11
31	123	---	183	58	---	513	---	2760	---	152	40	---
TOTAL	1740	4359	9150	2778	9170	9242	5558	6368	6779	6507	2279	514
MEAN	56.1	145	295	89.6	328	298	185	205	226	210	73.5	17.1
MAX	254	660	768	177	1720	804	547	2760	722	1440	386	32
MIN	13	76	126	53	53	126	75	46	45	50	24	11
CFSM	.77	1.99	4.04	1.23	4.49	4.08	2.53	2.81	3.10	2.88	1.01	.23
IN.	.89	2.22	4.66	1.42	4.67	4.71	2.83	3.25	3.45	3.32	1.16	.26

CAL YR 1984 TOTAL 67735 MEAN 185 MAX 1980 MIN 13 CFSM 2.53 IN 34.52
WTR YR 1985 TOTAL 64444 MEAN 177 MAX 2760 MIN 11 CFSM 2.43 IN 32.84

01595200 STONY RIVER NEAR MOUNT STORM, WV

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, Hydrologic Unit 02070002, on left bank 100 ft downstream from highway bridge on U.S. Highway 50, 1.0 mi west of Mount Storm, and at mile 6.4.

DRAINAGE AREA.--48.8 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 17-31, Feb. 1, 3, 4, 8-10, 14-18, and Sept. 3-30. Records good except for period of no gage-height record, Sept. 3-30, and periods with ice effect Jan. 17-31, Feb. 1, 3, 4, 8-10, 14-18, which are poor. Flow regulated by Stony River Reservoir, 14.0 mi upstream from station, capacity, 1,948,000,000 gal, of which 1,681,000,000 gal is controlled above minimum pool. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake) 4.0 mi upstream from station.

AVERAGE DISCHARGE.--24 years, 99.8 ft^3/s, 27.77 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s, May 31, 1985, from rating curve extended above 6,200 ft^3/s, gage height, a11.85 ft; minimum, 1.8 ft^3/s, July 13, 1968; Sept. 25, 1985; minimum gage height, 1.73 ft, Sept. 25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,300 ft^3/s, May 31, gage height, a11.85 ft; minimum, 1.8 ft^3/s, Sept. 25, gage height, a1.73 ft.

a. Maximum and minimum stage indicators.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	55	179	141	26	398	268	29	749	18	52	6.2
2	16	46	203	137	47	248	223	58	187	23	41	5.7
3	9.8	29	263	133	46	228	212	255	191	20	32	5.2
4	6.9	20	254	126	42	210	202	124	239	15	30	3.7
5	5.6	26	209	122	47	220	188	107	416	12	32	5.2
6	5.0	19	193	108	44	193	170	99	413	14	35	6.8
7	4.1	15	164	99	40	173	161	94	271	11	35	5.2
8	4.0	13	139	99	36	172	152	87	223	13	46	4.3
9	5.1	13	119	84	34	166	140	82	184	128	40	3.4
10	4.7	12	111	75	32	152	125	77	151	134	34	2.6
11	4.0	16	136	70	38	160	134	69	42	110	67	3.2
12	5.9	14	127	61	67	260	134	67	68	97	100	4.0
13	5.9	12	123	54	135	221	115	79	116	94	82	4.0
14	3.9	12	121	49	120	203	61	87	93	109	67	3.3
15	3.7	13	119	35	110	187	43	78	73	139	54	2.8
16	8.0	19	119	26	100	170	63	69	67	129	41	2.6
17	9.0	13	116	25	88	158	63	67	62	131	26	3.2
18	8.0	12	115	24	74	149	77	60	67	160	9.0	2.4
19	6.4	17	219	24	61	140	99	46	64	144	7.7	4.0
20	5.7	17	219	24	58	127	86	38	62	125	10	4.5
21	4.8	15	242	23	57	114	80	28	54	111	12	3.7
22	8.0	12	243	23	85	107	78	16	47	100	11	3.0
23	18	11	197	23	234	132	76	31	45	100	6.7	2.6
24	47	11	177	22	535	194	74	35	45	78	5.4	2.3
25	76	12	281	22	568	168	70	26	42	65	6.4	2.0
26	77	14	207	22	752	137	58	22	34	81	6.2	3.9
27	77	19	185	22	832	122	46	22	23	97	8.4	7.4
28	69	153	170	24	620	110	39	25	20	76	8.4	4.6
29	94	161	157	27	---	130	35	31	16	35	8.4	2.9
30	79	126	153	23	---	249	33	29	12	16	8.7	2.1
31	64	---	149	20	---	267	---	1540	---	29	8.7	---
TOTAL	764.5	927	5409	1767	4928	5665	3305	3477	4076	2414	931.0	116.8
MEAN	24.7	30.9	174	57.0	176	183	110	112	136	77.9	30.0	3.89
MAX	94	161	281	141	832	398	268	1540	749	160	100	7.4
MIN	3.7	11	111	20	26	107	33	16	12	11	5.4	2.0
(†)	668	1241	1180	1175	1219	1357	1175	1533	1133	1219	1154	1133

CAL YR 1984 TOTAL 39227.8 MEAN 107 MAX 2190 MIN 3.3
WTR YR 1985 TOTAL 33780.3 MEAN 92.5 MAX 1540 MIN 2.0

(†) Month-end contents, in millions of gallons, in Stony River Reservoir, furnished by West Virginia Pulp and Paper Company. These values do not include changes in storage in Mount Storm Lake.

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1961 to March 1974, September 1974 to current year.

INSTRUMENTATION.--Temperature recorder (continuous ethyl alcohol - actuated thermograph) since December 1961.

REMARKS.--Temperature recorder clock stopped Aug. 17-19 (range in temperature 18.5, to 23.0°C).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.5°C, Aug. 14, 1984; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.0°C, July 19-22, Aug. 13-15; minimum, 0.0°C Jan. 17-28, 30, 31, Feb. 3-18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

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

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.5	16.0	13.0	20.0	17.5	18.5	17.0	20.5	18.5	19.0	15.5
2	9.5	8.5	15.0	10.5	19.0	17.0	17.0	16.0	18.5	17.0	19.5	16.0
3	10.5	9.0	13.0	10.0	20.0	18.0	18.0	15.5	19.0	16.5	21.0	17.0
4	11.5	9.5	15.0	10.0	20.5	19.5	19.5	16.5	19.0	17.0	20.5	18.0
5	14.0	11.5	16.0	12.0	20.5	19.5	18.5	16.0	18.5	17.0	21.0	18.0
6	13.0	11.0	16.0	14.0	21.0	20.0	18.0	17.0	18.5	17.5	21.0	19.0
7	11.5	10.0	16.0	14.0	20.5	18.0	20.0	16.5	20.0	18.0	22.0	19.5
8	10.5	9.5	17.0	13.0	20.0	17.5	20.0	17.0	20.0	19.0	22.0	19.5
9	9.5	7.5	17.5	13.0	19.5	19.0	17.5	15.5	21.0	19.0	22.5	19.0
10	10.5	6.5	17.5	14.5	20.5	19.5	17.0	16.0	21.0	19.5	21.0	19.5
11	9.5	8.5	17.5	15.0	19.5	16.5	20.5	16.5	23.5	19.5	20.5	17.0
12	13.5	8.5	19.0	17.0	17.5	15.5	21.0	19.0	24.0	23.0	17.0	13.5
13	12.0	10.5	21.0	17.5	15.5	14.0	22.5	19.5	25.0	23.0	15.0	11.5
14	13.0	11.0	21.5	18.0	16.0	14.5	23.0	21.0	25.0	24.0	14.5	10.0
15	11.5	10.5	21.0	19.0	15.5	14.5	24.0	23.0	25.0	23.5	15.5	10.0
16	12.5	10.5	19.5	17.5	18.0	15.0	24.0	23.0	24.5	23.0	16.5	10.0
17	11.5	8.5	18.5	16.0	18.5	17.0	23.5	21.5	23.0	---	13.0	11.0
18	15.5	8.5	16.0	14.0	18.0	17.5	24.5	23.0	---	---	15.5	11.5
19	17.0	13.0	16.5	13.0	17.5	16.0	25.0	23.5	21.5	---	16.0	12.0
20	17.5	13.5	17.5	13.0	17.0	15.0	25.0	24.0	21.0	19.5	16.0	13.0
21	16.5	14.0	18.0	15.5	17.5	15.0	25.0	24.0	20.0	18.5	15.5	13.5
22	17.5	14.0	17.5	14.5	18.0	15.5	25.0	24.0	18.5	16.0	16.0	14.5
23	17.5	15.5	15.5	12.5	20.5	17.5	24.0	22.5	17.5	14.5	16.0	14.0
24	17.5	15.5	14.5	11.5	21.0	18.5	23.5	21.0	17.0	15.5	15.0	14.0
25	17.0	15.5	16.0	12.0	20.5	17.5	23.5	22.5	18.5	17.0	14.0	11.0
26	17.5	13.5	17.5	13.5	19.0	16.5	23.0	22.0	19.0	17.0	15.0	12.0
27	16.0	13.5	18.5	14.0	17.5	14.5	23.5	20.0	19.0	17.0	15.0	13.0
28	16.5	14.5	17.5	16.0	17.5	15.0	23.5	21.0	18.5	16.5	14.5	11.5
29	16.0	12.0	16.0	14.5	18.0	14.5	23.5	21.0	19.0	16.5	14.5	10.0
30	17.0	11.5	17.0	14.5	19.0	15.0	22.0	20.5	18.5	17.0	15.5	10.0
31	---	---	19.5	14.5	---	---	22.0	20.0	17.0	16.5	---	---
MONTH	17.5	6.5	21.5	10.0	21.0	14.0	25.0	15.5	25.0	14.5	22.5	10.0
YEAR	25.0	.0										

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD

LOCATION.--Lat 39°23'38", long 79°10'55", Garrett County, Hydrologic Unit 02070002, on left bank 0.6 mi downstream from bridge on State Highway 38 in Kitzmiller, 1.5 mi downstream from Wolfden Run, and at mile 68.9.

DRAINAGE AREA.--225 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1954, at site 0.3 mi upstream at datum 7.58 ft higher. Oct. 15, 1954, to Nov. 20, 1955, nonrecording gage at bridge 0.5 mi upstream at datum 21.51 ft higher.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 12. Water-discharge records good except those for period with ice effect, Jan. 7 to Feb. 12, which are fair. Regulation at low flow by Stony River Reservoir, 30 mi upstream from station (see station 01595200). U.S. Army Corps of Engineers satellite telemeter at station. Upper Potomac River Commission gage height telemeter at station.

DISCHARGE.--36 years, 452 ft³/s, 27.28 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft³/s, Oct. 15, 1954, gage height, 13.73 ft, from floodmarks, present site and datum; minimum discharge, 4.6 ft³/s, Oct. 3-7, 1953, gage height, 1.45 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2045	3,820	6.89	May 3	0400	3,780	6.87
Dec. 19	1830	3,710	6.83	May 31	1115	*23,300	*11.87
Feb. 23	2000	3,440	6.68	July 9	0500	4,010	6.99
Feb. 24	1930	7,610	8.44	July 10	1345	5,360	7.62

Minimum discharge, 20 ft³/s, Sept. 30, gage height, 2.16 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	227	1150	560	175	1400	1550	166	2340	91	667	54
2	163	209	895	551	170	1080	1090	352	937	124	447	44
3	94	195	860	513	170	982	928	2290	727	177	264	37
4	64	156	805	488	170	852	806	931	727	133	195	32
5	54	338	649	514	170	1070	705	675	1860	101	161	32
6	45	304	623	440	170	818	638	564	1750	158	154	32
7	41	234	507	400	170	682	580	486	1270	111	145	31
8	42	192	472	350	165	712	579	413	1430	98	220	29
9	43	168	417	310	160	742	566	359	927	2280	180	27
10	43	169	396	290	160	615	503	317	700	2720	140	26
11	41	191	611	270	160	632	593	284	477	1530	124	33
12	39	204	669	250	350	1670	660	271	572	820	179	32
13	40	175	629	230	884	1160	563	261	730	641	162	32
14	40	154	576	210	738	922	472	248	581	481	151	30
15	35	149	548	200	625	770	402	216	433	720	146	27
16	42	219	493	190	563	668	536	215	451	519	123	25
17	56	188	455	185	540	609	544	242	367	386	106	24
18	79	164	431	180	512	548	449	272	348	377	84	25
19	63	216	1640	175	506	482	444	224	317	330	71	27
20	65	192	1650	170	488	457	393	169	336	282	64	29
21	69	157	1540	165	486	412	351	149	260	255	72	29
22	68	139	1550	160	605	381	325	125	215	258	65	27
23	190	152	1040	160	1710	628	308	228	200	353	58	23
24	296	152	850	160	4290	1150	309	292	172	237	54	24
25	305	152	1890	165	4610	1060	317	184	159	185	83	27
26	211	164	1070	170	2980	776	271	142	136	277	68	26
27	188	201	879	170	2690	661	233	121	113	409	55	26
28	159	1350	767	175	1930	597	213	114	105	258	53	27
29	453	1720	675	175	---	641	198	156	97	171	50	26
30	455	886	640	175	---	1380	180	140	83	139	46	20
31	287	---	605	175	---	1340	---	6310	---	191	54	---
TOTAL	3962	9117	25982	8326	26347	25897	15706	16916	18820	14812	4441	883
MEAN	128	304	838	269	941	835	524	546	627	478	143	29.4
MAX	455	1720	1890	560	4610	1670	1550	6310	2340	2720	667	54
MIN	35	139	396	160	160	381	180	114	83	91	46	20

CAL YR 1984 TOTAL 195067 MEAN 533 MAX 5830 MIN 33 CFSM 2.37 IN 32.25
WTR YR 1985 TOTAL 171209 MEAN 469 MAX 6310 MIN 20 CFSM 2.08 IN 28.31

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURE: August 1961 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INTRUMENTATION.--Water-quality monitor since October 1980. Temperature recorder prior to October 1980.

REMARKS.--Interruptions in record were due to malfunctions of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1983-85): Maximum, 1,470 microsiemens, Aug. 11, 1983; minimum, 96 microsiemens, Apr. 24, 1983.
pH (water years 1983-85): Maximum, 7.4 units, July 8, Aug. 14, 1985; minimum, 4.4 units, Aug. 29-31, 1983.
WATER TEMPERATURE (water years 1961-79, 1982-85): Maximum, 32.0°C, Aug. 15, 16, 18, 1965; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN (water years 1983-85): Maximum, 14.6 mg/L, Nov. 16, 1982; minimum, 7.0 mg/L, Sept. 13, 1984 and Sept. 7, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,380 microsiemens, Sept. 29; minimum, 98 microsiemens, Feb. 24, 25.
pH: Maximum, 7.4 units, July 8, Aug. 14; minimum, 4.6 units, Aug. 29, 30, Sept. 16-18, 24, 26, 30.
WATER TEMPERATURE: Maximum, 27.5°C, Sept. 7; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 13.9 mg/L, Feb. 8; minimum, 7.0 mg/L, Sept. 7.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	410	350	381	184	162	171	252	218	230
2	---	---	---	461	410	432	169	151	162	259	240	252
3	---	---	---	482	442	459	210	156	179	310	240	270
4	---	---	---	453	433	449	208	173	192	337	310	329
5	781	621	711	434	252	328	205	183	191	332	284	314
6	883	781	844	304	243	270	237	201	218	328	280	309
7	914	883	900	365	304	339	246	220	228	343	328	335
8	936	886	922	397	365	384	259	242	250	356	313	331
9	968	867	917	398	377	390	246	240	244	383	356	371
10	1010	968	995	409	368	384	248	243	246	419	370	385
11	1000	951	986	410	389	400	271	248	261	434	419	428
12	952	932	940	421	339	381	251	239	244	440	424	430
13	984	943	961	350	309	324	265	238	253	460	428	444
14	1030	965	993	413	350	392	265	234	262	430	398	414
15	1010	977	991	393	338	361	277	242	262	471	421	459
16	999	938	958	350	294	320	269	258	261	514	469	496
17	970	900	953	349	308	331	277	261	270	517	494	509
18	910	820	854	356	293	333	285	261	271	506	405	449
19	940	890	917	304	256	285	269	156	230	487	416	440
20	920	770	865	324	272	302	172	152	161	496	487	493
21	---	---	---	346	293	323	187	164	176	---	---	---
22	---	---	---	419	304	382	172	160	165	418	349	384
23	---	---	---	---	---	---	175	168	171	349	331	335
24	---	---	---	374	304	342	183	172	177	---	---	---
25	400	360	384	366	302	337	179	140	149	---	---	---
26	410	360	383	341	295	316	152	144	148	---	---	---
27	410	390	398	312	277	294	---	---	---	---	---	---
28	400	380	391	291	142	240	200	183	192	---	---	---
29	---	---	---	167	138	152	216	193	203	486	457	470
30	---	---	---	190	160	175	225	215	221	526	461	499
31	350	310	326	---	---	---	220	211	215	544	454	488
MONTH	1030	310	790	482	138	338	285	140	212	544	218	395

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	545	515	530	196	162	175	166	152	159	483	426	463
2	530	485	501	208	196	202	197	166	179	480	353	458
3	500	460	472	204	195	199	218	197	211	314	152	178
4	487	468	474	214	198	206	215	207	211	200	161	185
5	491	456	474	215	187	201	229	212	221	206	200	203
6	468	438	453	206	188	200	271	229	256	228	203	214
7	440	426	434	231	206	223	272	257	267	266	228	254
8	492	440	460	238	230	234	274	263	269	297	260	278
9	518	483	497	236	213	226	276	259	266	335	297	318
10	499	473	481	226	208	217	293	265	282	333	303	318
11	479	458	466	247	218	226	296	269	284	330	315	324
12	462	285	417	246	169	197	282	241	258	326	293	305
13	320	280	303	201	177	191	272	245	264	322	301	312
14	292	277	285	206	195	200	278	261	269	359	296	331
15	325	292	312	240	200	227	292	267	281	367	357	362
16	355	322	336	255	240	248	306	271	289	386	352	362
17	357	349	353	255	251	254	288	254	270	451	385	414
18	353	333	341	277	255	266	328	286	303	442	385	416
19	380	341	357	279	265	271	330	306	321	427	351	374
20	359	338	349	287	269	276	328	313	320	396	360	376
21	396	359	382	331	287	309	313	299	306	488	396	437
22	381	309	361	354	331	345	296	267	275	562	488	541
23	309	176	242	358	293	336	327	274	300	575	523	556
24	176	98	143	293	181	230	357	327	345	532	439	471
25	128	98	110	190	174	180	374	357	363	507	445	476
26	137	128	133	233	190	216	384	356	370	571	507	543
27	138	128	133	240	225	234	405	382	388	555	513	537
28	162	138	150	252	237	244	409	382	392	547	500	530
29	---	---	---	316	236	273	398	387	393	551	499	520
30	---	---	---	287	172	211	426	388	401	570	551	564
31	---	---	---	178	154	167	---	---	---	572	109	281
MONTH	545	98	355	358	154	232	426	152	290	575	109	384
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	183	125	148	641	579	618	615	290	382	915	896	904
2	213	183	197	595	551	580	364	284	328	896	751	804
3	218	196	205	738	547	655	466	366	417	840	750	798
4	222	202	211	625	590	601	485	466	475	889	840	867
5	217	143	180	643	587	610	475	395	438	882	840	869
6	175	153	162	671	477	566	480	395	420	840	800	810
7	206	175	187	561	493	538	516	480	506	820	800	810
8	188	175	182	607	540	586	551	508	529	880	820	860
9	206	187	199	540	201	316	543	502	519	910	880	895
10	229	206	216	---	---	---	598	523	571	900	890	896
11	269	229	255	---	---	---	618	584	604	890	860	869
12	338	269	305	---	---	---	584	372	415	910	880	892
13	326	255	282	---	---	---	433	367	405	960	910	932
14	266	252	258	---	---	---	516	432	478	1040	910	982
15	287	252	273	---	---	---	574	495	528	1120	1040	1080
16	282	275	278	---	---	---	583	556	568	1160	1120	1140
17	290	239	276	---	---	---	754	583	690	1160	1130	1140
18	346	290	318	---	---	---	793	752	772	1130	1110	1120
19	362	340	349	---	---	---	808	782	794	1110	1100	1110
20	396	352	374	334	320	327	782	710	736	1180	1110	1140
21	400	355	374	320	306	312	730	696	712	1270	1180	1230
22	418	400	408	347	317	328	794	730	770	1300	1270	1290
23	422	389	407	460	329	379	809	789	799	1290	1260	1290
24	392	380	386	405	341	369	839	805	821	1270	1230	1260
25	457	392	417	447	405	433	840	803	826	1260	1220	1240
26	502	457	488	458	431	447	803	718	732	1250	1230	1240
27	533	497	518	438	381	419	718	706	710	1250	1230	1230
28	585	530	559	381	322	332	729	713	722	1340	1250	1310
29	635	579	612	425	340	382	803	708	748	1380	1340	1370
30	641	610	628	530	409	462	837	803	823	1360	1310	1340
31	---	---	---	665	530	601	906	833	864	---	---	---
MONTH	641	125	322	738	201	470	906	284	616	1380	750	1060

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.2	6.0	6.1	---	---	---	6.2	6.1	6.1
2	---	---	---	6.1	6.0	6.0	---	---	---	6.3	6.0	6.2
3	---	---	---	6.0	5.8	5.9	---	---	---	6.4	6.1	6.1
4	---	---	---	6.1	5.7	5.8	---	---	---	6.4	6.4	6.4
5	5.1	5.0	5.1	6.2	5.7	6.0	---	---	---	6.4	6.1	6.3
6	5.0	4.9	5.0	6.1	6.0	6.1	---	---	---	6.2	6.1	6.2
7	5.0	4.9	5.0	6.2	6.0	6.1	---	---	---	6.2	6.1	6.2
8	5.0	4.9	4.9	6.0	5.8	5.9	---	---	---	6.1	6.0	6.1
9	4.9	4.8	4.9	5.8	5.5	5.7	---	---	---	6.1	5.9	6.1
10	4.9	4.8	4.9	5.5	5.5	5.5	---	---	---	6.2	6.1	6.1
11	4.9	4.8	4.9	5.7	5.4	5.5	---	---	---	6.2	6.1	6.1
12	4.9	4.8	4.8	5.6	5.6	5.6	6.6	6.5	6.6	6.3	6.1	6.2
13	4.9	4.8	4.9	5.6	5.5	5.6	6.6	6.4	6.5	6.3	6.1	6.3
14	4.9	4.8	4.9	5.5	5.5	5.5	6.4	6.3	6.4	6.1	5.9	6.0
15	4.9	4.8	4.9	5.5	5.3	5.4	6.5	6.3	6.4	6.1	5.9	6.0
16	5.0	4.8	4.9	5.5	5.4	5.4	6.4	6.3	6.3	6.2	6.1	6.1
17	4.9	4.8	4.8	5.7	5.5	5.6	6.3	6.2	6.3	6.1	5.8	5.9
18	4.9	4.8	4.9	5.7	5.6	5.6	6.4	6.2	6.3	6.0	5.7	5.8
19	5.0	4.9	4.9	5.6	5.5	5.5	6.8	6.2	6.5	5.9	5.8	5.8
20	5.1	4.9	5.0	---	---	---	6.6	6.4	6.5	5.9	5.9	5.9
21	---	---	---	---	---	---	6.8	6.4	6.5	---	---	---
22	---	---	---	---	---	---	6.6	6.4	6.5	---	---	---
23	---	---	---	---	---	---	6.4	6.3	6.4	---	---	---
24	---	---	---	---	---	---	6.3	6.3	6.3	---	---	---
25	6.2	6.1	6.1	---	---	---	6.6	6.3	6.4	---	---	---
26	6.1	6.0	6.1	---	---	---	6.3	6.1	6.2	---	---	---
27	6.1	5.9	6.0	---	---	---	---	---	---	---	---	---
28	5.9	5.7	5.8	---	---	---	6.2	6.2	6.2	---	---	---
29	---	---	---	---	---	---	6.2	6.1	6.1	5.5	5.2	5.5
30	---	---	---	---	---	---	6.2	6.1	6.1	5.5	5.2	5.4
31	6.3	6.2	6.2	---	---	---	6.2	6.1	6.2	5.6	5.4	5.5
MONTH	6.3	4.8	5.2	6.2	5.3	5.7	6.8	6.1	6.4	6.4	5.2	6.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.7	5.5	5.6	6.1	5.9	6.0	6.4	6.1	6.2	5.9	5.7	5.8
2	5.8	5.7	5.8	6.1	5.7	5.9	6.1	6.0	6.1	6.4	5.7	5.8
3	6.0	5.8	5.9	5.9	5.7	5.8	6.2	6.0	6.1	6.8	6.4	6.6
4	6.0	5.9	6.0	5.8	5.6	5.7	6.1	6.0	6.1	6.6	6.3	6.5
5	6.0	5.7	5.9	5.9	5.7	5.8	6.1	5.7	5.9	6.5	6.2	6.4
6	5.9	5.7	5.8	6.0	5.8	5.9	6.0	5.8	5.9	6.4	6.2	6.3
7	5.9	5.8	5.9	6.0	5.7	5.8	6.1	6.0	6.0	6.5	6.3	6.4
8	6.0	5.9	5.9	5.8	5.6	5.7	6.1	6.0	6.0	6.5	6.2	6.4
9	6.1	5.9	6.0	5.8	5.6	5.7	6.2	6.0	6.1	6.6	6.3	6.4
10	5.9	5.8	5.8	5.8	5.5	5.7	6.2	5.8	6.0	6.4	6.2	6.3
11	5.8	5.8	5.8	5.9	5.6	5.7	5.9	5.8	5.9	6.5	6.1	6.3
12	6.3	5.8	6.0	6.2	5.9	6.1	5.9	5.6	5.8	6.6	6.0	6.1
13	6.4	6.2	6.3	6.1	6.0	6.1	5.8	5.6	5.7	6.1	6.0	6.1
14	6.4	6.3	6.4	6.0	5.9	6.0	5.8	5.5	5.7	6.3	6.1	6.2
15	6.4	6.2	6.3	6.0	5.9	5.9	5.7	5.6	5.7	6.3	6.1	6.2
16	6.3	6.2	6.2	6.0	5.9	5.9	6.1	5.6	5.8	6.2	6.0	6.1
17	6.3	6.2	6.3	5.9	5.9	5.9	6.1	5.9	6.0	6.3	6.0	6.1
18	6.3	6.2	6.2	6.0	5.9	5.9	6.0	5.7	5.9	6.4	6.2	6.3
19	6.4	6.2	6.3	6.0	5.7	5.9	5.9	5.6	5.8	6.3	6.2	6.2
20	6.3	6.2	6.3	5.8	5.6	5.7	5.9	5.7	5.8	6.3	5.9	6.1
21	6.4	6.3	6.4	5.7	5.6	5.7	6.0	5.7	5.8	6.2	5.9	6.0
22	6.5	6.3	6.4	5.8	5.7	5.7	6.0	5.8	5.9	6.1	5.6	5.9
23	6.6	6.4	6.5	6.1	5.8	5.9	5.9	5.8	5.9	6.4	5.5	5.9
24	6.4	6.0	6.2	6.3	6.1	6.1	6.0	5.8	6.0	6.5	6.4	6.5
25	6.0	5.7	5.9	6.1	5.9	6.1	6.1	5.8	6.0	6.6	6.3	6.5
26	6.0	5.7	5.9	6.1	5.9	6.0	6.0	5.8	5.9	6.4	6.1	6.3
27	6.0	5.9	6.0	6.1	5.7	5.9	6.1	5.8	5.9	6.2	5.8	6.0
28	6.1	6.0	6.1	5.9	5.7	5.8	5.9	5.8	5.8	6.0	5.8	5.9
29	---	---	---	6.2	5.7	5.8	5.8	5.5	5.7	6.1	5.8	5.9
30	---	---	---	6.2	5.8	6.1	5.9	5.5	5.7	5.9	5.5	5.7
31	---	---	---	6.3	6.2	6.3	---	---	---	7.1	5.6	6.0
MONTH	6.6	5.5	6.1	6.3	5.5	5.9	6.4	5.5	5.9	7.1	5.5	6.2

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.2	6.0	6.1	6.0	5.5	5.6	7.0	5.7	6.5	5.0	4.8	4.9
2	6.0	5.2	5.6	7.2	5.5	5.7	6.8	6.7	6.8	5.0	4.7	4.8
3	6.2	5.1	5.6	6.1	5.5	5.8	6.7	6.5	6.6	4.9	4.7	4.8
4	6.4	6.2	6.3	6.2	5.5	5.8	6.6	6.3	6.4	4.9	4.7	4.8
5	6.7	6.1	6.5	6.8	6.1	6.3	6.4	6.0	6.2	5.0	4.8	4.8
6	6.7	6.6	6.7	6.5	5.5	5.9	6.1	5.8	5.9	5.0	4.9	4.9
7	6.9	6.6	6.7	6.7	6.4	6.5	5.9	5.6	5.8	5.1	4.8	4.9
8	6.9	6.6	6.7	7.4	6.1	6.4	6.4	5.5	5.7	5.0	4.8	4.9
9	6.7	6.5	6.6	7.3	6.4	6.6	5.9	5.6	5.7	5.0	4.9	4.9
10	6.6	6.5	6.5	---	---	---	6.0	5.6	5.9	5.0	4.8	4.9
11	6.6	6.4	6.5	---	---	---	5.6	5.4	5.6	5.0	4.9	4.9
12	6.8	6.6	6.7	---	---	---	5.9	5.5	5.7	5.0	4.7	4.9
13	7.0	6.6	6.8	---	---	---	5.7	5.3	5.5	5.0	4.8	4.9
14	6.8	6.6	6.7	---	---	---	7.4	5.2	5.6	5.1	4.7	4.9
15	6.6	6.5	6.6	---	---	---	5.8	5.3	5.5	5.1	4.7	4.9
16	6.8	6.5	6.6	---	---	---	5.4	5.0	5.2	5.1	4.6	4.9
17	6.6	6.4	6.5	---	---	---	5.3	5.2	5.2	5.1	4.6	4.9
18	6.6	6.5	6.5	---	---	---	5.2	5.1	5.2	5.0	4.6	4.8
19	6.6	6.5	6.5	---	---	---	5.1	4.8	5.0	5.0	4.7	4.8
20	6.6	6.4	6.5	6.2	6.1	6.2	5.0	4.9	5.0	4.8	4.7	4.7
21	6.6	6.5	6.5	6.2	6.1	6.1	5.1	4.8	5.0	4.8	4.7	4.7
22	6.5	6.2	6.4	6.4	5.9	6.0	5.1	4.9	5.0	4.8	4.7	4.7
23	6.4	6.1	6.3	6.3	5.2	5.9	5.1	4.9	5.0	4.8	4.7	4.7
24	6.2	6.0	6.1	6.1	5.3	5.9	5.3	4.9	5.0	4.7	4.6	4.7
25	6.3	6.0	6.1	6.1	6.0	6.1	5.0	4.8	5.0	4.8	4.7	4.7
26	6.3	6.0	6.2	6.8	6.0	6.3	4.9	4.7	4.8	4.8	4.6	4.7
27	6.2	5.9	6.0	6.8	6.2	6.6	4.8	4.7	4.8	4.7	4.7	4.7
28	6.1	5.7	5.8	6.7	6.5	6.6	4.9	4.8	4.9	4.8	4.7	4.7
29	5.8	5.7	5.7	6.5	6.2	6.4	5.0	4.6	4.8	4.7	4.7	4.7
30	5.7	5.5	5.6	6.2	6.0	6.1	5.1	4.6	4.7	4.7	4.6	4.6
31	---	---	---	6.0	5.6	5.8	5.0	4.9	4.9	---	---	---
MONTH	7.0	5.1	6.3	7.4	5.2	6.1	7.4	4.6	5.5	5.1	4.6	4.8

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

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

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

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.3	9.5	9.9	10.8	10.7	10.7	11.2	10.4	10.8
2	---	---	---	10.8	9.8	10.1	11.4	10.8	11.2	11.5	10.5	11.0
3	---	---	---	11.4	10.8	11.1	11.4	11.1	11.3	12.1	11.5	11.6
4	---	---	---	11.5	10.9	11.2	12.2	11.8	12.1	12.2	11.8	12.1
5	10.5	9.2	9.9	10.9	10.3	10.6	12.6	12.1	12.4	12.6	11.8	12.3
6	10.6	9.5	10.0	11.4	10.6	10.9	12.8	12.2	12.4	12.9	12.4	12.6
7	10.6	9.5	10.1	11.9	11.3	11.6	13.4	12.8	13.2	12.5	12.3	12.4
8	10.1	9.6	9.9	12.3	11.5	11.9	13.3	12.5	12.9	13.4	12.5	13.0
9	10.0	9.0	9.5	11.7	11.2	11.5	13.1	12.5	12.8	13.5	13.0	13.2
10	9.8	8.9	9.3	11.3	10.6	11.0	12.8	12.4	12.6	13.0	12.9	12.9
11	9.9	8.9	9.3	11.0	10.5	10.7	12.4	11.6	12.0	12.9	12.8	12.9
12	9.8	8.8	9.3	12.1	11.0	11.7	11.8	11.5	11.6	13.0	12.9	12.9
13	10.4	9.1	9.6	12.5	12.1	12.3	11.7	10.7	11.2	13.0	12.8	12.9
14	10.6	9.2	9.7	12.8	12.0	12.5	10.9	10.8	10.9	12.9	12.7	12.8
15	10.5	9.4	9.8	12.6	11.6	12.2	11.0	10.4	10.7	13.1	12.9	13.0
16	10.0	9.1	9.5	12.2	11.5	11.8	10.8	10.6	10.7	13.2	13.0	13.1
17	9.7	8.7	9.2	12.7	12.1	12.4	10.7	10.1	10.5	13.0	12.7	12.9
18	9.4	8.5	8.9	12.7	12.4	12.6	10.7	10.2	10.4	12.9	12.7	12.8
19	9.5	8.0	8.7	13.2	12.7	12.9	11.0	10.7	10.8	12.7	12.6	12.7
20	8.7	8.1	8.3	13.1	12.8	13.0	11.4	10.9	11.3	12.8	12.7	12.7
21	---	---	---	13.2	12.8	13.1	11.6	11.3	11.5	---	---	---
22	---	---	---	13.1	12.9	13.0	11.5	11.0	11.2	---	---	---
23	---	---	---	---	---	---	12.2	11.5	12.0	---	---	---
24	---	---	---	13.1	12.0	12.5	12.3	11.6	12.0	---	---	---
25	8.9	8.4	8.7	12.4	11.2	11.7	12.7	11.4	12.1	---	---	---
26	8.5	8.0	8.4	11.5	10.6	11.0	13.0	12.4	12.6	---	---	---
27	8.4	7.9	8.2	11.1	10.3	10.6	---	---	---	---	---	---
28	8.8	8.4	8.5	10.5	9.7	10.0	11.3	10.5	10.8	---	---	---
29	---	---	---	10.6	10.3	10.5	10.6	10.1	10.3	13.2	13.1	13.1
30	---	---	---	10.8	10.3	10.6	10.9	10.1	10.5	13.3	13.1	13.2
31	10.1	9.6	9.8	---	---	---	11.2	11.0	11.1	13.3	13.2	13.2
MONTH	10.6	7.9	9.3	13.2	9.5	11.6	13.4	10.1	11.5	13.5	10.4	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.3	13.2	13.3	12.3	11.4	11.8	11.3	11.0	11.2	9.3	8.2	8.7
2	13.5	13.3	13.4	11.7	11.1	11.5	11.8	11.3	11.6	9.4	8.6	8.9
3	13.7	13.5	13.6	12.0	11.3	11.6	11.8	11.2	11.5	10.2	9.4	9.9
4	13.8	13.7	13.7	11.6	10.6	11.1	11.9	11.0	11.4	10.5	9.2	9.9
5	13.8	13.5	13.6	11.2	10.6	10.8	11.4	9.9	10.7	10.0	8.8	9.4
6	13.6	13.6	13.6	11.8	11.2	11.5	11.2	10.3	10.7	9.3	8.6	9.0
7	13.8	13.7	13.8	11.9	11.0	11.5	11.7	11.2	11.5	9.3	8.9	9.1
8	13.9	13.7	13.8	11.2	10.7	10.9	12.0	11.7	11.9	9.8	8.7	9.2
9	13.8	13.7	13.7	11.3	10.8	11.1	12.6	12.0	12.3	9.8	8.6	9.2
10	13.8	13.4	13.6	11.5	10.9	11.2	13.0	11.2	12.1	9.5	8.5	9.0
11	13.6	13.0	13.3	11.5	11.2	11.4	11.6	10.8	11.2	9.1	8.4	8.7
12	13.0	12.6	12.8	11.8	11.2	11.5	11.4	10.0	10.7	8.9	8.1	8.5
13	13.0	12.9	12.9	12.1	11.2	11.6	10.5	10.0	10.2	8.8	8.0	8.4
14	13.1	13.0	13.1	11.5	11.2	11.4	10.3	9.6	10.0	8.8	7.8	8.3
15	13.1	13.0	13.1	12.0	11.3	11.6	9.9	9.5	9.8	8.7	8.3	8.5
16	13.2	13.0	13.1	12.2	11.2	11.7	9.8	9.3	9.6	8.8	7.8	8.3
17	13.2	13.1	13.1	11.7	11.3	11.5	10.3	9.6	9.9	8.7	8.3	8.5
18	13.4	13.2	13.2	12.3	11.6	12.0	10.6	9.0	9.8	9.3	8.7	9.0
19	13.3	13.0	13.2	12.5	11.3	11.9	9.6	8.6	9.1	9.7	8.3	9.1
20	13.3	13.1	13.2	11.6	10.6	11.1	9.6	8.7	9.1	9.6	8.0	8.8
21	13.4	13.1	13.2	11.6	11.1	11.3	9.5	8.6	9.1	9.0	7.8	8.5
22	13.3	13.1	13.2	12.0	11.6	11.8	9.6	9.0	9.2	8.9	7.9	8.5
23	13.3	12.7	13.1	12.1	11.5	11.8	9.5	8.8	9.2	9.1	8.6	8.9
24	13.0	12.2	12.6	11.6	11.3	11.5	9.3	9.1	9.2	9.4	8.5	9.0
25	12.6	12.0	12.3	11.8	11.2	11.6	9.4	8.8	9.2	9.3	8.1	8.7
26	12.2	11.3	11.8	12.0	11.0	11.5	10.0	8.7	9.3	9.2	7.8	8.5
27	12.0	11.5	11.7	11.7	10.5	11.1	9.7	8.9	9.3	9.0	7.8	8.4
28	12.5	11.7	12.1	10.7	9.6	10.2	9.5	9.0	9.3	8.6	8.3	8.5
29	---	---	---	10.0	9.2	9.6	10.2	8.8	9.5	9.0	8.4	8.7
30	---	---	---	10.7	9.6	10.2	10.2	8.3	9.2	9.2	8.2	8.6
31	---	---	---	11.0	10.7	10.9	---	---	---	9.5	8.4	8.7
MONTH	13.9	11.3	13.1	12.5	9.2	11.3	13.0	8.3	10.2	10.5	7.8	8.8

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.6	8.2	8.4	8.0	7.5	7.8	8.8	8.1	8.5	9.0	8.0	8.4
2	8.8	8.3	8.6	8.2	7.8	8.0	9.2	8.3	8.8	9.1	7.8	8.3
3	8.7	8.1	8.4	8.4	7.4	7.9	9.3	8.2	8.8	8.9	7.8	8.3
4	8.5	8.0	8.2	8.2	7.3	7.8	9.2	8.2	8.7	8.9	7.8	8.2
5	8.5	8.1	8.3	8.3	7.4	7.8	9.1	8.5	8.8	8.8	7.4	8.0
6	8.7	8.2	8.4	8.1	7.8	8.0	9.1	8.3	8.7	8.4	7.4	7.9
7	9.1	8.5	8.8	8.4	7.5	8.0	9.0	7.9	8.4	8.2	7.0	7.6
8	9.2	8.3	8.8	8.4	7.4	8.0	8.5	7.9	8.2	8.2	7.1	7.5
9	8.8	8.2	8.5	---	---	---	8.6	7.6	8.1	8.3	7.4	7.7
10	8.6	7.9	8.2	---	---	---	8.6	7.5	8.1	8.4	7.4	7.8
11	8.7	8.1	8.4	---	---	---	8.6	7.8	8.2	8.6	7.7	8.3
12	8.8	8.4	8.6	---	---	---	8.5	7.6	8.0	9.7	8.6	9.0
13	9.5	8.8	9.3	---	---	---	8.5	7.5	8.0	10.3	9.0	9.4
14	9.9	9.1	9.4	---	---	---	8.2	7.4	7.9	10.8	9.1	9.7
15	9.5	8.9	9.3	---	---	---	8.3	7.5	7.9	10.8	9.2	9.8
16	9.2	8.4	8.8	---	---	---	8.2	7.9	8.0	10.8	9.0	9.7
17	8.9	8.2	8.6	---	---	---	8.4	8.1	8.2	10.7	9.0	9.6
18	8.4	7.7	8.1	---	---	---	8.6	8.4	8.5	10.5	8.9	9.5
19	8.6	8.1	8.3	---	---	---	8.8	7.8	8.3	10.0	8.5	9.1
20	8.9	8.2	8.6	8.6	8.1	8.3	8.7	8.0	8.3	9.9	8.1	8.9
21	9.1	8.1	8.6	8.5	7.9	8.3	---	---	---	9.6	8.1	8.7
22	8.8	7.9	8.4	8.4	7.8	8.2	8.5	7.7	8.0	9.3	8.2	8.7
23	8.5	7.4	8.0	8.7	8.0	8.3	8.8	7.7	8.2	9.4	8.1	8.7
24	8.3	7.4	7.7	9.0	7.8	8.4	8.6	7.9	8.2	9.1	8.4	8.7
25	8.3	7.3	7.9	8.7	8.3	8.5	8.3	7.8	8.1	10.2	8.7	9.2
26	8.6	7.5	8.1	8.6	7.9	8.3	8.3	7.5	7.9	10.0	8.2	9.0
27	8.8	7.6	8.2	8.5	7.9	8.2	8.4	7.8	8.0	9.4	8.4	9.0
28	8.7	7.5	8.0	8.9	7.8	8.3	8.7	7.8	8.2	10.1	8.8	9.3
29	8.5	7.3	7.9	8.7	7.7	8.3	8.8	7.7	8.2	10.5	8.7	9.4
30	8.4	7.2	7.7	8.6	7.5	8.1	8.7	8.1	8.4	10.3	8.6	9.2
31	---	---	---	8.3	7.7	8.0	8.7	8.1	8.4	---	---	---
MONTH	9.9	7.2	8.4	9.0	7.3	8.1	9.3	7.4	8.3	10.8	7.0	8.8

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV

LOCATION.--Lat 39°26'44", long 79°06'39", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at highway bridge at Barnum, W. Va., 0.4 mi upstream from Folly Run, and 4.0 mi southwest of Piedmont, W. Va., and at mile 59.4.

DRAINAGE AREA.--266 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,151.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. Prior to July 1981 regulation at low flow by Stony River Reservoir, 39 mi upstream from station (see station 01595200). Since July 1981 complete regulation by Jennings Randolph Lake, 1.5 mi upstream from station, capacity 96,600 acre-ft. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--19 years, 537 ft³/s, 27.42 in/yr, adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft³/s, July 3, 1978, gage height, 13.37 ft, from rating curve extended above 8,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.91 ft³/s, Aug. 12, 1981, gage height, 1.76 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,780 ft³/s, May 31, gage height, 7.22 ft; minimum discharge, 19 ft³/s, Jan. 31, gage height, 2.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	298	284	581	428	1620	1880	428	4710	212	255	309
2	309	297	286	581	428	962	2090	457	1650	213	256	279
3	306	295	288	581	427	962	991	1490	810	211	256	307
4	306	297	288	581	423	1180	827	1220	460	210	256	315
5	306	299	291	581	423	1110	791	750	1420	210	256	299
6	306	299	295	581	423	1000	798	798	2290	210	256	299
7	783	297	295	581	493	825	795	907	1430	210	256	299
8	1040	295	295	497	553	821	620	764	1720	211	256	299
9	595	310	295	441	547	821	454	623	1210	508	256	299
10	302	322	328	439	545	821	406	490	1040	1530	256	297
11	302	322	351	437	528	865	493	431	1260	2460	256	287
12	302	322	351	437	545	1070	676	431	871	1320	256	299
13	302	610	351	437	590	1160	651	429	475	909	256	299
14	302	545	353	437	641	1020	500	428	478	909	257	299
15	301	256	355	419	568	1020	397	428	480	587	256	299
16	299	232	355	436	522	1010	408	425	478	402	256	298
17	299	210	355	436	522	1000	683	423	475	402	256	296
18	299	210	355	433	522	857	518	423	476	402	256	295
19	297	235	366	432	522	582	417	423	475	401	253	295
20	299	256	365	432	522	456	419	423	444	392	253	293
21	298	265	378	432	521	684	381	343	423	402	252	291
22	299	273	378	432	525	1020	292	294	422	402	252	291
23	299	273	377	432	548	1180	297	295	360	402	595	291
24	299	273	458	432	571	1150	336	295	210	402	1020	291
25	299	273	518	432	1060	838	350	295	210	505	813	288
26	296	273	555	430	2010	511	291	295	212	538	436	281
27	295	273	581	428	2500	432	298	295	213	421	360	314
28	296	289	581	428	2400	465	376	250	210	419	339	527
29	295	286	581	428	---	529	428	221	210	384	339	728
30	297	284	582	428	---	620	428	201	210	293	343	351
31	298	---	581	428	---	632	---	1580	---	264	338	---
TOTAL	10837	8969	12072	14510	20307	27223	18291	16555	25332	16341	10201	9615
MEAN	350	299	389	468	725	878	610	534	844	527	329	321
MAX	1040	610	582	581	2500	1620	2090	1580	4710	2460	1020	728
MIN	295	210	284	419	423	432	291	201	210	210	252	279
(†)	55380	57370	89480	79110	95090	98760	94900	90600	90500	90800	80700	64400

CAL YR 1984 TOTAL 213004 MEAN 582 MAX 4020 MIN 149 CFSM 2.19 IN 29.79
WTR YR 1985 TOTAL 190253 MEAN 521 MAX 4710 MIN 201 CFSM 1.96 IN 26.61

† Monthend contents, in acre-feet, in Jennings Randolph Lake (contents on Sept. 30, 1984, 68,030 acre-feet). Records furnished by U.S. Army Corps of Engineers.

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURES: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1982-85): Maximum, 525 microsiemens, Oct. 20, 21, 1981; minimum, 1 microsiemen, July 1, 1984.
pH (water years 1982, 1984-85): Maximum, 7.0 units, June 5, 1982; minimum, 4.9 units, Oct. 3-7, 9, 1981.
WATER TEMPERATURE (water years 1982-85): Maximum, 22.0°C, Aug. 19, Sept. 9, 1982, June 30, 1985; minimum, 0.5°C on several days during Jan. 1982.
DISSOLVED OXYGEN (water years 1983-85): Maximum, 14.6 mg/L, Jan. 24, 1983; minimum, 7.9 mg/l, June 12, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 385 microsiemens, Nov. 27, 28; minimum, 191 microsiemens, Nov. 9.
pH: Maximum, 6.9 units, May 31, July 9; minimum, 5.9 units, Feb. 3-7.
WATER TEMPERATURE: Maximum, 22.0°C, June 30; minimum, 2.0°C, Feb. 3-5, 7.
DISSOLVED OXYGEN: Maximum, 14.5 mg/L, Feb. 27, 28; minimum, 7.9 mg/L, June 12.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	345	334	340	---	---	---	375	372	374	288	285	287
2	346	337	340	---	---	---	376	365	371	290	287	288
3	343	337	340	---	---	---	368	361	365	292	290	292
4	350	342	345	---	---	---	370	363	367	294	292	293
5	350	345	346	---	---	---	368	360	364	297	292	294
6	352	345	348	---	---	---	371	360	365	298	294	296
7	352	346	349	---	---	---	372	364	367	297	296	296
8	348	346	347	---	---	---	364	344	351	299	295	297
9	351	345	349	204	191	198	355	309	334	299	295	297
10	352	351	351	215	213	214	309	301	304	297	284	290
11	353	351	352	238	213	237	302	292	298	286	280	282
12	353	351	352	261	236	261	292	292	292	286	281	284
13	352	351	352	285	260	278	294	290	292	291	285	287
14	353	350	351	294	282	288	292	289	290	291	287	290
15	355	352	353	316	287	310	290	287	289	293	291	292
16	355	352	354	315	297	305	291	288	290	296	292	295
17	356	353	354	299	289	295	292	289	290	303	296	301
18	355	351	353	297	293	295	292	290	291	312	303	306
19	354	346	352	333	296	317	295	290	291	322	312	320
20	358	350	355	353	333	347	291	286	288	329	311	324
21	356	352	354	353	342	349	287	281	285	---	---	---
22	356	351	354	361	350	356	289	284	287	---	---	---
23	359	355	356	367	358	363	288	284	287	---	---	---
24	360	357	358	374	367	370	289	286	288	302	294	299
25	364	359	361	382	374	379	288	285	287	297	294	296
26	365	362	363	384	379	381	289	286	288	297	291	294
27	365	363	364	385	381	383	290	289	289	302	294	300
28	368	365	367	385	368	377	289	282	285	308	300	304
29	370	365	367	378	376	377	285	279	283	342	311	327
30	376	367	371	384	375	381	283	280	282	351	332	343
31	375	365	369	---	---	---	287	283	286	342	335	338
MONTH	376	334	354	385	191	321	376	279	310	351	280	300

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	339	336	338	280	241	264	267	232	249	242	234	238
2	342	337	340	241	238	239	258	232	248	237	233	235
3	347	342	345	241	237	239	233	220	226	233	216	223
4	352	347	350	268	241	250	231	219	226	231	221	226
5	352	348	350	242	226	235	239	229	235	249	224	235
6	348	347	348	258	241	251	240	238	239	247	229	236
7	352	271	324	259	256	257	239	237	238	236	229	234
8	294	272	285	257	247	252	239	229	233	245	236	240
9	296	292	294	254	250	251	234	229	232	256	245	251
10	294	291	292	253	250	252	234	229	232	258	256	257
11	294	292	292	252	230	240	237	231	233	258	256	257
12	292	279	283	236	229	233	246	224	237	259	256	258
13	297	284	291	238	233	235	226	219	222	259	257	258
14	298	295	297	237	235	236	226	222	223	258	256	257
15	297	294	295	238	236	237	229	223	228	259	257	258
16	294	288	291	237	234	236	230	219	228	265	258	262
17	288	282	286	238	235	236	236	220	226	266	262	264
18	282	279	280	238	229	233	227	223	225	269	265	267
19	281	276	279	230	207	217	224	218	222	272	268	269
20	279	276	277	211	208	209	220	212	216	275	271	272
21	279	276	277	211	208	210	217	211	213	277	269	274
22	280	276	278	233	209	224	248	212	225	277	274	276
23	278	270	275	235	232	233	246	214	237	288	276	282
24	277	270	273	233	230	232	244	213	220	286	280	283
25	282	270	276	233	215	222	248	211	221	288	281	285
26	304	276	288	217	214	215	270	215	233	292	288	290
27	301	291	297	219	214	217	250	234	239	299	290	294
28	293	277	285	219	216	218	239	233	235	302	292	296
29	---	---	---	233	217	222	241	237	239	303	299	301
30	---	---	---	234	231	232	245	238	242	303	286	296
31	---	---	---	233	230	231	---	---	---	292	234	261
MONTH	352	270	300	280	207	234	270	211	231	303	216	262
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	238	232	235	252	238	245	276	265	270	309	306	308
2	247	235	243	249	237	243	276	273	274	310	306	308
3	266	246	253	244	238	240	276	269	272	305	295	300
4	257	246	252	240	236	239	273	270	271	313	294	304
5	251	232	241	247	239	243	274	270	272	310	300	305
6	236	227	232	251	244	248	275	270	272	307	295	301
7	234	225	230	250	243	246	277	270	273	298	292	294
8	236	229	232	256	243	248	278	268	274	305	289	299
9	237	233	235	263	245	254	281	276	277	304	291	299
10	234	227	231	274	244	256	285	276	280	307	295	300
11	232	224	228	253	244	249	281	278	279	328	298	310
12	234	221	228	265	244	256	282	274	277	326	309	319
13	242	232	236	261	254	258	284	279	281	328	313	320
14	242	236	240	259	251	256	286	282	284	339	328	334
15	237	223	232	265	253	260	288	283	285	335	323	332
16	237	225	231	265	256	261	289	285	287	332	317	326
17	233	226	229	263	257	260	305	284	293	323	317	321
18	234	229	232	264	259	262	308	303	305	323	320	321
19	234	231	233	264	260	263	305	295	300	327	322	324
20	234	231	233	266	260	262	300	296	298	327	322	325
21	234	231	233	264	262	263	305	298	300	322	318	320
22	231	228	230	268	261	264	303	299	300	320	317	319
23	240	228	232	267	261	265	306	273	291	323	317	320
24	242	238	240	263	261	262	282	275	278	323	319	321
25	241	238	239	263	258	260	303	282	290	322	315	319
26	240	237	239	264	258	261	306	303	304	315	312	314
27	243	229	237	263	258	262	306	303	305	316	310	313
28	237	229	234	262	259	260	305	303	304	315	308	311
29	243	236	240	268	261	264	308	304	305	316	304	312
30	242	240	241	268	264	265	310	304	306	316	280	292
31	---	---	---	267	263	266	309	306	308	---	---	---
MONTH	266	221	236	274	236	256	310	265	288	339	280	313

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.4	6.3	6.4	---	---	---	6.3	6.2	6.2	6.4	6.3	6.4
2	6.4	6.3	6.3	---	---	---	6.2	6.2	6.2	6.4	6.3	6.3
3	6.4	6.3	6.4	---	---	---	6.2	6.2	6.2	6.4	6.3	6.3
4	6.3	6.3	6.3	---	---	---	6.2	6.2	6.2	6.4	6.3	6.3
5	6.3	6.3	6.3	---	---	---	6.2	6.2	6.2	6.4	6.3	6.3
6	6.4	6.3	6.3	---	---	---	6.2	6.2	6.2	6.3	6.3	6.3
7	6.3	6.0	6.1	---	---	---	6.2	6.2	6.2	6.4	6.3	6.3
8	6.1	6.0	6.0	---	---	---	6.4	6.2	6.3	6.4	6.3	6.4
9	6.3	6.0	6.2	6.3	6.2	6.2	6.4	6.3	6.4	6.4	6.3	6.4
10	6.3	6.3	6.3	6.3	6.2	6.2	6.4	6.4	6.4	6.3	6.3	6.3
11	6.4	6.3	6.3	6.3	6.2	6.3	6.4	6.3	6.4	6.3	6.2	6.2
12	6.4	6.3	6.3	6.3	6.2	6.3	6.4	6.4	6.4	6.3	6.3	6.3
13	6.4	6.3	6.3	6.3	6.1	6.1	6.4	6.4	6.4	6.3	6.3	6.3
14	6.4	6.3	6.3	6.3	6.0	6.2	6.4	6.4	6.4	6.3	6.3	6.3
15	6.4	6.3	6.3	6.4	6.2	6.3	6.4	6.4	6.4	6.3	6.3	6.3
16	6.4	6.3	6.3	6.4	6.3	6.4	6.4	6.4	6.4	6.3	6.3	6.3
17	6.4	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.3	6.3
18	6.4	6.3	6.3	6.5	6.4	6.4	6.4	6.4	6.4	6.3	6.2	6.3
19	6.4	6.3	6.3	6.5	6.4	6.4	6.6	6.4	6.5	6.2	6.2	6.2
20	6.4	6.3	6.4	6.4	6.3	6.3	6.5	6.4	6.5	6.2	6.2	6.2
21	6.4	6.3	6.3	6.3	6.2	6.2	6.7	6.4	6.5	---	---	---
22	6.4	6.3	6.3	6.2	6.1	6.2	6.5	6.5	6.5	---	---	---
23	6.4	6.3	6.4	---	---	---	6.5	6.5	6.5	---	---	---
24	6.4	6.4	6.4	6.2	6.2	6.2	6.5	6.4	6.4	6.3	6.2	6.3
25	6.4	6.3	6.4	6.2	6.2	6.2	6.5	6.4	6.4	6.3	6.3	6.3
26	6.3	6.3	6.3	6.2	6.1	6.2	6.4	6.3	6.4	6.3	6.3	6.3
27	6.3	6.3	6.3	6.1	6.1	6.1	6.4	6.3	6.4	6.3	6.2	6.2
28	6.3	6.3	6.3	6.6	6.1	6.4	6.4	6.3	6.3	6.3	6.2	6.2
29	6.3	6.3	6.3	6.4	6.3	6.3	6.4	6.4	6.4	6.2	6.0	6.1
30	6.3	6.2	6.3	6.3	6.2	6.2	6.4	6.4	6.4	6.1	6.0	6.0
31	6.3	6.2	6.2	---	---	---	6.4	6.4	6.4	6.1	6.0	6.1
MONTH	6.4	6.0	6.3	6.6	6.0	6.3	6.7	6.2	6.4	6.4	6.0	6.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.1	6.0	6.0	6.4	6.2	6.3	6.5	6.3	6.4	6.5	6.5	6.5
2	6.0	6.0	6.0	6.4	6.4	6.4	6.4	6.3	6.3	6.8	6.5	6.6
3	6.0	5.9	5.9	6.4	6.4	6.4	6.4	6.4	6.4	6.7	6.3	6.4
4	5.9	5.9	5.9	6.4	6.3	6.4	6.5	6.4	6.5	6.4	6.3	6.4
5	6.0	5.9	5.9	6.4	6.3	6.4	6.5	6.4	6.5	6.5	6.4	6.5
6	6.0	5.9	5.9	6.4	6.3	6.4	6.5	6.4	6.5	6.5	6.4	6.5
7	6.4	5.9	6.1	6.4	6.4	6.4	6.5	6.4	6.5	6.5	6.4	6.4
8	6.4	6.3	6.3	6.4	6.4	6.4	6.5	6.5	6.5	6.5	6.4	6.5
9	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.5	6.5	6.5	6.5
10	6.4	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
11	6.4	6.3	6.4	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
12	6.6	6.4	6.5	6.5	6.4	6.4	6.5	6.4	6.5	6.6	6.5	6.5
13	6.5	6.3	6.4	6.4	6.3	6.4	6.5	6.5	6.5	6.6	6.5	6.5
14	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.5	6.6	6.5	6.5
15	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.6
16	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
17	6.3	6.3	6.3	6.4	6.4	6.4	6.5	6.4	6.5	6.5	6.5	6.5
18	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.5	6.5	6.5	6.5
19	6.4	6.3	6.3	6.5	6.4	6.4	6.6	6.5	6.5	6.5	6.5	6.5
20	6.4	6.3	6.4	6.5	6.4	6.5	6.6	6.5	6.6	6.5	6.5	6.5
21	6.4	6.3	6.3	6.5	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
22	6.5	6.3	6.4	6.4	6.3	6.4	6.8	6.5	6.6	6.6	6.5	6.6
23	6.6	6.4	6.5	6.4	6.3	6.4	6.6	6.5	6.5	6.6	6.5	6.6
24	6.6	6.5	6.5	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
25	6.5	6.2	6.4	6.4	6.4	6.4	6.7	6.5	6.6	6.6	6.5	6.5
26	6.2	6.1	6.1	6.5	6.4	6.5	6.7	6.5	6.6	6.6	6.5	6.5
27	6.1	6.1	6.1	6.5	6.5	6.5	6.7	6.5	6.6	6.5	6.4	6.5
28	6.2	6.1	6.2	6.5	6.5	6.5	6.6	6.6	6.6	6.6	6.5	6.6
29	---	---	---	6.5	6.4	6.5	6.6	6.5	6.5	6.6	6.6	6.6
30	---	---	---	6.5	6.4	6.4	6.5	6.5	6.5	6.6	6.6	6.6
31	---	---	---	6.6	6.5	6.5	---	---	---	6.9	6.1	6.5
MONTH	6.6	5.9	6.2	6.6	6.2	6.4	6.8	6.3	6.5	6.9	6.1	6.5

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.1	6.0	6.1	6.8	6.7	6.7	6.7	6.5	6.6	6.6	6.5	6.5
2	6.2	6.1	6.2	6.8	6.7	6.7	6.6	6.6	6.6	6.6	6.5	6.5
3	6.4	6.2	6.3	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.5
4	6.5	6.3	6.4	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.5	6.5
5	6.4	6.1	6.2	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.5	6.5
6	6.2	6.1	6.1	6.8	6.7	6.7	6.6	6.5	6.6	6.5	6.5	6.5
7	6.4	6.1	6.2	6.8	6.7	6.7	6.6	6.5	6.6	6.6	6.5	6.5
8	6.2	6.1	6.2	6.8	6.7	6.7	6.6	6.5	6.6	6.5	6.5	6.5
9	6.3	6.2	6.2	6.9	6.5	6.7	6.6	6.5	6.6	6.5	6.5	6.5
10	6.4	6.3	6.3	6.7	6.2	6.4	6.6	6.5	6.6	6.5	6.5	6.5
11	6.3	6.2	6.2	6.3	6.2	6.2	6.6	6.5	6.6	6.6	6.4	6.5
12	6.4	6.2	6.3	6.4	6.2	6.3	6.7	6.5	6.6	6.6	6.5	6.5
13	6.5	6.4	6.5	6.4	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5
14	6.5	6.5	6.5	6.5	6.4	6.4	6.6	6.5	6.6	6.5	6.5	6.5
15	6.6	6.5	6.5	6.6	6.4	6.5	6.7	6.5	6.6	6.5	6.5	6.5
16	6.5	6.5	6.5	6.6	6.5	6.6	6.6	6.5	6.6	6.6	6.5	6.5
17	6.5	6.5	6.5	6.6	6.6	6.6	6.7	6.5	6.6	6.5	6.5	6.5
18	6.5	6.5	6.5	6.6	6.6	6.6	6.6	6.5	6.6	6.5	6.5	6.5
19	6.6	6.5	6.5	6.6	6.6	6.6	6.6	6.5	6.6	6.5	6.5	6.5
20	6.6	6.5	6.5	6.7	6.6	6.6	6.6	6.5	6.6	6.5	6.5	6.5
21	6.6	6.5	6.5	6.6	6.6	6.6	6.7	6.5	6.6	6.5	6.5	6.5
22	6.6	6.5	6.6	6.6	6.5	6.6	6.6	6.6	6.6	6.5	6.5	6.5
23	6.6	6.5	6.6	6.6	6.6	6.6	6.6	6.4	6.5	6.5	6.5	6.5
24	6.7	6.6	6.6	6.6	6.5	6.6	6.4	6.4	6.4	6.5	6.5	6.5
25	6.7	6.6	6.7	6.6	6.4	6.5	6.4	6.3	6.4	6.5	6.5	6.5
26	6.7	6.6	6.7	6.6	6.4	6.5	6.5	6.4	6.5	6.6	6.5	6.5
27	6.7	6.6	6.7	6.6	6.5	6.6	6.5	6.4	6.5	6.6	6.5	6.5
28	6.7	6.7	6.7	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.4	6.5
29	6.7	6.7	6.7	6.6	6.5	6.5	6.6	6.5	6.5	6.4	6.3	6.4
30	6.7	6.7	6.7	6.6	6.5	6.6	6.6	6.5	6.5	6.6	6.4	6.5
31	---	---	---	6.6	6.5	6.6	6.6	6.5	6.5	---	---	---
MONTH	6.7	6.0	6.4	6.9	6.2	6.6	6.7	6.3	6.6	6.6	6.3	6.5

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

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

01595800 NORTH BRANCH POTOMAC RIVER BASIN AT BARNUM, WV--Continued

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

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

01595800 NORTH BRANCH POTOMAC RIVER BASIN AT BARNUM, WV--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.5	9.5	9.5	---	---	---	---	---	---	12.6	12.2	12.4
2	9.6	9.4	9.5	---	---	---	---	---	---	12.7	12.5	12.6
3	9.7	9.4	9.5	---	---	---	---	---	---	12.9	12.6	12.8
4	9.8	9.4	9.6	---	---	---	---	---	---	12.7	12.1	12.4
5	9.8	9.4	9.6	---	---	---	---	---	---	12.5	12.3	12.4
6	9.9	9.5	9.7	---	---	---	---	---	---	12.7	12.2	12.5
7	10.1	9.9	10.0	---	---	---	---	---	---	12.3	12.0	12.1
8	10.2	10.0	10.1	---	---	---	---	---	---	12.2	12.0	12.1
9	10.2	9.7	9.9	12.6	12.5	12.5	---	---	---	12.4	12.1	12.2
10	10.0	9.7	9.9	12.9	12.6	12.8	---	---	---	12.6	12.2	12.4
11	10.0	9.7	9.8	13.0	12.9	12.9	---	---	---	12.6	12.4	12.5
12	9.9	9.6	9.7	13.3	12.9	13.1	11.8	11.4	11.6	12.9	12.7	12.8
13	9.9	9.6	9.7	13.2	12.3	12.8	11.6	11.4	11.5	13.0	12.7	12.8
14	9.8	9.5	9.7	12.6	11.2	11.8	11.9	11.6	11.8	13.0	12.6	12.7
15	9.8	9.5	9.6	11.5	10.5	10.9	12.0	11.8	11.9	13.1	13.0	13.1
16	9.8	9.5	9.6	11.5	11.2	11.3	12.0	11.8	11.9	13.4	12.9	13.2
17	9.8	9.1	9.5	12.3	12.0	12.2	12.0	11.8	11.9	13.2	12.6	12.8
18	9.4	9.2	9.3	12.9	12.1	12.7	12.0	11.9	12.0	12.9	12.5	12.7
19	9.5	9.2	9.4	13.3	12.9	13.1	12.1	11.8	11.9	12.9	12.6	12.7
20	9.7	9.5	9.6	13.6	12.5	13.1	12.0	11.9	12.0	12.9	12.7	12.8
21	10.0	9.7	9.8	13.2	11.6	12.4	12.2	11.8	12.1	---	---	---
22	10.2	9.9	10.0	12.2	10.6	11.4	12.1	11.8	11.9	---	---	---
23	10.3	10.2	10.2	---	---	---	12.3	12.1	12.2	---	---	---
24	10.5	10.2	10.4	---	---	---	12.3	11.9	12.1	---	---	---
25	10.5	10.2	10.4	---	---	---	12.5	12.1	12.3	---	---	---
26	10.4	10.1	10.2	---	---	---	12.6	12.4	12.5	---	---	---
27	10.3	9.9	10.1	---	---	---	12.5	12.2	12.4	---	---	---
28	10.2	9.8	10.0	---	---	---	12.4	11.9	12.1	---	---	---
29	10.1	9.8	9.9	---	---	---	12.1	11.9	12.0	---	---	---
30	10.0	9.7	9.9	---	---	---	12.4	12.1	12.3	---	---	---
31	10.0	9.8	9.9	---	---	---	12.6	12.4	12.5	---	---	---
MONTH	10.5	9.1	9.8	13.6	10.5	12.4	12.6	11.4	12.1	13.4	12.0	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	14.1	12.8	13.4	13.9	12.0	13.1	10.5	10.0	10.3
2	---	---	---	13.1	12.7	12.9	14.0	12.3	13.3	10.7	10.2	10.4
3	---	---	---	13.1	12.9	13.0	12.4	11.8	12.1	12.8	11.2	12.2
4	---	---	---	13.6	12.7	13.1	12.3	12.1	12.2	12.5	11.0	11.7
5	---	---	---	13.1	12.7	12.9	12.3	12.1	12.2	11.2	9.8	10.5
6	---	---	---	13.6	13.2	13.3	12.5	12.2	12.3	10.9	10.1	10.5
7	---	---	---	13.3	13.1	13.2	12.6	12.5	12.6	11.0	10.8	11.0
8	---	---	---	13.1	12.7	12.9	12.7	12.2	12.4	11.1	10.4	10.7
9	---	---	---	13.0	12.8	12.9	12.7	12.4	12.5	10.6	9.8	10.2
10	---	---	---	13.1	12.9	13.0	12.8	12.1	12.5	10.1	9.7	9.8
11	---	---	---	13.1	12.6	12.9	12.4	12.0	12.2	9.9	9.6	9.7
12	---	---	---	13.2	12.5	12.8	12.5	12.2	12.4	9.8	9.5	9.7
13	---	---	---	13.3	12.7	13.1	12.3	12.1	12.2	9.7	9.3	9.5
14	---	---	---	12.8	12.6	12.7	12.1	11.9	12.0	9.7	9.4	9.5
15	---	---	---	12.8	12.7	12.8	12.0	11.7	11.8	9.7	9.5	9.6
16	---	---	---	12.8	12.5	12.7	12.1	11.7	11.8	9.6	9.1	9.3
17	---	---	---	12.7	12.5	12.6	12.5	12.1	12.3	9.4	9.2	9.3
18	---	---	---	12.8	12.5	12.6	12.3	11.7	12.0	9.5	9.2	9.3
19	---	---	---	12.7	12.1	12.4	12.0	11.6	11.8	9.4	9.2	9.3
20	---	---	---	12.3	11.9	12.1	12.0	11.8	11.9	9.5	9.1	9.3
21	---	---	---	12.5	12.3	12.5	12.0	11.7	11.9	9.5	9.0	9.3
22	---	---	---	12.9	12.5	12.8	12.5	11.3	11.9	9.5	9.2	9.3
23	---	---	---	12.9	12.7	12.8	12.7	11.2	12.2	9.5	9.3	9.4
24	---	---	---	12.8	12.7	12.7	12.5	11.6	11.8	9.5	9.2	9.4
25	---	---	---	12.9	12.4	12.6	12.0	11.1	11.6	9.4	9.1	9.2
26	---	---	---	12.7	12.2	12.4	12.1	10.5	11.6	9.2	8.9	9.1
27	14.5	13.8	14.2	12.4	12.0	12.3	12.1	10.2	10.7	9.2	8.8	9.0
28	14.5	13.9	14.2	12.4	11.7	12.0	10.9	10.5	10.6	9.0	8.9	9.0
29	---	---	---	12.0	11.7	11.9	10.9	10.5	10.7	9.2	9.0	9.1
30	---	---	---	12.3	12.0	12.2	10.8	10.2	10.5	9.2	8.8	9.1
31	---	---	---	12.3	12.1	12.2	---	---	---	13.6	8.8	10.6
MONTH	14.5	13.8	14.2	14.1	11.7	12.7	14.0	10.2	12.0	13.6	8.8	9.8

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.3	12.4	13.0	8.7	8.4	8.6	9.4	9.1	9.2	9.3	9.1	9.2
2	12.2	9.6	10.7	8.9	8.7	8.8	9.5	9.1	9.3	9.5	9.1	9.3
3	10.1	8.5	9.2	8.9	8.5	8.7	9.6	9.2	9.4	9.5	9.0	9.2
4	8.9	8.5	8.7	8.9	8.4	8.6	9.5	9.2	9.4	9.3	8.8	9.0
5	12.5	8.9	10.4	8.9	8.4	8.6	9.5	9.3	9.4	9.1	8.6	8.9
6	12.4	11.0	11.6	8.7	8.5	8.6	9.5	9.1	9.3	9.0	8.7	8.9
7	11.2	9.7	10.5	8.8	8.3	8.5	9.3	8.9	9.2	9.0	8.7	8.9
8	11.2	10.0	10.9	8.7	8.1	8.4	9.3	9.0	9.2	9.0	8.6	8.8
9	10.0	9.5	9.9	9.1	8.4	8.8	9.3	8.9	9.1	8.9	8.6	8.8
10	10.1	9.5	9.8	12.3	8.9	10.2	9.2	8.9	9.0	8.9	8.6	8.8
11	10.2	9.6	9.9	12.3	11.5	11.9	9.1	8.9	9.0	9.0	8.8	8.9
12	9.6	7.9	8.9	11.6	9.9	10.6	9.2	8.8	8.9	9.0	8.7	8.9
13	8.3	8.1	8.2	10.0	10.0	10.0	9.1	8.7	8.9	9.3	9.0	9.1
14	8.4	8.2	8.3	10.1	9.8	10.0	9.6	8.7	8.8	9.4	9.1	9.3
15	8.5	8.4	8.5	10.0	9.1	9.5	9.0	8.6	8.8	9.5	9.1	9.3
16	8.5	8.2	8.3	9.3	9.1	9.2	8.8	8.7	8.8	9.4	9.1	9.3
17	8.5	8.2	8.4	9.5	9.2	9.4	8.9	8.7	8.8	9.4	9.1	9.3
18	8.4	8.2	8.3	9.5	9.2	9.4	9.0	8.8	8.9	9.5	9.1	9.3
19	8.5	8.3	8.4	9.5	9.2	9.3	9.0	8.7	8.9	9.5	9.2	9.4
20	8.6	8.4	8.5	9.4	9.2	9.3	9.0	8.7	8.8	9.5	9.2	9.4
21	8.7	8.5	8.6	9.4	9.2	9.3	9.0	8.7	8.9	9.5	9.2	9.3
22	8.7	8.4	8.6	9.4	9.0	9.2	9.1	8.9	9.0	9.4	9.2	9.3
23	8.6	8.3	8.5	9.4	9.1	9.2	9.3	8.7	9.1	9.4	9.1	9.3
24	8.6	8.2	8.4	9.4	9.2	9.2	9.4	9.2	9.3	9.4	9.2	9.3
25	8.7	8.2	8.4	9.9	9.2	9.5	9.3	8.9	9.1	9.6	9.2	9.4
26	8.6	8.3	8.5	9.9	9.3	9.5	9.0	8.7	8.9	9.5	9.2	9.4
27	8.6	8.4	8.6	9.6	9.3	9.5	9.0	8.9	8.9	9.6	9.3	9.4
28	8.8	8.3	8.5	9.6	9.3	9.5	9.2	8.9	9.0	9.7	9.5	9.6
29	8.5	8.2	8.4	9.5	9.1	9.3	9.1	8.9	9.0	9.9	9.4	9.7
30	8.6	8.3	8.4	9.2	8.9	9.1	9.1	8.9	9.0	9.5	9.1	9.3
31	---	---	---	9.2	9.0	9.1	9.1	9.0	9.1	---	---	---
MONTH	13.3	7.9	9.2	12.3	8.1	9.3	9.6	8.6	9.1	9.9	8.6	9.2

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28'45", long 79°03'55", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank 0.2 mi downstream from Savage River, 0.5 mi northwest of Luke, and at mile 53.3.

DRAINAGE AREA.--404 mi².

PERIOD OF RECORD.--June 1899 to July 1906 (published as at Piedmont, W. Va.), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 944.22 ft above National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-17, Jan. 21, and Aug. 25 to Sept. 24. Records good except those for periods of partially plugged intakes, Oct. 1-17 and Aug. 25 to Sept. 24, and period with ice effect, Jan. 21, which are fair. Flow regulated prior to July 1981 by Stony River Reservoir, 45 mi upstream from station (see station 01597500), since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station (see station 01595800). Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite telemeter at station. Upper Potomac River Commission gage height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--42 years (water years 1900-05, 1950-85), 716 ft³/s, 24.07 in/yr, adjusted for storage since October 1949.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,400 ft³/s, Oct. 15, 1954, gage height, 17.15 ft; minimum daily discharge, 6 ft³/s, Sept. 4, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,850 ft³/s, June 1, gage height, 7.25 ft; minimum discharge, 254 ft³/s, Nov. 17, gage height, 2.06 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	331	364	776	515	2280	3110	604	4780	270	302	340
2	390	331	357	771	513	1340	3300	633	2020	268	300	310
3	390	331	359	762	512	1270	1850	1930	982	265	298	323
4	390	337	370	747	511	1370	1420	2260	579	261	296	343
5	390	347	413	713	514	1300	1220	1410	1150	261	296	323
6	390	339	444	705	516	1300	1190	1140	2430	263	296	321
7	1000	336	439	705	557	1140	1160	1230	1530	261	296	321
8	1350	334	440	617	625	1120	1050	1130	1760	264	305	321
9	800	344	439	522	621	1100	833	937	1380	510	296	322
10	390	358	442	521	623	1090	747	809	1150	1890	296	320
11	380	361	412	518	614	1080	756	700	1330	3440	296	314
12	380	358	416	515	698	1150	915	691	1050	1760	296	321
13	390	537	417	513	748	1310	918	671	601	1100	295	320
14	390	594	437	514	758	1150	828	634	586	998	296	321
15	380	303	500	502	705	1140	703	626	580	736	295	320
16	380	285	500	512	647	1130	630	613	589	496	296	319
17	380	256	500	517	644	1130	838	613	583	488	296	318
18	363	260	500	517	641	1050	786	610	583	483	296	318
19	357	281	555	516	644	867	675	605	575	481	293	318
20	361	302	687	514	645	700	665	599	544	462	290	318
21	354	307	932	514	703	779	644	563	508	471	288	318
22	339	318	1020	514	791	1040	576	475	504	457	286	318
23	338	318	970	514	940	1300	532	479	478	439	540	318
24	347	318	1020	514	1140	1320	551	473	298	431	1240	318
25	355	318	1140	515	2060	1330	565	468	270	491	1060	315
26	351	318	1120	512	3660	1180	535	461	268	588	472	305
27	351	317	1150	512	3710	929	469	459	265	461	387	323
28	350	386	1140	512	3200	950	516	450	262	449	360	493
29	351	419	1120	512	---	1010	601	413	262	428	364	797
30	343	367	1110	511	---	1050	607	394	261	338	365	550
31	333	---	938	513	---	1170	---	1160	---	312	364	---
TOTAL	13463	10311	20651	17620	28455	36075	29190	24240	28158	19822	11656	10486
MEAN	434	344	666	568	1016	1164	973	782	939	639	376	350
MAX	1350	594	1150	776	3710	2280	3300	2260	4780	3440	1240	797
MIN	333	256	357	502	511	700	469	394	261	261	286	305

CAL YR 1984 TOTAL 295783 MEAN 808 MAX 7040 MIN 248 CFSM 2.00 IN 27.24
WTR YR 1985 TOTAL 250127 MEAN 685 MAX 4780 MIN 256 CFSM 1.70 IN 23.03

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD

LOCATION.--Lat 39°33'59", long 78°50'25", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge at Pinto, 2.8 mi downstream from Mill Run, and at mile 32.6.

DRAINAGE AREA.--596 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1332: 1943.

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Some regulation at low flow by Stony River Reservoir, 66 mi upstream from station (see station 01595200) prior to July 1981. Low-flow regulation since December 1950 by Savage River Reservoir, 25 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 29 mi upstream from station (see station 01595800) since July 1981. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--47 years, 896 ft³/s, 20.41 in/yr, adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft³/s, Oct. 16, 1954, gage height, 23.23 ft; minimum discharge, 31 ft³/s, Dec. 18, 19, 1943, gage height, 1.37 ft, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 24 ft, discharge, about 55,000 ft³/s. Flood of Mar. 17, 1936, reached a stage of about 23.5 ft, from floodmarks, discharge, about 50,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,810 ft³/s, Apr. 1, gage height, 8.62 ft; minimum discharge, 289 ft³/s, June 30, July 1, gage height 2.46 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	386	637	1070	604	2900	4430	602	5180	312	347	390
2	465	383	574	1050	601	1730	4530	755	2970	313	349	361
3	431	379	546	1020	587	1640	2530	3730	1480	332	339	339
4	421	380	538	1020	568	1770	1960	3410	802	323	334	385
5	415	463	560	971	580	1640	1640	2000	1240	325	332	358
6	412	421	641	943	586	1650	1570	1480	3090	388	334	355
7	649	400	595	938	600	1350	1500	1570	2020	332	337	357
8	1410	391	594	889	707	1340	1360	1410	2050	316	397	358
9	1210	388	602	686	700	1320	1050	1100	1680	634	351	355
10	431	419	609	672	704	1290	915	924	1320	1640	340	357
11	409	437	588	679	705	1290	897	761	1550	4030	336	352
12	396	434	632	663	1210	1460	1130	749	1460	2240	334	345
13	397	477	619	653	1690	1730	1130	740	797	1360	330	350
14	406	938	624	668	1300	1450	1010	665	748	1230	331	351
15	401	363	713	660	1110	1420	842	644	741	1070	341	349
16	402	350	710	609	924	1390	733	642	770	640	334	350
17	405	299	701	657	891	1390	974	668	756	605	334	348
18	481	297	692	658	859	1310	926	659	745	586	337	347
19	427	324	842	656	893	1040	744	635	724	578	335	346
20	430	357	1170	607	972	790	727	606	700	556	325	345
21	423	347	1500	487	1030	855	707	572	633	568	322	344
22	426	356	1900	576	1290	1240	630	428	621	559	315	343
23	419	358	1610	754	2180	1990	526	482	625	531	338	344
24	434	361	1500	707	2870	2180	558	496	420	502	1390	345
25	436	367	1690	625	3540	2150	603	446	315	497	1380	342
26	429	367	1560	609	4840	1830	572	424	304	768	650	333
27	420	368	1550	594	4510	1360	439	414	301	577	482	332
28	413	550	1520	597	3860	1320	487	421	299	532	404	427
29	425	1370	1480	595	---	1400	615	413	297	520	400	850
30	421	738	1450	583	---	1590	606	362	294	415	407	778
31	393	---	1340	594	---	1940	---	1040	---	370	408	---
TOTAL	15153	13468	30287	22490	40911	47755	36341	29248	34932	23649	13293	11536
MEAN	489	449	977	725	1461	1540	1211	943	1164	763	429	385
MAX	1410	1370	1900	1070	4840	2900	4530	3730	5180	4030	1390	850
MIN	393	297	538	487	568	790	439	362	294	312	315	332

CAL YR 1984 TOTAL 396687 MEAN 1084 MAX 10100 MIN 272 CFSM 1.82 IN 24.76
WTR YR 1985 TOTAL 319063 MEAN 874 MAX 5180 MIN 294 CFSM 1.47 IN 19.91

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-74, 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURE: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1982-85): Maximum, 1,240 microsiemens, Oct. 20, 1982; minimum, 160 microsiemens, July 5, 1982.
pH (water years 1982-85): Maximum, 8.6 units, June 27, 1982; minimum, 6.4 units, Oct. 30, 31, 1982.
WATER TEMPERATURE (water years 1982-85): Maximum, 28.5°C, Aug., 20, 21, 1983; minimum, 0.5°C on many days during winter periods.
DISSOLVED OXYGEN (water year 1983): Maximum, 14.5 mg/L, Nov. 28, 1982; minimum, 6.9 mg/L, June 28, 29, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 707 microsiemens, Aug. 23; minimum, 177 microsiemens, July 11.
pH: Maximum, 7.8 units, May 19, 20; minimum, 6.5 units, Feb. 27.
WATER TEMPERATURE: Maximum, 27.0°C, Aug. 15; minimum, 0.5°C, Feb. 8, 9.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	557	533	543	691	647	668	486	447	475	377	315	366
2	607	546	580	677	639	661	483	468	476	375	365	368
3	592	579	586	669	628	644	505	483	494	389	366	378
4	620	587	613	645	617	632	505	465	488	394	379	387
5	631	605	621	650	605	637	472	445	459	408	390	402
6	628	603	619	649	585	607	464	440	450	414	403	408
7	614	466	597	619	589	605	454	429	441	411	396	403
8	425	403	407	646	617	629	449	427	438	---	---	---
9	412	405	409	661	633	645	445	415	430	---	---	---
10	607	411	514	656	617	642	466	427	451	---	---	---
11	618	602	611	617	592	617	494	420	450	---	---	---
12	611	541	585	599	567	581	502	467	486	---	---	---
13	665	566	608	567	553	560	481	469	476	---	---	---
14	638	620	631	565	420	451	485	467	478	---	---	---
15	639	618	633	602	420	489	473	414	446	---	---	---
16	688	614	644	609	518	565	423	413	420	---	---	---
17	705	622	656	549	512	528	429	416	425	---	---	---
18	667	615	634	626	549	596	424	414	420	---	---	---
19	669	597	624	592	573	586	434	356	416	---	---	---
20	597	549	567	588	545	571	371	333	346	---	---	---
21	623	568	601	592	548	567	344	282	344	---	---	---
22	615	559	592	610	588	597	290	269	278	---	---	---
23	597	534	565	590	543	573	280	270	276	---	---	---
24	656	590	617	606	564	582	283	280	281	---	---	---
25	645	578	615	594	535	569	295	281	286	483	452	472
26	635	609	623	607	588	595	290	284	287	483	470	477
27	664	627	647	609	578	589	299	288	292	471	449	460
28	640	594	608	611	481	578	302	298	301	465	456	461
29	623	601	612	481	302	481	307	300	302	478	461	469
30	655	557	617	447	359	406	308	300	306	461	422	437
31	678	652	663	---	---	---	315	300	303	492	422	455
MONTH	705	403	595	691	302	582	505	269	394	492	315	425

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	524	491	511	286	271	276	292	194	227	552	422	463
2	533	512	522	319	285	306	263	238	249	464	335	423
3	541	518	528	313	309	311	284	222	261	325	198	261
4	525	514	519	320	301	315	315	282	287	225	193	204
5	525	500	513	333	303	320	329	315	326	285	236	250
6	513	502	508	312	295	307	341	329	337	385	285	327
7	514	499	506	342	312	335	342	298	332	337	317	327
8	500	409	458	360	336	343	332	322	326	334	315	326
9	449	413	432	356	333	341	379	330	368	376	334	362
10	451	440	446	343	337	340	402	376	394	479	373	416
11	455	405	445	344	335	340	410	389	399	527	426	469
12	446	364	413	354	340	349	395	360	371	564	421	499
13	397	329	348	341	301	311	365	357	361	432	376	389
14	383	363	373	320	311	316	387	359	370	436	381	412
15	392	382	386	329	284	319	406	385	395	426	392	400
16	417	382	407	327	321	325	437	398	423	461	414	441
17	428	414	424	329	322	326	453	345	405	480	461	472
18	430	422	426	332	326	330	374	342	356	484	453	471
19	434	419	425	350	321	340	449	372	415	469	423	450
20	417	406	411	371	279	336	469	442	457	459	410	433
21	409	394	404	400	344	368	456	425	448	484	459	477
22	389	338	355	374	309	336	486	432	463	514	470	494
23	333	288	306	324	308	315	627	481	523	510	486	495
24	288	243	258	313	301	305	577	497	527	525	494	516
25	247	193	226	302	260	291	505	403	438	539	522	532
26	239	217	231	290	253	258	530	414	473	547	530	539
27	275	234	247	308	299	305	633	468	521	563	541	551
28	284	271	274	318	305	310	605	521	552	555	495	526
29	---	---	---	305	258	305	527	438	471	603	499	545
30	---	---	---	321	299	309	477	424	443	626	604	616
31	---	---	---	321	279	304	---	---	---	625	281	535
MONTH	541	193	404	400	253	319	633	194	397	626	193	439

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	285	271	276	585	565	574	580	552	561	572	554	562
2	319	274	293	588	579	584	592	577	584	608	568	588
3	356	318	336	602	574	589	589	567	577	611	396	478
4	413	356	398	593	548	578	610	589	599	396	331	396
5	472	309	395	598	512	573	607	597	602	477	332	387
6	309	269	276	597	524	554	601	552	580	517	475	498
7	311	292	299	625	547	598	571	487	533	532	517	523
8	326	288	301	646	625	636	558	489	528	525	502	515
9	312	287	303	639	422	573	604	556	581	588	524	551
10	343	312	330	415	226	353	589	555	575	600	588	595
11	339	310	317	274	177	235	589	567	582	610	586	600
12	323	304	317	290	262	271	581	491	524	627	575	594
13	377	313	345	317	290	308	614	542	588	598	567	580
14	405	378	393	370	317	347	644	603	620	639	582	616
15	406	395	401	384	370	375	650	610	631	626	612	617
16	402	395	399	439	384	416	635	607	621	642	614	623
17	406	395	399	413	375	393	632	604	614	634	612	621
18	394	379	385	437	413	429	634	621	627	628	605	617
19	407	394	401	445	431	438	662	626	640	631	615	626
20	399	391	395	452	431	441	668	642	655	621	591	601
21	419	400	412	499	451	466	661	618	641	622	584	604
22	435	418	427	462	452	457	675	644	664	585	566	573
23	437	420	431	500	454	477	707	633	660	650	585	618
24	467	403	416	512	495	503	658	339	417	665	634	649
25	609	467	540	525	506	516	361	337	351	631	582	612
26	613	599	605	506	416	455	425	348	387	582	489	529
27	604	596	601	481	414	457	509	419	464	611	488	544
28	618	601	610	481	463	470	546	504	524	641	560	615
29	600	584	594	482	468	478	562	504	540	563	478	510
30	584	565	584	537	479	494	611	557	590	462	410	422
31	---	---	---	566	527	543	608	566	593	---	---	---
MONTH	618	269	406	646	177	470	707	337	569	665	331	562

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.4	7.2	7.3	7.2	7.1	7.2	7.3	7.3	7.3	7.2	7.1	7.1
2	7.4	7.3	7.3	7.2	7.2	7.2	7.4	7.3	7.3	7.2	7.2	7.2
3	7.3	7.1	7.2	7.3	7.2	7.2	7.3	7.2	7.3	7.2	7.2	7.2
4	7.2	7.1	7.1	7.2	7.2	7.2	7.4	7.3	7.3	7.3	7.2	7.2
5	7.2	7.0	7.1	7.2	7.2	7.2	7.4	7.3	7.3	7.2	7.2	7.2
6	7.2	7.1	7.1	7.3	7.2	7.3	7.4	7.4	7.4	7.3	7.2	7.2
7	7.2	6.9	7.1	7.3	7.2	7.3	7.5	7.4	7.4	7.3	7.2	7.3
8	6.9	6.8	6.8	7.4	7.3	7.4	7.5	7.4	7.4	---	---	---
9	6.8	6.7	6.8	7.4	7.4	7.4	7.4	7.4	7.4	---	---	---
10	7.1	6.8	7.0	7.4	7.4	7.4	7.4	7.3	7.4	---	---	---
11	7.2	7.1	7.1	7.4	7.3	7.4	7.4	7.3	7.4	---	---	---
12	7.2	7.1	7.1	7.4	7.3	7.3	7.3	7.3	7.3	---	---	---
13	7.2	7.1	7.1	7.4	7.3	7.4	7.4	7.2	7.3	---	---	---
14	7.1	7.1	7.1	7.3	7.1	7.2	7.3	7.2	7.2	---	---	---
15	7.2	7.1	7.1	7.4	7.1	7.2	7.3	7.2	7.2	---	---	---
16	7.2	7.1	7.1	7.4	7.3	7.3	7.3	7.2	7.2	---	---	---
17	7.1	7.1	7.1	7.4	7.3	7.3	7.3	7.2	7.3	---	---	---
18	7.2	7.1	7.1	7.4	7.3	7.4	7.3	7.2	7.3	---	---	---
19	7.2	7.1	7.1	7.4	7.4	7.4	7.5	7.3	7.3	---	---	---
20	7.2	7.1	7.1	7.5	7.4	7.4	7.4	7.3	7.3	---	---	---
21	7.2	7.1	7.1	7.5	7.4	7.4	7.3	7.2	7.2	---	---	---
22	7.1	7.1	7.1	7.4	7.4	7.4	7.3	7.1	7.2	---	---	---
23	7.1	7.0	7.1	7.4	7.4	7.4	7.1	7.1	7.1	---	---	---
24	7.2	7.1	7.1	7.5	7.4	7.4	7.1	7.1	7.1	---	---	---
25	7.1	7.1	7.1	7.4	7.3	7.4	7.1	7.0	7.0	7.2	7.2	7.2
26	7.1	7.1	7.1	7.4	7.3	7.4	7.0	7.0	7.0	7.3	7.2	7.2
27	7.1	7.0	7.1	7.4	7.3	7.4	7.1	7.0	7.0	7.2	7.1	7.1
28	7.1	7.1	7.1	7.4	7.2	7.3	7.0	6.9	6.9	7.1	7.1	7.1
29	7.2	7.0	7.1	7.4	7.2	7.3	7.0	7.0	7.0	7.2	7.1	7.2
30	7.2	7.1	7.2	7.3	7.3	7.3	7.1	7.0	7.0	7.2	7.1	7.1
31	7.2	7.2	7.2	---	---	---	7.1	7.1	7.1	7.2	7.1	7.1
MONTH	7.4	6.7	7.1	7.5	7.1	7.3	7.5	6.9	7.2	7.3	7.1	7.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.2	7.1	7.1	6.7	6.6	6.7	7.0	6.8	6.9	6.9	6.8	6.9
2	7.2	7.1	7.2	6.8	6.7	6.8	6.9	6.8	6.8	6.9	6.8	6.8
3	7.2	7.2	7.2	6.8	6.7	6.8	7.0	6.9	6.9	7.0	6.8	6.9
4	7.2	7.1	7.2	6.8	6.6	6.8	7.0	7.0	7.0	6.9	6.8	6.9
5	7.2	7.1	7.2	6.8	6.7	6.8	7.0	7.0	7.0	7.0	6.9	6.9
6	7.2	7.1	7.1	6.8	6.7	6.7	7.0	7.0	7.0	7.1	7.0	7.0
7	7.1	7.1	7.1	6.8	6.7	6.8	7.0	7.0	7.0	7.0	7.0	7.0
8	7.1	7.0	7.0	6.8	6.7	6.7	7.0	7.0	7.0	7.1	7.0	7.0
9	7.1	7.0	7.0	6.8	6.7	6.8	7.1	7.1	7.1	7.1	7.0	7.1
10	7.1	7.0	7.0	6.8	6.7	6.7	7.2	7.1	7.1	7.2	7.1	7.1
11	7.1	7.0	7.0	6.8	6.8	6.8	7.1	7.1	7.1	7.2	7.1	7.2
12	7.4	7.0	7.1	6.9	6.8	6.8	7.1	7.0	7.1	7.2	7.1	7.2
13	7.3	7.1	7.2	6.8	6.7	6.8	7.1	7.0	7.1	7.3	7.2	7.2
14	7.2	7.1	7.1	6.8	6.8	6.8	7.1	7.0	7.1	7.3	7.2	7.2
15	7.2	7.1	7.1	6.8	6.7	6.8	7.1	7.0	7.1	7.6	7.2	7.4
16	7.1	7.0	7.1	6.8	6.7	6.7	7.2	7.0	7.1	7.7	7.3	7.5
17	7.1	7.1	7.1	6.7	6.7	6.7	7.2	7.0	7.2	7.5	7.4	7.5
18	7.1	7.0	7.1	6.8	6.7	6.8	7.2	6.9	7.1	7.7	7.4	7.5
19	7.1	7.0	7.1	6.9	6.8	6.9	7.2	7.0	7.1	7.8	7.4	7.6
20	7.2	7.1	7.1	6.9	6.8	6.9	7.2	7.0	7.1	7.8	7.3	7.5
21	7.2	7.1	7.1	7.0	6.9	6.9	7.1	7.0	7.1	7.6	7.2	7.4
22	7.1	7.0	7.0	7.0	6.9	6.9	7.1	7.0	7.0	7.8	7.2	7.4
23	7.1	7.0	7.1	7.1	6.9	7.0	7.2	7.0	7.1	7.4	7.2	7.3
24	7.0	6.9	7.0	7.0	7.0	7.0	7.1	7.1	7.1	7.5	7.3	7.4
25	6.9	6.8	6.9	7.0	6.9	6.9	7.2	7.0	7.1	7.4	7.2	7.3
26	6.8	6.7	6.7	7.0	7.0	7.0	7.2	7.0	7.1	7.3	7.1	7.1
27	6.7	6.5	6.6	7.0	7.0	7.0	7.2	7.0	7.1	7.2	7.0	7.1
28	6.7	6.6	6.6	7.1	7.0	7.0	7.0	7.0	7.0	7.0	6.9	7.0
29	---	---	---	7.0	7.0	7.0	7.1	7.0	7.0	7.2	7.0	7.1
30	---	---	---	7.1	6.9	7.0	7.0	6.9	6.9	7.2	7.0	7.1
31	---	---	---	7.1	7.0	7.0	---	---	---	7.1	6.8	7.0
MONTH	7.4	6.5	7.0	7.1	6.6	6.9	7.2	6.8	7.1	7.8	6.8	7.2

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	6.6	6.6	7.3	7.2	7.2	7.2	7.0	7.1	7.2	7.1	7.2
2	6.8	6.6	6.7	7.3	7.2	7.3	7.2	7.1	7.2	7.2	7.1	7.1
3	6.8	6.7	6.8	7.4	7.3	7.3	7.1	7.0	7.1	7.2	7.0	7.1
4	7.0	6.8	6.9	7.3	7.2	7.3	7.1	7.0	7.1	7.1	6.9	7.0
5	7.1	6.9	7.0	7.4	7.2	7.3	7.2	7.0	7.1	7.2	6.8	7.0
6	6.8	6.7	6.8	7.4	7.2	7.3	7.2	7.0	7.1	7.2	6.9	7.1
7	7.0	6.8	6.9	7.4	7.2	7.3	7.3	7.0	7.1	7.3	6.9	7.0
8	7.0	6.8	6.9	7.3	7.2	7.2	7.2	7.0	7.1	7.2	6.9	7.0
9	6.9	6.8	6.8	7.2	7.1	7.2	7.3	7.0	7.2	7.1	6.9	7.0
10	6.9	6.8	6.9	7.2	7.0	7.0	7.4	7.1	7.2	7.1	6.9	7.0
11	6.9	6.8	6.8	7.0	6.8	6.9	7.2	7.0	7.1	7.1	7.0	7.0
12	6.9	6.7	6.8	6.9	6.7	6.8	7.5	7.1	7.2	7.1	7.0	7.1
13	7.2	6.8	7.1	7.0	6.9	7.0	7.2	7.0	7.1	7.1	7.0	7.1
14	7.2	7.1	7.2	7.0	6.9	6.9	7.2	7.0	7.1	7.1	7.0	7.0
15	7.2	7.1	7.1	7.2	6.9	6.9	7.1	7.0	7.1	7.1	6.9	7.0
16	7.2	7.0	7.1	7.5	7.1	7.2	7.1	7.1	7.1	7.1	6.9	7.0
17	7.2	7.1	7.1	7.2	7.1	7.2	7.2	7.1	7.1	6.9	6.9	6.9
18	7.1	7.0	7.0	7.1	7.1	7.1	7.2	7.1	7.2	7.1	6.9	7.0
19	7.1	7.0	7.1	7.1	7.1	7.1	7.2	7.1	7.1	7.1	7.0	7.1
20	7.2	7.1	7.1	7.2	7.0	7.1	7.1	7.0	7.1	7.1	7.0	7.0
21	7.1	7.0	7.0	7.1	7.1	7.1	7.1	7.0	7.1	7.1	7.0	7.0
22	7.1	7.0	7.0	7.1	7.1	7.1	7.2	7.1	7.1	7.1	6.9	7.0
23	7.0	6.9	7.0	7.3	7.1	7.2	7.2	7.0	7.1	7.0	6.9	7.0
24	7.2	7.0	7.1	7.3	7.1	7.2	7.0	6.7	6.8	7.0	6.8	6.9
25	7.3	7.1	7.2	7.2	7.0	7.1	6.8	6.8	6.8	7.1	7.0	7.0
26	7.3	7.2	7.3	7.1	6.9	7.0	6.9	6.8	6.9	7.1	6.9	7.0
27	7.3	7.2	7.2	7.2	6.9	7.1	7.2	6.9	7.1	7.0	6.9	7.0
28	7.3	7.2	7.3	7.3	7.1	7.1	7.1	7.0	7.1	7.1	6.9	7.0
29	7.3	7.2	7.3	7.3	7.0	7.1	7.1	7.0	7.1	6.8	6.6	6.8
30	7.3	7.2	7.3	7.4	7.0	7.1	7.1	7.0	7.1	6.8	6.6	6.7
31	---	---	---	7.1	7.0	7.0	7.2	7.1	7.2	---	---	---
MONTH	7.3	6.6	7.0	7.5	6.7	7.1	7.5	6.7	7.1	7.3	6.6	7.0

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

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

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

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

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

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1							---	---	---	11.7	11.3	11.5
2							---	---	---	11.7	11.0	11.3
3							---	---	---	12.2	11.7	12.0
4							12.4	11.4	11.9	12.0	11.8	11.9
5							12.8	9.2	11.6	12.0	11.7	11.8
6							9.7	9.4	9.5	12.2	11.8	12.0
7							10.4	9.6	10.2	11.8	11.6	11.7
8							10.7	10.2	10.5	---	---	---
9							10.7	10.3	10.5	---	---	---
10							10.6	10.5	10.6	---	---	---
11							10.9	10.4	10.7	---	---	---
12							10.9	10.6	10.8	---	---	---
13							11.7	10.9	11.4	---	---	---
14							11.0	10.5	10.7	---	---	---
15							11.2	10.6	10.9	---	---	---
16							10.9	10.6	10.8	---	---	---
17							11.0	10.7	10.8	---	---	---
18							10.8	10.3	10.6	---	---	---
19							11.3	10.7	10.9	---	---	---
20							11.3	11.0	11.2	---	---	---
21							11.6	11.3	11.4	---	---	---
22							11.4	11.1	11.3	---	---	---
23							12.0	11.3	11.8	---	---	---
24							12.1	11.5	11.9	---	---	---
25							12.1	11.3	11.7	13.8	12.1	13.1
26							12.5	12.0	12.3	13.7	13.0	13.3
27							11.9	11.6	11.8	---	---	---
28							12.0	11.5	11.6	---	---	---
29							11.4	10.8	11.2	---	---	---
30							11.6	10.8	11.2	13.2	13.2	13.0
31							11.8	11.6	11.7	13.1	12.7	12.8
MONTH							12.8	9.2	11.1	13.8	11.0	12.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.7	12.4	12.5	13.4	11.9	12.5	11.2	10.7	10.9			
2	12.7	12.4	12.5	12.5	11.5	12.0	11.7	11.2	11.4			
3	13.2	12.7	13.0	12.6	11.6	12.2	11.7	10.5	11.2			
4	14.0	13.0	13.4	12.4	11.9	12.2	11.4	10.5	11.0			
5	13.3	12.9	13.1	12.1	11.7	12.0	11.2	9.8	10.6			
6	12.9	12.5	12.6	13.1	11.9	12.6	10.8	9.7	10.3			
7	13.1	12.5	12.8	13.0	12.3	12.7	11.4	10.5	11.0			
8	13.5	12.9	13.2	12.5	11.7	12.2	---	---	---			
9	13.6	13.1	13.3	12.3	11.6	12.0	---	---	---			
10	13.7	8.6	13.0	12.7	11.8	12.2	---	---	---			
11	12.8	12.3	12.5	12.6	11.8	12.3	---	---	---			
12	12.3	11.9	12.1	12.2	11.7	11.9	---	---	---			
13	12.7	12.3	12.5	12.5	11.9	12.3	---	---	---			
14	13.1	12.6	12.8	12.3	11.9	12.1	---	---	---			
15	13.1	12.5	12.8	12.4	11.5	12.0	---	---	---			
16	13.1	12.5	12.8	12.2	11.3	11.8	---	---	---			
17	13.0	12.5	12.7	12.3	11.2	11.6	---	---	---			
18	13.1	12.3	12.7	12.4	11.5	11.9	---	---	---			
19	12.5	12.0	12.3	---	---	---	---	---	---			
20	13.0	12.0	12.5	---	---	---	---	---	---			
21	13.1	12.2	12.6	---	---	---	---	---	---			
22	12.5	12.0	12.3	12.1	10.3	11.7	---	---	---			
23	12.3	11.4	12.1	12.4	11.7	12.0	---	---	---			
24	12.6	11.0	11.9	12.1	11.5	11.6	---	---	---			
25	12.0	11.1	11.7	12.0	11.2	11.6	---	---	---			
26	12.8	12.1	12.3	12.1	11.0	11.6	---	---	---			
27	12.8	12.2	12.4	11.8	10.5	11.1	---	---	---			
28	12.8	12.2	12.6	10.5	9.6	10.2	---	---	---			
29	---	---	---	10.3	9.6	9.8	---	---	---			
30	---	---	---	10.5	9.3	10.1	---	---	---			
31	---	---	---	11.1	10.5	10.8	---	---	---			
MONTH	14.0	8.6	12.6	13.4	9.3	11.8	11.7	9.7	10.9			

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										8.5	8.0	8.3
7										8.4	7.9	8.1
8										8.0	7.7	7.8
9										7.8	7.5	7.7
10										7.8	7.4	7.6
11										8.0	7.5	7.7
12										8.7	8.0	8.3
13										8.8	8.1	8.5
14										8.8	8.1	8.4
15										8.5	7.7	8.1
16										9.1	7.8	8.4
17										9.7	8.8	9.3
18										9.7	8.7	9.2
19										9.4	8.4	8.9
20										9.2	8.6	8.9
21										9.0	8.4	8.8
22										8.9	8.6	8.7
23										8.9	8.5	8.7
24										8.7	8.2	8.5
25										9.1	8.6	8.9
26										9.1	8.6	8.9
27										8.8	8.3	8.6
28										9.4	8.6	8.9
29										9.3	8.8	9.0
30										9.0	8.0	8.6
31										---	---	---
MONTH										9.7	7.4	8.5

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi south of Cumberland, 2.1 mi downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 26, 27. Records good except those for period with ice effect, Jan. 26, 27, which are fair. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi upstream from station (see station 01595200). Low-flow regulation since December 1950 by Savage River Reservoir, 39 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 43 mi upstream from station (see station 01595800) since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is downstream from station. Diversion to Chesapeake and Ohio Canal prior to 1935. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--56 years, 1,270 ft³/s, 19.71 in/yr, adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,200 ft³/s, Mar. 17, 1936, gage height, 29.1 ft, from rating curve extended above 33,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge (river only), 12 ft³/s, Sept. 22, 1932, gage height, 2.38 ft; minimum daily discharge (including flow in canal), 38 ft³/s, Sept. 24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft June 1, 1889, discharge, about 89,000 ft³/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,780 ft³/s, Apr. 1, gage height, 9.17 ft; minimum discharge, 355 ft³/s, June 30, July 1, Aug. 23, Sept. 12, gage height, 2.60 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	476	1410	1400	730	4030	8080	768	5280	375	533	454
2	581	467	1160	1360	733	2520	7280	1080	3900	399	465	420
3	516	458	1060	1290	708	2150	4310	7010	1850	437	427	396
4	492	470	1010	1280	664	2100	3350	5870	1080	403	411	426
5	478	637	939	1250	697	2100	2710	3400	1170	421	397	406
6	473	611	1030	1190	706	2050	2390	2260	3470	508	397	398
7	500	547	939	1160	702	1630	2210	2200	2400	455	402	399
8	1440	522	892	1150	806	1610	2060	1980	2190	407	493	402
9	1400	508	898	892	868	1580	1680	1540	1950	788	447	396
10	543	545	881	857	871	1530	1460	1310	1500	1700	407	399
11	467	621	939	886	825	1510	1360	1080	1620	5040	396	394
12	448	636	1080	857	1940	1860	1460	1040	1670	3000	392	380
13	441	607	1100	825	3960	2220	1530	1050	992	1620	383	386
14	453	1070	1130	856	2410	1920	1410	913	872	1430	416	386
15	451	600	1190	846	1840	1860	1260	854	859	1450	429	386
16	451	487	1170	754	1460	1770	1120	845	917	969	402	386
17	453	438	1140	827	1350	1730	1230	883	927	832	426	383
18	537	418	1100	829	1240	1650	1250	912	877	763	417	382
19	492	460	1240	825	1250	1370	1060	839	849	723	400	382
20	494	474	1810	740	1340	1110	990	784	819	694	388	382
21	492	459	2270	699	1360	1060	971	746	751	666	379	381
22	498	452	3390	880	1560	1390	884	601	730	698	367	376
23	505	451	2860	894	3850	2690	775	666	726	659	361	379
24	521	464	2370	885	6100	3520	788	732	590	596	1260	381
25	532	473	2560	837	6590	3700	852	625	428	584	1560	382
26	524	475	2190	830	6810	3150	788	581	391	834	893	371
27	507	478	2120	780	6090	2240	669	557	378	695	608	367
28	494	996	2030	737	5210	2000	673	601	370	623	486	420
29	526	3400	1920	721	---	2160	772	618	365	594	463	752
30	538	1920	1830	700	---	3120	777	519	361	518	464	932
31	498	---	1720	713	---	4820	---	870	---	591	470	---
TOTAL	17375	20620	47378	28750	62670	68150	56149	43734	40282	29472	15739	12684
MEAN	560	687	1528	927	2238	2198	1872	1411	1343	951	508	423
MAX	1440	3400	3390	1400	6810	4820	8080	7010	5280	5040	1560	932
MIN	441	418	881	699	664	1060	669	519	361	375	361	367

CAL YR 1984 TOTAL 604884 MEAN 1653 MAX 18800 MIN 395 CFSM 1.89 IN 25.72
WTR YR 1985 TOTAL 443003 MEAN 1214 MAX 8080 MIN 361 CFSM 1.39 IN 18.83

01604500 PATTERSON CREEK NEAR HEADSVILLE, WV

LOCATION.--Lat 39°26'35", long 78°49'20", Mineral County, Hydrologic Unit 02070002, on right bank 100 ft downstream from Hazel Run, 1.0 mi downstream from Cabin Run, 4.0 mi northeast of Headsville, 8.0 mi east of Keyser, and at mile 12.5.

DRAINAGE AREA.--219 mi^2.

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

REVISED RECORDS.--WSP 951: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 624.90 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 11, 1946, nonrecording gage on bridge 1.0 mi upstream at datum 6.14 ft higher. Oct. 11-23, 1946, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 10-17, 20-23, 28-31, Feb. 3-7, 9, 10. Records good except those periods with ice effect, which are poor. The flow from 115 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,887 acre-ft.

AVERAGE DISCHARGE.--46 years, 169 $ft^3/$, 10.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s, Aug. 18, 1955, gage height, 12.20 ft, from rating curve extended above 4,900 ft^3/s, on basis of contracted-opening measurement at gage height 11.53 ft; minimum, 1.2 ft3/s, Sept. 10-12, 1965; minimum gage height, 2.02 ft, Oct. 2, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,330 ft^3/s, May 31, gage height, 6.78 ft; minimum discharge, 5.6 ft^3/s, Sept. 21, 22, 25, 30; minimum gage height, 2.57 ft, part of each day Sept. 7, 20, 21, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	31	308	107	39	392	668	48	912	21	25	13
2	44	26	233	100	41	347	535	87	486	26	34	12
3	33	22	180	94	36	296	448	820	371	28	31	15
4	24	21	137	89	36	251	374	598	338	27	25	20
5	19	26	107	103	36	218	323	448	451	25	20	10
6	16	26	103	107	36	185	275	365	475	31	17	8.7
7	15	24	94	103	36	149	230	305	380	26	16	8.2
8	14	22	81	98	36	130	194	254	440	22	23	8.2
9	16	21	87	81	32	112	166	209	359	35	28	8.2
10	17	19	91	72	33	94	142	174	305	61	26	8.2
11	17	22	103	67	41	85	126	149	248	59	21	7.9
12	16	23	114	64	389	98	112	133	218	48	18	7.6
13	15	21	110	62	944	100	100	121	180	38	16	7.0
14	15	19	98	60	591	98	91	107	149	32	14	7.0
15	15	18	91	52	402	94	87	91	140	36	15	6.8
16	15	18	81	48	296	85	89	80	121	30	16	6.5
17	16	16	76	52	236	81	87	85	98	25	18	6.2
18	23	16	70	55	197	76	78	94	72	21	15	6.0
19	16	21	126	54	260	70	72	83	61	18	16	6.0
20	21	27	257	48	420	67	67	70	54	16	16	5.8
21	19	33	377	47	402	62	62	62	47	16	16	5.8
22	22	33	602	45	500	61	61	56	41	16	16	5.8
23	34	32	406	42	940	374	60	70	38	17	16	5.8
24	35	32	320	44	908	598	60	107	34	16	16	6.0
25	35	33	284	47	876	528	64	94	32	15	18	6.0
26	31	32	233	42	675	420	61	76	27	17	33	5.8
27	26	32	206	38	538	353	58	62	25	26	32	6.0
28	25	188	180	33	444	305	55	61	22	23	29	6.0
29	39	860	158	31	---	263	54	72	21	19	21	5.8
30	45	412	140	30	---	305	49	60	19	16	18	5.8
31	38	---	121	34	---	377	---	409	---	25	16	---
TOTAL	749	2126	5574	1949	9420	6674	4848	5450	6164	831	641	237.1
MEAN	24.2	70.9	180	62.9	336	215	162	176	205	26.8	20.7	7.90
MAX	45	860	602	107	944	598	668	820	912	61	34	20
MIN	14	16	70	30	32	61	49	48	19	15	14	5.8
CFSM	.11	.32	.82	.29	1.53	.98	.74	.80	.94	.12	.10	.04
IN.	.13	.36	.95	.33	1.60	1.13	.82	.93	1.05	.14	.11	.04

CAL YR 1984 TOTAL 87592.9 MEAN 239 MAX 3260 MIN 9.0 CFSM 1.09 IN 14.88
WTR YR 1985 TOTAL 44663.1 MEAN 122 MAX 944 MIN 5.8 CFSM .56 IN 7.59

01605500 SOUTH BRANCH POTOMAC RIVER AT FRANKLIN, WV

LOCATION.--Lat 38°38'14", long 79°20'14", Pendleton County, Hydrologic Unit 02070001, on left bank 0.5 mi southwest of Franklin, 2 mi upstream from Friends Run, 2.5 mi downstream from Thorn Creek, and at mile 109.5.

DRAINAGE AREA.--182 mi^2.

PERIOD OF RECORD.--April 1940 to September 1969, October 1976 to current year.

GAGE.--Water-stage recorder and improved natural control. Datum of gage is 1,692.5 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Jan. 14-24, 26-31, and Feb. 2-21. Records good except these periods with ice effect, which are poor.

AVERAGE DISCHARGE.--38 years, 169 ft^3/s, 12.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s, June 17, 1949, gage height, 11.40 ft, from flood-marks, from rating curve extended above 6,400 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 13 ft^3/s, Jan. 17, 1966; minimum gage height, 1.31 ft Sept. 25-29, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936, reached a stage of about 13 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 28	2100	1,750	4.39	May 3	0530	2,720	5.10
Feb. 24	1830	*2,930	*5.24				

Minimum discharge, 28 ft^3/s, part of each day Sept. 25, 26, 29, 30, gage height, 1.54 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	57	331	187	150	463	221	73	167	55	101	52
2	95	55	263	221	135	375	201	185	139	57	140	48
3	66	52	207	256	105	308	192	1600	128	55	94	46
4	55	52	179	354	88	264	178	920	119	50	78	44
5	49	102	160	437	92	243	160	522	121	50	68	41
6	46	90	165	363	94	209	168	376	107	46	62	40
7	45	77	137	332	85	183	151	304	112	46	58	38
8	44	69	125	290	75	178	144	263	172	43	66	37
9	45	65	131	234	70	177	141	200	135	84	57	36
10	47	62	128	205	80	157	134	174	117	78	51	35
11	44	77	135	189	86	166	129	156	111	80	47	34
12	42	80	136	170	90	351	123	178	136	102	45	34
13	41	72	132	152	126	321	117	181	112	131	43	33
14	40	68	125	136	110	280	115	142	100	288	42	32
15	40	66	119	123	98	242	116	131	89	112	46	32
16	44	64	113	110	90	210	128	124	86	68	42	32
17	46	60	110	100	88	193	117	140	80	56	42	31
18	45	61	104	98	85	176	105	126	77	50	78	31
19	43	112	114	108	88	156	100	117	71	48	105	30
20	42	147	168	73	93	145	97	100	68	45	65	30
21	41	121	233	78	105	134	95	105	65	43	69	29
22	41	104	361	84	210	133	92	113	61	43	60	30
23	45	95	325	89	765	226	90	678	60	41	51	30
24	51	88	294	94	1710	339	88	1060	58	38	50	29
25	49	83	434	89	1690	323	89	782	53	42	99	29
26	48	76	359	70	1300	279	84	506	51	125	109	28
27	46	71	311	65	930	248	81	366	49	90	94	29
28	46	469	267	62	626	229	89	291	48	67	75	29
29	94	834	229	58	---	229	84	242	48	55	66	28
30	76	450	201	57	---	237	76	200	47	51	60	28
31	64	---	197	56	---	216	---	194	---	116	58	---
TOTAL	1640	3879	6293	4940	9264	7390	3705	10549	2787	2255	2121	1025
MEAN	52.9	129	203	159	331	238	124	340	92.9	72.7	68.4	34.2
MAX	120	834	434	437	1710	463	221	1600	172	288	140	52
MIN	40	52	104	56	70	133	76	73	47	38	42	28
CFSM	.29	.71	1.12	.87	1.82	1.31	.68	1.87	.51	.40	.38	.19
IN.	.34	.79	1.29	1.01	1.89	1.51	.76	2.16	.57	.46	.43	.21

CAL YR 1984 TOTAL 92085 MEAN 252 MAX 3770 MIN 37 CFSM 1.39 IN 18.82
WTR YR 1985 TOTAL 55848 MEAN 153 MAX 1710 MIN 28 CFSM .84 IN 11.42

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, WV

LOCATION.--Lat 38°59'34", long 79°10'26", Grant County, Hydrologic Unit 02070001, on right bank 1.2 mi downstream from North Fork South Branch Potomac River, 2.5 mi west of Petersburg, and at mile 72.6.

DRAINAGE AREA.--642 mi^2.

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 951: 1939-41. WSP 1141: 1932, 1933(M), 1936-38.

GAGE.--Water-stage recorder. Datum of gage is 962.00 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Dec. 4, 1928, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-12, Jan. 13-31, and Feb. 1, 3-5, 8-12, 14-17. Records good except for periods of no gage-height record, Oct. 1-12, and periods with ice effect, Jan. 13-31, and Feb. 1, 3, 8-12, 14-17, which are poor. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--57 years, 717 ft^3/s, 15.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,000 ft^3/s, June 17, 1949, gage height, 22.83 ft, from rating curve extended above 17,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 42 ft^3/s, Sept. 28, 29, 1959, Sept. 11, 12, 1966; minimum gage height, 0.94 ft Sept. 28, 29, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1877 reached a stage of 21.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	0200	10,800	9.53	May 31	1200	*12,600	*10.24
May 3	1100	11,000	9.61	July 9	1500	8,440	8.42

Minimum discharge, 75 ft^3/s, Sept. 30, gage height, 1.18 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	356	1550	785	265	2090	1280	389	2900	179	451	151
2	340	311	1200	788	499	1640	1190	550	1550	209	524	140
3	240	281	991	915	466	1350	1090	7770	1100	219	416	130
4	190	258	862	1070	350	1160	1000	4460	910	192	320	123
5	170	303	728	1500	354	1190	884	2520	847	170	266	116
6	157	383	711	1430	370	1110	800	1730	901	161	235	110
7	143	343	614	1320	359	939	736	1320	759	153	219	107
8	147	312	529	1180	297	857	674	1050	1590	150	239	104
9	150	292	536	1000	265	1180	649	869	1370	3180	237	102
10	160	280	524	840	305	1030	595	737	1010	1990	198	101
11	150	293	609	761	323	964	607	659	796	1390	176	99
12	138	370	715	667	345	2900	668	633	739	799	161	97
13	127	354	709	560	530	2620	747	728	690	659	150	94
14	122	332	690	500	439	1850	705	584	593	955	140	91
15	120	312	636	470	382	1400	672	520	504	635	138	89
16	122	330	587	438	350	1120	671	477	448	517	142	89
17	131	342	546	350	332	968	648	558	395	401	136	87
18	140	328	510	340	334	851	564	553	369	317	164	85
19	142	518	532	370	349	732	521	510	342	269	296	84
20	137	860	915	343	428	656	496	447	308	236	251	83
21	131	749	1120	299	554	596	472	394	281	213	196	81
22	132	615	1930	313	1160	556	450	414	259	199	181	81
23	142	526	1780	325	3630	685	428	2960	247	185	160	82
24	230	464	1410	335	7210	1250	424	4770	240	166	149	82
25	264	413	2260	360	8600	1450	431	3450	211	158	167	79
26	251	372	2080	385	5910	1290	402	2150	194	397	259	78
27	251	341	1590	415	4500	1130	368	1480	181	463	260	78
28	239	818	1280	350	2960	1040	397	1130	172	320	223	79
29	466	3950	1060	311	---	1000	455	951	167	249	184	79
30	542	2140	905	277	---	1140	407	788	162	216	166	77
31	429	---	818	245	---	1150	---	5310	---	435	156	---
TOTAL	6553	17546	30927	19242	41866	37894	19431	50861	20235	15782	6960	2878
MEAN	211	585	998	621	1495	1222	648	1641	675	509	225	95.9
MAX	542	3950	2260	1500	8600	2900	1280	7770	2900	3180	524	151
MIN	120	258	510	245	265	556	368	389	162	150	136	77
CFSM	.33	.91	1.56	.97	2.33	1.90	1.01	2.56	1.05	.79	.35	.15
IN.	.38	1.02	1.79	1.11	2.43	2.20	1.13	2.95	1.17	.91	.40	.17

CAL YR 1984 TOTAL 356160 MEAN 973 MAX 11300 MIN 96 CFSM 1.52 IN 20.64
WTR YR 1985 TOTAL 270175 MEAN 740 MAX 8600 MIN 77 CFSM 1.15 IN 15.65

01607500 SOUTH FORK SOUTH BRANCH POTOMAC RIVER AT BRANDYWINE, WV

LOCATION.--Lat 38°37'53", long 79°14'38", Pendleton County, Hydrologic Unit 02070001, on left bank 50 ft upstream from bridge on U.S. Highway 33, 0.1 mi upstream from Hawes Run, 0.4 mi north of Brandywine, 0.9 mi downstream from Broad Run, and at mile 42.9.

DRAINAGE AREA.--102 mi^2.

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

REVISED RECORDS.--WSP 1141: 1945(M), 1947(M). WRD WV-84-1: 1983.

GAGE.--Water-stage recorder. Datum of gage is 1,558.35 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 24, 1956, nonrecording gage at highway bridge 50 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 20-22, 26, 27, 30, 31, and Feb. 3-11, 14-18. Records good except these periods with ice effect, which are poor. The flow from 41.3 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 8,882 acre-ft.

AVERAGE DISCHARGE.--42 years, 100 ft^3/s, 13.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,200 ft^3/s, June 17, 1949, gage height, 14.6 ft, from flood-marks, from rating curve extended above 5,300 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.3 ft^3/s, Dec. 1, 10, 1958, result of freezeup; minimum gage height observed, 0.95 ft Aug. 10, 14, 15, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft^3/s, Nov. 28, gage height, 4.63 ft; minimum discharge, 6.1 ft^3/s, Sept. 20, 21, 30, minimum gage height, 1.23 ft, Sept. 20, 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	27	203	79	57	212	108	22	70	13	29	23
2	27	14	140	101	134	173	101	39	64	15	33	20
3	20	21	108	176	96	140	96	1100	59	14	26	18
4	17	21	89	224	72	116	92	464	55	12	22	15
5	16	31	79	284	60	105	85	242	52	12	20	13
6	15	32	79	238	64	94	81	170	45	11	18	13
7	14	31	66	203	53	85	74	128	44	14	17	12
8	13	29	59	173	44	81	68	101	57	12	20	12
9	14	28	55	137	45	79	59	83	34	28	20	11
10	14	27	53	113	42	70	50	74	29	30	17	10
11	14	29	57	101	40	68	46	72	33	32	15	9.8
12	13	29	61	87	194	85	45	68	92	122	15	9.4
13	13	26	66	76	292	85	42	64	62	176	14	9.4
14	14	24	64	70	149	85	39	57	46	164	13	8.9
15	13	23	62	62	94	79	39	48	38	83	12	8.5
16	14	22	59	50	66	70	40	48	33	57	11	8.0
17	15	20	59	55	61	66	38	50	31	40	11	7.6
18	15	20	55	50	66	64	34	38	26	31	20	7.2
19	14	28	55	48	81	57	32	33	23	26	61	6.8
20	14	52	57	39	105	53	31	30	20	22	46	6.5
21	14	52	76	36	119	50	31	32	19	20	70	6.5
22	14	42	134	33	152	50	31	44	17	18	72	6.8
23	15	36	125	33	280	146	30	108	16	16	48	7.2
24	18	33	110	31	513	349	28	226	16	14	36	7.2
25	20	30	131	32	575	332	27	242	14	17	45	6.8
26	20	28	131	31	542	227	25	173	13	40	45	6.8
27	19	26	119	28	437	176	24	134	12	70	57	6.5
28	18	315	108	29	289	146	27	113	11	62	45	6.8
29	38	1090	96	27	---	128	25	94	11	46	34	6.8
30	38	430	87	25	---	119	23	85	11	38	29	6.5
31	31	---	83	26	---	108	---	87	---	31	26	---
TOTAL	566	2616	2726	2697	4722	3698	1471	4269	1053	1286	947	297.0
MEAN	18.3	87.2	87.9	87.0	169	119	49.0	138	35.1	41.5	30.5	9.90
MAX	38	1090	203	284	575	349	108	1100	92	176	72	23
MIN	13	14	53	25	40	50	23	22	11	11	11	6.5
CFSM	.18	.86	.86	.85	1.66	1.17	.48	1.35	.34	.41	.30	.10
IN.	.21	.95	.99	.98	1.72	1.35	.54	1.56	.38	.47	.35	.11

CAL YR 1984 TOTAL 55046.7 MEAN 150 MAX 2030 MIN 5.9 CFSM 1.47 IN 20.08
WTR YR 1985 TOTAL 26348.0 MEAN 72.2 MAX 1100 MIN 6.5 CFSM .71 IN 9.61

01608000 SOUTH FORK SOUTH BRANCH POTOMAC RIVER NEAR MOOREFIELD, WV

LOCATION.--Lat 39°00'44", long 78°57'23", Hardy County, Hydrologic Unit 02070001, on right bank 0.2 mi downstream from Stony Creek, 3.5 mi south of Moorefield, and at mile 6.0.

DRAINAGE AREA.--283 mi^2.

PERIOD OF RECORD.--June 1928 to September 1935, August 1938 to current year.

REVISED RECORDS.--WSP 1141: 1933(M), 1940, 1942-43, 1945, 1948(M). WSP 1302: 1931(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 861.51 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers datum). Prior to Mar. 11, 1940, nonrecording gage at Harness Ford Bridge 2.0 mi upstream at datum about 31 ft higher.

REMARKS.--Estimated daily discharges: Jan. 15-18, 20-24, and Feb. 3-12. Records good except these periods with ice effect, which are poor. The flow from 92.7 mi^2 upstream from station is partially controlled, but not diverted, by several floodwater detention reservoirs with a total combined detention capacity of 19,870 acre-ft.

AVERAGE DISCHARGE.--54 years, 222 ft^3/s, 10.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft^3/s, June 18, 1949, gage height, 16.1 ft, from rating curve extended above 7,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 4.4 ft^3/s, Sept. 10, 11, 1965, Sept. 9-11, 1966, gage height, 0.92 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,310 ft^3/s, May 31, gage height, [a]6.47 ft; minimum, 12 ft^3/s, part of each day Sept. 19, 24-27, 30, gage height, 1.07 ft.

a Peak-stage indicator.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	60	671	140	60	605	274	61	1550	36	58	45
2	45	56	414	140	132	460	258	70	614	38	55	41
3	51	50	303	224	168	366	243	996	355	36	52	36
4	42	47	239	386	147	302	232	1430	258	35	46	33
5	37	52	196	529	147	274	212	759	254	33	40	30
6	34	54	180	567	125	243	194	476	246	32	36	26
7	32	59	161	492	105	215	177	339	197	33	34	23
8	31	58	133	439	122	194	165	256	249	30	40	22
9	30	57	118	349	100	187	153	201	277	42	32	23
10	30	55	109	280	71	174	142	162	218	62	31	21
11	29	56	104	238	92	165	133	142	171	75	29	20
12	34	56	104	207	228	171	125	134	171	68	28	20
13	28	57	109	172	916	174	120	134	212	159	25	18
14	27	53	113	154	508	171	115	127	161	270	24	16
15	26	49	112	142	321	168	112	118	129	221	26	16
16	29	47	109	115	233	159	110	99	110	141	22	16
17	28	45	105	100	190	153	108	106	94	100	23	16
18	28	43	101	98	167	150	103	118	82	77	30	15
19	28	50	101	95	165	139	94	114	75	63	33	14
20	30	56	98	88	241	133	86	98	70	53	57	14
21	28	70	115	66	299	125	84	84	66	46	75	14
22	28	87	201	76	486	122	82	107	59	43	78	13
23	30	81	263	88	1110	165	76	401	55	38	98	14
24	35	74	240	90	1640	549	75	884	51	33	76	14
25	34	68	228	89	1670	864	75	777	46	31	71	13
26	34	64	229	76	1350	681	70	534	42	40	73	13
27	35	60	216	63	1180	485	68	358	38	50	75	13
28	37	184	199	73	848	385	70	262	36	85	76	14
29	46	2050	179	63	---	330	70	206	33	87	71	13
30	45	1350	162	54	---	306	66	164	32	73	60	13
31	65	---	148	57	---	278	---	2260	---	63	51	---
TOTAL	1078	5148	5760	5750	12821	8893	3892	11977	5951	2193	1525	599
MEAN	34.8	172	186	185	458	287	130	386	198	70.7	49.2	20.0
MAX	65	2050	671	567	1670	864	274	2260	1550	270	98	45
MIN	26	43	98	54	60	122	66	61	32	30	22	13
CFSM	.12	.61	.66	.65	1.62	1.01	.46	1.36	.70	.25	.17	.07
IN.	.14	.68	.76	.76	1.69	1.17	.51	1.57	.78	.29	.20	.08

CAL YR 1984 TOTAL 125026 MEAN 342 MAX 4990 MIN 20 CFSM 1.21 IN 16.43
WTR YR 1985 TOTAL 65587 MEAN 180 MAX 2260 MIN 13 CFSM .64 IN 8.62

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

LOCATION.--Lat 39°26'49", long 78°39'16", Hampshire County, Hydrologic Unit 02070001, on left bank at highway bridge, 2.0 mi east of Springfield, and at mile 13.4.

DRAINAGE AREA.--1,471 mi^2.

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

REVISED RECORDS.--WSP 1552: 1903-06, 1929-30 (M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above National Geodetic Vertical Datum of 1929. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 mi upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 mi upstream at different datum. Aug. 28, 1903, to July 14, 1906, nonrecording gage at present site at different datum. Aug. 8 to Sept. 24, 1928, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 12-24, 28-31, Feb. 1, 14-21. Records good except these periods with ice effect, which are poor. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--61 years (water years 1900-01, 1904-05, 1929-85), 1,309 ft^3/s, 12.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft^3/s, Mar. 18, 1936, gage height, 34.2 ft, from rating curve extended above 28,000 ft^3/s on basis of measurement made about 10 mi upstream from station, adjusted for storage and inflow and slope-area measurement at gage height 29.84 ft; minimum, 29 ft^3/s, Jan. 28, 1956, result of freezeup, July 30, 1966, result of temporary dam; minimum gage height 0.39 ft, July 30, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 13	1300	ice jam	10.98	May 4	0200	13,100	11.25
Feb. 25	1600	12,800	11.11	June 1	0400	*24,400	*16.20

Minimum discharge, 118 ft^3/s, Sept. 29, gage height, 1.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	610	3410	1200	720	3920	2570	570	11700	290	475	273
2	380	523	2460	1160	850	3100	2230	584	4670	300	619	260
3	544	463	1880	1240	1100	2540	1960	4650	2840	343	619	246
4	435	429	1540	1540	1310	2120	1740	9660	2090	390	550	227
5	340	418	1310	2160	1110	1850	1510	5030	1880	351	445	212
6	288	435	1180	2760	1140	1820	1330	3420	2350	329	390	201
7	263	511	1130	2470	1030	1610	1220	2520	1840	304	350	251
8	247	492	977	2250	912	1390	1110	1960	1750	288	350	198
9	238	459	874	1940	824	1350	1100	1560	2670	331	390	175
10	230	438	863	1580	743	1580	1020	1270	1980	3640	370	169
11	226	435	852	1370	837	1400	952	1100	1530	2200	327	160
12	222	435	956	1160	1550	1640	943	1020	1240	1500	292	154
13	218	482	1060	1020	11000	3590	979	997	1170	979	267	148
14	215	488	1060	970	8400	2800	1040	1030	1090	1020	255	145
15	208	464	1030	898	6200	2180	997	880	952	1320	243	142
16	208	443	959	710	4700	1750	961	799	833	925	243	140
17	204	434	896	696	3600	1460	997	790	742	747	230	137
18	215	466	843	743	2600	1290	925	925	668	605	234	137
19	226	478	814	719	1900	1150	826	871	612	493	251	131
20	234	675	929	605	1500	1030	758	774	574	430	336	128
21	234	1040	1380	638	1200	944	726	696	525	385	400	125
22	234	930	2600	670	2060	913	696	612	477	355	345	125
23	234	800	3030	700	5030	1990	668	696	444	332	307	125
24	259	702	2520	740	8940	3190	639	5610	418	304	321	125
25	309	637	2260	780	11500	3270	631	5230	397	284	308	123
26	385	585	3120	800	9070	2660	626	3830	372	284	300	123
27	360	536	2610	810	7310	2230	597	2660	335	410	358	125
28	365	654	2140	760	5360	1950	591	2060	319	598	417	120
29	425	6550	1780	700	---	1880	564	1620	306	481	368	118
30	711	5620	1510	660	---	2040	605	1330	293	410	326	120
31	714	---	1310	620	---	2380	---	5130	---	410	291	---
TOTAL	9659	27632	49283	35069	102496	63017	31511	69884	47067	21038	10977	4863
MEAN	312	921	1590	1131	3661	2033	1050	2254	1569	679	354	162
MAX	714	6550	3410	2760	11500	3920	2570	9660	11700	3640	619	273
MIN	204	418	814	605	720	913	564	570	293	284	230	118
CFSM	.21	.63	1.08	.77	2.49	1.38	.71	1.53	1.07	.46	.24	.11
IN.	.24	.70	1.25	.89	2.59	1.59	.80	1.77	1.19	.53	.28	.12

CAL YR 1984 TOTAL 671080 MEAN 1834 MAX 27000 MIN 178 CFSM 1.25 IN 16.97
WTR YR 1985 TOTAL 472496 MEAN 1295 MAX 11700 MIN 118 CFSM .88 IN 11.95

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'13", long 78°27'28", Allegany County, Md., Hydrologic Unit 02070003, on left bank 250 ft upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi downstream from Little Cacapon River, and at mile 277.

DRAINAGE AREA.--3,109 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 18-27, Feb. 3-8, Apr. 29 to Sept. 30. Records good except those for periods with ice effect, Jan. 18-27 and Feb. 3-8, which are fair, and period of backwater from a temporary construction dam, Apr. 29 to Sept. 30, which are poor. Low flow affected by Stony River Reservoir prior to July 1981 (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake (see station 01595800). National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--47 years, 3,291 ft³/s, 14.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft³/s, Oct. 16, 1942, gage height, 38.36 ft; minimum discharge, 164 ft³/s, Sept. 10, 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 54.0 ft Mar. 18, 1936, discharge, 240,000 ft³/s, from rating curve extended above 85,000 ft³/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, W. Va.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 25	1845	21,300	16.04	June 1	0900	*29,700	*18.93
May 4	0445	24,100	17.03				

Minimum discharge, 764 ft³/s, Oct. 16, 17, 18, gage height, 4.01 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	987	1410	6560	3410	2000	9520	13300	1700	21900	840	1150	950
2	1190	1280	4870	3210	2080	7190	12800	1800	12600	820	1200	900
3	1270	1170	3950	3150	2000	5830	9060	11400	6500	850	1300	800
4	1280	1110	3490	3300	1900	5160	6990	20600	5000	900	1200	740
5	1120	1190	3050	3750	2000	4920	5880	11700	4200	1050	1200	760
6	1010	1360	2920	4440	1900	4650	5190	7000	6600	1150	1050	720
7	926	1290	2820	4240	2000	4200	4700	6000	6000	1100	970	700
8	1350	1290	2530	4000	2100	3780	4340	5000	5000	1050	1000	820
9	1870	1220	2430	3560	2210	3590	3850	4600	5800	1050	1050	750
10	1440	1190	2380	3040	2190	3740	3470	3800	5200	4000	1000	720
11	884	1260	2430	2850	2300	3580	3200	3200	4300	7000	970	700
12	844	1320	2710	2620	4450	3750	3140	2900	3900	5500	930	660
13	816	1310	2930	2430	11400	5840	3240	2800	3500	3500	880	620
14	805	1510	2940	2430	7630	5570	3260	2700	2900	3100	840	600
15	796	1670	2910	2290	5510	4790	3040	2600	2600	3300	1150	620
16	792	1180	2860	2070	4250	4250	2830	2300	2400	2500	950	600
17	796	1130	2720	2020	3680	3880	2780	2200	2300	2300	920	600
18	828	1080	2600	1950	3400	3630	2920	2400	2200	2000	900	600
19	907	1170	2580	1950	3320	3270	2610	2600	2000	1700	850	590
20	876	1240	3520	1700	4100	2850	2350	2400	1900	1500	800	580
21	889	1710	4200	1500	4440	2560	2260	2200	1750	1350	950	580
22	907	1750	7140	1900	4800	2620	2150	2000	1650	1250	920	580
23	961	1600	7520	2000	9260	4020	1990	1800	1550	1200	850	580
24	968	1490	6300	2100	16300	7950	1900	2200	1500	1150	1300	580
25	1040	1420	5740	2200	19900	8910	1940	7000	1400	1100	1950	580
26	1110	1360	6050	2100	18600	8100	1930	6000	1150	1050	1700	560
27	1110	1300	5630	2000	15500	6410	1820	4500	1000	1100	1300	600
28	1070	1650	5030	2160	12400	5490	1640	3600	950	1450	1250	560
29	1110	10700	4560	2090	---	5210	1550	3200	900	1300	1150	700
30	1360	10800	4170	2020	---	6170	1600	3000	870	1250	1100	1400
31	1560	---	3830	1950	---	8330	---	2700	---	1200	1000	---
TOTAL	32872	59160	123370	80430	171620	159760	117730	137900	119520	58610	33780	20750
MEAN	1060	1972	3980	2595	6129	5154	3924	4448	3984	1891	1090	692
MAX	1870	10800	7520	4440	19900	9520	13300	20600	21900	7000	1950	1400
MIN	792	1080	2380	1500	1900	2560	1550	1700	870	820	800	560

CAL YR 1984 TOTAL 1634294 MEAN 4465 MAX 54200 MIN 792 CFSM 1.44 IN 19.55
WTR YR 1985 TOTAL 1115502 MEAN 3056 MAX 21900 MIN 560 CFSM .98 IN 13.35

01611500 CACAPON RIVER NEAR GREAT CACAPON, WV

LOCATION.--Lat 39°34'43", long 78°18'34", Morgan County, Hydrologic Unit 02070003, on left bank at Rock Ford, 3.0 mi southwest of Great Cacapon, and at mile 6.5.

DRAINAGE AREA.--677 mi^2.

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

REVISED RECORDS.--WSP 800: 1924(M). WSP 921: Drainage area. WSP 951: 1936-37, WSP 1552: 1925-26(M), 1928, 1929(M), 1932.

GAGE.--Water-stage recorder. Datum of gage is 456.78 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 10, 1933, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-17, Nov. 26 to Feb. 11, Feb. 20 to Apr. 9. Records good except for periods of no gage-height record, Oct. 1-17, Nov. 26 to Jan. 22, Feb. 20 to Apr. 9, and periods with ice effect, Jan. 23 to Feb. 11, which are poor.

AVERAGE DISCHARGE.--62 years (water years 1924-85), 588 ft^3/s, 11.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,600 ft^3/s, Mar. 18, 1936, gage height, 30.1 ft, from rating curve extended above 52,000 ft^3/s; minimum, 26 ft^3/s, Sept. 11-13, 1966; minimum gage height, 0.35 ft, Sept. 21, 22, 1932, Sept. 11-13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1889 reached a stage of 24.7 ft, from floodmarks, discharge, 57,500 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 29	Unknown	7,620	a9.39	June 1	1000	7,240	9.15
Feb. 12	2400	*24,000	*16.31				

a Peak-stage indicator.

Minimum discharge, 49 ft^3/s, part of each day Sept. 22-27; minimum gage height, 0.92 ft, part of each day Sept. 20-27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	200	1400	390	145	1100	1390	193	3400	97	106	100
2	300	158	980	370	170	940	1310	198	1940	96	98	88
3	540	131	760	360	220	800	1150	361	1080	95	92	82
4	210	119	580	380	140	640	945	642	758	122	94	77
5	130	119	520	450	146	580	805	757	633	175	87	74
6	120	121	600	540	150	520	680	564	1090	177	86	71
7	110	119	700	630	138	480	605	454	1070	134	87	69
8	100	131	620	600	130	450	540	380	764	127	97	68
9	96	131	560	520	120	410	485	325	744	121	102	66
10	93	121	530	460	136	390	448	284	598	141	88	85
11	89	119	500	415	170	375	418	251	464	146	104	68
12	87	113	480	380	2380	380	389	232	376	196	108	68
13	84	109	460	355	8010	400	366	268	315	207	96	58
14	81	105	440	340	2580	515	349	280	282	172	93	55
15	78	103	430	320	1530	485	329	245	254	179	105	52
16	77	102	415	285	1070	420	322	212	231	185	96	52
17	76	98	400	250	812	385	331	212	210	163	96	52
18	78	96	390	220	716	360	341	268	196	137	105	52
19	77	103	385	195	652	330	311	320	186	119	98	52
20	83	107	380	170	600	310	282	304	169	104	93	52
21	90	115	390	130	560	280	265	258	156	98	104	50
22	93	133	420	135	540	250	253	220	145	92	113	52
23	98	152	580	140	510	400	244	213	140	95	105	49
24	111	137	660	150	1100	740	236	245	133	90	99	49
25	175	125	620	155	2200	900	233	584	125	85	102	49
26	178	119	560	160	1900	860	228	507	116	90	103	49
27	150	112	540	163	1500	800	222	389	109	102	107	53
28	129	105	520	153	1300	760	213	321	103	123	120	53
29	129	3400	480	140	---	665	204	328	99	131	112	57
30	139	1800	445	133	---	890	198	292	96	136	132	53
31	244	---	415	127	---	1100	---	337	---	121	118	---
TOTAL	4205	8603	17160	9216	29625	17915	14092	10444	15982	4056	3146	1855
MEAN	136	287	554	297	1058	578	470	337	533	131	101	61.8
MAX	540	3400	1400	630	8010	1100	1390	757	3400	207	132	100
MIN	76	96	380	127	120	250	198	193	96	85	86	49
CFSM	.20	.42	.82	.44	1.56	.85	.69	.50	.79	.19	.15	.09
IN.	.23	.47	.94	.51	1.63	.98	.77	.57	.88	.22	.17	.10

CAL YR 1984 TOTAL 293430 MEAN 802 MAX 15700 MIN 60 CFSM 1.19 IN 16.12
WTR YR 1985 TOTAL 136299 MEAN 373 MAX 8010 MIN 49 CFSM .55 IN 7.49

01613000 POTOMAC RIVER AT HANCOCK, MD

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, Hydrologic Unit 02070004, on left bank, 0.2 mi downstream from Little Tonoloway Creek, 0.5 mi downstream from bridge on U.S. Highway 522 at Hancock, 1.1 mi upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239.

DRAINAGE AREA.--4,073 mi².

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 9. Records good except those for period with ice effect, Jan. 21 to Feb. 9, which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir prior to July 1981 (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake (see station 01595800). National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--53 years, 4,148 ft³/s, 13.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340,000 ft³/s, Mar. 18, 1936, gage height, 47.6 ft, from rating curve extended above 120,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge observed, 180 ft³/s, Oct. 4, 1932, gage height, 2.01 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1932, about 40 ft in May 1889, discharge, about 220,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0515	27,600	14.50	June 1	1615	*30,500	*15.31
May 4	1345	23,700	13.33				

Minimum discharge, 586 ft³/s, Sept. 26, 27, gage height, 2.77 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	942	1770	9590	3970	2600	11400	14700	1940	16800	861	1240	998
2	1070	1560	6640	3580	2600	9130	16000	1980	16000	849	1280	936
3	1250	1380	5150	3470	2500	7130	12200	8230	8550	881	1330	876
4	1370	1270	4340	3560	2400	6180	9140	21000	5730	924	1260	822
5	1320	1250	3810	3980	2500	5620	7570	14700	4500	1070	1240	771
6	1170	1340	3460	4730	2400	5180	6480	9420	5510	1150	1100	787
7	1060	1490	3350	5110	2500	4980	5750	7030	7330	1130	1020	745
8	982	1430	3100	4750	2600	4320	5170	5890	5450	1080	1030	724
9	1540	1420	2840	4440	2700	4050	4750	4970	5530	983	1040	865
10	1860	1340	2770	3800	2840	3930	4200	4120	5550	1190	1060	765
11	1310	1330	2770	3390	2910	4010	3830	3560	4400	5590	1010	730
12	932	1370	2930	3130	7610	3900	3590	3120	3980	6850	984	689
13	888	1430	3260	2960	22300	4620	3580	3000	3660	4630	891	661
14	856	1410	3360	2890	13000	6420	3650	2980	2940	3080	887	628
15	844	1720	3300	2780	8540	5390	3570	2770	2660	2980	1200	627
16	849	1610	3250	2580	6300	4760	3340	2470	2460	3400	1010	621
17	847	1260	3110	2460	4960	4280	3160	2430	2340	2530	977	621
18	861	1210	2980	2350	4430	3960	3200	2580	2240	2010	952	619
19	886	1220	2880	2350	4150	3710	3150	2750	2050	1730	898	612
20	971	1280	3250	2270	4350	3310	2820	2560	1930	1530	864	612
21	947	1390	4270	2100	5320	2910	2610	2300	1800	1380	875	603
22	1000	1900	6630	2300	5520	2730	2500	2080	1690	1280	1000	603
23	1040	1840	8660	2500	8300	3180	2360	1910	1590	1240	978	602
24	1090	1710	7670	2600	17000	7780	2190	2380	1510	1220	902	597
25	1130	1600	6560	2700	21000	10700	2150	7480	1410	1110	1350	594
26	1250	1530	6440	2600	21100	10500	2210	6390	1150	1100	2110	589
27	1310	1470	6420	2400	17400	8690	2140	4800	1040	1160	1780	616
28	1280	1750	5740	2700	14500	7090	1970	3820	962	1310	1340	622
29	1280	11500	5180	2600	---	6600	1840	3430	916	1520	1240	604
30	1290	17000	4710	2400	---	7590	1850	3130	874	1370	1130	717
31	1660	---	4320	2500	---	10100	---	2780	---	1270	1080	---
TOTAL	35085	69780	142740	95950	214330	184150	141670	148000	122552	58408	35058	20856
MEAN	1132	2326	4605	3095	7655	5940	4722	4774	4085	1884	1131	695
MAX	1860	17000	9590	5110	22300	11400	16000	21000	16800	6850	2110	998
MIN	844	1210	2770	2100	2400	2730	1840	1910	874	849	864	589
CFSM	.28	.57	1.13	.76	1.88	1.46	1.16	1.17	1.00	.46	.28	.17
IN.	.32	.64	1.30	.88	1.96	1.68	1.29	1.35	1.12	.53	.32	.19

CAL YR 1984 TOTAL 1991431 MEAN 5441 MAX 73000 MIN 844 CFSM 1.34 IN 18.19
WTR YR 1985 TOTAL 1268579 MEAN 3476 MAX 22300 MIN 589 CFSM .85 IN 11.59

01616500 OPEQUON CREEK NEAR MARTINSBURG, WV

LOCATION.--Lat 39°25'25", long 77°56'20", Berkeley County, Hydrologic Unit 02070004, on right bank 300 ft upstream from Evans Run, 2.3 mi upstream from Tuscarora Creek, 3.0 mi southeast of Martinsburg, and at mile 11.1.

DRAINAGE AREA.--272 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906, July 1947 to current year.

REVISED RECORDS.--WSP 1702: 1959.

GAGE.--Water-stage recorder. Datum of gage is 354.89 ft above National Geodetic Vertical Datum of 1929. Prior to July 1906, nonrecording gage at approximately the same site at different datum. July 23, 1947, to July 22, 1948, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 13-17, 20-28, Feb. 4, 5, 8-10, Feb. 19 to Mar. 20 and July 1-22. Records good except for periods of no gage-height record, Feb. 19 to Mar. 20, July 1-22, and periods with ice effect, Jan. 13-17, 20-28, and Feb. 4, 5, 8-10, which are poor.

AVERAGE DISCHARGE.--38 years (water years 1947-85), 232 ft^3/s, 11.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s, June 22, 1972, gage height, 17.45 ft, from rating curve extended above 7,100 ft^3/s; minimum observed, 25 ft^3/s, Oct. 25, 1947; minimum gage height, 1.24 ft, Jan. 8, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 17.5 ft, from information by local residents.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 29	1400	4,520	11.60	Feb. 13	0400	*7,040	*12.99

Minimum discharge, 42 ft^3/s, Sept. 15, 20, gage height, 1.61 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	118	436	138	123	185	489	112	243	72	66	50
2	135	106	322	154	295	179	392	114	170	210	65	50
3	100	98	276	201	247	173	311	186	130	180	59	50
4	89	94	247	214	156	170	272	158	116	136	57	49
5	84	182	222	261	126	170	245	127	179	104	56	48
6	81	233	267	276	129	160	224	118	238	93	54	47
7	78	167	313	250	134	150	206	114	175	90	55	46
8	78	135	255	229	114	150	196	109	164	84	61	47
9	82	121	230	196	84	150	191	106	154	90	72	47
10	82	114	216	175	77	170	182	102	126	94	60	47
11	81	110	212	172	76	170	177	101	114	98	55	49
12	81	103	202	163	2750	190	172	104	107	90	53	46
13	78	97	194	146	3940	160	166	151	102	88	52	44
14	79	92	186	147	636	160	162	130	95	78	52	46
15	78	89	179	146	444	160	159	110	95	120	51	46
16	81	89	172	121	353	150	160	108	95	270	51	43
17	85	85	167	138	305	140	158	143	92	106	54	44
18	82	85	163	138	278	140	151	199	91	78	55	44
19	81	97	162	136	261	137	146	153	87	72	64	44
20	78	108	172	118	240	135	137	122	84	69	58	43
21	77	97	169	110	220	140	134	113	82	70	61	43
22	82	88	202	143	210	137	130	114	80	63	59	42
23	200	85	194	160	235	178	129	145	80	61	54	43
24	210	84	177	142	260	356	126	259	79	56	53	44
25	160	85	176	137	245	483	130	169	76	58	62	44
26	122	82	163	129	220	328	127	131	75	82	63	43
27	110	84	156	116	200	258	122	115	72	187	78	61
28	105	424	155	114	190	229	121	108	73	88	64	86
29	180	3470	152	108	---	228	117	113	71	73	56	50
30	169	777	147	101	---	308	114	108	70	65	52	46
31	135	---	141	107	---	383	---	138	---	64	52	---
TOTAL	3277	7599	6425	4886	12548	6227	5546	4080	3415	3089	1804	1432
MEAN	106	253	207	158	448	201	185	132	114	99.6	58.2	47.7
MAX	210	3470	436	276	3940	483	489	259	243	270	78	86
MIN	77	82	141	101	76	135	114	101	70	56	51	42
CFSM	.39	.93	.76	.58	1.65	.74	.68	.49	.42	.37	.21	.18
IN.	.45	1.04	.88	.67	1.72	.85	.76	.56	.47	.42	.25	.20

CAL YR 1984 TOTAL 156439 MEAN 427 MAX 8000 MIN 77 CFSM 1.57 IN 21.40
WTR YR 1985 TOTAL 60328 MEAN 165 MAX 3940 MIN 42 CFSM .61 IN 8.25

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV

LOCATION.--Lat 39°26'04", long 77°48'07", Jefferson County, Hydrologic Unit 02070004, on right bank, 0.1 mi downstream from Rumsey Bridge at Shepherdstown, 3.3 mi upstream from Antietam Creek, and at mile 184.

DRAINAGE AREA.--5,936 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to September 1953. Annual maximums, water years 1954-64. July 1964 to current year. Gage-height record and estimated discharges October 1953 to June 1964 available in files of the Mid-Atlantic district office.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 14-16, 18-22, and Feb. 8-10. Water-discharge records good except those for periods with ice effect, Jan. 14-16, 18-22, and Feb. 8-10, which are fair. Some regulation at low flow by power plants upstream from station, prior to July 1981 by Stony River Reservoir (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake (see station 01595800). National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--46 years (water years 1929-53, 1965-85), 6,126 ft³/s, 14.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335,000 ft³/s, Mar. 19, 1936, gage height, 42.1 ft, from floodmarks, from rating curve extended above 200,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 170 ft³/s, Aug. 1, 1966; minimum daily discharge, 185 ft³/s, July 31, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in June 1889 and May 1924 reached stages of 39.2 ft and 29.8 ft respectively, from floodmarks, discharges, about 290,000 ft³/s and 168,000 ft³/s respectively, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 30	0600	33,400	11.12	Apr. 2	0063	25,600	9.45
Feb. 13	1530	*53,600	*15.08	May 5	0030	28,400	10.06
Feb. 26	1230	27,000	9.76	June 2	0600	30,100	10.43

Minimum discharge, 692 ft³/s, Sept. 17, 18, gage height, 1.64 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1790	2070	18500	5230	2300	16000	19400	2710	4800	1200	1760	1360
2	1320	2190	11700	4910	2350	12900	24600	2860	24600	1220	1650	1270
3	1710	1960	8440	4590	2470	10300	20300	5690	14200	1190	1630	1260
4	1900	1800	6900	4470	2370	8570	15100	22500	8340	1260	1640	1210
5	1970	1810	5990	4750	2350	7550	12300	24000	6550	1280	1620	1120
6	1930	1830	5350	5240	2610	7070	10300	15100	6230	1410	1580	1070
7	1890	1880	5180	6130	2540	6520	8840	10800	8230	1530	1460	926
8	1800	1980	5020	6150	2500	6050	7810	8480	7910	1590	1490	939
9	1710	1900	4580	5690	2450	5440	7130	7190	6300	1460	1510	1030
10	1920	1860	4250	5140	2400	5150	6450	6160	6740	1340	1460	1060
11	2350	1790	4140	4530	2330	5100	5850	5340	6040	2230	1430	1290
12	1890	1730	4230	4070	4170	5090	5370	4790	4910	6530	1380	1380
13	1330	1790	4370	3590	40800	5060	5080	4500	4500	6720	1310	1300
14	1260	1820	4690	3400	30700	6950	5070	4380	4080	4770	1220	925
15	1260	1810	4600	3200	16400	7140	5120	4170	3400	3540	1290	904
16	1180	2040	4460	3000	11600	6150	4980	3940	3180	3900	2010	924
17	1260	1990	4340	2880	8830	5500	4700	3810	2990	3940	1620	898
18	1270	1660	4130	2750	7450	5010	4430	4390	2880	3000	1470	733
19	1240	1660	3970	2700	6770	4710	4410	4720	2790	2440	1330	840
20	1300	1690	3980	2650	6600	4370	4170	4480	2550	2070	1210	816
21	1390	1790	4810	2550	7310	3990	3910	4040	2390	1850	1260	806
22	1310	1840	6420	2500	7940	3640	3740	3650	2250	1720	1270	791
23	1470	2260	10900	2490	9110	3620	3570	3560	2170	1610	1280	789
24	1760	2220	10800	1770	16800	6210	3390	3640	2040	1520	1300	807
25	1760	2080	9240	2480	24700	13900	3410	5220	1920	1440	1290	748
26	1730	1960	8210	3060	26400	15000	3330	8530	1790	1730	1610	774
27	1770	1910	8070	3080	23300	13000	3360	6920	1470	2040	3060	921
28	1780	1950	7640	2570	19700	10500	2980	5390	1460	2100	2370	1020
29	1820	13000	6910	2470	---	9170	2860	4500	1430	2010	1840	967
30	1770	29900	6260	2380	---	11100	2760	4290	1180	1940	1660	925
31	1910	---	5730	2310	---	15000	---	3970	---	1830	1530	---
TOTAL	50750	96170	203810	112730	295250	245760	214720	203720	149320	72410	48540	29803
MEAN	1637	3206	6575	3636	10540	7928	7157	6572	4977	2336	1566	993
MAX	2350	29900	18500	6150	40800	16000	24600	24000	24600	6720	3060	1380
MIN	1180	1660	3970	1770	2300	3620	2760	2710	1180	1190	1210	733
CFSM	.28	.54	1.11	.61	1.78	1.34	1.21	1.11	.84	.39	.26	.17
IN.	.32	.60	1.28	.71	1.85	1.54	1.35	1.28	.94	.45	.30	.19

CAL YR 1984 TOTAL 3066940 MEAN 8380 MAX 104000 MIN 1180 CFSM 1.41 IN 19.22
WTR YR 1985 TOTAL 1722983 MEAN 4721 MAX 40800 MIN 733 CFSM .80 IN 10.80

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981.
WATER TEMPERATURE: October 1980 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
NOV 1984										
07...	13:00	1870	445	7.7	8.0	11.0	769	2.2	11.7	105
JAN 1985										
07...	12:30	6160	265	7.7	7.0	6.0	751	1.5	15.0	122
MAR										
11...	12:00	5080	250	7.9	12.0	8.5	760	2.0	12.8	110
MAY										
01...	12:00	2370	315	8.6	23.5	24.5	758	4.0	9.8	118
JUL										
01...	12:30	1200	340	8.2	20.0	24.0	764	0.8	8.4	100
SEP										
03...	12:00	1270	460	7.8	28.0	26.0	763	2.0	8.0	99

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 1984										
07...	--	K6	190	64	58	10	13	13	0.4	2.6
JAN 1985										
07...	50	46	110	44	33	6.3	6.2	11	0.3	1.4
MAR										
11...	K14	550	100	47	31	6.2	5.9	11	0.3	1.2
MAY										
01...	23	530	140	44	42	7.8	7.5	10	0.3	1.9
JUL										
01...	<1	K7	140	71	44	8.3	11	14	0.4	1.8
SEP										
03...	K12	29	190	110	60	9.7	22	20	0.7	3.1

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV 1984										
07...	122	4.7	64	21	0.1	4.7	284	250	0.39	1430
JAN 1985										
07...	64	2.5	43	11	<0.1	3.9	162	140	0.22	2690
MAR										
11...	56	1.4	42	10	<0.1	4.5	151	130	0.21	2070
MAY										
01...	93	0.4	43	14	<0.1	1.7	194	170	0.26	1240
JUL										
01...	73	0.9	54	19	0.2	1.5	220	180	0.3	713
SEP										
03...	76	2.3	83	36	0.1	5.3	272	270	0.37	933

K: Results based on colony count outside the accepted range (non-ideal colony count).

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
NOV 1984									
07...	1.30	<0.01	--	0.5	0.09	0.28	0.07	0.06	0.18
JAN 1985									
07...	0.99	0.02	0.03	0.3	0.05	0.15	0.03	0.03	0.09
MAR									
11...	1.20	0.04	0.05	0.5	0.03	0.09	<0.01	0.03	0.09
MAY									
01...	0.51	<0.01	--	0.5	0.04	0.12	<0.01	0.05	0.15
JUL									
01...	0.72	0.25	0.32	0.6	0.07	0.21	0.03	0.02	0.06
SEP									
03...	1.10	0.06	0.08	0.6	0.07	0.21	0.06	0.06	0.18

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 1984										
07...	10	<1	60	<0.5	<1	<1	<3	1	15	1
MAR										
11...	20	<1	44	<0.5	<1	<1	<3	<1	21	1
MAY										
01...	30	<1	51	<0.5	<1	<1	<3	4	5	1
SEP										
03...	10	<1	68	<0.5	<1	<1	<3	3	<3	1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 1984										
07...	10	16	<0.1	<10	1	<1	<1	310	<6	10
MAR										
11...	15	71	<0.1	<10	1	<1	<1	150	<6	10
MAY										
01...	7	17	<0.1	<10	3	<1	<1	210	<6	10
SEP										
03...	11	21	<0.1	<10	2	<1	<1	270	<6	23

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV			
07...	6	30	62
JAN			
07...	3	50	70
MAR			
11...	6	82	98
MAY			
01...	16	102	58
JUL			
01...	16	52	58
SEP			
03...	7	24	100

01636500 SHENANDOAH RIVER AT MILLVILLE, WV
(National stream-quality accounting network station)

LOCATION.--Lat 39°16'55", long 77°47'22", Jefferson County, Hydrologic Unit 02070007, on left bank 0.4 mi downstream from Cattail Run, 1.0 mi upstream from Millville, 5.0 mi upstream from Harpers Ferry, and at mile 5.0.

DRAINAGE AREA.--3,040 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

REVISED RECORDS.--WSP 951: 1936 (M). WSP 1432: Drainage area at former site, 1895-99, 1901-02, 1905, 1907-08, 1932 (M), 1935 (M).

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft above National Geodetic Vertical Datum, adjustment of 1912. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--Estimated daily discharges: Jan. 18-22, 25-31, Feb. 1, 8-11. Records good except these periods with ice effect, which are poor. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mi upstream from station. U.S. Army Corps of Engineers satellite telemeter and National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--70 years (water years 1896-1908, 1929-85), 2,698 ft^3/s, 12.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 230,000 ft^3/s, Oct. 16, 1942, gage height, 32.4 ft, from floodmarks; minimum, about 59 ft^3/s, Oct. 4, 1930, gage height, 0.39 ft; minimum daily, 194 ft^3/s, July 24, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft, discharge, 151,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 3	1930	15,500	8.55	Feb. 13	1545	*24,700	*10.83

Minimum discharge, 346 ft^3/s, Sept. 25, gage height, 1.15 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1060	7580	1550	1170	4970	2770	1060	2950	689	732	1090
2	1140	1260	5140	1580	1990	4380	2610	1100	5500	527	718	976
3	1250	953	3970	1690	6270	3870	2510	1170	3250	629	617	804
4	1300	964	3180	2020	6700	3400	2390	1210	2400	702	617	832
5	1360	1010	2700	2710	4540	3040	2290	1260	2010	795	595	782
6	1030	1010	2480	4100	3370	2740	2170	3360	1830	702	558	737
7	927	1040	2350	4220	2890	2530	2080	3050	1890	710	666	637
8	867	926	2260	3900	2540	2340	1940	2490	1930	728	645	682
9	810	1020	2240	3660	2360	2170	1890	2120	1780	539	590	724
10	903	989	2020	3390	2260	2060	1770	1830	1690	638	590	622
11	742	944	1920	2910	2120	2030	1730	1560	1610	666	571	573
12	813	846	1900	2680	7280	1930	1670	1480	1510	695	545	588
13	784	930	1840	2470	23900	1860	1600	1350	1360	695	603	573
14	773	978	1810	2310	15000	1840	1560	1290	1680	779	691	500
15	793	847	1810	2160	7290	1840	1530	1440	1540	1770	606	495
16	721	850	1760	1960	5230	1700	1480	1370	1390	1440	581	552
17	788	751	1660	1860	4200	1640	1470	1400	1110	1060	555	566
18	746	772	1620	1700	3620	1590	1450	1440	1060	834	499	508
19	755	871	1620	1600	3200	1540	1410	1560	1110	827	624	456
20	971	896	1580	1500	2940	1520	1370	1660	897	779	714	482
21	621	977	1540	1400	2780	1480	1330	1560	989	718	4430	538
22	828	983	1510	1300	2880	1470	1250	1330	852	652	3030	506
23	943	1050	1540	1620	2990	1710	1230	1350	819	544	2610	461
24	936	947	1590	1550	3350	2300	1290	1300	771	497	1920	443
25	882	974	1770	1560	4220	3170	1220	1500	755	571	1700	498
26	882	965	1840	1540	5250	3760	1200	2010	693	652	1450	551
27	999	986	1790	1500	5670	3590	1080	3020	744	679	1400	568
28	1050	1210	1740	1380	5490	3250	1200	2770	631	666	1430	615
29	1150	4920	1600	1310	---	3030	1250	2340	638	732	1490	557
30	1160	8630	1610	1270	---	2850	1130	2000	666	795	1380	486
31	1050	---	1610	1200	---	2700	---	1810	---	755	1180	---
TOTAL	28984	40559	69580	65600	141500	78300	49870	54190	46055	23465	34337	18402
MEAN	935	1352	2245	2116	5054	2526	1662	1748	1535	757	1108	613
MAX	1360	8630	7580	4220	23900	4970	2770	3360	5500	1770	4430	1090
MIN	621	751	1510	1200	1170	1470	1080	1060	631	497	499	443
CFSM	.31	.45	.74	.70	1.66	.83	.55	.58	.51	.25	.36	.20
IN.	.35	.50	.85	.80	1.73	.96	.61	.66	.56	.29	.42	.23

CAL YR 1984 TOTAL 1449243 MEAN 3960 MAX 50400 MIN 621 CFSM 1.30 IN 17.73
WTR YR 1985 TOTAL 650842 MEAN 1783 MAX 23900 MIN 443 CFSM .59 IN 7.96

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1965, 1969-71, 1979 to current year.

INSTRUMENTATION.--Water-quality monitor October 1980 to September 1983.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1983.
WATER TEMPERATURES: October 1980 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1981-82): Maximum, 778 microsiemens, Dec. 29, 1980; minimum, 212 microsiemens, Jan. 17, 1982.
WATER TEMPERATURE: Maximum, 30.0°C, July 20, 21, 1981; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
07...	1100	1270	510	8.11	10.0	1.1	768	12.0	--	K21
JAN										
07...	1000	4280	318	8.24	6.0	2.0	752	15.6	48	180
MAR										
11...	1015	2120	310	8.60	11.0	1.5	761	12.7	K3	140
MAY										
01...	0930	1060	410	8.50	21.5	3.0	758	8.3	30	120
JUL										
01...	1030	1830	425	8.90	25.0	2.0	764	7.5	<1	K65
SEP										
03...	1000	1100	374	8.30	25.0	3.4	762	7.2	31	82

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV										
07...	51	15	31	3.0	159	67	18	.10	4.7	296
JAN										
07...	38	10	11	1.9	119	28	10	<.10	3.6	193
MAR										
11...	35	8.8	15	1.4	98	42	9.8	<.10	1.3	178
MAY										
01...	42	12	24	2.2	126	57	13	.10	3.8	251
JUL										
01...	43	12	29	2.1	110	72	19	.10	1.7	272
SEP										
03...	38	11	25	2.7	107	55	12	.10	6.1	211

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
NOV										
07...	1.4	<.010	.50	.280	.160	.150	<10	1	43	<.0
JAN										
07...	1.4	.020	.50	.140	.110	.080	--	--	--	--
MAR										
11...	.98	.040	1.1	.080	.080	.060	20	<1	33	<.5
MAY										
01...	<.10	<.010	.50	.150	.080	<.010	20	1	37	.6
JUL										
01...	.14	.020	.70	.120	.080	.070	--	--	--	--
SEP										
03...	.86	.050	.50	.120	.120	.110	<10	1	39	<.5

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV									
07...	<1	<1	<3	1	9	1	10	4	<.1
JAN									
07...	--	--	--	--	--	--	--	--	--
MAR									
11...	<1	<1	<3	<1	27	3	5	6	<.1
MAY									
01...	<1	<1	<3	3	11	1	<4	4	<.1
JUL									
01...	--	--	--	--	--	--	--	--	--
SEP									
03...	<1	<1	<3	1	6	1	8	12	<.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
07...	<10	1	<1	<1	180	9	8	27	29
JAN									
07...	--	--	--	--	--	--	14	162	62
MAR									
11...	<10	1	<1	<1	110	8	6	34	97
MAY									
01...	<10	1	<1	<1	140	5	22	63	78
JUL									
01...	--	--	--	--	--	--	29	143	71
SEP									
03...	<10	1	<1	<1	130	23	15	45	99

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi downstream from Catoctin Creek (Virginia), 6 mi upstream from Monocacy River, and at mile 159.5.

DRAINAGE AREA.--9,651 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

REMARKS.--Estimated daily discharges: Nov. 5-9 and Jan. 15 to Feb. 13. Records good. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981, by Jennings Randolph Lake (see station 01595800). Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--90 years, 9,400 ft³/s, 13.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s, Mar. 19, 1936, gage height, 41.03 ft from rating curve extended above 300,000 ft³/s on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum discharge, 530 ft³/s, Sept. 11, 12, 1966, gage height, 0.27 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft³/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 30	1400	36,800	8.70	Jun. 2	1030	35,000	8.39
Feb. 13	2000	*84,700	*15.57				

Minimum discharge, 1,300 ft³/s, Sept. 18,19, gage height, 0.74 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3070	3320	28100	7870	4700	22900	21500	4020	6460	2000	2890	2760
2	2990	3870	19700	7600	8000	19000	27500	4110	27200	2130	2710	2530
3	3010	3670	14500	7330	8400	15800	25300	4970	20100	1930	2520	2220
4	3310	3150	11600	7410	9600	13300	20200	19000	12600	2100	2400	2260
5	3640	3300	9990	8130	10000	11800	16400	27100	10400	2300	2370	2110
6	3370	3500	9210	9860	8000	10700	14000	20900	9440	2290	2380	1980
7	3010	3600	8560	11100	7000	9960	12300	15300	9870	2410	2190	1780
8	2840	3400	8290	11300	6000	9420	11100	12000	11400	2560	2350	1740
9	2710	3380	7770	10500	4500	8540	10100	10200	9160	2460	2670	1830
10	2570	3360	7170	9810	5300	8030	9360	8730	8910	2340	2310	1920
11	3310	3260	6790	8760	5800	7740	8630	7520	8770	2240	2190	1800
12	3240	3030	6770	7880	21000	7860	7980	6780	7420	6080	2100	1740
13	2800	3030	6940	7290	56000	7600	7560	6540	6550	9550	2010	1700
14	2260	3160	7110	6640	57000	8400	7310	6060	6400	6580	2070	1540
15	2410	3170	7330	6000	30500	10100	7300	5960	5700	6330	1920	1490
16	2310	3070	7050	5600	21300	8840	7130	5650	5170	7520	2450	1510
17	2190	3400	6870	5300	15800	8050	6810	5540	4730	5530	2620	1570
18	2360	2910	6620	5100	12700	7430	6520	5900	4490	4580	2240	1450
19	2320	2920	6400	4900	11300	6940	6410	6640	4350	3700	2140	1350
20	2440	2960	6280	4500	10600	6700	6310	6650	4020	3280	2150	1410
21	2510	3100	6590	2300	10700	6210	5880	6010	3790	2980	4900	1470
22	2350	3200	8010	2600	11600	5770	5520	5470	3560	2730	4880	1450
23	3060	3470	11900	2800	12300	5800	5290	5290	3400	2530	4180	1430
24	3150	3700	13800	3300	17700	7350	5190	5080	3230	2210	3680	1380
25	3190	3550	12500	3900	26800	15700	5020	5520	3050	2250	3350	1380
26	3100	3420	11200	3800	28600	19600	4890	10900	2880	2660	3230	1400
27	3080	3290	10800	4500	29200	18300	4670	11000	2670	3450	4400	1630
28	3230	3590	10500	4500	26700	15500	4640	9420	2250	2970	4360	1860
29	3580	12500	9670	4300	---	13600	4540	7860	2390	3100	3850	1820
30	3450	33800	9020	4100	---	14100	4180	6960	2240	3080	3340	1670
31	3510	---	8360	4100	---	18000	---	6680	---	3020	3060	---
TOTAL	90370	139080	305400	193080	477100	349040	289540	269760	212600	108890	89910	52180
MEAN	2915	4636	9852	6228	17040	11260	9651	8702	7087	3513	2900	1739
MAX	3640	33800	28100	11300	57000	22900	27500	27100	27200	9550	4900	2760
MIN	2190	2910	6280	2300	4500	5770	4180	4020	2240	1930	1920	1350
CFSM	.30	.48	1.02	.65	1.77	1.17	1.00	.90	.73	.36	.30	.18
IN.	.35	.54	1.18	.74	1.84	1.35	1.12	1.04	.82	.42	.35	.20

CAL YR 1984 TOTAL 5008820 MEAN 13690 MAX 174000 MIN 2190 CFSM 1.42 IN 19.31
WTR YR 1985 TOTAL 2576950 MEAN 7060 MAX 57000 MIN 1350 CFSM .73 IN 9.93

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 33.5°C, Aug. 24, 1964, July 19, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,350 mg/L, Apr. 3, 1970; minimum daily mean, 1 mg/L, on many days most years.
SEDIMENT LOAD: Maximum daily, 689,000 tons, June 23, 1972; minimum daily, 2.0 tons on many days during 1964, 1966-69.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 31.0°C, Aug. 15; minimum daily, 0.0°C, Jan. 14, 17, 18.
SEDIMENT CONCENTRATION: Maximum daily mean, 480 mg/L Feb. 14; minimum daily mean, 1 mg/L, Jan. 11-20, 29-31, Feb. 1, 10, 11, Apr. 20 to May. 2, 17-24, 30, 31.
SEDIMENT LOAD: Maximum daily, 76,800 tons, Feb. 14; minimum daily, 7.3 tons, Sept. 19.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	17.0	7.0	7.0	---	6.0	12.0	19.0	22.0	23.0	27.0	24.0
2	14.0	16.0	7.0	9.0	---	6.0	10.0	19.0	22.0	24.0	25.0	22.0
3	13.0	12.0	7.0	7.0	---	7.0	8.0	16.0	20.0	25.0	26.0	24.0
4	15.0	13.0	5.0	6.0	---	7.0	8.0	18.0	20.0	25.0	27.0	25.0
5	15.0	13.0	5.0	6.0	---	7.0	8.0	15.0	20.0	26.0	27.0	26.0
6	15.0	12.0	5.0	6.0	---	7.0	10.0	16.0	20.0	26.0	26.0	28.0
7	16.0	10.0	4.0	5.0	---	7.0	11.0	15.0	19.0	26.0	27.0	29.0
8	15.0	10.0	3.0	5.0	---	6.0	10.0	15.0	20.0	24.0	26.0	28.0
9	16.0	10.0	4.0	2.0	---	7.0	9.0	16.0	23.0	24.0	26.0	27.0
10	16.0	10.0	3.0	2.0	---	9.0	8.0	17.0	25.0	26.0	26.0	28.0
11	17.0	11.0	4.0	1.0	---	7.0	9.0	15.0	22.0	25.0	29.0	25.0
12	16.0	9.0	3.0	2.0	---	8.0	9.0	22.0	21.0	25.0	29.0	23.0
13	16.0	7.0	6.0	1.0	---	8.0	10.0	21.0	20.0	25.0	26.0	21.0
14	17.0	7.0	5.0	.0	---	8.0	14.0	21.0	19.0	27.0	30.0	20.0
15	15.0	6.0	6.0	1.0	1.0	7.0	13.0	20.0	19.0	25.0	31.0	20.0
16	17.0	9.0	6.0	1.0	1.0	7.0	14.0	19.0	21.0	25.0	29.0	22.0
17	16.0	6.0	8.0	.0	2.0	7.0	13.0	19.0	24.0	25.0	26.0	22.0
18	16.0	6.0	7.0	.0	3.0	8.0	14.0	18.0	23.0	26.0	25.0	22.0
19	18.0	6.0	8.0	1.0	4.0	8.0	17.0	18.0	22.0	27.0	24.0	24.0
20	18.0	7.0	7.0	---	5.0	8.0	17.0	18.0	21.0	28.0	25.0	24.0
21	20.0	5.0	7.0	---	4.0	7.0	17.0	20.0	24.0	27.0	24.0	22.0
22	20.0	5.0	7.0	---	4.0	7.0	18.0	20.0	25.0	27.0	25.0	22.0
23	19.0	4.0	7.0	---	7.0	6.0	20.0	19.0	27.0	27.0	25.0	22.0
24	17.0	5.0	6.0	---	8.0	6.0	18.0	21.0	25.0	27.0	22.0	22.0
25	17.0	6.0	5.0	---	8.0	6.0	18.0	20.0	25.0	25.0	23.0	22.0
26	17.0	4.0	5.0	---	8.0	6.0	17.0	20.0	23.0	24.0	23.0	21.0
27	18.0	6.0	5.0	---	8.0	8.0	19.0	23.0	23.0	28.0	24.0	22.0
28	20.0	7.0	5.0	---	7.0	9.0	18.0	23.0	24.0	27.0	23.0	19.0
29	20.0	6.0	5.0	---	---	11.0	18.0	21.0	27.0	26.0	24.0	20.0
30	18.0	6.0	7.0	---	---	11.0	---	19.0	24.0	28.0	24.0	18.0
31	18.0	---	6.0	---	---	11.0	---	19.0	---	---	23.0	---

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD-Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10	83	16	143	203	15400	13	276	1	13	82	5070
2	5	40	21	219	160	8510	11	226	4	86	49	2510
3	5	41	16	159	62	2430	14	277	12	272	35	1490
4	9	80	15	128	36	1130	14	280	25	648	26	934
5	14	138	12	107	30	809	14	307	15	405	19	605
6	13	118	10	94	27	671	12	319	9	194	15	433
7	12	98	9	87	23	532	10	300	4	76	15	403
8	11	84	8	73	20	448	7	214	3	49	14	356
9	11	80	7	64	18	378	4	113	2	24	15	346
10	15	104	6	54	14	271	2	53	1	14	15	325
11	14	125	5	44	11	202	1	24	1	16	16	334
12	11	96	4	33	11	201	1	21	26	1470	15	318
13	10	76	3	25	11	206	1	20	355	65500	12	246
14	10	61	2	17	11	211	1	18	480	76800	26	590
15	6	39	2	17	11	218	1	16	245	20200	20	545
16	5	31	2	17	11	209	1	15	110	6330	11	263
17	7	41	2	18	10	185	1	14	60	2560	10	217
18	8	51	4	31	10	179	1	14	39	1340	8	160
19	10	63	4	32	11	190	1	13	60	1830	8	150
20	10	66	4	32	9	153	1	12	92	2630	7	127
21	9	61	3	25	8	142	3	19	48	1390	5	84
22	9	57	4	35	10	216	9	63	73	2290	4	62
23	14	116	4	37	10	321	9	68	46	1530	4	63
24	14	119	4	40	20	745	5	45	68	3250	6	119
25	11	95	5	48	37	1250	4	42	100	7240	26	1100
26	14	117	4	37	37	1120	4	41	152	11700	53	2800
27	15	125	4	36	26	758	3	36	153	12100	40	1980
28	14	122	12	116	21	595	2	24	120	8650	37	1550
29	13	126	64	2690	18	470	1	12	---	---	31	1140
30	16	149	256	23400	16	390	1	11	---	---	38	1450
31	17	161	---	---	15	339	1	11	---	---	58	2820
TOTAL	---	2763	---	27858	---	38879	---	2904	---	228607	---	28590
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	81	4700	1	11	15	262	7	38	19	148	13	97
2	125	9280	1	11	230	18200	13	75	16	117	9	61
3	136	9290	5	67	270	14700	14	73	13	88	4	24
4	92	5020	42	2150	100	3400	10	57	10	65	7	43
5	54	2390	110	8050	55	1540	11	68	8	51	6	34
6	39	1470	80	4510	54	1380	8	49	8	51	5	27
7	30	996	38	1570	38	1010	11	72	9	53	4	19
8	21	629	25	810	49	1510	12	83	10	63	2	9.4
9	18	491	22	606	42	1040	11	73	13	94	3	15
10	16	404	18	424	33	794	12	76	10	62	2	10
11	12	280	11	223	41	971	8	48	5	30	2	9.7
12	10	215	8	146	35	701	49	804	4	23	3	14
13	6	122	6	106	18	318	64	1650	7	38	2	9.2
14	6	118	3	49	19	328	36	640	6	34	2	8.3
15	5	99	3	48	17	262	36	615	6	31	2	8.0
16	4	77	2	31	18	251	128	2600	11	73	2	8.2
17	4	74	1	15	20	255	78	1160	20	141	2	8.5
18	3	53	1	16	18	218	54	668	21	127	2	7.8
19	2	35	1	18	15	176	41	410	20	116	2	7.3
20	1	17	1	18	13	141	32	283	15	87	2	7.6
21	1	16	1	16	14	143	23	185	66	873	2	7.9
22	1	15	1	15	16	154	18	133	40	527	2	7.8
23	1	14	1	14	17	156	15	102	26	293	2	7.7
24	1	14	1	14	16	140	15	90	21	209	3	11
25	1	14	2	30	15	124	19	115	14	127	3	11
26	1	13	13	383	13	101	24	172	10	87	3	11
27	1	13	16	475	15	108	23	214	15	178	3	13
28	1	13	10	254	14	85	20	160	20	235	2	10
29	1	12	3	64	10	65	20	167	18	187	3	15
30	1	11	1	19	10	60	20	166	17	153	3	14
31	---	---	1	18	---	---	20	163	15	124	---	---
TOTAL	---	35895	---	20181	---	48593	---	11209	---	4485	---	536.4

TOTAL LOAD FOR YEAR: 450500.4 TONS.

03050400 TYGART VALLEY RIVER AT ELKINS, WV

LOCATION.--Lat 38°55'00", long 79°50'43", Randolph County, Hydrologic Unit 05020001, at city water plant, at Elkins, 2.5 mi upstream from gaging station.

DRAINAGE AREA.--268 mi^2 upstream from water plant: 272 mi^2 upstream from gaging station.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1947 to current year.

REMARKS.--No appreciable inflow between water plant and gaging station except during periods of heavy local rains. During flood periods part of the flow is diverted around the water plant in a flood by-pass channel.

COOPERATION.--Temperature records were furnished by City of Elkins pump station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 33.0°C July 22, 1952; minimum daily, 0.0°C on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 24.0°C July 22, 26, Aug. 2, 3, 12-21; minimum daily, 1.0°C Jan. 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	16.0	6.0	9.0	3.0	7.0	11.0	16.0	18.0	22.0	23.0	22.0
2	13.0	15.0	6.0	9.0	2.0	5.0	11.0	17.0	18.0	22.0	24.0	22.0
3	13.0	14.0	6.0	9.0	2.0	5.0	11.0	17.0	18.0	22.0	24.0	22.0
4	13.0	14.0	6.0	9.0	3.0	6.0	11.0	15.0	20.0	20.0	23.0	22.0
5	13.0	14.0	6.0	9.0	3.0	6.0	10.0	16.0	20.0	21.0	22.0	23.0
6	13.0	14.0	5.0	8.0	4.0	5.0	10.0	16.0	20.0	22.0	22.0	23.0
7	14.0	10.0	5.0	8.0	3.0	6.0	11.0	17.0	20.0	23.0	23.0	23.0
8	14.0	10.0	6.0	6.0	2.0	6.0	9.0	17.0	19.0	23.0	23.0	23.0
9	15.0	10.0	5.0	5.0	3.0	6.0	9.0	18.0	20.0	23.0	23.0	23.0
10	15.0	10.0	4.0	9.0	3.0	6.0	10.0	17.0	20.0	22.0	23.0	23.0
11	15.0	10.0	4.0	5.0	3.0	7.0	11.0	17.0	20.0	22.0	23.0	22.0
12	14.0	9.0	4.0	5.0	3.0	7.0	7.0	18.0	20.0	22.0	24.0	21.0
13	15.0	9.0	5.0	5.0	3.0	7.0	8.0	18.0	18.0	22.0	24.0	21.0
14	15.0	9.0	5.0	3.0	3.0	8.0	9.0	19.0	17.0	22.0	24.0	21.0
15	15.0	9.0	7.0	4.0	3.0	8.0	10.0	20.0	17.0	22.0	24.0	20.0
16	16.0	9.0	7.0	4.0	2.0	8.0	11.0	20.0	19.0	21.0	24.0	20.0
17	16.0	9.0	10.0	4.0	3.0	8.0	11.0	19.0	19.0	22.0	24.0	20.0
18	16.0	6.0	10.0	4.0	3.0	8.0	10.0	20.0	17.0	23.0	24.0	19.0
19	16.0	6.0	9.0	3.0	5.0	12.0	14.0	16.0	18.0	23.0	24.0	16.0
20	16.0	6.0	10.0	2.0	3.0	12.0	14.0	17.0	19.0	23.0	24.0	18.0
21	17.0	6.0	11.0	1.0	3.0	10.0	14.0	18.0	18.0	23.0	24.0	18.0
22	17.0	5.0	9.0	2.0	3.0	7.0	16.0	18.0	19.0	24.0	23.0	18.0
23	17.0	4.0	9.0	3.0	7.0	7.0	15.0	17.0	19.0	23.0	22.0	19.0
24	17.0	5.0	8.0	2.0	4.0	9.0	18.0	17.0	19.0	23.0	22.0	19.0
25	16.0	5.0	8.0	2.0	5.0	8.0	18.0	17.0	19.0	23.0	22.0	19.0
26	15.0	6.0	8.0	2.0	5.0	9.0	19.0	17.0	21.0	24.0	22.0	19.0
27	15.0	6.0	7.0	2.0	6.0	12.0	18.0	17.0	22.0	23.0	23.0	18.0
28	15.0	5.0	8.0	2.0	5.0	11.0	17.0	17.0	22.0	23.0	23.0	17.0
29	17.0	5.0	8.0	2.0	---	11.0	16.0	18.0	21.0	23.0	22.0	18.0
30	16.0	5.0	8.0	2.0	---	11.0	16.0	18.0	22.0	23.0	22.0	17.0
31	16.0	---	8.0	3.0	---	9.0	---	18.0	---	23.0	22.0	---
MEAN	15.0	8.5	7.0	4.5	3.5	8.0	12.5	17.5	19.5	22.5	23.0	20.0

WTR YR 1985 MEAN 13.5 MAX 24.0 MIN 1.0

03050500 TYGART VALLEY RIVER NEAR ELKINS, WV

LOCATION.--Lat 38°55'30", long 79°52'45", Randolph County, Hydrologic Unit 05020001, on left bank 1.4 mi upstream from Leading Creek, 1.5 mi west of Elkins, and at mile 78.3.

DRAINAGE AREA.--272 mi^2.

PERIOD OF RECORD.--October 1944 to current year. Prior to October 1960, published as Tygart River near Elkins.

GAGE.--Water-stage recorder. Datum of gage is 1,893.95 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Nov. 16, 1944, nonrecording gage and Nov. 16, 1944, to Sept. 30, 1951, water-stage recorder at site 200 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 10-30, Feb. 4-12, 15-21, and June 16 to July 15. Records good except those for periods of no gage-height record, June 16 to July 15, and periods with ice effect, Jan. 10-30, and Feb. 4-12, 15-21, which are poor. Slight regulation at times by flood-diversion dam upstream from station. U.S. Army Corps of Engineers satellite telemeter and rain gage at station.

AVERAGE DISCHARGE.--41 years, 540 ft^3/s, 26.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft^3/s, Dec. 31, 1969, gage height, 15.65 ft; maximum gage height, 15.84 ft Jan. 27, 1978; minimum daily discharge, 0.1 ft^3/s, Sept. 20-29, 1959; minimum gage height, 1.01 ft Sept. 26-28, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	1615	5,530	11.73	Mar. 13	0315	*5,650	*11.85

Minimum discharge, 2.2 ft^3/s, Sept. 25, gage height, 1.11 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	587	994	426	912	887	1490	335	367	40	96	47
2	410	439	696	817	1130	656	1050	342	262	40	321	43
3	259	354	598	1040	979	509	770	3370	194	48	220	37
4	155	297	551	1530	635	424	621	2210	464	120	128	29
5	105	425	464	1690	575	467	489	963	233	98	90	23
6	74	668	632	1150	530	430	423	574	311	80	68	19
7	55	561	720	870	485	318	367	432	246	52	56	17
8	47	445	565	693	450	316	344	315	1690	46	99	14
9	44	386	494	508	405	1780	357	242	1480	40	86	24
10	37	354	498	383	357	1280	342	197	640	450	61	38
11	33	362	1180	321	360	885	444	177	402	3100	47	36
12	25	445	1180	261	420	4190	581	166	314	1200	42	37
13	20	417	822	235	943	3980	624	160	406	560	38	34
14	17	348	583	220	669	1410	546	134	454	410	35	30
15	15	310	448	222	508	867	448	114	344	346	37	26
16	21	351	371	204	417	610	467	123	272	357	43	22
17	82	360	324	198	362	492	595	144	200	240	36	16
18	87	363	286	193	321	432	512	329	230	159	37	12
19	72	2470	458	188	340	320	432	586	200	117	44	10
20	74	2670	2250	183	468	269	364	425	180	94	64	8.6
21	75	1200	1690	181	676	255	313	279	170	80	61	6.6
22	153	712	2050	179	1440	248	276	297	140	69	51	6.1
23	1360	508	1460	179	3140	732	246	2660	130	64	42	5.1
24	896	392	947	180	4700	954	224	4550	126	55	35	5.1
25	636	316	3630	181	5370	945	226	2790	124	51	30	2.9
26	569	264	3170	183	3240	689	201	1020	100	69	35	3.7
27	598	229	1220	187	2280	529	175	569	86	256	55	4.1
28	448	997	792	190	1370	438	349	390	66	169	71	4.1
29	2670	3750	576	195	---	438	592	349	54	105	55	7.2
30	2010	1540	471	199	---	1920	426	267	46	72	49	7.9
31	966	---	426	347	---	2080	---	303	---	64	50	---
TOTAL	12190	22520	30546	13533	33482	29750	14294	24812	9931	8651	2182	575.4
MEAN	393	751	985	437	1196	960	476	800	331	279	70.4	19.2
MAX	2670	3750	3630	1690	5370	4190	1490	4550	1690	3100	321	47
MIN	15	229	286	179	321	248	175	114	46	40	30	2.9
CFSM	1.45	2.76	3.62	1.61	4.40	3.53	1.75	2.94	1.22	1.03	.26	.07
IN.	1.67	3.08	4.18	1.85	4.58	4.07	1.95	3.39	1.36	1.18	.30	.08

CAL YR 1984 TOTAL 243023.0 MEAN 664 MAX 7810 MIN 15 CFSM 2.44 IN 33.24
WTR YR 1985 TOTAL 202466.4 MEAN 555 MAX 5370 MIN 2.9 CFSM 2.04 IN 27.69

03051000 TYGART VALLEY RIVER AT BELINGTON, WV

LOCATION.--Lat 39°01'45", long 79°56'10", Barbour County, Hydrologic Unit 05020001, on left bank opposite mouth of Mill Creek, 0.2 mi downstream from highway bridge at Belington, and mile 61.5.

DRAINAGE AREA.--408 mi^2, excluding that of Mill Creek.

PERIOD OF RECORD.--June 1907 to current year. Prior to October 1960, published as Tygart River at Belington.

REVISED RECORDS.--WSP 823: Drainage area. WSP 953: 1933(M), 1941(M). WSP 1335: 1912, 1914-15, 1916(M), 1921-22(M), 1925(M), 1928, 1933. WSP 1385: 1909(M), 1913-15(M), 1917-18, 1924(M), 1928(M), 1932, 1934, 1936, 1938-39, 1948-49.

GAGE.--Water-stage recorder. Datum of gage is 1,679.49 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Apr. 25, 1939, nonrecording gage at site 0.2 mi upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 12, 14-21. Records good except these periods with ice effect, which are poor. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--78 years, 814 ft^3/s, 27.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s, July 25, 1912, gage height, 20.3 ft from floodmarks, site then in use; minimum, 0.1 ft^3/s, Sept. 13, 1930, gage height, 1.56 ft, site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1888, reached a stage of 21.7 ft, former site, from floodmarks, discharge, 21,200 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 25	1800	6,200	10.83	Mar. 13	0200	7,600	11.98
Feb. 25	0100	*8,100	*12.36	May 3	2000	6,460	11.05

Minimum discharge, 7.8 ft^3/s, Sept. 28, 29, gage height, 2.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	926	1610	686	2020	1360	2430	587	1280	61	130	88
2	757	710	1160	1060	1490	1010	1750	532	554	61	315	67
3	460	599	986	1480	1210	780	1250	4750	365	72	365	58
4	268	508	958	1870	944	648	992	4050	582	167	214	52
5	181	820	807	2310	851	658	768	1660	450	148	148	42
6	129	1420	1110	1750	790	653	658	1000	450	110	114	37
7	101	1050	1280	1330	730	510	570	708	405	85	91	32
8	83	770	973	1110	675	490	526	532	2510	69	315	29
9	86	636	843	829	609	1810	560	415	2370	58	315	27
10	84	591	814	620	538	1810	548	340	1060	1410	163	29
11	74	567	2130	532	526	1300	686	292	620	4380	110	46
12	67	646	2090	460	631	5760	900	274	532	1380	88	44
13	59	635	1410	390	1100	5940	928	237	780	829	72	45
14	54	534	989	365	895	2250	834	218	878	565	63	42
15	52	468	761	345	692	1400	692	186	642	455	60	40
16	61	533	618	330	554	992	758	186	485	460	61	36
17	98	563	531	320	500	790	1090	202	375	365	94	31
18	237	577	466	310	450	664	890	330	410	251	63	27
19	188	3330	713	300	460	538	724	620	335	182	60	23
20	170	4010	3160	293	620	425	592	576	325	144	67	19
21	190	1960	2650	290	950	390	495	400	278	124	88	17
22	301	1140	3150	286	1940	375	430	365	210	107	76	16
23	2310	807	2330	286	4700	1440	385	2660	198	96	67	14
24	1940	621	1520	289	7040	1970	380	5720	194	91	56	14
25	1460	495	5050	290	7640	1870	410	4000	186	76	54	12
26	912	420	4750	295	4820	1240	395	1530	144	110	50	11
27	892	364	1980	300	3310	906	335	829	117	325	61	11
28	709	1080	1280	310	2070	724	516	570	91	315	80	8.2
29	3320	5560	930	320	---	664	1090	505	80	190	85	8.2
30	3070	2610	772	343	---	2760	796	425	67	130	70	9.2
31	1560	---	711	829	---	3230	---	768	---	104	85	---
TOTAL	20090	34950	48532	20528	48755	45357	23378	35467	16973	12920	3680	934.6
MEAN	648	1165	1566	662	1741	1463	779	1144	566	417	119	31.2
MAX	3320	5560	5050	2310	7640	5940	2430	5720	2510	4380	365	88
MIN	52	364	466	286	450	375	335	186	67	58	50	8.2
CFSM	1.59	2.86	3.84	1.62	4.27	3.59	1.91	2.80	1.39	1.02	.29	.08
IN.	1.83	3.19	4.42	1.87	4.45	4.14	2.13	3.23	1.55	1.18	.34	.09

CAL YR 1984 TOTAL 377352.0 MEAN 1031 MAX 9880 MIN 34 CFSM 2.53 IN 34.41
WTR YR 1985 TOTAL 311564.6 MEAN 854 MAX 7640 MIN 8.2 CFSM 2.09 IN 28.41

03052500 SAND RUN NEAR BUCKHANNON, WV

LOCATION.--Lat 38°57'50", long 80°09'10", Upshur County, Hydrologic Unit 05020001, on right bank 300 ft downstream from Left Fork, 4.5 mi southeast of Buckhannon, and at mile 6.0.

DRAINAGE AREA.--14.5 mi^2.

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

REVISED RECORDS.--WSP 1725: 1955(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,530 ft, above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 4, 1983, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 11-30, Feb. 4-12, 16, Mar. 10-28, Aug. 28 to Sept. 30. Records good except for periods of no gage-height record Mar. 10-28, Aug. 28 to Sept. 30, and periods with ice effect, Jan. 11-30 and Feb. 4-12, 16, which are poor.

AVERAGE DISCHARGE.--39 years, 26.8 ft^3/s, 25.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s, June 25, 1950, from rating curve extended above 600 ft^3/s; maximum gage height, 6.29 ft datum then in use, Mar. 19, 1963; no flow for several days in 1951-56, 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 25	0415	*334	*3.78	No other peak greater than base discharge.			

Minimum daily discharge, 0.25 ft^3/s, Sept. 23, 26, 28, but may have less Sept. 20-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	20	36	26	131	26	87	11	14	1.5	32	.92
2	29	25	28	53	66	22	52	17	11	1.8	18	1.3
3	14	26	28	48	42	18	37	119	16	3.1	9.2	1.1
4	8.7	27	25	46	37	16	28	60	23	5.8	5.7	.89
5	5.8	93	24	52	32	16	23	39	18	3.1	4.2	.75
6	4.4	72	44	44	46	16	20	27	14	2.2	3.6	.66
7	3.8	46	39	40	62	15	17	20	22	2.5	3.2	.61
8	3.6	32	31	32	44	21	17	16	59	2.6	24	.58
9	4.1	26	28	26	32	27	17	13	41	1.9	8.8	.56
10	3.6	25	45	24	24	59	16	11	28	89	5.5	.53
11	3.2	25	97	21	30	45	16	11	16	24	3.8	.51
12	3.0	25	60	19	40	180	17	12	20	12	3.1	.75
13	2.5	23	39	18	35	112	16	8.3	43	7.6	2.6	1.1
14	2.4	20	29	16	31	72	16	5.9	34	5.0	2.2	.96
15	2.6	19	25	15	26	46	15	14	25	9.4	2.2	.70
16	8.9	24	22	15	23	32	44	15	20	15	3.0	.56
17	7.7	23	20	14	21	28	45	19	16	7.9	3.0	.44
18	6.1	34	18	14	20	23	33	58	12	4.8	2.0	.37
19	5.6	212	57	13	23	19	26	44	9.2	3.7	1.6	.32
20	8.7	80	84	13	32	16	20	29	7.6	3.0	1.5	.29
21	8.3	42	71	13	44	14	17	18	6.4	3.2	1.6	.27
22	21	28	72	13	104	13	15	15	5.0	3.2	1.5	.26
23	81	23	48	13	192	26	13	152	6.3	3.0	1.2	.25
24	79	19	50	13	150	64	12	98	4.5	2.4	1.9	.30
25	45	16	221	13	73	51	11	59	3.6	2.0	2.9	.27
26	26	14	71	14	53	42	9.7	35	2.9	5.7	1.9	.25
27	19	13	43	14	43	33	12	18	2.5	15	1.5	.28
28	26	107	30	15	31	27	17	16	2.1	5.0	1.3	.25
29	68	112	25	15	---	32	14	17	1.8	3.2	1.1	.26
30	45	48	25	16	---	190	13	13	1.6	2.5	1.0	.26
31	27	---	24	79	---	106	---	15	---	5.4	.96	---
TOTAL	606.0	1299	1459	767	1487	1407	695.7	1005.2	485.5	256.5	156.06	16.55
MEAN	19.5	43.3	47.1	24.7	53.1	45.4	23.2	32.4	16.2	8.27	5.03	.55
MAX	81	212	221	79	192	190	87	152	59	89	32	1.3
MIN	2.4	13	18	13	20	13	9.7	5.9	1.6	1.5	.96	.25
CFSM	1.35	2.99	3.25	1.70	3.66	3.13	1.60	2.23	1.12	.57	.35	.04
IN.	1.55	3.33	3.74	1.97	3.81	3.61	1.78	2.58	1.25	.66	.40	.04

CAL YR 1984 TOTAL 10790.41 MEAN 29.5 MAX 326 MIN .43 CFSM 2.03 IN 27.68
WTR YR 1985 TOTAL 9640.51 MEAN 26.4 MAX 221 MIN .25 CFSM 1.82 IN 24.73

03053500 BUCKHANNON RIVER AT HALL, WV

LOCATION.--Lat 39°03'05", Long 80°06'50", Barbour County, Hydrologic Unit 05020001, on right bank 0.2 mi upstream from highway bridge at Hall, 1.0 mi upstream from Pecks Run, and at mile 7.5.

DRAINAGE AREA.--277 mi^2.

PERIOD OF RECORD.--June 1907 to May 1909 (gage heights only), April 1915 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 783: 1918(M).

GAGE.--Water-stage recorder. Datum of gage is 1,369.15 ft Baltimore & Ohio RR datum. June 1907 to May 25, 1909, nonrecording gage at site 0.2 mi downstream at datum 4.12 ft lower. Apr. 15, 1915, to June 8, 1939, nonrecording gage at site 500 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 11-30, and Feb. 9, 10, 16, 20, 21. Records good except these periods with ice effect, which are poor. Some regulation at low flow from mine pumpage above station.

AVERAGE DISCHARGE.--70 years, 599 ft^3/s, 29.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s, Mar. 7, 1967, gage height, 15.07 ft, from rating curve extended above 9,100 ft^3/s; minimum, 0.2 ft^3/s, Oct. 23, 27, 1930, gage height, 1.30 ft, site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 12	2030	*5,060	*9.43	No other peak greater than base discharge			

Minimum discharge, 4.7 ft^3/s, Sept. 25, 26, 28, gage height, 3.57 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	737	1020	567	2480	984	2100	198	350	50	116	34
2	602	627	794	753	1820	768	1450	216	266	45	515	37
3	441	649	682	985	1210	620	1020	2400	212	45	286	36
4	258	576	652	1040	1060	515	803	1780	226	59	160	27
5	184	998	554	1230	874	521	620	920	202	76	111	22
6	158	1490	793	1120	992	527	515	627	198	54	88	18
7	138	1080	894	954	1210	405	471	471	230	46	74	16
8	100	772	720	824	938	400	422	385	1140	43	223	14
9	106	622	664	659	610	1270	416	294	1060	42	202	13
10	93	604	670	537	500	1250	380	242	588	454	113	13
11	85	586	1650	485	570	984	360	206	400	1330	80	15
12	87	592	1700	440	621	3690	390	202	390	504	63	18
13	93	520	1160	390	821	3600	385	170	817	365	50	20
14	78	436	840	345	679	1770	390	138	890	250	39	17
15	61	385	669	325	620	1140	375	129	646	216	36	14
16	55	442	550	310	540	817	488	230	488	319	43	12
17	84	454	464	295	492	660	890	226	370	198	59	9.6
18	132	436	400	287	430	533	782	831	306	126	78	8.0
19	128	2260	588	276	455	432	646	1130	286	95	67	6.5
20	135	2500	1850	278	535	365	527	810	266	76	50	6.1
21	149	1390	1610	263	660	324	438	545	216	67	50	5.4
22	167	886	1810	257	1280	298	370	493	181	74	40	5.2
23	1730	646	1360	259	2660	875	319	2280	160	59	32	4.9
24	2250	508	980	260	3480	1350	274	3670	184	61	30	5.4
25	1490	408	3180	263	3850	1360	258	2140	164	50	57	4.9
26	910	336	2860	265	2550	976	234	1090	116	50	59	4.9
27	670	285	1460	269	2000	747	202	666	94	138	56	5.2
28	538	676	975	280	1360	608	238	476	78	282	56	4.9
29	1600	2230	727	288	---	557	274	510	67	132	54	5.2
30	1780	1430	619	313	---	2080	242	444	56	86	40	5.2
31	1150	---	611	735	---	2430	---	416	---	67	37	---
TOTAL	15684	25561	33506	15552	35297	32856	16279	24335	10647	5459	2964	407.4
MEAN	506	852	1081	502	1261	1060	543	785	355	176	95.6	13.6
MAX	2250	2500	3180	1230	3850	3690	2100	3670	1140	1330	515	37
MIN	55	285	400	257	430	298	202	129	56	42	30	4.9
CFSM	1.83	3.08	3.90	1.81	4.55	3.83	1.96	2.83	1.28	.64	.35	.05
IN.	2.11	3.43	4.50	2.09	4.74	4.41	2.19	3.27	1.43	.73	.40	.05

CAL YR 1984 TOTAL 248700.0 MEAN 680 MAX 5020 MIN 20 CFSM 2.46 IN 33.40
WTR YR 1985 TOTAL 218547.4 MEAN 599 MAX 3850 MIN 4.9 CFSM 2.16 IN 29.35

03054500 TYGART VALLEY RIVER AT PHILIPPI, WV

LOCATION.--Lat 39°09'00", long 80°02'25", Barbour County, Hydrologic Unit 05020001, on right bank at Philippi, 0.2 mi downstream from Anglins Run, 5.0 mi downstream from Buckhannon River, and at mile 44.9.

DRAINAGE AREA.--916 mi^2.

PERIOD OF RECORD.--April 1940 to current year. Prior to October 1960, published as Tygart River at Philippi.

GAGE.--Water-stage recorder. Datum of gage is 1,280.55 ft above National Geodetic Vertical Datum of 1929. Prior to May 23, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11-20, 22-30, Feb. 9-12, 14-21. Records good except these periods with ice effect, which are poor. National Weather Service gage-height telemeter at station. U.S. Army Corps of Engineers satellite telemeter and rain gage at station.

AVERAGE DISCHARGE.--45 years, 1,926 ft^3/s, 27.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,000 ft^3/s, Mar. 7, 1967, gage height, 25.93 ft; minimum, 4.9 ft^3/s, Oct. 10-12, 21, 1953; minimum gage height, 0.92 ft Sept. 9, 10, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 25, 1912, reached a stage of 27.3 ft, read on National Weather Service gage 0.2 mi downstream, or about 26 ft, present site and datum, discharge, about 37,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	0500	*14,900	*14.27	Mar. 12	2000	*14,900	14.26

Minimum discharge, 15 ft^3/s, Sept. 30, gage height, 1.24 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	2440	3580	1770	5850	3220	6130	1180	2110	152	208	147
2	1830	1950	2730	2270	6170	2440	4400	1140	1190	143	739	136
3	1410	1860	2280	3140	4590	1950	3100	8350	765	143	826	127
4	799	1640	2230	3550	3230	1580	2480	7700	880	187	447	114
5	534	2460	1910	4420	2880	1520	1970	3590	905	279	301	99
6	406	3890	2470	3740	3490	1590	1680	2290	780	223	231	85
7	344	3110	2930	3050	3970	1250	1520	1650	766	184	195	73
8	287	2300	2340	2600	2930	1150	1370	1280	3400	164	365	64
9	259	1870	2110	2070	2080	3250	1400	967	4490	146	703	59
10	271	1760	2000	1660	1670	4090	1340	764	2280	1540	354	57
11	245	1660	4680	1400	1900	2940	1400	631	1390	6780	238	52
12	219	1720	5170	1210	2210	10700	1700	575	1280	2600	182	87
13	220	1630	3610	1030	3240	12000	1760	498	2050	1490	155	88
14	202	1390	2600	910	2620	5680	1690	437	2470	953	133	89
15	192	1210	2060	850	2280	3590	1520	391	1870	822	119	79
16	196	1340	1700	820	1840	2540	1620	476	1400	869	120	70
17	250	1420	1450	790	1610	2060	2520	506	1060	726	147	60
18	406	1390	1270	760	1480	1730	2260	1090	924	452	175	51
19	452	6550	1750	740	1500	1460	1910	2140	878	327	163	44
20	428	8450	6030	720	1800	1190	1620	1820	854	260	145	38
21	484	4670	5630	692	2240	1070	1370	1210	694	222	150	32
22	543	2860	6280	695	3810	990	1180	1160	511	206	153	27
23	4870	2090	4890	690	8940	2750	1030	5020	434	194	132	24
24	5980	1650	3390	690	12700	4450	951	11600	429	172	125	23
25	4310	1330	9730	695	13900	4450	933	8130	405	166	129	22
26	2690	1100	9630	705	9660	3140	915	3740	306	168	141	22
27	2160	931	4780	715	7020	2320	756	2130	263	366	132	22
28	1710	1810	3130	730	4720	1920	870	1460	215	774	141	19
29	5500	9140	2340	745	---	1750	1740	1350	186	420	163	16
30	6700	5650	1990	790	---	5550	1510	1210	168	270	153	15
31	3900	---	1900	1410	---	7530	---	1300	---	207	145	---
TOTAL	48254	81271	108590	46057	120330	101850	54645	75785	35353	21605	7510	1841
MEAN	1557	2709	3503	1486	4298	3285	1822	2445	1178	697	242	61.4
MAX	6700	9140	9730	4420	13900	12000	6130	11600	4490	6780	826	147
MIN	192	931	1270	690	1480	990	756	391	168	143	119	15
CFSM	1.70	2.96	3.82	1.62	4.69	3.59	1.99	2.67	1.29	.76	.26	.07
IN.	1.96	3.30	4.41	1.87	4.89	4.14	2.22	3.08	1.44	.88	.30	.07

CAL YR 1984 TOTAL 809472 MEAN 2212 MAX 15200 MIN 68 CFSM 2.42 IN 32.87
WTR YR 1985 TOTAL 703091 MEAN 1926 MAX 13900 MIN 15 CFSM 2.10 IN 28.55

03056250 THREE FORK CREEK NEAR GRAFTON, WV

LOCATION.--Lat 39°20'13", long 79°59'36", Taylor County, Hydrologic Unit 05020001, on right bank 20 ft downstream from bridge on State Secondary Route 50/9, 1.4 mi east of Grafton, and at mile 1.8.

DRAINAGE AREA.--97.4 mi^2.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, 2, Dec. 27 to Jan. 30, and Feb. 4, 5, 7-11, 14-19. Records good except for periods of no gage-height record Oct. 1, 2, Dec. 27 to Jan. 30, and periods with ice effect, Feb. 4, 5, 7-11, 14-19, which are poor. Several measurements of water temperatures were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,210 ft^3/s, May 31, gage height, 15.36 ft; minimum 1.9 ft^3/s, Oct. 27, 28, gage height, 1.34 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	120	374	300	680	210	1360	40	1150	19	100	10
2	39	147	296	260	527	175	586	51	416	18	58	9.1
3	24	164	263	230	369	139	366	687	271	19	33	7.7
4	17	173	213	210	270	121	260	343	192	65	23	6.7
5	14	834	189	200	282	136	201	200	171	44	19	5.8
6	12	492	236	190	301	113	170	142	218	28	17	5.2
7	11	273	204	180	250	97	138	117	143	31	16	4.8
8	11	180	178	170	177	133	125	88	130	27	17	4.6
9	17	153	162	160	153	189	117	70	100	340	17	4.4
10	17	293	176	155	133	170	105	59	79	538	15	13
11	14	318	475	150	153	172	106	52	79	384	13	9.0
12	12	257	398	148	182	1310	103	46	1070	164	12	6.3
13	11	194	282	144	278	723	97	41	718	122	11	4.6
14	11	150	207	140	208	408	99	36	376	81	10	3.6
15	11	130	175	138	168	283	96	53	228	196	48	3.1
16	15	132	151	132	138	212	103	131	174	301	29	2.8
17	21	117	137	128	140	180	110	80	129	152	23	2.6
18	21	119	136	126	121	146	98	100	122	94	18	2.5
19	23	302	217	123	134	120	94	91	122	69	14	2.4
20	73	293	572	120	173	109	87	65	118	58	13	2.3
21	67	204	509	117	199	94	80	51	86	49	13	2.2
22	57	155	774	112	348	87	73	42	66	42	12	2.2
23	170	134	434	109	1070	672	69	162	65	48	11	2.1
24	190	122	309	105	1300	705	63	206	53	34	12	2.2
25	134	116	448	104	818	553	70	119	42	26	31	2.1
26	93	113	368	103	496	330	62	81	35	27	22	2.2
27	69	113	300	102	371	240	54	60	29	51	16	2.2
28	95	533	250	101	267	192	51	65	25	37	13	2.1
29	511	1100	210	100	---	194	47	128	22	24	11	2.3
30	306	471	370	98	---	764	42	90	20	20	10	2.2
31	174	---	350	218	---	1310	---	3040	---	19	10	---
TOTAL	2302	7902	9363	4673	9706	10287	5032	6536	6449	3127	667	132.3
MEAN	74.3	263	302	151	347	332	168	211	215	101	21.5	4.41
MAX	511	1100	774	300	1300	1310	1360	3040	1150	538	100	13
MIN	11	113	136	98	121	87	42	36	20	18	10	2.1
CFSM	.76	2.70	3.10	1.55	3.56	3.41	1.73	2.17	2.21	1.04	.22	.05
IN.	.88	3.02	3.58	1.78	3.71	3.93	1.92	2.50	2.46	1.19	.25	.05

WTR YR 1985 TOTAL 66176.3 MEAN 181 MAX 3040 MIN 2.1 CFSM 1.86 IN 25.27

03057000 TYGART VALLEY RIVER AT COLFAX, WV

LOCATION.--Lat 39°26'15", long 80°07'55", Marion County, Hydrologic Unit 05020001 on right bank at highway bridge at Colfax, 300 ft upstream from Guyses Run, and at mile 6.0. Records include flow of Guyses Run.

DRAINAGE AREA.--1,366 mi^2, including that of Guyses Run.

PERIOD OF RECORD.--May 1939 to current year. Prior to October 1960, published as Tygart River at Colfax.

REVISED RECORDS.--WSP 1083: 1942(M), WSP 1335: 1941.

GAGE.--Water-stage recorder. Datum of gage is 856.27 ft above National Geodetic Vertical Datum of 1929, supplementary adjustment of 1944. Formerly published as 855.49 ft Baltimore & Ohio RR datum. Since Jan. 19, 1945, auxiliary water-stage recorder at Fairmont waterworks, 5.7 mi downstream from base gage, at datum 856.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Jan. 14-31, and Feb. 9-20. Records good except these periods with ice effect, which are poor. Flow regulated by Tygart Lake. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--46 years, 2,658 ft^3/s, 26.42 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s, Feb. 14, 1948, gage height, 16.86 ft; maximum gage height, 19.77 ft Mar. 5, 1963, backwater from West Fork River; minimum discharge, 94 ft^3/s, July 3, 1946; minimum daily, 129 ft^3/s, May 5-7, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1888 reached a stage of 39.6 ft at site 1,100 ft downstream, present datum, from information by local resident. The stage on that day was probably affected by backwater from West Fork River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft^3/s, May 25, gage height, 11.45 ft; minimum, 282 ft^3/s, Aug. 7, and Sept. 17, gage height, 3.56 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	898	5070	6490	3240	2550	9850	5460	614	3390	623	728	558
2	900	6430	6230	3160	4990	9320	4350	672	2640	624	715	554
3	855	7100	5970	3110	6450	8720	5970	3200	3690	625	647	549
4	842	6870	5680	3140	6420	7720	5710	5900	3470	644	627	547
5	835	7470	4780	3230	5830	5290	5490	7700	3320	669	615	544
6	832	7060	3410	3600	5480	4290	4930	6060	2950	633	553	542
7	825	6550	3370	4320	5280	4060	3590	1630	1790	609	538	541
8	829	5570	3330	4270	5130	3900	2370	1150	1770	377	600	540
9	841	3800	3310	4140	4200	3560	1440	1280	2100	500	596	543
10	833	4010	3300	3980	3100	2980	1410	1220	3790	854	592	500
11	821	3760	3740	2890	2640	3490	1410	928	4770	2150	592	309
12	813	2740	4150	2000	2600	6660	1410	686	6480	3750	587	295
13	807	2610	4830	1790	2650	6690	1400	675	3340	1100	584	290
14	802	2520	4690	1000	2700	8660	1430	664	3660	1100	583	290
15	799	2290	4520	1000	2710	8830	1420	723	3380	1900	643	289
16	818	1340	4330	1010	2700	8240	1450	879	3260	2950	624	287
17	814	2860	3860	1020	2600	7640	1480	769	2820	3240	603	319
18	810	4970	3080	1040	2550	6160	1480	818	1530	2950	596	518
19	832	7790	3140	1050	2500	3590	1480	1160	1030	1580	583	518
20	988	7490	3310	1060	2400	2520	1480	1610	827	984	582	517
21	966	6930	3090	1070	2670	1910	1430	1600	758	955	576	513
22	925	5540	3730	1070	3120	1610	1200	1580	723	908	573	512
23	1250	3890	3930	1080	4580	1940	1200	2130	715	657	568	511
24	2640	2280	6030	1070	5260	3250	1140	5900	693	646	583	509
25	4540	2230	6970	860	5160	4360	938	11000	670	631	598	503
26	4390	2500	7920	1850	5710	4810	921	9740	654	637	590	506
27	4310	4690	9530	2100	8440	4620	902	6320	644	693	574	500
28	4340	2740	9050	1300	10300	4170	854	2510	638	657	566	496
29	4520	4840	8480	790	---	2440	624	1670	631	632	561	494
30	3420	5980	7900	800	---	3780	614	1630	628	623	564	492
31	3370	---	6430	840	---	4880	---	5620	---	624	577	---
TOTAL	51465	139920	158580	62880	120720	159940	64983	88038	66761	35525	18518	14086
MEAN	1660	4664	5115	2028	4311	5159	2166	2840	2225	1146	597	470
MAX	4540	7790	9530	4320	10300	9850	5970	11000	6480	3750	728	558
MIN	799	1340	3080	790	2400	1610	614	614	628	377	538	287

CAL YR 1984 TOTAL 1143258 MEAN 3124 MAX 10500 MIN 192
WTR YR 1985 TOTAL 981416 MEAN 2689 MAX 11000 MIN 287

03057300 WEST FORK RIVER AT WALKERSVILLE, WV

LOCATION.--Lat 39°52'07", long 80°27'29", Lewis County, Hydrologic Unit 05020002, on left bank at downstream side of highway bridge on Secondary Route 44, in Walkersville, 100 ft downstream from Right Fork, and at mile 95.3.

DRAINAGE AREA.--28.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,070.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 22 to Jan. 30, Feb. 5, 10, 11, 18-21. Records poor. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft^3/s, Aug. 30, 1984, gage height, 15.71 ft; minimum, no flow several days in September 1985.

EXTREMES FOR CURRENT YEAR.--

Water year 1984.--Maximum discharge during period August to September, 2,520 ft^3/s, Aug. 30, gage height, 15.71 ft; minimum, 0.57 ft^3/s, Sept. 27, gage height, 1.31 ft.

Water year 1985.--Maximum discharge, 1,020 ft^3/s, May 12, gage height, 11.16 ft; minimum, no flow for several days in September.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											.72	57
2											.80	25
3											3.4	17
4											17	378
5											43	38
6											9.5	36
7											3.6	21
8											16	13
9											6.5	8.5
10											17	5.9
11											60	4.3
12											66	3.0
13											35	2.5
14											22	2.0
15											12	3.5
16											6.5	3.8
17											5.2	2.1
18											52	1.7
19											29	1.3
20											13	1.0
21											5.2	.88
22											2.9	.80
23											25	.72
24											19	.65
25											8.5	.65
26											4.2	.61
27											3.1	.57
28											6.5	1.0
29											10	1.8
30											587	1.5
31											528	---
TOTAL											1622.62	683.78
MEAN											52.3	22.8
MAX											587	378
MIN											.72	.57
CFSM											1.81	.79
IN.											2.09	.88

03057300 WEST FORK RIVER AT WALKERSVILLE, WV--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	33	68	40	170	38	164	8.5	17	.41	63	.70
2	45	38	51	38	142	31	88	13	10	.49	18	.54
3	17	40	48	35	91	25	58	526	7.7	.61	5.2	.43
4	9.5	42	40	36	76	22	42	98	6.2	.72	2.7	.32
5	8.8	270	35	40	60	31	33	45	5.9	.80	1.7	.23
6	8.0	151	98	42	122	26	29	29	4.9	.88	1.3	.11
7	7.7	67	79	44	119	23	24	22	4.8	.95	1.0	.02
8	7.3	42	60	41	76	56	22	16	20	.80	3.1	.00
9	8.2	36	58	36	56	126	20	11	9.2	.57	2.1	.00
10	7.2	47	109	32	43	72	17	8.8	5.9	15	1.1	.00
11	6.2	55	228	29	39	116	18	7.3	4.8	9.3	.65	.00
12	6.0	52	112	26	97	618	17	6.3	7.9	3.5	.50	.00
13	5.4	41	70	24	122	158	16	5.5	16	2.0	.37	.00
14	4.8	31	47	22	80	90	17	4.8	11	1.3	.26	.00
15	5.2	28	38	23	62	59	16	69	7.1	1.1	.22	.00
16	18	31	31	20	50	44	24	106	5.9	1.5	.34	.00
17	14	25	29	21	46	37	36	56	4.3	1.0	.55	.00
18	12	47	25	23	43	29	32	216	4.5	.57	.47	.00
19	11	373	111	20	63	24	28	161	3.9	.37	.41	.00
20	17	85	124	18	82	22	23	56	3.6	.25	.34	.00
21	38	68	169	17	110	18	19	29	2.8	.22	.29	.00
22	60	45	208	18	249	22	16	20	2.1	.20	.15	.00
23	185	33	93	20	264	207	14	272	4.1	.18	.08	.00
24	199	27	73	23	134	144	12	204	3.0	.12	.20	.00
25	90	22	110	24	74	104	11	76	1.8	.08	.84	.00
26	47	18	132	26	69	60	8.8	38	1.2	.10	.92	.00
27	30	16	72	27	60	44	7.5	24	.88	5.5	.51	.00
28	38	278	56	25	46	36	18	25	.72	1.8	.35	.00
29	178	221	45	24	---	57	14	49	.57	.75	.25	.00
30	100	87	40	33	---	384	10	24	.49	.46	.26	.00
31	52	---	43	121	---	190	---	25	---	.31	.66	---
TOTAL	1267.3	2349	2502	968	2645	2913	854.3	2251.2	178.26	51.84	107.82	2.35
MEAN	40.9	78.3	80.7	31.2	94.5	94.0	28.5	72.6	5.94	1.67	3.48	.078
MAX	199	373	228	121	264	618	164	526	20	15	63	.70
MIN	4.8	16	25	17	39	18	7.5	4.8	.49	.08	.08	.00
CFSM	1.42	2.71	2.79	1.08	3.27	3.25	.99	2.51	.21	.06	.12	.003
IN.	1.63	3.02	3.22	1.25	3.40	3.75	1.10	2.90	.23	.07	.14	.00

WTR YR 1985 TOTAL 16090.07 MEAN 44.1 MAX 618 MIN .00 CFSM 1.53 IN 20.71

03058006 WEST FORK RIVER AT BEN DALE, WV
(Formerly published as 03058000 West Fork River at Brownsville)

LOCATION.--Lat 39°00'53", long 80°28'39", Lewis County, Hydrologic Unit 05020002, on downstream side of W. Va. Route 38/3 highway bridge at Ben Dale, 2.0 mi south of Weston, and at mile 69.6. Prior to Oct. 1, 1984, at site 1.4 mi upstream.

DRAINAGE AREA.--105 mi^2.

PERIOD OF RECORD.--August 1946 to current year. Prior to October 1984, published as "West Fork River at Brownsville."

REVISED RECORDS.--WRD WV-81-1: 1981 (P). WRD WV-83-1: Datum.

GAGE.--Water-stage recorder. Elevation of gage is 1,008.6 ft from topographic map. Prior to Nov. 8, 1982, at datum 0.80 ft higher. Prior to Aug. 15, 1949, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11-15, 17-19, 27-29, Feb. 5, 7-10, Sept. 27-30. Records good except Sept. 27-30, flashboards out of dam, and periods with ice effect, Jan. 11-15, 17-19, 27-29, Feb. 5, 7-10, and discharges below 1 ft^3/s, which are poor.

AVERAGE DISCHARGE.--39 years, 167 ft^3/s, 22.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft^3/s, June 25, 1950, gage height, 17.20 ft, from rating curve extended above 3,400 ft^3/s on basis of slope-area measurement of peak flow; no flow for several days during 1952-54, Sept. 16, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 3	1200	*2,020	*9.25	No other peak greater than base discharge.			

Minimum discharge, 0.30 ft^3/s, Sept. 20-30, gage height, 5.14 ft, flashboards removed from dam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	118	234	150	1210	129	808	41	104	4.0	168	8.9
2	119	105	170	166	780	110	433	89	62	3.7	165	8.8
3	75	120	144	209	396	87	236	1800	44	4.3	60	6.9
4	35	118	132	198	324	72	168	924	35	6.0	32	5.5
5	22	485	112	277	300	75	122	215	31	6.8	21	4.5
6	18	678	225	299	345	76	96	127	29	9.8	16	3.5
7	16	312	289	259	325	66	85	81	24	14	14	2.8
8	16	165	204	234	290	76	78	70	37	15	30	2.2
9	20	131	181	173	250	214	72	54	46	11	26	1.9
10	24	270	246	141	230	215	64	43	36	209	18	1.2
11	22	280	659	120	215	251	60	37	31	113	16	.43
12	22	248	457	110	289	1570	60	33	48	48	11	.36
13	20	178	264	100	536	1200	57	26	105	28	9.4	.33
14	16	127	176	94	340	357	56	22	86	18	20	.33
15	12	98	136	85	242	218	60	25	56	25	91	.33
16	18	108	115	82	186	155	72	167	41	94	20	.33
17	28	99	100	82	168	124	114	152	33	29	14	.33
18	36	121	87	81	164	100	115	208	26	17	11	.32
19	31	1200	308	80	271	78	85	353	22	11	9.7	.31
20	43	884	725	80	503	67	80	194	21	8.5	9.1	.31
21	58	324	549	79	456	59	75	93	21	6.6	7.9	.30
22	75	188	707	80	674	54	66	71	19	21	6.8	.30
23	391	125	429	81	965	394	58	816	19	76	5.1	.30
24	594	95	261	81	616	563	50	1040	19	23	5.1	.30
25	372	74	936	82	298	453	50	326	18	13	10	.30
26	176	59	749	83	213	235	46	141	15	17	20	.30
27	100	48	312	84	205	156	40	84	11	40	14	.30
28	114	335	202	87	160	124	57	64	7.6	27	10	.30
29	638	921	147	95	---	124	58	83	6.3	17	8.2	.30
30	417	418	136	101	---	1050	51	89	4.9	16	7.0	.30
31	209	---	154	374	---	919	---	121	---	12	7.2	---
TOTAL	3787	8432	9546	4247	10951	9371	3472	7589	1057.8	943.7	862.5	52.58
MEAN	122	281	308	137	391	302	116	245	35.3	30.4	27.8	1.75
MAX	638	1200	936	374	1210	1570	808	1800	105	209	168	8.9
MIN	12	48	87	79	160	54	40	22	4.9	3.7	5.1	.30
CFSM	1.16	2.68	2.93	1.31	3.72	2.88	1.11	2.33	.34	.29	.27	.02
IN.	1.34	2.99	3.38	1.50	3.88	3.32	1.23	2.69	.37	.33	.31	.02

CAL YR 1984 TOTAL 70037.00 MEAN 191 MAX 2320 MIN 0.80 CFSM 1.83 IN 24.81
WTR YR 1985 TOTAL 60311.58 MEAN 165 MAX 1800 MIN .30 CFSM 1.57 IN 21.37

03058500 WEST FORK RIVER AT BUTCHERVILLE, WV

LOCATION.--Lat 39°05'25", long 80°28'05", Lewis County, Hydrologic Unit 05020002, on right bank at Butcherville, 0.5 mi upstream from Freemans Creek, 3,500 ft downstream from abandoned bridge on Weston-Clarksburg interurban electric railway, 3.0 mi north of Weston, and at mile 62.0.

DRAINAGE AREA.--181 mi^2.

PERIOD OF RECORD.--April 1915 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1053: 1935. WSP 1335: 1918, 1923.

GAGE.--Water-stage recorder. Datum of gage is 993.0 ft Department of Highways datum. Prior to Feb. 17, 1937, nonrecording gage at interurban bridge 3,500 ft upstream. Feb. 17, 1937, to Apr. 7, 1939, nonrecording gage at site 2,500 ft upstream. Prior to Oct. 1, 1942, at datum 10.0 ft lower.

REMARKS.--Estimated daily discharges: Jan. 7-15, 21-28, Feb. 5, 10, 11, 16-18. Records good except these periods with ice effect, which are poor. The flow from 30.4 mi^2 is partially controlled, but not diverted, by eight floodwater detention reservoirs and one multi-purpose reservoir. Some additional regulation of low flow from one water-supply reservoir, approximate capacity 96 acre-ft.

AVERAGE DISCHARGE.--70 years, 302 ft^3/s, 22.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, June 25, 1950, gage height, 16.81 ft, from rating curve extended above 7,500 ft^3/s on basis of slope-area measurement of peak flow; no flow at times during October 1919, September, October, and December 1922, caused by either diversion or pondage at small dam upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1888 reached a stage of 17 ft at site 3,500 ft upstream, present datum, from information by local residents. The stage on that day may have been affected by backwater from a dam which has since been washed out.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,990 ft^3/s, May 3, gage height, 7.54 ft; minimum, 14 ft^3/s, July 1, 3, 5, 6, 10, gage height, 0.78 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	180	400	271	1690	291	1310	61	186	15	531	49
2	185	178	293	278	1160	260	663	273	108	15	431	48
3	118	182	272	337	641	225	389	3070	77	16	118	49
4	64	195	249	323	464	205	268	1260	62	17	61	58
5	43	736	214	398	400	217	201	371	55	15	41	58
6	37	845	363	434	583	206	171	225	51	15	31	65
7	31	416	436	340	680	191	141	161	48	19	27	74
8	26	233	332	300	503	228	133	122	115	19	57	72
9	41	219	295	270	352	381	124	96	87	17	75	72
10	49	450	393	255	290	393	109	78	67	633	64	72
11	46	457	915	240	270	568	106	65	66	282	62	71
12	44	372	686	230	576	2660	101	57	579	98	64	71
13	44	270	437	220	849	1600	93	49	477	58	66	69
14	43	202	312	225	570	568	97	42	264	41	66	69
15	43	170	259	215	440	358	97	53	149	55	162	69
16	54	179	223	208	330	253	124	219	108	155	86	69
17	53	161	197	227	310	207	189	234	90	74	74	69
18	33	236	173	229	295	168	178	268	71	49	75	69
19	61	1920	569	230	500	134	149	446	63	37	55	68
20	121	1270	1160	206	825	117	127	286	76	30	40	71
21	116	539	968	185	786	102	110	154	59	31	37	72
22	134	323	1130	170	1210	108	97	144	49	50	35	72
23	508	233	697	180	1690	542	88	1070	54	670	43	71
24	734	186	471	185	1050	784	79	1390	46	114	50	72
25	473	150	1350	195	590	643	78	552	39	64	58	72
26	242	124	1110	200	465	365	73	272	32	62	59	75
27	149	106	543	210	423	249	67	175	25	100	55	77
28	287	555	371	227	340	201	92	136	21	68	51	68
29	986	1220	277	234	---	246	87	148	17	49	48	68
30	580	662	265	231	---	1550	73	147	16	58	47	68
31	294	---	285	674	---	1310	---	248	---	72	50	---
TOTAL	5811	12969	15645	8127	18282	15330	5614	11872	3157	2998	2719	2027
MEAN	187	432	505	262	653	495	187	383	105	96.7	87.7	67.6
MAX	986	1920	1350	674	1690	2660	1310	3070	579	670	531	77
MIN	26	106	173	170	270	102	67	42	16	15	27	48
CFSM	1.03	2.39	2.79	1.45	3.61	2.74	1.03	2.12	.58	.53	.49	.37
IN.	1.19	2.67	3.22	1.67	3.76	3.15	1.15	2.44	.65	.62	.56	.42

CAL YR 1984 TOTAL 118392.5 MEAN 323 MAX 3420 MIN 5.1 CFSM 1.79 IN 24.33
WTR YR 1985 TOTAL 104551.0 MEAN 286 MAX 3070 MIN 15 CFSM 1.58 IN 21.49

03061000 WEST FORK RIVER AT ENTERPRISE, WV

LOCATION.--Lat 39°25'20", long 80°16'40", Harrison County, Hydrologic Unit 05020002, on left bank 150 ft downstream from old highway bridge and 0.3 mi above new highway bridge at Enterprise, 0.8 mi upstream from Bingamon Creek, and at mile 12.1.

DRAINAGE AREA.--759 mi^2.

PERIOD OF RECORD.--June 1907 to September 1916, October 1916 to September 1918 (gage heights only), October 1932 to September 1983, October 1983 to September 1984 (gage heights, discharge measurements, and annual maximum discharge only) October 1984 to current year.

REVISED RECORDS.--WSP 803: 1936. WSP 823: Drainage area. WSP 1113: 1936-38(M), 1939, WSP 1335: 1911-15, 1937. WSP 1625: 1915(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 869.45 ft above National Geodetic Vertical Datum, adjustment of 1912. June 1907 to Sept. 30, 1918, nonrecording gage at site 150 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. The flow from about 40 mi^2 is partially controlled, but not diverted, by sixteen floodwater detention reservoirs, one municipal water-supply reservoir, and one multi-purpose reservoir. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--60 years (water years 1908-1916, 1934-83, 1985), 1,045 ft^3/s, 20.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,500 ft^3/s, Mar. 7, 1967, gage height, 28.05 ft, from rating curve extended above 21,000 ft^3/s on basis of slope-area measurement at gage height 27.84 ft; minimum, 3.4 ft^3/s, July 27, 1934; minimum gage height, 0.6 ft Sept. 10, 14, 25, 1908.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1888 reached a stage of about 33 ft, present site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 12	1500	*12,400	*14.01	No other peak greater than base discharge.			

Minimum discharge, 63 ft^3/s, Sept. 6, gage height, 1.45 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	753	1680	1130	4170	1180	7710	302	1030	116	203	115
2	645	631	1260	1050	4290	1040	4130	388	571	122	946	108
3	414	627	1070	939	2720	893	2400	6210	423	130	563	88
4	267	585	1120	925	1770	780	1710	5560	349	148	278	82
5	185	1560	901	1070	1700	789	1310	2050	334	139	178	72
6	143	2480	1090	1120	1890	754	1070	1040	280	149	137	70
7	118	1580	1480	1130	2220	657	952	754	247	159	111	72
8	105	870	1210	1190	1830	742	830	588	268	144	108	85
9	116	697	1040	1090	1350	1060	793	478	396	139	104	103
10	146	2070	1100	905	1150	1060	740	410	302	167	139	97
11	132	2170	2610	859	1130	1080	684	351	255	2220	168	95
12	125	1670	2490	817	1540	8590	656	319	1920	749	129	95
13	115	1110	1730	695	3600	6720	606	287	3300	346	118	94
14	106	774	1240	728	2530	3250	605	258	1550	259	120	93
15	101	592	1000	742	1810	1960	607	241	834	968	124	95
16	132	531	866	724	1340	1390	627	665	557	708	211	92
17	149	487	767	720	1280	1130	919	747	428	457	320	88
18	196	462	724	729	1160	942	853	790	373	283	469	89
19	147	3540	884	720	1320	775	741	840	319	200	1450	95
20	363	4610	4100	1010	2380	691	646	766	414	163	174	99
21	511	2280	3450	1300	2640	621	571	537	440	146	146	96
22	440	1290	5620	1410	3590	575	509	391	305	158	123	96
23	963	898	3180	1370	6800	1200	468	1040	305	499	106	102
24	1590	715	2000	1130	5360	2130	429	3380	2380	840	102	88
25	1390	599	2910	929	3110	2440	435	1880	220	294	153	85
26	821	509	3570	748	2080	1730	407	902	186	200	159	93
27	514	449	2340	732	1760	1220	359	568	163	663	156	154
28	712	907	1600	737	1420	982	339	454	146	498	133	131
29	3880	3590	1210	751	---	1010	369	477	133	259	110	113
30	3280	2480	1060	728	---	4450	342	426	123	183	107	95
31	1390	---	1150	980	---	7390	---	1330	---	148	118	---
TOTAL	19514	41516	56452	29108	67940	59231	32817	34429	18551	11654	7463	2880
MEAN	629	1384	1821	939	2426	1911	1094	1111	618	376	241	96.0
MAX	3880	4610	5620	1410	6800	8590	7710	6210	3300	2220	1450	154
MIN	101	449	724	695	1130	575	339	241	123	116	102	70
CFSM	.83	1.82	2.40	1.24	3.20	2.52	1.44	1.46	.81	.50	.32	.13
IN.	.96	2.03	2.77	1.43	3.33	2.90	1.61	1.69	.91	.57	.37	.14

WTR YR 1985 TOTAL 381555 MEAN 1045 MAX 8590 MIN 70 CFSM 1.38 IN 18.70

03061500 BUFFALO CREEK AT BARRACKVILLE, WV

LOCATION.--Lat 39°30'15", long 80°10'20", Marion County, Hydrologic Unit 05020003, near center of span on downstream side of highway bridge at Barrackville, 1,700 ft upstream from Finchs Run, and at mile 4.0.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--June 1907 to December 1908, May 1915 to June 1924, August 1932 to current year.

REVISED RECORDS.--WSP 783: 1917(M). WSP 1335: 1916(M), 1918-20(M), 1921, 1922(M), 1924(M), 1933(M), 1940.

GAGE.--Water-stage recorder. Datum of gage is 884.4 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1940, nonrecording gage at same site. Prior to June 4, 1943, at datum 1.98 ft higher. Prior to May 21, 1986 at datum 1.98 ft lower.

REMARKS.--Estimated daily discharges: Dec. 1-5, Jan. 8-31, Feb. 3-22, July 15-29 and Sept. 7-25. Records good except for periods of no gage-height record, Dec. 1-5, July 15-29, Sept. 7-25, and periods with ice effect, Jan. 8-31, and Feb. 3-22, which are poor. Flow from 5.20 mi^2 is partially controlled, but not diverted, by three floodwater-detention reservoirs. Some additional regulation at low flow from mine pumpage above station.

AVERAGE DISCHARGE.--62 years (water years 1908, 1916-23, 1933-85), 167 ft^3/s, 19.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 9,490 ft^3/s, Jan. 22, 1917, gage height, 16.2 ft, present datum; no flow during greater part of period September to November 1908.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1912 reached a stage of about 18 ft, present site and datum, discharge, 11,600 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 30	1500	*4,500	*11.08	No other peak greater than base discharge.			

Minimum discharge, 2.2 ft^3/s, Sept. 25, 26, 29, gage height, 1.69 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	64	118	166	314	124	1870	38	526	13	7.7	9.8
2	42	59	110	182	416	108	664	61	171	14	7.4	6.7
3	25	53	104	166	300	91	392	407	432	13	9.2	4.2
4	20	56	98	147	260	83	302	202	412	82	7.6	3.0
5	18	179	96	134	250	125	238	113	185	59	5.7	2.7
6	15	155	111	109	280	125	196	82	122	36	5.0	2.5
7	11	94	107	103	320	109	162	69	80	31	4.4	2.4
8	9.8	69	104	95	260	129	146	57	64	26	4.8	2.3
9	9.1	83	96	88	200	167	140	48	54	21	6.7	2.2
10	9.1	390	149	82	170	147	133	43	45	23	10	16
11	8.8	303	543	76	160	142	138	39	40	30	16	11
12	8.5	180	320	72	220	1850	130	35	98	28	13	7.4
13	8.8	116	201	62	280	643	117	32	108	21	10	5.4
14	9.1	84	147	64	360	350	113	29	80	15	9.4	4.2
15	9.1	76	130	66	260	229	106	26	61	375	9.0	3.7
16	12	65	120	64	190	167	103	45	54	220	11	3.3
17	20	55	110	62	180	136	137	47	55	130	8.2	3.0
18	14	67	99	64	170	112	120	41	45	88	9.4	2.9
19	16	94	119	65	190	94	104	42	41	47	15	2.8
20	20	94	303	80	350	88	87	32	38	30	12	2.7
21	20	79	541	114	395	80	76	26	35	19	10	2.6
22	23	75	1670	123	520	75	70	23	30	26	9.4	2.5
23	76	78	454	120	1190	99	65	28	69	35	7.8	2.4
24	80	79	275	100	880	146	60	31	61	27	7.1	3.7
25	62	93	391	82	442	204	59	28	40	20	7.8	2.3
26	48	546	296	67	272	153	54	22	29	19	6.3	2.9
27	39	278	215	64	196	131	46	21	24	34	6.0	3.0
28	39	187	168	64	147	119	43	25	20	20	5.4	5.7
29	280	163	131	66	---	118	41	28	17	13	10	4.0
30	191	121	133	72	---	2470	38	25	15	7.4	9.8	3.0
31	89	---	158	140	---	1720	---	548	---	6.7	10	---
TOTAL	1265.3	4035	7617	2959	9172	10334	5950	2293	3051	1529.1	271.1	130.3
MEAN	40.8	135	246	95.5	328	333	198	74.0	102	49.3	8.75	4.34
MAX	280	546	1670	182	1190	2470	1870	548	526	375	16	16
MIN	8.5	53	96	62	147	75	38	21	15	6.7	4.4	2.2
CFSM	.36	1.17	2.14	.83	2.85	2.90	1.72	.64	.89	.43	.08	.04
IN.	.41	1.31	2.46	.96	2.97	3.34	1.92	.74	.99	.49	.09	.04

CAL YR 1984 TOTAL 53268.1 MEAN 146 MAX 2000 MIN 8.5 CFSM 1.27 IN 17.23
WTR YR 1985 TOTAL 48606.8 MEAN 133 MAX 2470 MIN 2.2 CFSM 1.16 IN 15.72

03062400 COBUN CREEK AT MORGANTOWN, WV

LOCATION.--Lat 39°36'30", long 79°57'20", Monongalia County, Hydrologic Unit 05020003, on left bank at Morgantown, 30 ft upstream from concrete box culvert on Greenbag Road, and at mile 1.4.

DRAINAGE AREA.--10.9 mi^2.

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

GAGE.--Water-stage recorder and concrete and metal control. Elevation of gage is 890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 22-25, Jan. 13-16, 18-30, Feb. 3-25, and Apr. 13-25. Records good except for periods of no gage-height record, Oct. 22-25, Feb. 6-25, Apr. 13-25, and periods with ice effect Jan. 13-16, 18-30, and Feb. 3-5, which are poor.

AVERAGE DISCHARGE.--20 years, 16.6 ft^3/s, 20.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft^3/s, Aug. 18, 1980, gage height, 19.94 ft, from flood-marks, from rating curve extended above 800 ft^3/s on basis of culvert rating computation and flow-over-road measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 31	1000	*910	*8.94	No other peak greater than base discharge.			

No flow Sept. 6-26, 28-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	12	36	25	34	18	128	4.7	79	1.2	1.3	.19
2	4.5	17	27	21	28	16	57	14	35	1.2	1.2	.11
3	2.3	16	26	18	21	13	41	54	22	1.2	.86	.03
4	1.3	20	21	17	14	12	32	27	16	7.5	.59	.02
5	1.0	42	18	17	13	15	26	18	14	2.9	.44	.01
6	.76	31	23	14	14	12	22	13	15	2.0	.36	.00
7	.61	20	17	14	17	11	19	11	12	1.7	.52	.00
8	.68	15	16	14	14	13	19	9.8	10	1.5	.34	.00
9	.54	18	14	12	10	13	20	8.5	8.3	8.6	.25	.00
10	.49	37	21	11	9.2	12	18	7.1	6.9	20	.19	.00
11	.43	35	49	11	8.8	14	18	6.3	5.7	14	.12	.00
12	.43	26	40	11	12	80	17	6.4	33	8.0	.14	.00
13	.38	19	31	10	27	49	16	6.9	37	5.4	.07	.00
14	.38	15	24	10	19	36	18	4.0	25	3.5	.03	.00
15	.38	14	20	9.7	14	27	15	8.2	17	7.8	.02	.00
16	2.2	14	17	9.5	10	21	16	13	14	6.6	.49	.00
17	2.0	12	16	9.3	9.6	18	12	9.1	11	3.7	1.0	.00
18	1.6	16	14	9.0	8.8	15	11	18	9.1	2.6	.54	.00
19	1.5	25	21	8.7	9.8	13	10	13	7.6	1.9	.23	.00
20	4.5	20	26	8.4	11	12	9.8	9.0	9.1	1.5	.16	.00
21	4.5	16	41	8.2	20	11	9.2	8.0	6.5	1.4	.16	.00
22	4.4	14	52	7.9	23	11	8.6	6.2	6.0	1.8	.12	.00
23	14	13	37	7.7	93	49	7.8	25	8.3	3.2	.21	.00
24	30	12	31	7.4	120	55	7.4	19	5.4	1.4	.65	.00
25	20	12	37	7.4	80	45	8.3	13	4.2	.93	.98	.00
26	11	12	28	7.3	37	32	7.3	9.5	3.2	1.5	1.4	.00
27	8.5	12	24	7.2	29	25	6.8	7.5	2.6	9.7	.79	.01
28	14	80	20	7.2	22	21	7.1	8.6	2.1	3.6	.39	.00
29	40	80	17	7.2	---	28	7.0	13	1.7	2.0	.23	.00
30	23	42	30	7.0	---	159	6.1	9.5	1.5	1.4	.16	.00
31	16	---	28	19	---	159	---	317	---	1.1	.19	---
TOTAL	218.38	717	822	353.1	728.2	1015	600.4	697.3	428.2	130.83	14.13	.37
MEAN	7.04	23.9	26.5	11.4	26.0	32.7	20.0	22.5	14.3	4.22	.46	.012
MAX	40	80	52	25	120	159	128	317	79	20	1.4	.19
MIN	.38	12	14	7.0	8.8	11	6.1	4.0	1.5	.93	.02	.00
CFSM	.65	2.19	2.43	1.05	2.39	3.00	1.84	2.06	1.31	.39	.04	.001
IN.	.75	2.45	2.81	1.20	2.49	3.46	2.05	2.38	1.46	.45	.05	.00

CAL YR 1984 TOTAL 6985.09 MEAN 19.1 MAX 291 MIN .03 CFSM 1.75 IN 23.84
WTR YR 1985 TOTAL 5724.91 MEAN 15.7 MAX 317 MIN .00 CFSM 1.44 IN 19.54

03065000 DRY FORK AT HENDRICKS, WV

LOCATION.--Lat 39°04'20", long 79°37'20", Tucker County, Hydrologic Unit 05020004, on right bank at Hendricks, 0.4 mi upstream from confluence with Blackwater River.

DRAINAGE AREA.--345 mi^2.

PERIOD OF RECORD.--October 1940 to current year. Published as Dry Fork River, 1949-52.

GAGE.--Water-stage recorder. Datum of gage is 1,698.76 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Dec. 21, 1941, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 10-31, and Feb. 2-20. Records good except these periods with ice effect, which are poor.

AVERAGE DISCHARGE.--45 years, 832 ft^3/s, 30.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,000 ft^3/s, Oct. 15, 1954, gage height, 15.23 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 5.5 ft^3/s, Sept. 10, 11, 1965, gage height, 0.99 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	0130	12,700	8.61	July 9	1330	*28,300	*a11.98
Mar. 12	1100	8,280	7.16	July 10	1530	8,300	7.17
May 31	1030	18,400	9.99				

a High water mark.

Minimum discharge, 22 ft^3/s, part of each day Sept. 26, 27, 29, 30, gage height, 1.13 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452	733	1940	742	947	1720	1890	457	2680	90	338	146
2	586	615	1470	994	880	1370	1380	520	1370	142	613	115
3	283	511	1250	998	800	1270	1090	5110	961	336	348	88
4	166	424	1150	1160	720	1190	948	2740	1260	407	234	74
5	120	743	878	1590	780	2030	768	1510	1160	224	185	65
6	96	747	860	1310	840	1450	680	1020	1650	156	159	58
7	82	593	656	1110	780	1020	578	760	1110	121	150	53
8	75	499	568	914	660	1220	532	574	2680	125	645	121
9	80	445	561	694	580	2330	518	448	1850	11200	432	118
10	83	426	600	535	520	1610	429	367	1150	5820	238	113
11	79	483	1310	440	580	1530	570	318	790	3300	172	84
12	71	575	1440	390	640	6530	984	356	676	1540	141	66
13	65	492	1370	360	820	3430	1310	301	976	1120	120	54
14	60	432	1180	330	740	1980	984	251	806	1470	102	45
15	57	422	982	310	680	1360	800	204	583	978	92	40
16	63	793	799	290	600	993	792	208	490	1080	106	36
17	69	689	679	280	560	824	760	237	399	746	110	34
18	100	612	592	270	520	664	578	386	482	507	121	31
19	102	1450	1500	260	490	525	497	357	409	378	217	29
20	107	1570	2500	250	460	483	436	248	428	295	170	27
21	114	1110	2050	240	432	429	390	224	323	244	138	25
22	303	807	2800	230	613	390	354	386	245	219	134	24
23	839	654	1830	220	2360	585	314	2050	252	204	108	23
24	874	549	1380	210	6990	1150	308	2470	228	163	92	23
25	662	476	4490	205	9380	1210	476	1580	178	133	114	23
26	590	443	2410	200	5510	903	416	1010	139	529	151	22
27	549	444	1540	195	4230	768	325	698	114	688	192	22
28	525	2330	1150	190	2600	720	378	535	100	383	173	23
29	1930	3930	905	185	---	824	592	594	89	233	122	22
30	1580	1970	824	180	---	1720	511	431	82	181	104	23
31	1030	---	794	178	---	1630	---	7010	---	180	157	---
TOTAL	11792	25967	42458	15460	45712	43858	20588	33360	23660	33192	6178	1627
MEAN	380	866	1370	499	1633	1415	686	1076	789	1071	199	54.2
MAX	1930	3930	4490	1590	9380	6530	1890	7010	2680	11200	645	146
MIN	57	422	561	178	432	390	308	204	82	90	92	22
CFSM	1.10	2.51	3.97	1.45	4.73	4.10	1.99	3.12	2.29	3.10	.58	.16
IN.	1.27	2.80	4.58	1.67	4.93	4.73	2.22	3.60	2.55	3.58	.67	.18

CAL YR 1984 TOTAL 334413 MEAN 914 MAX 12000 MIN 30 CFSM 2.65 IN 36.06
WTR YR 1985 TOTAL 303852 MEAN 832 MAX 11200 MIN 22 CFSM 2.41 IN 32.76

03066000 BLACKWATER RIVER AT DAVIS, WV

LOCATION.--Lat 39°07'35", long 79°28'10", Tucker County, Hydrologic Unit 05020004, on right bank 0.4 mi southwest of Davis, 0.5 mi downstream from Beaver Creek, and at mile 10.6.

DRAINAGE AREA.--86.2 mi^2.

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 583: 1921-23. WSP 803: Drainage area. WSP 1173: 1931-34(M,m). WSP 1305: 1928(M), 1932-37(M), 1939-41(M), 1944-48(M).

GAGE.--Water-stage recorder. Datum of gage is 3,058.87 ft above National Geodetic Vertical Datum of 1929 (levels by West Virginia Power and Transmission Co.). Prior to Dec. 18, 1952, nonrecording gage at site 60 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 22-25, Dec. 7-10, Jan. 6-31 and Feb. 1-21. Records good except these periods with ice effect, which are poor.

AVERAGE DISCHARGE.--64 years, 199 ft^3/s, 31.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,170 ft^3/s, Mar. 29, 1924, gage height, 13.20 ft, from floodmark; minimum, 1.5 ft^3/s, Sept. 11, 12, 1959, gage height, 0.90 ft, caused by filling of small water-supply pool about 1.0 mi upstream.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	1500	3,110	8.58	July 9	0200	2,500	7.72
May 31	2100	*3,710	*9.33	July 10	1400	2,010	7.02

Minimum discharge, 8.5 ft^3/s, Sept. 25-27, gage height, 1.20 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	129	668	205	235	528	542	77	1940	43	352	46
2	112	133	465	251	220	412	350	136	626	62	298	33
3	65	120	393	219	200	393	264	881	268	88	147	26
4	38	107	366	216	180	345	245	555	261	150	97	22
5	27	230	251	246	195	570	195	270	653	106	79	19
6	22	182	216	180	210	432	162	188	706	74	70	17
7	17	141	165	160	190	294	148	155	302	54	73	17
8	17	114	140	140	170	359	157	128	385	84	290	16
9	17	102	140	130	150	457	155	108	276	1810	216	21
10	18	105	150	124	130	313	142	93	180	1640	112	24
11	17	149	369	118	144	306	193	95	145	1160	81	24
12	16	143	355	110	160	1140	293	98	213	487	72	20
13	16	112	320	105	210	855	234	88	388	247	62	16
14	15	97	285	101	185	489	180	70	284	263	52	14
15	16	110	246	96	170	333	150	59	175	295	47	13
16	19	234	199	91	150	241	183	63	169	340	50	13
17	17	159	165	86	140	201	213	82	163	175	61	12
18	24	129	153	83	130	169	149	131	176	120	54	11
19	22	199	524	80	120	145	118	104	158	97	62	11
20	24	205	768	77	115	135	102	71	189	81	54	11
21	25	147	556	74	110	122	94	59	146	75	59	9.7
22	89	110	618	71	328	115	88	63	106	75	52	9.4
23	246	105	415	70	612	227	83	225	97	184	41	9.4
24	304	100	315	67	1480	419	95	290	84	94	37	9.7
25	201	100	961	65	2610	374	172	164	70	65	52	9.1
26	120	116	548	64	2010	227	147	98	56	186	52	8.7
27	89	139	352	62	1420	171	99	76	47	312	51	8.7
28	92	611	304	60	889	157	105	75	41	163	37	9.4
29	374	1040	266	58	---	205	114	108	38	90	30	9.5
30	307	608	256	57	---	616	90	84	36	72	27	12
31	180	---	244	56	---	472	---	2380	---	85	42	---
TOTAL	2669	5976	11173	3522	12863	11222	5262	7074	8378	8777	2809	481.6
MEAN	86.1	199	360	114	459	362	175	228	279	283	90.6	16.1
MAX	374	1040	961	251	2610	1140	542	2380	1940	1810	352	46
MIN	15	97	140	56	110	115	83	59	36	43	27	8.7
CFSM	1.00	2.31	4.18	1.32	5.33	4.20	2.03	2.65	3.24	3.28	1.05	.19
IN.	1.15	2.58	4.82	1.52	5.55	4.84	2.27	3.05	3.62	3.79	1.21	.21

CAL YR 1984 TOTAL 85611.0 MEAN 234 MAX 2700 MIN 11 CFSM 2.72 IN 36.95
WTR YR 1985 TOTAL 80206.6 MEAN 220 MAX 2610 MIN 8.7 CFSM 2.55 IN 34.61

03069000 SHAVERS FORK AT PARSONS, WV

LOCATION.--Lat 39°05'45", long 79°40'40", Tucker County, Hydrologic Unit 05020004, on right bank at Parsons, 0.7 mi upstream from confluence with Black Fork.

DRAINAGE AREA.--214 mi^2.

PERIOD OF RECORD.--October 1910 to September 1926, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 583: 1922. WSP 923: Drainage area. WSP 1335: 1911-12, 1915-17, 1918(M), 1921-22(M), 1926(M). WSP 1705: 1955.

GAGE.--Water-stage recorder. Datum of gage is 1,634.87 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1923, nonrecording gage on old highway bridge 800 ft downstream and Aug. 25, 1923, to Sept. 30, 1926, nonrecording gage on railroad bridge 760 ft downstream at datum 3.0 ft lower. Oct. 4, 1940, to Apr. 4, 1942, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 11, 12, 14-31, and Feb. 3-5, 8-10, 15-20, 21. Records good except these periods with ice effect, which are poor.

AVERAGE DISCHARGE.--61 years, 553 ft^3/s, 35.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft^3/s, Mar. 20, 1982, gage height, 12.02 ft, from rating curve extended above 11,000 ft^3/s on basis of slope-conveyance study; maximum gage height, 12.34 ft Oct. 16, 1954; minimum daily discharge, 3.0 ft^3/s, Oct. 7, 1914.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1888, and July 17, 1907, reached a stage of approximately 12.5 ft at site and datum of former gage, discharge, 25,000 ft^3/s, from rating curve extended above 8,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 29	0200	5,600	6.50	May 31	1900	5,320	6.31
Feb. 25	0130	5,800	6.63	July 10	1900	*6,180	*6.89
Mar. 12	1030	5,720	6.58				

Minimum discharge, 29 ft^3/s, Sept. 29, 30, gage height, 0.47 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	578	850	493	1640	1020	1250	308	812	86	287	149
2	959	473	694	680	1450	770	940	353	453	115	505	108
3	481	428	577	750	1200	717	700	3250	398	130	346	88
4	303	383	554	943	1000	671	590	1590	534	232	224	75
5	234	607	473	1110	1060	1100	486	798	401	160	172	68
6	198	952	494	811	1160	1060	431	563	475	116	141	61
7	174	635	436	676	1030	679	404	446	369	98	123	58
8	159	487	348	564	820	592	373	378	1860	96	228	156
9	157	424	353	439	770	1860	363	319	1460	1760	216	190
10	154	401	378	364	680	1050	334	283	666	2950	154	116
11	147	407	916	320	727	868	373	257	468	2390	117	108
12	134	575	1010	290	842	4160	493	243	405	810	99	113
13	121	456	714	271	1140	2100	653	235	605	562	86	88
14	113	383	637	260	828	1150	590	250	729	591	76	75
15	106	359	520	240	680	825	460	223	493	421	69	65
16	110	416	442	230	610	640	473	205	388	371	123	58
17	161	460	393	220	560	524	625	235	314	316	103	53
18	250	411	358	210	500	443	480	563	315	235	121	49
19	207	1290	671	200	510	379	388	813	292	192	208	45
20	206	1410	1850	195	540	341	339	505	293	159	215	42
21	207	804	1190	190	641	325	303	359	238	140	144	38
22	334	569	1630	180	970	342	283	386	201	124	113	36
23	1210	448	1170	176	1510	605	267	2260	186	119	95	33
24	956	398	812	170	3100	1200	256	3140	217	100	85	32
25	727	358	2810	165	4820	1190	267	1530	185	88	89	33
26	633	326	1550	160	3310	740	256	788	139	140	153	33
27	583	303	917	157	2610	555	241	527	115	506	190	34
28	446	1210	693	153	1620	480	249	420	101	319	220	33
29	1800	3170	551	149	---	590	460	431	91	204	142	31
30	1410	1150	476	147	---	2200	378	409	84	149	114	31
31	816	---	476	143	---	1500	---	1870	---	131	116	---
TOTAL	13786	20271	24943	11056	36328	30676	13705	23937	13287	13810	5074	2099
MEAN	445	676	805	357	1297	990	457	772	443	445	164	70.0
MAX	1800	3170	2810	1110	4820	4160	1250	3250	1860	2950	505	190
MIN	106	303	348	143	500	325	241	205	84	86	69	31
CFSM	2.08	3.16	3.76	1.67	6.06	4.63	2.14	3.61	2.07	2.08	.77	.33
IN.	2.40	3.52	4.34	1.92	6.31	5.33	2.38	4.16	2.31	2.40	.88	.36

CAL YR 1984 TOTAL 229256 MEAN 626 MAX 7500 MIN 48 CFSM 2.93 IN 39.85
WTR YR 1985 TOTAL 208972 MEAN 573 MAX 4820 MIN 31 CFSM 2.68 IN 36.33

03069500 CHEAT RIVER NEAR PARSONS, WV

LOCATION.--Lat 39°07'20", long 79°40'50", Tucker County, Hydrologic Unit 05020004, on left bank 2.0 mi north of Parsons, 3.0 mi downstream from confluence of Black Fork and Shavers Fork, and at mile 74.8.

DRAINAGE AREA.--718 mi^2.

PERIOD OF RECORD.--January 1913 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 893: Drainage area. WSP 1305: 1917(M), 1924(M), 1932(M), 1936(M), 1938-39(M). WSP 1335: 1916. WSP 1385: 1918-19(M).

GAGE.--Water-stage recorder. Datum of gage is 1,589.66 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Aug. 17, 1944, nonrecording gage on Moss Bridge about 1,600 ft upstream at datum 1.13 ft higher.

REMARKS.--Estimated daily discharges: Jan. 13-31, and Feb. 3, 4, 8-11. Records good except these periods with ice effect, which are poor. Monongahela Power Company gage-height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--72 years, 1,697 ft^3/s, 32.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,100 ft^3/s, Oct. 15, 1954, gage height, 19.08 ft, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurement of peak flow; minimum observed, 9 ft^3/s, Aug. 12, 1930, gage height, 1.28 ft, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1888, reached a stage of 20.5 ft, discharge, 51,300 ft^3/s, from floodmarks, at site and datum in use prior to Aug. 17, 1944; it was not exceeded until flood of Oct. 15, 1954, which reached a stage 0.3 ft higher at that site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	0300	23,100	11.45	May 31	1100	*28,600	*12.68
Mar. 12	1200	17,500	10.15	July 10	1500	19,900	10.72

Minimum daily discharge,66 ft^3/s, part or all of each day Sept. 23-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	860	1700	4000	1700	1910	3760	4290	893	6380	252	1340	344
2	1950	1440	3120	2060	1860	2910	3130	999	2970	370	1860	263
3	1010	1290	2600	2330	1720	2750	2410	10500	2030	691	1060	207
4	582	1060	2500	2390	1570	2510	2100	5450	2570	1170	659	174
5	418	1870	1930	3240	1710	4220	1710	2940	2680	655	507	160
6	336	2320	1880	2790	1780	3380	1450	2020	3480	450	424	145
7	290	1660	1480	2320	1680	2290	1300	1530	2170	354	380	135
8	262	1310	1310	1980	1400	2350	1210	1200	5560	320	1280	272
9	266	1140	1240	1580	1250	5040	1200	960	4070	1900	1060	329
10	266	1090	1300	1290	1160	3320	1030	801	2340	18000	600	289
11	255	1190	2930	1210	1240	2870	1240	700	1650	8430	425	218
12	231	1510	3260	1040	1370	13300	1980	727	1640	3470	350	198
13	210	1240	2780	802	1720	7290	2530	667	2700	2310	309	161
14	195	1050	2490	760	1590	4150	2030	612	2360	2650	268	137
15	185	986	2080	700	1430	2920	1610	508	1580	2050	269	120
16	200	1670	1710	640	1280	2190	1700	489	1300	2250	313	107
17	275	1570	1440	600	1200	1800	1950	580	1130	1500	333	101
18	409	1320	1280	570	1090	1470	1440	1190	1170	996	329	95
19	347	3210	2730	530	1090	1200	1160	1460	1060	754	495	88
20	347	3640	6300	490	1100	1080	999	939	1220	605	499	79
21	376	2360	4270	445	1130	988	881	711	914	514	379	75
22	703	1700	5760	430	1470	919	801	917	694	470	320	68
23	2880	1360	4120	420	4310	1620	730	4990	641	597	257	66
24	2720	1180	2840	410	11700	3170	694	6520	627	452	224	66
25	2040	1040	8640	400	19200	3280	936	3620	515	336	266	66
26	1570	980	5790	395	12100	2230	911	2180	394	826	350	66
27	1430	973	3430	390	9450	1740	715	1480	320	1840	412	66
28	1150	4660	2580	380	5840	1550	736	1170	289	1060	444	66
29	4620	9720	2120	376	---	1830	1290	1370	264	613	302	66
30	3890	4380	1850	373	---	5300	1070	1100	243	453	245	66
31	2410	---	1860	370	---	4160	---	13700	---	425	302	---
TOTAL	32683	60619	91620	33411	94350	97587	45233	72923	54961	56763	16261	4293
MEAN	1054	2021	2955	1078	3370	3148	1508	2352	1832	1831	525	143
MAX	4620	9720	8640	3240	19200	13300	4290	13700	6380	18000	1860	344
MIN	185	973	1240	370	1090	919	694	489	243	252	224	66
CFSM	1.47	2.82	4.12	1.50	4.69	4.38	2.10	3.28	2.55	2.55	.73	.20
IN.	1.69	3.14	4.75	1.73	4.89	5.06	2.34	3.78	2.85	2.94	.84	.22

CAL YR 1984 TOTAL 722429 MEAN 1974 MAX 20500 MIN 107 CFSM 2.75 IN 37.43
WTR YR 1985 TOTAL 660704 MEAN 1810 MAX 19200 MIN 66 CFSM 2.52 IN 34.23

03070000 CHEAT RIVER AT ROWLESBURG, WV

LOCATION.--Lat 39°20'50", long 79°40'00", Preston County, Hydrologic Unit 05020004, on left bank 50 ft downstream from Baltimore & Ohio Railroad bridge at Rowlesburg, 300 ft upstream from Saltlick Creek, and at mile 44.1. Records include flow of Saltlick Creek.

DRAINAGE AREA.--972 mi^2, including that of Saltlick Creek.

PERIOD OF RECORD.--July 1912 to September 1923 (gage heights only), October 1923 to current year. Gage-height records collected at practically the same site since 1884 are contained in reports of National Weather Service. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 803: Drainage area. WSP 893: 1936-37. WSP 1173: 1924-34(M,m). WSP 1725: 1924(M), 1930(M), 1932(M), 1936(M), 1938-39(M), 1944(M), 1948-49(M).

GAGE.--Water-stage recorder. Datum of gage is 1,369.8 ft Baltimore & Ohio RR datum. Prior to Nov. 18, 1923, nonrecording gages at several sites within 500 ft of present site at various datums.

REMARKS.--Estimated daily discharges: Jan. 11-31, Feb. 2-6, 8-12, 18-22. Records good except these periods with ice effect, which are poor. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--62 years, 2,284 ft^3/s, 31.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,300 ft^3/s, Oct. 16, 1954, gage height, 15.67 ft, from rating curve extended above 42,000 ft^3/s; minimum, 10 ft^3/s, Oct. 15, 1930; minimum gage height observed, 0.50 ft Oct. 3, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 6, 1844, reached a stage of 16.7 ft, referred to present gage by relation curve, discharge, 89,000 ft^3/s, from rating curve extended above 45,000 ft^3/s. Flood of July 10, 1888, reached a stage of 16.2 ft, referred to present gage by relation curve, discharge, 84,000 ft^3/s, from rating curve extended above 45,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 29	0300	21,200	8.54	May 31	1600	41,800	11.82
Feb. 25	0400	30,700	10.19	July 9	1900	*45,100	*12.27
Mar. 12	1500	23,100	8.91	July 10	2000	29,800	10.04

Minimum discharge,71 ft^3/s, Sept. 25-30, gage height, 0.74 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	559	2560	4900	2430	4400	4900	6810	1310	11100	397	1890	436
2	2150	2160	4320	2620	4520	3700	4840	1370	5070	426	3120	420
3	1760	2080	3470	2970	3900	3370	3480	13100	3070	802	2050	338
4	1050	1830	3460	2940	3180	3030	2900	8390	3710	1190	1160	277
5	728	3130	2880	3740	3460	4240	2450	4220	3830	1410	820	238
6	558	3950	2810	3370	3680	4230	2120	2890	5780	829	690	215
7	464	2780	2590	2940	3540	2980	1930	2240	3800	669	590	198
8	404	2170	2150	2620	2840	2580	1780	1820	5500	542	800	181
9	387	1860	2000	2180	2510	5160	1760	1510	6170	19100	1160	366
10	380	1740	2010	1860	2300	4290	1630	1260	3650	20500	924	428
11	371	1760	3890	1700	2470	3370	1740	1100	2540	14400	660	380
12	352	2120	4990	1580	2620	15800	2380	1030	3210	5460	516	297
13	318	2020	3840	1460	3340	11000	3070	1010	4490	3440	460	270
14	290	1720	3450	1300	3330	5710	2780	914	4450	3020	396	215
15	272	1580	2920	1200	2950	3990	2280	841	2990	3420	366	181
16	285	1970	2520	1150	2620	3070	3040	765	2470	3340	373	160
17	297	2370	2210	1080	2460	2530	3330	741	2140	2550	452	145
18	454	2050	1990	1010	2220	2160	2550	1020	1860	1630	428	131
19	559	3070	3970	980	2240	1830	2030	1870	1850	1180	428	124
20	623	4940	10100	940	2320	1630	1710	1490	1970	912	660	112
21	608	3430	6130	910	2660	1500	1500	1050	1790	780	532	99
22	669	2570	7890	870	3560	1390	1340	1040	1400	730	468	87
23	2860	2120	5750	840	7650	2540	1230	2580	1160	1120	396	80
24	3610	1860	3990	820	16000	4410	1120	7560	1070	996	352	84
25	3240	1670	10800	800	26400	5340	1190	4610	983	660	366	77
26	2230	1570	7970	780	15200	3520	1430	2820	770	590	388	71
27	2130	1530	4670	760	12200	2660	1180	2020	631	2340	492	71
28	1730	3930	3490	740	7580	2280	1060	1630	533	1980	570	71
29	5380	15400	2890	720	---	2340	1430	1670	470	1120	500	71
30	6130	6540	2540	710	---	7820	1530	1640	421	770	380	71
31	3600	---	2570	700	---	6840	---	19500	---	650	359	---
TOTAL	44448	88480	129160	48720	152150	130210	67620	95011	88878	96953	22746	5894
MEAN	1434	2949	4166	1572	5434	4200	2254	3065	2963	3128	734	196
MAX	6130	15400	10800	3740	26400	15800	6810	19500	11100	20500	3120	436
MIN	272	1530	1990	700	2220	1390	1060	741	421	397	352	71
CFSM	1.48	3.03	4.29	1.62	5.59	4.32	2.32	3.15	3.05	3.22	.76	.20
IN.	1.70	3.39	4.94	1.86	5.82	4.98	2.59	3.64	3.40	3.71	.87	.23

CAL YR 1984 TOTAL 974473 MEAN 2662 MAX 26300 MIN 133 CFSM 2.74 IN 37.29
WTR YR 1985 TOTAL 970270 MEAN 2658 MAX 26400 MIN 71 CFSM 2.74 IN 37.13

03070500 BIG SANDY CREEK AT ROCKVILLE, WV

LOCATION.--Lat 39°37'15", long 79°42'20", Preston County, Hydrologic Unit 05020004, on right bank just downstream from highway bridge at Rockville, and at mile 5.0.

DRAINAGE AREA.--200 mi^2.

PERIOD OF RECORD.--May 1909 to March 1918, April 1921 to current year.

REVISED RECORDS.--WSP 583: 1912(M), 1922-23. WSP 643: Drainage area. WSP 923: 1939. WSP 1173: 1930-34(M,m). WSP 1335: 1910-18, 1921, 1922-24(M), 1928(M), 1930-43(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,310 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 4, 1924, nonrecording gages at highway bridge at same datum.

REMARKS.--Estimated daily discharges: Jan. 10-31, and Feb. 3-21. Records good except these periods with ice effect, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--72 years (water years 1910-17, 1922-85), 422 ft^3/s, 28.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,300 ft^3/s, July 24, 1912, gage height, 18.0 ft, from rating curve extended above 10,000 ft^3/s on basis of velocity-area studies; minimum, 0.1 ft^3/s, Oct. 21-27, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1888, reached a stage of about 20 ft, discharge, about 30,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 31	2400	4,920	10.47	May 31	1000	*6,730	*11.54

Minimum discharge, 8.9 ft^3/s, Sept. 24, 25, gage height, 3.10 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	341	926	447	389	660	3360	136	1910	54	109	42
2	151	385	695	417	420	548	1570	339	912	52	104	34
3	79	386	643	366	360	445	995	2240	751	66	70	28
4	54	430	589	353	290	389	766	956	544	210	56	24
5	45	1310	489	350	310	465	657	602	509	126	50	21
6	39	912	478	292	340	386	554	448	409	83	46	18
7	35	628	382	284	320	331	475	365	303	95	43	17
8	31	463	342	270	270	453	481	293	259	257	42	17
9	33	424	307	201	230	530	471	237	209	2240	40	31
10	31	724	328	180	210	442	438	198	181	2400	36	92
11	27	704	786	160	230	424	569	176	146	1140	32	113
12	26	603	886	140	250	1800	581	157	368	568	28	103
13	24	506	740	130	310	1320	514	165	369	372	25	96
14	23	434	654	120	310	890	458	151	308	439	23	92
15	23	420	663	110	270	655	408	140	339	1580	35	90
16	38	516	562	103	240	512	374	303	360	902	156	88
17	49	450	482	97	230	445	348	248	322	528	177	86
18	131	410	412	94	210	382	289	439	283	360	75	84
19	101	429	739	90	207	319	255	528	231	267	48	48
20	127	367	1140	86	215	292	229	380	282	205	42	44
21	134	314	1350	84	250	248	207	285	225	179	38	25
22	130	272	1980	80	620	222	190	317	180	228	34	15
23	390	261	1110	77	2510	797	177	462	200	271	30	11
24	436	260	787	75	4000	1070	174	511	162	165	32	9.3
25	351	264	1050	73	3540	1010	245	364	146	126	92	9.4
26	277	278	742	72	1870	680	238	271	109	138	82	9.8
27	219	312	623	70	1300	537	207	208	90	275	51	9.9
28	240	1370	520	68	854	453	190	723	78	156	38	13
29	687	2570	436	66	---	524	168	1420	67	112	32	12
30	664	1170	479	65	---	2850	147	596	59	93	37	12
31	447	---	466	64	---	3070	---	4030	---	83	55	---
TOTAL	5147	17913	21786	5084	20555	23149	15735	17688	10311	13770	1758	1294.4
MEAN	166	597	703	164	734	747	525	571	344	444	56.7	43.1
MAX	687	2570	1980	447	4000	3070	3360	4030	1910	2400	177	113
MIN	23	260	307	64	207	222	147	136	59	52	23	9.3
CFSM	.83	2.99	3.52	.82	3.67	3.74	2.63	2.86	1.72	2.22	.28	.22
IN.	.96	3.33	4.05	.95	3.82	4.31	2.93	3.29	1.92	2.56	.33	.24

CAL YR 1984 TOTAL 173179.0 MEAN 473 MAX 6250 MIN 19 CFSM 2.37 IN 32.21
WTR YR 1985 TOTAL 154190.4 MEAN 422 MAX 4030 MIN 9.3 CFSM 2.11 IN 28.68

03071600 CHEAT RIVER AT LAKE LYNN, PA

LOCATION.--Lat 39°43'15", long 79°51'20", Fayette County, Hydrologic Unit 05020004, at the Lake Lynn hydroelectric plant of the West Penn Power Company at Lake Lynn, 3.0 mi upstream from mouth.

DRAINAGE AREA.--1,411 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1948 to September 1957, October 1958 to current year (partial record).

COOPERATION.--Records were furnished by the West Penn Power Company.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (Water years 1949-57): Maximum 29.5°C July 30, 1949, July 28, 1952, and Aug. 6, 1955; minimum, 0.5°C several days during 1951, 1952, 1954, 1955, 1957.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	17.0	---	---	1.5	6.0	10.5	20.0	---	22.0	25.5	---
2	19.0	17.0	---	8.0	---	---	9.5	19.0	---	23.0	24.5	---
3	19.0	---	6.0	8.0	---	---	6.5	18.0	20.0	21.0	---	24.5
4	19.0	---	6.0	7.0	---	5.5	9.0	---	18.0	---	---	24.5
5	19.0	16.5	6.0	---	1.0	5.5	---	---	18.5	24.5	24.5	24.5
6	---	15.5	5.5	---	1.0	5.5	---	16.5	19.0	---	24.5	24.5
7	---	15.0	5.0	8.0	1.0	6.0	---	15.0	19.0	---	24.5	---
8	18.5	14.5	---	8.0	1.0	8.0	8.0	15.5	---	23.5	24.5	---
9	19.0	13.5	---	6.5	---	---	8.0	15.0	---	23.5	24.5	24.5
10	18.5	---	5.5	6.5	---	---	9.0	17.0	21.0	23.5	---	25.5
11	---	---	5.0	5.5	1.5	7.0	9.0	---	21.0	21.5	---	24.0
12	18.5	---	2.0	---	1.5	7.0	9.5	---	21.0	23.5	24.5	23.5
13	---	11.5	3.5	---	1.0	8.0	---	23.5	20.0	---	25.5	22.0
14	---	11.0	---	3.5	1.5	7.0	---	21.0	19.0	---	26.0	---
15	17.0	10.5	---	3.5	1.0	6.0	11.0	20.0	---	23.5	25.5	---
16	18.0	10.0	---	3.0	---	---	12.0	21.0	---	22.0	25.0	22.0
17	17.0	---	8.5	2.0	---	---	12.0	21.0	20.0	22.0	---	22.0
18	17.0	---	8.0	1.5	---	6.5	13.0	---	21.0	23.0	---	21.5
19	18.0	9.0	9.0	---	1.5	6.5	15.0	---	21.0	24.5	25.5	---
20	---	8.5	9.0	---	1.5	8.0	---	21.0	20.5	---	25.0	---
21	---	8.0	10.0	1.0	2.0	6.5	---	21.0	20.0	---	25.0	---
22	19.0	---	---	1.0	2.0	6.5	17.0	20.0	---	24.5	25.5	---
23	18.5	6.5	---	1.0	---	---	---	20.0	---	24.5	25.5	23.0
24	18.5	---	8.0	2.0	---	---	20.0	19.0	22.0	23.5	---	21.5
25	18.5	---	---	1.5	4.0	6.5	20.0	---	21.0	24.5	---	21.5
26	18.5	7.0	6.5	---	5.5	8.0	20.0	---	21.0	24.5	24.5	21.5
27	---	6.0	---	---	5.5	9.0	---	---	---	---	24.5	20.0
28	---	5.0	6.5	1.5	5.5	9.0	---	20.0	21.0	---	24.5	---
29	18.0	4.5	---	1.0	---	10.0	19.0	19.5	---	---	24.0	---
30	18.0	6.5	---	1.5	---	---	19.0	21.0	---	26.5	24.5	---
31	18.0	---	5.5	1.0	---	---	---	20.5	---	25.5	---	---
MEAN	18.5	10.5	6.5	4.0	2.0	7.0	13.0	19.5	20.0	23.5	25.0	23.0

WTR YR 1985 MEAN 14.5 MAX 26.5 MIN 1.0

03111534 OHIO RIVER AT MARTINS FERRY, OH
(Formerly published as 03112500 Ohio River at Wheeling, WV)

LOCATION.--Lat 40°06'18", long 80°42'31", Belmont County, Ohio, Hydrologic Unit 05030106, on right bank at water plant at Martins Ferry, Ohio, 300 ft downstream from Old Lock 12, 0.9 mi downstream from Glenns Run (Ohio), 3.0 mi upstream from Wheeling Creek (Ohio), and at mile 87.5, measured downstream from Pittsburgh, Pa.

DRAINAGE AREA.--24,700 mi^2, approximately.

PERIOD OF RECORD.--January to March 1844, January 1905 to December 1906 (gage heights only), December 1906 to February 1907, March to April 1913, February to April 1936, December 1936 to February 1937 (published as "at Wheeling"), October 1978 to current year. Monthly discharge for some periods published in WSP 1305. Gage-height records collected in this vicinity since 1882 are in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 610.80 ft above National Geodetic Vertical Datum of 1929. See WSP 1305 for history of gages prior to 1978. Auxiliary water-stage recorder 12.9 mi downstream from base gage at same datum.

REMARKS.--Estimated daily discharges: Oct. 1-22, 25-30, Nov. 1-10, 19-24, 29, Dec. 2, 4, 5, 8-14, 20, 22, 29, Jan. 11, 22-25, 27-31, Feb. 1, 2, 4-6, 8-13, Mar. 23, 24, Apr. 1, 29, May 2, 14, 15, 28, 29, June 11, 22, 27-30, July 1-8, 10, 21-31, Aug. 1 to Sept. 30. Records good except for periods of estimated record, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 466,000 ft^3/s, Mar. 19, 1936, gage height, 55.2 ft; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 228,000 ft^3/s, Feb. 26, gage height, 31.41 ft; minimum daily discharge, Sept. 8, discharge not determined.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10900	32000	55700	92600	18000	123000	200000	19800	105000	9500	11000	9700
2	11800	30000	52400	76700	36000	114000	188000	26000	52200	9600	12100	10400
3	12300	29000	49900	72900	31200	101000	137000	42400	42600	10400	11300	9200
4	13100	33000	47300	68400	27700	89500	132000	61500	37700	11300	9700	8800
5	13700	40500	46000	57300	28400	85000	118000	50200	33400	11100	7100	7900
6	10800	56400	44700	54800	29100	92000	107000	41900	32400	11000	6500	7200
7	9600	58000	42000	53500	29400	87900	95700	33600	29800	12600	7400	6900
8	9000	47000	39500	47500	28400	78800	82700	24100	20700	16500	8500	6200
9	10700	42200	36600	42300	25700	89700	81000	21200	22100	37700	11400	6800
10	10300	52100	34000	38700	22800	93600	67700	19300	21400	56800	11000	7900
11	9800	78900	43800	35100	21600	78300	62600	18000	19600	61500	9800	11600
12	9300	83200	52000	32700	25400	97000	59500	17100	29700	54800	8000	12000
13	8500	71500	58000	29100	37000	172000	49900	15500	34100	38300	7200	11800
14	7700	58900	62400	26700	37800	158000	44800	14200	28700	27500	7800	10000
15	7300	51600	64600	26200	39400	125000	43200	16300	27300	34300	8900	8700
16	8000	43700	63100	24900	35600	107000	41100	16700	23900	44300	11200	9200
17	9000	42200	57300	21300	35100	90700	39500	17200	23200	35200	12400	8500
18	9400	41200	49800	23400	34500	73500	38900	18300	22900	33200	11700	7800
19	9700	42400	46100	23300	31900	66600	34500	19700	20700	23300	10600	7300
20	9000	45000	59300	22100	31800	56400	32300	17300	22200	19800	10400	6900
21	9800	43700	69100	13000	33700	50100	27100	19300	19700	15100	10000	7200
22	12000	41300	85000	11000	42300	47300	25700	16200	18000	17300	9700	7200
23	15000	37500	96900	12100	88600	44500	28200	18800	22000	16300	9500	6900
24	18600	32000	79100	16300	162000	52500	23300	24700	19600	14800	8700	7400
25	22400	28800	73200	17000	199000	61100	22100	29500	22200	13700	10600	9200
26	23000	23000	75000	13000	212000	68900	20900	25700	16000	12400	11800	9700
27	19500	24800	66400	13600	150000	62900	22500	21900	13100	12300	10800	10400
28	18000	25300	63700	14900	135000	58500	14900	26000	11400	13500	9100	9700
29	26000	48600	71000	14600	---	102000	13400	24900	12000	12300	7800	8800
30	41500	58400	98400	15000	---	168000	17100	28300	12500	10800	7400	8300
31	38800	---	114000	15900	---	184000	---	49900	---	9800	8600	---
TOTAL	444500	1342200	1896300	1025900	1629400	2878800	1870600	795500	816100	707000	298000	259600
MEAN	14340	44740	61170	33090	58190	92860	62350	25660	27200	22810	9613	8653
MAX	41500	83200	114000	92600	212000	184000	200000	61500	105000	61500	12400	12000
MIN	7300	23000	34000	11000	18000	44500	13400	14200	11400	9500	6500	6200

WTR YR 1985 TOTAL 13963900 MEAN 38260 MAX 212000 MIN 6200

03112000 WHEELING CREEK AT ELM GROVE, WV

LOCATION.--Lat 40°02'40", long 80°39'40", Ohio County, Hydrologic Unit 05030106, on right bank at highway bridge at Elm Grove, 500 ft downstream from Little Wheeling Creek, and at mile 7.7.

DRAINAGE AREA.--282 mi^2.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940, published in WSP 1907.

REVISED RECORDS.--WSP 1305: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 667.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 13 to Feb. 22, July 24 to Aug. 2, Sept. 6-17. Records good except for periods of estimated daily record, which are poor. U.S. Army Corps of Engineers gage-height, rainfall, and satellite telemeters at station.

AVERAGE DISCHARGE.--45 years, 333 ft^3/s, 16.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, Dec. 30, 1942, gage height, 13.67 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurements at gage heights 13.2 ft and 13.67 ft; minimum, 0.1 ft^3/s, Oct. 7, 1963, Sept. 26, 27, 1964; minimum gage height, 0.58 ft Sept. 11, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 31	1430	*6,080	*6.12	No other peak greater than base discharge.			

Minimum discharge, 2.0 ft^3/s, Sept. 23, 24, gage height, 0.95 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	77	207	400	130	285	2430	75	2150	33	115	5.3
2	27	102	207	336	110	255	1320	175	730	34	75	4.9
3	49	105	185	267	220	207	780	680	660	33	61	4.2
4	45	137	165	237	190	195	604	364	952	57	42	4.2
5	33	291	137	231	200	243	556	231	452	55	34	3.6
6	23	225	145	195	220	213	452	185	297	95	29	3.3
7	17	141	117	180	200	180	415	160	207	137	27	3.1
8	15	98	145	180	150	207	640	133	165	91	26	4.0
9	13	85	150	129	130	219	604	109	137	84	24	3.1
10	16	180	190	117	115	201	532	95	121	72	22	2.8
11	19	385	508	141	130	201	484	87	109	89	19	3.8
12	18	322	430	133	166	670	408	78	113	65	18	2.9
13	14	207	336	115	140	750	357	70	105	49	24	2.5
14	11	145	422	100	112	508	322	63	91	40	439	2.8
15	10	121	468	95	108	385	297	64	87	279	206	3.6
16	12	117	364	89	107	303	273	102	85	201	92	4.0
17	17	102	285	86	106	267	303	113	80	102	58	3.5
18	30	95	231	84	105	225	207	125	79	64	40	3.1
19	28	109	213	83	106	185	190	113	74	48	34	2.6
20	30	125	385	93	108	185	170	91	65	39	27	2.4
21	33	125	408	85	112	160	150	70	61	43	22	2.2
22	109	109	1510	75	138	145	137	60	89	122	19	2.2
23	170	91	670	67	919	185	129	79	237	112	15	2.1
24	113	88	438	64	1640	201	121	255	150	106	14	3.6
25	79	89	364	63	1160	213	125	121	95	100	12	2.8
26	62	84	267	64	604	185	113	84	70	110	9.7	2.6
27	52	79	237	64	452	175	98	74	54	90	9.2	3.1
28	50	102	207	65	343	180	91	95	45	74	8.2	2.6
29	87	175	190	66	---	180	88	137	40	82	7.3	2.6
30	117	175	343	67	---	3150	77	102	36	97	7.3	2.4
31	102	---	500	75	---	3330	---	2940	---	105	6.1	---
TOTAL	1423	4286	10424	4046	8221	13988	12473	7130	7636	2708	1541.8	95.9
MEAN	45.9	143	336	131	294	451	416	230	255	87.4	49.7	3.20
MAX	170	385	1510	400	1640	3330	2430	2940	2150	279	439	5.3
MIN	10	77	117	63	105	145	77	60	36	33	6.1	2.1
CFSM	.16	.51	1.19	.47	1.04	1.60	1.48	.82	.90	.31	.18	.01
IN.	.19	.57	1.38	.53	1.08	1.85	1.65	.94	1.01	.36	.20	.01

CAL YR 1984 TOTAL 115616.3 MEAN 316 MAX 6200 MIN 5.0 CFSM 1.12 IN 15.25
WTR YR 1985 TOTAL 73972.7 MEAN 203 MAX 3330 MIN 2.1 CFSM .72 IN 9.76

03112510 OHIO RIVER AT BENWOOD NEAR WHEELING, WV
(National Stream-quality accounting network station)

LOCATION.--Lat 40°00'54", long 80°44'20", Marshall County, Hydrologic Unit 05030106, at Bellaire Toll Bridge, at Benwood, and at mile 94.3.

DRAINAGE AREA.--Approximately 25,070 mi^2.

PERIOD OF RECORD.--Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
07...	1415	50900	340	7.90	13.0	11	751	10.8	104	520	81
DEC											
18...	1345	51000	275	8.30	11.0	15	--	--	--	870	100
FEB											
13...	1030	35700	580	7.90	1.5	.50	--	--	--	660	190
APR											
02...	1015	181000	236	7.20	7.0	55	--	--	--	--	--
JUN											
04...	1000	38000	300	7.50	21.0	19	--	9.4	--	930	1500
AUG											
06...	1515	13700	328	8.20	26.0	4.5	743	8.5	108	430	K31

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV											
07...	120	77	34	8.7	19	2.6	54	0	44	85	24
DEC											
18...	100	46	28	7.4	14	1.8	67	0	55	64	20
FEB											
13...	150	100	40	11	31	2.0	52	0	43	120	35
APR											
02...	82	50	23	6.0	10	1.6	39	0	32	60	15
JUN											
04...	110	78	31	8.4	15	1.8	41	0	34	83	11
AUG											
06...	120	84	35	9.0	19	3.5	50	0	41	94	24

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV											
07...	.30	4.1	216	200	.72	.080	.20	.030	<.010	.050	20
DEC											
18...	.20	5.1	183	170	.87	.110	.90	.060	<.010	<.010	30
FEB											
13...	.20	5.7	298	270	.87	.420	.80	.090	.060	.030	--
APR											
02...	.10	5.5	140	140	.99	.100	1.5	.060	<.010	<.010	40
JUN											
04...	.20	5.4	226	180	1.0	.350	.90	<.010	<.010	.060	--
AUG											
06...	.30	2.8	240	210	.77	<.010	1.2	.050	<.010	.010	30

03112510 OHIO RIVER AT BENWOOD NEAR WHEELING, WV--Continued
(National Stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV											
07...	<1	48	.0	<1	<1	<3	1	13	3	8	62
DEC											
18...	<1	53	<.5	<1	1	<3	3	30	2	9	220
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	<1	40	<.5	<1	<1	<3	3	76	<1	23	130
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	1	43	.5	<1	4	<3	5	5	1	8	11

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
07...	.1	<10	4	<1	<1	160	<6	10	36	4950	78
DEC											
18...	<.1	<10	7	<1	<1	140	<6	10	27	3720	58
FEB											
13...	--	--	--	--	--	--	--	--	4	386	24
APR											
02...	.1	<10	4	<1	<1	110	<6	7	231	113000	79
JUN											
04...	--	--	--	--	--	--	--	--	54	5540	92
AUG											
06...	<.1	<10	4	<1	<1	190	<6	<3	9	333	44

03114500 MIDDLE ISLAND CREEK AT LITTLE, WV

LOCATION.--Lat 39°28'30", long 80°59'50", Tyler County, Hydrologic Unit 05030201, on right bank at downstream side of highway bridge at Little, 0.1 mi upstream from Stewarts Run, 5.0 mi west of Middlebourne, and at mile 24.5.

DRAINAGE AREA.--458 mi^2.

PERIOD OF RECORD.--May 1915 to September 1916, October 1916 to September 1922 (gage heights only), October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 631.32 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to July 11, 1947, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 7-31. Records good except period with ice effect, which is poor.

AVERAGE DISCHARGE.--58 years (water years 1916, 1929-85), 638 ft^3/s, 18.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s, June 26, 1950, gage height, 28.0 ft, from floodmarks; no flow during parts of 1922 and Sept. 1 to Nov. 4, Nov. 7-10, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1875 reached a stage of about 33.5 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Dec. 22	0600	9,960	13.22	Mar. 12	2200	*11,100	*14.18

Minimum discharge, 0.30 ft^3/s, Sept. 28, 29, 30, gage height, 1.70 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	250	759	678	2400	422	5920	119	1370	27	31	12
2	11	179	705	885	2630	376	2140	153	602	24	25	11
3	10	179	531	735	1570	326	1150	3870	308	22	28	11
4	14	256	448	566	1090	278	797	1720	202	23	56	14
5	45	556	378	540	967	275	594	699	147	23	47	14
6	38	904	363	539	997	276	482	426	116	21	33	14
7	29	457	414	490	1090	243	427	324	95	21	26	14
8	23	271	354	325	905	256	411	298	81	21	21	12
9	20	269	369	380	687	648	381	227	73	26	18	10
10	17	2610	667	350	594	605	348	190	67	27	17	9.5
11	16	2450	2360	325	476	531	335	169	62	342	14	8.0
12	14	1470	1490	310	1120	7400	338	155	75	483	13	7.0
13	13	690	888	290	5000	4900	316	146	509	183	12	6.0
14	12	396	593	270	2740	1430	295	113	393	101	11	5.2
15	11	280	502	250	1690	960	288	93	243	908	11	4.7
16	10	226	464	240	1220	668	282	807	168	1030	18	4.7
17	8.9	189	408	225	1010	513	443	895	122	437	47	4.6
18	7.5	166	394	215	845	421	451	713	96	206	137	4.3
19	6.7	722	489	210	989	341	364	612	80	114	89	3.8
20	6.3	2380	1670	205	1800	289	311	409	70	72	68	3.4
21	13	965	2390	200	1880	253	273	274	76	52	43	2.9
22	51	530	7590	200	2740	226	245	202	119	41	32	2.6
23	113	374	2190	215	5250	229	220	422	413	38	26	2.4
24	260	300	1110	225	3220	277	198	600	262	39	22	1.6
25	287	253	1520	245	1610	452	183	420	138	37	34	.97
26	193	216	1480	250	951	427	176	270	88	35	56	.73
27	127	191	917	260	714	342	159	195	62	32	34	.57
28	103	299	670	270	534	309	148	152	48	27	22	.42
29	1390	1910	514	285	---	300	140	139	39	22	18	.32
30	1020	1010	521	315	---	5130	137	174	32	42	15	.49
31	437	---	702	350	---	7290	---	2570	---	41	13	---
TOTAL	4317.4	20948	33850	10843	46719	36393	17952	17556	6156	4517	1037	186.20
MEAN	139	698	1092	350	1669	1174	598	566	205	146	33.5	6.21
MAX	1390	2610	7590	885	5250	7400	5920	3870	1370	1030	137	14
MIN	6.3	166	354	200	476	226	137	93	32	21	11	.32
CFSM	.30	1.52	2.38	.76	3.64	2.56	1.31	1.24	.45	.32	.07	.01
IN.	.35	1.70	2.75	.88	3.79	2.96	1.46	1.43	.50	.37	.08	.02

CAL YR 1984 TOTAL 219710.40 MEAN 600 MAX 11400 MIN 6.3 CFSM 1.31 IN 17.85
WTR YR 1985 TOTAL 200474.60 MEAN 549 MAX 7590 MIN .32 CFSM 1.20 IN 16.28

03150800 OHIO RIVER NEAR MARIETTA, OH

LOCATION.--Lat 39°23'21", long 81°29'03", Washington County, Hydrologic Unit 05030202, on right bank 1.5 mi southwest of Marietta, 2.0 mi downstream from Muskingum River, and at mile 174.3 measured downstream from Pittsburgh, Pa.

DRAINAGE AREA.--35,600 mi^2, approximately.

PERIOD OF RECORD.--October 1968 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 567.12 ft, Sandy Hook datum.

REMARKS.--U.S. Army Corps of Engineers gage height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 38.52 ft, Feb. 27, 1979; minimum, 10.83 ft, Oct. 6, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 29.39 ft, Mar. 31; minimum, 15.04 ft, June 10.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.74	15.73	17.16	20.99	16.42	23.39	28.70	16.14	19.87	15.15	15.54	15.59
2	15.73	16.10	17.04	19.59	17.03	22.62	27.38	16.14	18.58	15.17	15.16	15.63
3	15.62	15.64	16.80	19.25	17.11	22.14	25.09	17.27	16.38	15.37	15.49	15.38
4	16.01	16.13	16.68	18.83	16.09	21.29	24.07	18.04	16.48	15.43	15.59	15.12
5	15.90	16.30	16.66	18.19	16.63	20.49	23.29	17.87	15.98	15.32	15.33	15.31
6	15.73	17.26	17.10	17.63	16.32	20.73	22.35	16.65	15.72	15.73	15.45	15.53
7	16.06	17.61	16.86	17.79	16.54	20.79	21.42	16.22	15.88	15.33	15.59	15.38
8	16.14	16.88	16.64	17.30	16.34	20.10	20.76	15.56	15.57	15.81	15.44	15.44
9	16.00	16.65	16.33	16.68	16.01	20.00	20.42	15.44	15.60	16.04	15.29	15.59
10	15.30	16.90	16.34	16.73	16.08	20.75	19.27	15.52	15.40	17.44	15.89	15.60
11	15.44	19.08	17.34	16.21	15.82	20.34	18.57	15.63	15.34	17.90	15.93	15.77
12	15.68	19.88	17.75	16.00	16.40	21.92	18.27	15.62	15.86	17.17	15.55	15.82
13	15.93	18.94	17.70	16.20	17.52	25.46	17.85	15.68	16.55	16.26	15.62	15.49
14	16.06	17.98	17.95	16.00	17.22	26.45	16.93	15.40	16.32	15.69	15.74	15.48
15	15.91	17.40	18.65	16.18	16.90	24.04	17.18	15.50	16.07	16.87	16.09	15.48
16	15.56	16.93	18.87	16.21	16.77	22.07	16.66	15.65	15.88	16.83	15.83	15.47
17	15.73	16.77	18.40	15.74	16.50	20.72	17.03	15.55	15.49	15.96	15.31	15.53
18	15.53	16.73	17.37	16.08	16.92	19.35	16.63	15.53	15.58	16.07	15.63	15.49
19	15.36	16.62	17.02	16.32	16.95	18.72	16.37	15.81	15.40	15.59	15.65	15.41
20	15.22	16.96	17.51	16.27	16.97	17.71	16.22	15.44	15.72	15.59	15.39	15.38
21	15.41	16.96	18.69	15.90	17.10	17.38	16.22	15.56	15.38	15.42	15.37	15.59
22	15.69	16.88	20.88	16.07	17.73	16.62	15.65	15.72	15.69	15.59	15.44	15.72
23	16.01	16.40	21.04	16.28	21.68	16.87	16.16	15.45	15.75	15.58	15.58	15.57
24	15.88	16.10	19.68	16.12	25.52	16.82	16.03	16.04	15.49	15.41	15.90	15.63
25	15.97	16.03	19.07	16.14	27.37	17.57	15.85	15.89	15.58	15.57	15.82	15.78
26	16.03	15.95	19.25	16.35	28.17	18.32	16.04	15.58	15.48	15.48	15.86	15.83
27	15.51	16.24	18.37	16.19	26.42	18.05	16.08	15.68	15.53	15.64	15.46	15.44
28	15.61	16.31	18.02	16.40	23.96	17.67	16.03	16.05	15.51	15.48	15.27	15.20
29	16.12	17.12	17.79	16.12	---	18.08	15.72	16.24	15.39	15.43	15.30	15.11
30	16.22	17.86	19.06	16.42	---	25.90	16.19	15.74	15.46	15.47	15.44	15.36
31	16.41	---	21.16	15.97	---	29.17	---	17.16	---	15.25	15.47	---
MEAN	15.79	16.94	18.04	16.84	18.59	20.69	18.81	15.99	15.96	15.84	15.56	15.50
MAX	16.41	19.88	21.16	20.99	28.17	29.17	28.70	18.04	19.87	17.90	16.09	15.83
MIN	15.22	15.64	16.33	15.74	15.82	16.62	15.65	15.40	15.34	15.15	15.16	15.11

WTR YR 1985 MEAN 17.04 MAX 29.17 MIN 15.11

03151520 LITTLE KANAWHA RIVER BELOW BURNSVILLE DAM, WV

LOCATION.--Lat 38°50'41", long 80°37'45", Braxton County, Hydrologic Unit 05030203, on right bank 2600 ft downstream from Burnsville Dam, 1.6 mi southeast of Burnsville, and at mile 123.7.

DRAINAGE AREA.--163 mi^2.

PERIOD OF RECORD.--July 1976 to September 1982, October 1982 to current year (gage height, discharge measurements, and annual maximum discharge only).

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers Bench Mark). Prior to Oct. 1, 1983, at datum 50.0 ft lower.

REMARKS.--Flow regulated since 1979 by Burnsville Lake. U.S. Army Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--6 years, 305 ft^3/s, 25.41 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft^3/s, Oct. 9, 1976, gage height, 58.81 ft; minimum discharge, 3.6 ft^3/s, May 26, 1977; minimum gage height, 4.27 ft, Sept. 28, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,600 ft^3/s, May 25, gage height, 7.49 ft; minimum gage height, 4.40 ft, June 28.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.29	6.33	6.47	5.89	6.95	6.13	6.87	4.76	5.51	4.66	4.80	4.75
2	5.89	6.12	6.17	6.14	7.09	5.94	6.57	4.82	5.51	4.84	5.07	4.75
3	5.88	5.98	5.91	6.27	6.81	5.83	5.69	5.46	5.51	5.08	5.23	4.75
4	5.52	6.08	5.98	6.41	6.31	5.75	4.80	7.01	5.31	5.08	5.34	4.75
5	5.12	6.50	5.72	6.61	6.20	5.72	4.69	6.85	5.20	5.07	5.40	4.75
6	4.76	6.70	5.72	6.60	6.33	5.72	4.71	6.14	5.20	5.08	5.27	4.75
7	4.76	6.70	6.06	6.38	6.46	5.72	4.71	5.86	5.20	5.08	5.20	4.75
8	4.76	6.48	6.13	6.16	6.26	5.77	4.72	5.73	5.44	5.07	5.20	4.75
9	4.76	6.30	6.14	6.08	6.10	6.39	4.72	5.43	5.89	5.07	4.92	4.75
10	4.76	6.41	6.11	6.07	5.86	6.62	4.72	5.12	5.92	5.16	4.76	4.75
11	4.76	6.16	5.75	5.94	5.85	6.49	4.72	5.11	5.66	5.47	4.76	4.75
12	4.76	6.08	6.35	5.89	6.35	6.78	4.72	5.11	5.56	5.47	4.76	4.75
13	4.76	6.22	6.65	5.89	6.59	7.29	4.72	5.11	5.74	5.32	4.76	4.67
14	4.76	6.18	6.58	5.81	6.25	7.29	4.73	5.11	5.86	5.09	4.76	4.69
15	4.76	6.04	6.33	5.77	6.10	7.13	4.73	5.15	5.86	4.96	4.76	4.73
16	4.77	5.98	6.07	5.64	6.02	6.84	4.74	5.82	5.65	4.85	4.76	4.73
17	4.97	5.95	5.93	5.71	6.01	6.33	4.74	6.00	5.46	4.92	4.76	4.73
18	5.51	5.92	5.84	5.86	5.96	5.81	4.74	6.76	5.46	4.92	4.76	4.73
19	5.58	6.47	5.96	5.78	5.98	5.64	4.74	7.11	5.47	4.79	4.76	4.73
20	5.94	6.81	6.29	5.66	6.28	5.64	4.74	6.77	5.47	4.69	4.76	4.73
21	5.74	6.80	6.49	5.51	6.50	5.64	4.74	6.07	5.27	4.72	4.76	4.73
22	5.87	6.75	6.70	5.60	6.63	5.64	4.74	5.56	4.93	4.77	4.76	4.73
23	6.81	6.61	6.59	5.68	7.15	6.19	4.74	5.58	5.26	4.77	4.76	4.73
24	7.07	6.45	6.21	5.69	7.45	6.47	4.74	7.33	5.14	4.77	4.76	4.73
25	6.69	6.29	6.57	5.70	7.21	6.59	4.75	7.44	4.91	4.77	4.76	4.73
26	6.18	6.24	6.86	5.70	6.65	6.31	4.75	7.31	4.78	4.77	4.75	4.73
27	6.10	5.95	6.81	5.69	6.30	6.15	4.75	6.74	4.61	4.77	4.75	4.73
28	6.04	6.30	6.73	5.57	6.26	5.99	4.76	6.13	4.56	4.77	4.75	4.73
29	6.43	6.86	6.58	5.63	---	5.89	4.76	5.79	4.70	4.77	4.75	4.73
30	6.73	6.92	6.30	5.70	---	6.50	4.76	5.30	4.64	4.77	4.75	4.73
31	6.60	---	6.02	6.24	---	7.09	---	5.37	---	4.77	4.75	---
MEAN	5.56	6.35	6.26	5.91	6.43	6.24	4.90	5.93	5.32	4.94	4.87	4.73
MAX	7.07	6.92	6.86	6.61	7.45	7.29	6.87	7.44	5.92	5.47	5.40	4.75
MIN	4.76	5.92	5.72	5.51	5.85	5.64	4.69	4.76	4.56	4.66	4.75	4.67

WTR YR 1985 MEAN 5.62 MAX 7.45 MIN 4.56

03152000 LITTLE KANAWHA RIVER AT GLENVILLE, WV

LOCATION.--Lat 38°56'00", long 80°50'20", Gilmer County, Hydrologic Unit 05030203, on right bank at highway bridge at Glenville, 1000 ft upstream from Sycamore Run, and at mile 103.4.

DRAINAGE AREA.--386 mi^2.

PERIOD OF RECORD.--June 1915 to September 1922 (gage heights only), October 1928 to September 1983, October 1983 to September 1984 (gage heights, occasional discharge measurements, and annual maximum discharge only), October 1984 to September 1985. Monthly discharge only October to December 1928, published in WSP 1305.

REVISED RECORDS.--WSP 783: Drainage area. WSP 1305: 1930, 1932(M). WSP 1435: 1954. WSP 1555: 1947(M). WRD WV-82-1: 1979.

GAGE.--Water-stage recorder. Datum of gage is 697.79 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Dec. 14, 1934, nonrecording gage at bridge 300 ft upstream at same datum. May 25, 1971 to September 1983, auxiliary water-stage recorder 2.7 mi downstream from base gage at datum 700.23 ft above National Geodetic Vertical Datum of 1929. Prior to May 25, 1971, auxiliary nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 8-30, Feb. 2-5, 8-10, 17-19, Mar. 27 to Apr. 27, May 29 to Sept. 30. Records good except for estimated daily discharges, which are poor. Flow partially regulated since 1968 by five floodwater detention reservoirs affecting 49.5 mi^2, and since 1979 by Burnsville Lake. National Weather Service (DARDC) and U.S. Army Corps of Engineers gage height telemeters at station.

AVERAGE DISCHARGE.--56 years (water years 1929-83, 85), 603 ft^3/s, 21.21 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s, Mar. 7, 1967, gage height, 34.50 ft, backwater; no flow at times in 1930-33.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 16, 1926, reached a stage of 33.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,540 ft^3/s, Mar. 3, gage height, 18.17 ft; minimum, 12 ft^3/s, Sept. 15, gage height, 1.81 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	752	1190	819	1360	629	2970	91	405	28	41	28
2	266	586	652	748	1300	469	1400	161	205	48	320	27
3	319	448	551	774	1100	336	1000	4710	120	80	150	26
4	208	442	446	819	920	298	520	1680	120	81	82	24
5	124	1100	457	900	825	275	350	1640	110	70	62	23
6	90	1560	515	1030	1060	261	320	702	93	62	58	22
7	59	1160	674	1100	1280	241	250	379	79	92	54	20
8	53	1020	666	1000	730	266	220	263	87	70	48	19
9	53	622	660	820	620	688	200	200	199	58	46	20
10	54	1150	827	700	430	1090	180	132	182	90	47	20
11	53	1120	1500	600	440	1120	170	108	172	114	39	22
12	50	713	917	540	1360	5210	170	101	880	116	30	21
13	49	670	1170	500	2180	2950	155	97	1000	98	27	19
14	49	632	1030	450	1200	2050	150	94	450	74	25	18
15	48	503	889	415	811	1720	150	94	275	98	22	17
16	60	422	593	400	642	1320	300	233	210	192	26	17
17	92	376	475	375	600	952	850	385	152	120	27	13
18	99	371	362	360	560	446	850	959	127	70	26	15
19	142	2850	839	350	800	268	485	1590	113	51	34	17
20	244	2080	1760	350	1200	244	275	1200	112	44	37	16
21	431	1330	1590	330	1400	226	225	635	111	43	28	16
22	228	1160	2370	315	2040	224	190	250	94	47	26	16
23	1010	996	1530	315	2710	589	170	2430	76	170	23	16
24	1900	855	1030	300	2410	1120	150	2700	73	178	24	17
25	1360	642	1760	290	1890	1180	140	2080	76	79	27	17
26	684	563	2010	285	1340	973	125	1760	58	52	31	17
27	454	460	1720	285	843	448	110	1190	46	103	32	17
28	615	968	1480	280	695	445	110	527	37	101	34	17
29	1590	2000	1380	270	---	440	110	451	32	70	35	17
30	1390	1500	1140	270	---	210	89	250	28	52	33	17
31	1100	---	928	554	---	240	---	350	---	41	31	---
TOTAL	12971	29051	33111	16544	32746	26928	12384	27442	5722	2592	1525	571
MEAN	418	968	1068	534	1170	869	413	885	191	83.6	49.2	19.0
MAX	1900	2850	2370	1100	2710	5210	2970	4710	1000	192	320	28
MIN	48	371	362	270	430	210	89	91	28	28	22	13

WTR YR 1985 TOTAL 201587 MEAN 552 MAX 5210 MIN 13

03153500 LITTLE KANAWHA RIVER AT GRANTSVILLE, WV

LOCATION.--Lat 38°55'20", long 81°05'50", Calhoun County, Hydrologic Unit 05030203, on left bank 1,000 ft downstream from bridge on State Highway 16 at Grantsville, 1,200 ft downstream from Philip Run, and at mile 80.0.

DRAINAGE AREA.--913 mi^2.

PERIOD OF RECORD.--October 1928 to September 1978. Monthly discharge only October to December 1928, published in WSP 1305. October 1978 to current year (gage heights, discharge measurements, and annual maximum discharge only).

REVISED RECORDS.--WSP 1275: 1929(M), 1932-36.

GAGE.--Water-stage recorder. Datum of gage is 652.83 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

REMARKS.--U.S. Army Corps of Engineers rainfall and satellite telemeters at station. Flow partially regulated since 1968 by five floodwater detention reservoirs affecting 49.5 mi^2 and since 1979 by Burnsville Lake.

AVERAGE DISCHARGE.--50 years (water years 1929-1978), 1,328 ft^3/s, 19.75 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,100 ft^3/s, Mar. 7, 1967, gage height, 43.9 ft, from floodmarks; no flow Sept. 10 to Nov. 16, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,200 ft^3/s, Mar. 12, gage height, [a]26.91 ft; minimum gage height, [b]6.27 ft, Sept. 18, 21, 22, 23, 26.

[a]Peak-stage indicator.
[b]Part of each day.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.40	9.84	11.63	9.98	19.25	9.80	17.86	7.50	9.49	6.55	6.75	---
2	7.03	9.19	10.22	9.71	16.34	9.42	14.15	7.73	8.30	6.84	9.08	---
3	8.12	8.92	9.76	9.98	13.61	8.98	11.95	21.40	7.83	7.23	7.87	---
4	7.94	8.63	9.68	10.09	12.06	8.65	10.10	15.71	7.62	7.24	7.25	---
5	7.47	10.22	9.42	11.17	11.35	8.59	9.26	12.42	7.50	7.09	7.01	---
6	7.03	12.89	9.63	11.70	11.48	8.54	8.92	10.59	7.32	7.01	6.95	6.38
7	6.83	11.07	10.38	11.29	12.61	8.33	8.61	9.27	7.22	7.36	6.91	6.36
8	6.64	10.30	10.00	10.87	11.71	8.33	8.40	8.62	7.31	7.11	6.84	6.34
9	6.57	9.54	10.01	10.20	10.50	9.68	8.27	8.22	8.26	6.94	6.81	6.36
10	6.54	11.73	10.62	9.80	10.32	10.88	8.11	7.88	8.11	6.87	6.81	6.36
11	6.54	12.54	14.50	9.67	9.87	11.03	8.02	7.54	8.05	7.90	6.72	6.39
12	6.56	11.13	11.99	9.29	11.57	22.87	8.00	7.39	11.78	8.00	6.59	6.38
13	6.55	9.97	11.53	8.90	17.16	20.82	7.90	7.30	12.32	7.43	6.54	6.34
14	6.52	9.49	10.87	8.99	13.46	14.38	7.86	7.30	9.70	7.18	6.49	6.32
15	6.52	9.02	10.51	8.91	11.53	13.05	7.85	7.21	8.76	7.43	6.46	6.30
16	6.51	8.70	9.82	8.56	10.60	11.92	8.91	9.06	8.32	8.14	6.52	6.30
17	6.70	8.49	9.31	8.54	10.38	11.04	11.53	9.87	7.98	7.60	6.54	6.28
18	6.84	8.49	8.94	8.63	10.35	9.87	9.89	10.93	7.65	7.11	6.52	6.27
19	6.94	17.06	10.27	8.77	11.12	8.98	9.15	13.16	7.55	6.88	6.64	6.28
20	7.34	15.62	15.18	8.59	13.66	8.61	8.73	11.70	7.54	6.77	6.69	6.28
21	8.52	11.95	13.94	---	13.45	8.46	8.43	10.02	7.53	6.74	6.58	6.28
22	8.21	10.92	17.68	---	15.04	8.34	8.19	8.91	7.38	6.83	6.52	6.28
23	8.83	10.32	14.01	---	18.17	8.76	8.00	15.23	7.23	8.00	6.47	6.28
24	12.37	9.84	11.77	9.41	15.90	10.69	7.85	19.91	7.12	8.06	6.48	6.29
25	11.49	9.33	16.70	9.25	13.78	11.90	7.78	14.55	7.17	7.21	6.55	6.29
26	9.88	8.97	14.90	9.31	12.26	10.85	7.67	12.48	6.95	6.92	6.60	6.29
27	8.76	8.77	12.52	9.27	10.96	9.92	7.53	11.23	6.79	7.45	6.63	6.30
28	9.40	10.17	11.51	9.40	10.13	9.71	7.56	9.79	6.70	7.44	---	6.29
29	14.92	16.11	10.88	9.42	---	9.72	7.93	9.30	6.62	7.15	---	6.30
30	13.04	12.60	10.40	9.28	---	16.26	7.73	8.64	6.55	6.89	---	6.30
31	10.94	---	10.37	10.55	---	17.04	---	9.25	---	6.75	---	---
MEAN	8.19	10.73	11.58	---	12.81	11.14	9.07	10.65	7.96	7.23	---	---
MAX	14.92	17.06	17.68	---	19.25	22.87	17.86	21.40	12.32	8.14	---	---
MIN	6.40	8.49	8.94	---	9.87	8.33	7.53	7.21	6.55	6.55	---	---

03154000 WEST FORK LITTLE KANAWHA RIVER AT ROCKSDALE, WV

LOCATION.--Lat 38°50'48", long 81°13'26", Calhoun County, Hydrologic Unit 05030203, on right bank on State Route 11, 850 ft downstream from Henry Fork at Rocksdale, 9.0 mi southwest of Grantsville, and at mile 14.1.

DRAINAGE AREA.--205 mi^2.

PERIOD OF RECORD.--October 1928 to September 1931, October 1937 to September 1975 (monthly discharge only for some periods, published in WSP 1305), October 1975 to current year (gage heights, occasional discharge measurements, and annual maximum discharge only).

REVISED RECORDS.--WSP 953: 1929-31, 1938(M), 1939. WSP 1275: 1950.

GAGE.--Water-stage recorder. Datum of gage is 657.85 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to June 16, 1966, nonrecording gage, crest-stage gage Nov. 4, 1946, to June 15, 1966, on bridge 800 ft upstream at same datum.

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1929-31, 1938-75), 258 ft^3/s, 17.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft^3/s, Apr. 16, 1939, gage height, 30.3 ft, from flood-marks, site then in use, from rating curve extended above 13,000 ft^3/s; no flow at times during 1930, 1931, 1954, 1957, 1959, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,400 ft^3/s, Mar. 12, gage height, 18.43 ft; minimum gage height, 2.93 ft, Sept. 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.37	4.36	5.48	5.41	11.11	5.09	9.06	3.94	4.80	3.33	3.58	3.16
2	3.85	4.28	5.06	5.35	7.83	4.98	7.16	5.09	4.40	4.05	3.72	3.13
3	3.77	4.28	5.12	5.22	6.64	4.81	6.26	10.37	4.19	4.79	3.65	3.10
4	3.57	4.23	5.31	5.88	6.12	4.66	5.76	6.56	4.07	4.29	3.47	3.07
5	3.45	5.78	5.04	7.42	6.25	4.76	5.42	5.55	4.07	3.86	3.38	3.04
6	3.36	5.65	5.52	6.70	6.42	4.72	5.25	5.05	3.95	3.67	3.32	3.09
7	3.32	4.90	5.48	6.38	6.68	4.53	5.01	4.78	3.85	3.70	3.28	3.08
8	3.27	4.49	5.19	6.10	6.08	4.78	4.87	4.46	4.09	3.55	3.27	3.04
9	3.26	4.88	5.24	5.68	5.67	7.01	4.58	4.25	4.47	3.50	3.27	3.02
10	3.25	6.19	6.03	5.45	5.68	6.12	4.60	4.10	4.36	3.44	3.28	3.30
11	3.22	7.06	7.44	5.34	5.48	7.03	4.57	3.99	5.06	4.46	3.26	3.22
12	3.28	5.80	6.32	5.07	7.61	16.27	4.54	3.90	5.68	4.00	3.26	3.13
13	3.35	5.08	5.67	4.84	8.96	8.98	4.44	3.85	5.63	3.70	3.21	3.07
14	3.32	4.66	5.25	4.87	6.96	7.12	4.42	3.79	4.99	3.60	3.18	3.03
15	3.33	4.39	5.01	4.73	6.28	6.30	4.41	3.94	4.50	3.59	3.14	3.00
16	3.38	4.27	4.83	4.59	5.82	5.82	5.49	6.30	4.21	4.62	3.14	2.98
17	4.01	4.10	4.70	4.59	5.78	5.56	6.16	6.07	4.03	4.31	3.16	2.97
18	3.68	4.79	4.57	4.58	5.90	5.26	5.61	7.68	3.88	3.82	3.14	2.96
19	3.53	10.11	5.89	4.52	6.82	5.01	5.30	7.35	3.90	3.61	3.16	2.95
20	4.41	6.70	7.10	4.36	7.95	4.88	5.05	5.73	3.79	3.49	3.21	2.94
21	4.69	5.50	8.43	4.37	7.49	4.75	4.85	4.94	3.83	3.60	3.24	2.95
22	4.22	4.99	9.17	4.31	9.06	4.74	4.69	4.56	3.73	3.60	3.22	2.97
23	4.99	4.68	6.88	4.41	10.00	6.23	4.55	11.94	3.72	3.80	3.16	2.96
24	5.90	4.48	6.25	4.41	8.07	6.58	4.43	10.79	3.72	4.13	3.18	2.98
25	4.89	4.31	11.10	4.47	6.51	6.62	4.39	8.09	3.58	3.68	3.43	2.98
26	4.38	4.20	7.25	4.49	5.94	5.87	4.23	6.02	3.47	3.71	3.65	3.01
27	4.08	4.13	6.17	4.44	5.61	5.54	4.11	5.40	3.41	5.15	3.51	3.10
28	5.93	6.39	5.64	4.52	5.27	5.35	4.08	5.57	3.35	4.44	3.37	3.12
29	7.14	7.91	5.31	4.58	---	5.58	4.07	7.46	3.31	3.93	3.28	3.09
30	5.57	5.92	5.22	4.53	---	11.20	4.04	5.97	3.28	3.69	3.25	3.08
31	4.80	---	5.37	6.98	---	9.05	---	5.24	---	3.56	3.20	---
MEAN	4.08	5.28	6.03	5.12	6.93	6.30	5.05	5.89	4.11	3.89	3.31	3.05
MAX	7.14	10.11	11.10	7.42	11.11	16.27	9.06	11.94	5.68	5.15	3.72	3.30
MIN	3.22	4.10	4.57	4.31	5.27	4.53	4.04	3.79	3.28	3.33	3.14	2.94

03155000 LITTLE KANAWHA RIVER AT PALESTINE, WV
(National stream-quality acccounting network station)

LOCATION.--Lat 39°03'35", long 81°23'25", Wirt County, Hydrologic Unit 05030203, on left bank at end of Washington Street in Elizabeth, 1.0 mi upstream from Tucker Creek, 2.3 mi northeast of Palestine, 2.4 mi upstream from old lock 3, and at mile 27.9.

DRAINAGE AREA.--1,515 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to September 1922 (gage heights only), July to September 1939 (fragmentary), October 1939 to current year. Monthly discharge only October 1939 to September 1941, published in WSP 1305.

REVISED RECORDS.--WSP 953: 1940(M).

GAGE.--Water-stage recorder. Datum of gage is 585.51 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 17, 1950, water-stage recorders or nonrecording gages at old locks 3 and 4 at various datums. Auxiliary water-stage recorder 3.0 mi upstream from base gage at old lock 4 at datum 596.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 31, Jan. 1, 2, 7-30, Feb. 6, 7, 11, 18, June 18 to Aug. 23, Sept. 10-30. Records good except for periods of estimated daily record, which are poor. Flow partially regulated since 1968 by five floodwater-detention reservoirs affecting 49.5 mi^2, and since 1979 by Burnsville Lake. U.S. Army Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--46 years, 2,108 ft^3/s, 18.90 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,700 ft^3/s, Mar. 7, 1967, gage height, 39.14 ft, backwater, from rating curve extended above 39,000 ft^3/s; minimum, 0.6 ft^3/s, July 14, 1959 (filling pool above old lock 3).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 17, 1939, reached a stage of 32.25 ft, from floodmarks at old lock 4, discharge about 53,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,200 ft^3/s, Mar. 13, gage height, 25.52 ft; minimum discharge, 26 ft^3/s, Sept. 21, 22, 23; minimum gage height, 8.61 ft, Aug. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	1890	3460	2100	7190	1930	11100	528	1230	120	168	58
2	62	1370	2700	2050	11700	1720	9060	950	1290	113	1480	51
3	73	1090	1840	1990	8050	1500	5220	8980	758	114	600	44
4	226	966	1740	2040	4920	1230	3410	13500	523	340	450	41
5	458	1240	1630	2910	3760	1060	2090	5410	351	280	390	45
6	371	2840	1540	3940	3400	1050	1600	3320	296	250	280	46
7	263	3140	1840	3100	4000	960	1380	2010	252	380	220	47
8	186	2040	1970	2600	4520	879	1160	1350	240	280	190	40
9	149	1850	1840	1950	3010	1380	996	940	222	230	180	45
10	116	2980	2200	1700	2170	2310	887	740	349	205	140	48
11	92	4950	5190	1500	2000	3380	806	604	412	620	130	41
12	77	4300	5700	1300	3520	16300	759	483	2740	650	120	42
13	69	2460	3330	1100	10100	20000	735	379	4620	400	110	45
14	65	1720	2840	1000	9100	8840	696	314	2720	320	100	43
15	71	1400	2390	920	5400	5470	661	278	1410	370	93	40
16	81	1140	2090	860	3330	4090	851	3440	881	750	87	37
17	75	933	1670	820	2880	3130	3090	2400	598	460	80	36
18	88	935	1390	780	2500	2400	3380	3460	490	280	110	33
19	114	5780	1490	740	3710	1690	2090	5050	440	200	140	31
20	145	9920	5570	700	6050	1300	1560	4290	370	180	155	30
21	215	5180	6890	670	6570	1070	1270	2560	310	170	95	28
22	583	2850	10300	650	7850	985	1020	1610	280	200	69	26
23	753	2210	8490	630	12600	1600	856	2710	250	730	51	26
24	1200	1850	4820	610	10800	2400	755	11200	220	370	53	30
25	2840	1600	6420	600	6920	3800	669	8850	200	270	55	32
26	2050	1290	9160	590	4700	3440	604	4540	180	205	54	33
27	1310	967	5490	580	3490	2580	535	3070	160	420	74	36
28	1210	1060	3650	570	2410	1900	490	2340	150	410	88	34
29	5690	5810	2800	565	---	1720	472	2150	140	300	84	33
30	5400	5860	2400	560	---	3800	522	1890	130	210	80	33
31	3060	---	2200	1390	---	11700	---	1240	---	170	71	---
TOTAL	27152	81621	115040	41515	156650	115614	58724	100586	22212	9997	5997	1154
MEAN	876	2721	3711	1339	5595	3729	1957	3245	740	322	193	38.5
MAX	5690	9920	10300	3940	12600	20000	11100	13500	4620	750	1480	58
MIN	60	933	1390	560	2000	879	472	278	130	113	51	26

CAL YR 1984 TOTAL 739363 MEAN 2020 MAX 21100 MIN 48
WTR YR 1985 TOTAL 736262 MEAN 2017 MAX 20000 MIN 26

03155000 LITTLE KANAWHA RIVER AT PALESTINE, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1965-67, 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
14...	1230	1690	122	7.80	8.0	18	753	11.7	100	270	180
DEC											
17...	1330	1620	128	8.00	11.0	15	--	--	--	89	K33
FEB											
11...	1300	E2000	155	7.30	1.5	3.5	--	--	--	K28	K35
APR											
03...	0900	5290	95	7.50	8.5	2.5	--	--	--	--	--
JUN											
03...	1045	772	122	7.40	23.0	4.7	--	--	--	96	K37
AUG											
05...	1300	395	168	7.50	24.0	25	748	6.5	79	K81	74

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV											
14...	42	15	12	3.0	4.8	1.4	33	0	27	22	7.1
DEC											
17...	39	5	11	2.8	4.7	1.2	41	0	34	19	6.9
FEB											
11...	40	18	11	3.0	5.1	1.0	27	0	22	21	7.5
APR											
03...	35	8	9.7	2.5	3.4	1.1	33	0	27	19	4.2
JUN											
03...	46	11	13	3.2	5.4	1.5	43	0	35	24	4.6
AUG											
05...	62	20	18	4.1	8.4	2.9	51	0	42	24	12

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV											
14...	<.10	6.1	76	73	.31	<.010	.70	<.010	<.010	<.010	30
DEC											
17...	<.10	5.5	59	71	.24	.020	.40	<.010	<.010	<.010	<10
FEB											
11...	<.10	5.8	78	68	.40	.050	.10	.020	<.010	.020	--
APR											
03...	<.10	6.1	63	62	.19	<.010	.40	.040	<.010	<.010	40
JUN											
03...	.10	5.2	102	78	.20	.030	.30	.050	.020	.030	--
AUG											
05...	.10	3.9	103	99	.19	.030	.40	.070	.010	<.010	20

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

03155000 LITTLE KANAWHA RIVER AT PALESTINE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV											
14...	<1	51	.0	<1	<1	<3	1	26	2	<4	22
DEC											
17...	<1	52	<.5	<1	<1	<3	1	28	<1	<4	28
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	1	36	<.5	1	<1	<3	2	58	<1	<4	8
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	<1	62	<.5	<1	2	<3	5	47	1	<4	41

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
14...	<.1	<10	<1	<1	<1	72	<6	10	36	164	55
DEC											
17...	.1	<10	1	<1	<1	69	<6	8	19	83	88
FEB											
11...	--	--	--	--	--	--	--	--	11	59	62
APR											
03...	<.1	<10	2	<1	<1	56	<6	8	71	1010	91
JUN											
03...	--	--	--	--	--	--	--	--	30	63	91
AUG											
05...	<.1	<10	3	<1	<1	110	<6	14	29	31	91

03155500 HUGHES RIVER AT CISCO

LOCATION.--Lat 39°07'10", long 81°16'40", Ritchie County, Hydrologic Unit 05030203, on right bank 100 ft downstream from confluence of North and South Forks, 1.0 mi upstream from Cisco, 5.0 mi south of Petroleum, and at mile 14.0.

DRAINAGE AREA.--452 mi^2.

PERIOD OF RECORD.--May 1915 to September 1922 (gage heights only), October 1928 to September 1931, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1965, published as "at Cisko."

REVISED RECORDS.--WSP 893: 1939. WSP 1113: 1947.

GAGE.--Water-stage recorder. Datum of gage is 607.92 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Sept. 30, 1931, nonrecording gage at site 0.9 mi downstream and Mar. 5, 1939, to Sept. 30, 1945, nonrecording gage at site 1.0 mi downstream, both at datum 2.56 ft lower. Oct. 1, 1945, to June 30, 1946, nonrecording gage at bridge across mouth of North Fork at present datum.

REMARKS.--Estimated daily discharges: Jan. 8-30, Feb. 5, 6, 15-18. Records good except for periods with ice effect, which are poor. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--50 years, 576 ft^3/s, 17.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,700 ft^3/s, June 26, 1950, gage height, 32.69 ft; no flow July 26, Aug. 2-6, Sept. 4 to Dec. 5, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 12	1700	*11,600	*20.22	No other peak greater than base discharge			

Minimum discharge, 2.3 ft^3/s, Oct. 16, minimum gage height, 1.68 ft, Sept. 23, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	209	531	679	3020	390	3760	98	1280	16	48	15
2	4.8	144	484	897	2060	346	1570	834	448	16	185	23
3	14	121	396	713	1240	297	851	2950	266	19	207	18
4	22	132	381	550	834	254	598	1440	194	78	120	14
5	22	391	326	595	750	246	462	587	158	143	72	12
6	16	765	345	676	680	243	390	385	130	98	43	9.5
7	13	360	418	674	936	207	357	280	108	58	32	8.0
8	9.8	217	329	500	716	204	321	235	115	40	27	6.8
9	6.8	386	381	450	556	357	309	179	185	32	23	5.6
10	6.8	2440	546	410	476	369	284	140	138	29	19	5.0
11	6.2	2350	1860	340	427	650	266	115	100	210	17	4.5
12	5.6	1360	1080	310	893	8910	270	100	741	194	15	4.5
13	4.8	549	649	320	3640	3790	252	98	912	140	13	4.1
14	3.5	342	494	290	1680	1300	235	80	416	88	13	3.4
15	2.8	240	464	275	770	834	232	197	256	1560	15	2.9
16	2.5	190	445	260	680	604	270	2270	182	1090	30	2.7
17	2.8	156	385	245	630	502	1330	1080	143	333	122	3.1
18	3.2	179	333	235	580	426	686	697	115	188	188	2.9
19	3.5	2630	371	230	960	349	462	834	88	125	120	2.9
20	13	2200	1420	225	1710	305	369	480	118	86	62	2.9
21	17	767	1530	220	1580	277	298	291	146	88	37	3.1
22	32	434	3750	220	2890	256	252	246	122	102	24	3.1
23	143	305	1950	215	4600	337	218	1040	100	132	18	2.7
24	292	238	902	210	2670	462	188	780	88	221	15	3.1
25	249	194	1440	210	1320	565	173	398	78	120	16	3.3
26	160	161	1330	220	768	444	167	249	56	78	16	3.3
27	102	137	761	210	600	361	149	228	40	102	16	3.8
28	192	304	557	220	468	333	135	228	29	112	16	3.4
29	1470	1750	445	240	---	317	138	221	22	92	13	3.4
30	971	759	435	270	---	1670	120	197	18	62	12	3.3
31	368	---	700	1130	---	4610	---	2040	---	41	11	---
TOTAL	4162.1	20410	25438	12239	38134	30215	15112	18997	6792	5693	1565	183.3
MEAN	134	680	821	395	1362	975	504	613	226	184	50.5	6.11
MAX	1470	2630	3750	1130	4600	8910	3760	2950	1280	1560	207	23
MIN	2.5	121	326	210	427	204	120	80	18	16	11	2.7
CFSM	.30	1.50	1.82	.87	3.01	2.16	1.12	1.36	.50	.41	.11	.01
IN.	.34	1.68	2.09	1.01	3.14	2.49	1.24	1.56	.56	.47	.13	.02

CAL YR 1984 TOTAL 178827.0 MEAN 489 MAX 5310 MIN 2.2 CFSM 1.08 IN 14.72
WTR YR 1985 TOTAL 178940.4 MEAN 490 MAX 8910 MIN 2.5 CFSM 1.08 IN 14.73

03159530 OHIO RIVER AT BELLEVILLE DAM, WV

LOCATION.--Lat 39°07'07", long 81°44'32", Wood County, Hydrologic Unit 05030202, at right end of Belleville Dam on Ohio River, at Reedsville, Ohio, 1.7 mi upstream from Wood-Jackson County line, 4.6 mi downstream from Hocking River, and at mile 203.9, measured downstream from Pittsburgh, Pa.

DRAINAGE AREA.--39,300 mi^2, approximately.

PERIOD OF RECORD.--October 1974 to September 1985 (discontinued).

GAGE.--Gate-opening and water-stage recorder. Headwater reference gage 0.4 mi upstream at datum 570.00 ft Ohio River datum. Tailwater reference gage 0.5 mi downstream at datum 22.00 ft lower.

REMARKS.--No estimated daily discharges. Records good. Daily discharge computed from head and tailwater elevations, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs.

AVERAGE DISCHARGE.--11 years, 59,340 ft^3/s, 20.50 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 390,000 ft^3/s, Jan. 27, 1978; minimum daily, 4,830 ft^3/s, Oct. 15, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 375,000 ft^3/s, Feb. 26; minimum daily, 5,940 ft^3/s, Sept. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15600	33400	64100	121000	19600	159000	320000	26200	104000	11600	16500	11800
2	17300	41000	60700	103000	41500	148000	341000	48400	88700	10100	13200	14400
3	11400	28600	56900	94600	37000	139000	192000	86500	51500	11500	12000	12000
4	14400	34800	53500	90200	29100	125000	171000	93200	47700	14400	16600	9830
5	16400	42000	51900	80300	32600	114000	155000	73900	41300	14000	11100	9320
6	12500	62700	51100	70800	28400	120000	139000	58100	35100	17900	6040	9400
7	10700	68400	48100	70600	38700	120000	121000	47600	33500	14800	10200	7860
8	9310	59300	46400	66900	34800	107000	104000	34300	27300	17200	10600	5940
9	16900	52400	40900	54900	28200	109000	115000	24800	23100	34300	7070	7400
10	13800	59400	40400	53300	25800	119000	95200	22500	28500	54500	12900	8230
11	13600	97500	62100	44600	22600	112000	86200	20500	16300	69100	14100	12500
12	10900	108000	76600	38600	33100	161000	80700	17700	32600	59300	9520	16300
13	10700	91500	77700	39900	63100	221000	75200	20000	45100	46700	7140	11900
14	8510	75300	74500	40700	65800	223000	62100	16400	43500	31700	7420	8570
15	10700	64800	89500	33500	55000	168000	62800	19300	36900	60900	10100	7860
16	8950	55300	83500	33700	51600	139000	55300	36000	33400	58300	20900	8520
17	13000	54900	82300	26800	45700	119000	59400	29900	28500	42400	18000	8990
18	13400	55100	69000	23500	46300	97000	50100	29900	26800	41500	13300	8660
19	12600	51600	63300	27300	47300	84000	49300	30100	22800	27200	17200	7470
20	9540	63600	68400	28700	50900	71200	43600	25800	25300	21600	11200	6450
21	9230	59700	94100	16800	57900	68400	40400	27900	22300	17100	13500	7600
22	14200	52100	133000	8370	82200	56600	31400	23000	19200	11700	11300	7860
23	20400	45600	131000	16200	156000	58000	38100	24600	26000	24800	7130	7650
24	24200	40000	106000	16200	226000	58100	34200	31600	23300	16700	9640	7130
25	23800	36400	95300	21200	336000	72700	26900	47200	23900	17400	13100	9990
26	31700	29600	101000	14100	375000	81800	25300	33000	19000	16100	18900	13400
27	24200	29600	87000	12800	265000	74300	25900	26900	14100	17300	15700	10300
28	19500	29400	79400	15800	171000	73800	24100	34900	14100	17000	10200	10100
29	34600	51000	72900	15000	---	78800	17200	42600	13400	14100	8510	9420
30	48100	74600	96100	16900	---	269000	21400	33200	14800	14700	7780	8340
31	50000	---	126000	19600	---	295000	---	61700	---	11100	9390	---
TOTAL	550140	1647600	2382700	1315870	2466200	3841700	2662800	1147700	982000	837000	370240	285190
MEAN	17750	54920	76860	42450	88080	123900	88760	37020	32730	27000	11940	9506
MAX	50000	108000	133000	121000	375000	295000	341000	93200	104000	69100	20900	16300
MIN	8510	28600	40400	8370	19600	56600	17200	16400	13400	10100	6040	5940

CAL YR 1984 TOTAL 22509100 MEAN 61500 MAX 354000 MIN 5300
WTR YR 1985 TOTAL 18489140 MEAN 50660 MAX 375000 MIN 5940

03176500 NEW RIVER AT GLEN LYN, VA
(National stream-quality accounting network station)

LOCATION.--Lat 37°22'22", long 80°51'39", Giles County, Hydrologic Unit 05050002, on right bank at upstream side of bridge on U.S. Highway 460 at Glen Lyn, 0.3 mi upstream from East River, and 6.3 mi downstream from Wolf Creek.

DRAINAGE AREA.--3,768 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1927 to current year.

REVISED RECORDS.--WSP 758: Drainage area. WSP 1305: 1928(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 1,490.24 ft above National Geodetic Vertical Datum of 1929. Aug. 11, 1927, to Oct. 16, 1934, on left bank just upstream from highway bridge at same datum, and Oct. 17, 1934, to June 16, 1939, on left bank 200 ft upstream from highway bridge at same datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 17, Jan. 7-31, Feb. 13-18, May 27 to Aug. 16, and Sept. 2-30. Records fair. Flow regulated since 1939 by Claytor Reservoir (station 03169000) 55 mi upstream from station. U.S. Army Corps of Engineers satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--58 years, 5,001 ft³/s, 18.02 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226,000 ft³/s, Aug. 14, 1940, gage height, 27.50 ft, from rating curve extended above 89,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 717 ft³/s, Jan. 5, 1981, result of freezeup; minimum daily, 820 ft³/s, Sept. 8, 1930; minimum gage height, 2.10 ft, Sept. 8, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,700 ft³/s, Aug. 19, gage height, 8.95 ft; minimum daily, 1,100 ft³/s, July 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	3200	5250	3970	4680	8050	1870	2570	4800	1400	2500	2130
2	4800	2600	2890	2800	19600	7500	2960	2400	2000	2200	4500	1500
3	4600	2400	1570	5730	16200	4930	2920	2370	1500	3000	5000	1450
4	3600	1300	2480	12300	9510	2170	4540	3460	1450	3200	1800	2200
5	3900	1300	2710	13000	8120	5080	5190	1550	1400	1400	2800	2400
6	1500	2400	3240	7780	5900	5310	4000	1360	2400	1800	2700	2500
7	1200	2500	3470	5000	6390	4940	1860	2860	2500	1350	2300	2400
8	1300	2500	1530	8000	4870	4520	1650	2710	3700	1300	1700	1500
9	1700	2400	1380	6000	4020	3100	4920	2170	1700	1900	2100	1400
10	1900	2000	1410	5400	1880	1970	4470	2260	1600	2100	2500	2100
11	1600	1400	2410	4900	1770	1990	4620	2070	3000	1500	1500	2200
12	1400	1300	2250	3000	5570	6150	3650	1310	3300	1600	1300	2400
13	1500	4000	3810	1800	12000	3780	4030	1290	3500	2400	2800	2400
14	1250	3500	3020	1700	6500	4520	1710	2480	3000	1700	2500	1400
15	1350	2600	3060	3200	3600	3190	1630	2980	2600	3000	1300	1400
16	1400	2500	1460	2200	3400	3090	3270	2830	1500	3100	1700	1300
17	1800	2700	1400	2400	1600	1720	6040	4350	1400	2700	2830	1250
18	2400	1340	2450	2300	1550	1530	5240	5790	2600	2600	13100	1500
19	2300	1210	2550	2200	3660	2620	6290	3650	2400	1800	20500	1350
20	2200	2880	3740	1500	4410	2650	5330	1810	2500	1300	12100	1400
21	1400	2980	4180	1400	4500	2360	2020	3160	2300	1200	8420	1350
22	1300	2530	3180	4500	5300	2700	1690	2890	1400	1150	6420	1350
23	2500	1350	1640	2000	5790	3300	3610	2890	1300	1100	4710	1300
24	2400	1340	1670	1400	5570	5670	3080	7240	1250	1400	3510	1200
25	2700	1310	2870	1300	7260	3820	3330	9770	1300	2000	2970	1300
26	4000	1240	1820	1400	12200	7160	3980	7740	1500	5600	2400	1300
27	3900	2040	4810	1300	9700	6160	5520	4500	1800	1600	3830	1400
28	1500	3110	3700	1350	8880	5210	1770	7000	1900	9000	6200	1900
29	1400	10900	4320	2300	---	5530	1520	5600	1300	1700	4800	1400
30	3000	9450	1660	2500	---	4030	2840	5000	1250	1600	5020	1200
31	3500	---	1790	2950	---	1920	---	4500	---	1700	4190	---
TOTAL	70700	82280	83720	117580	184430	126670	105550	112560	64150	69400	140000	49880
MEAN	2281	2743	2701	3793	6587	4086	3518	3631	2138	2239	4516	1663
MAX	4800	10900	5250	13000	19600	8050	6290	9770	4800	9000	20500	2500
MIN	1200	1210	1380	1300	1550	1530	1520	1290	1250	1100	1300	1200
(*)	-75	-97	+120	-10	-22	+36	+27	-127	+150	-21	-96	+118
MEAN†	2206	2646	2821	3783	6565	4122	3545	3504	2288	2218	4420	1781
CFSM†	.59	.70	.75	1.00	1.74	1.09	.94	.93	.61	.59	1.17	.47
IN.†	.68	.78	.86	1.16	1.81	1.26	1.05	1.07	.68	.68	1.35	.53

CAL YR 1984 TOTAL 2152620 MEAN 5881 MAX 41200 MIN 1200 MEAN† 5889 CFSM† 1.56 IN.† 21.28
WTR YR 1985 TOTAL 1206920 MEAN 3307 MAX 20500 MIN 1100 MEAN† 3307 CFSM† .88 IN.† 11.92

* Change in contents, equivalent in cubic feet per second, in Claytor Reservoir; provided by Appalachian Power Company.
† Adjusted for change in contents.

03176500 NEW RIVER AT GLEN LYN, VA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1931, 1950, 1952, 1955-56, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1968 to current year.
WATER TEMPERATURE: October 1964 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 350 microsiemens, Nov. 6, 1968; minimum, 70 microsiemens, Mar. 26, 27, 1979.
WATER TEMPERATURE: Maximum, 30.5°C, June 24, 1983; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 260 microsiemens, Jan. 22; minimum daily, 116 microsiemens, Aug. 20.
WATER TEMPERATURE: Maximum daily, 29.0°C, Aug. 14; minimum, 2.5°C on several days in January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
NOV											
28...	1045	4120	--	182	7.8	7.8	10.5	721	4.0	9.9	--
JAN											
29...	0905	2300	220	203	7.6	7.6	1.0	724	2.0	14.2	105
MAR											
20...	0830	3150	185	174	7.9	7.2	7.0	726	1.5	11.6	100
MAY											
29...	0900	5600	140	134	7.4	7.4	18.0	722	1.1	8.0	89
JUL											
23...	0830	1100	190	200	7.7	7.8	22.0	723	1.0	6.4	77
SEP											
04...	0830	2200	180	182	7.7	7.6	24.5	728	1.0	8.6	108

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV											
28...	49	K35	83	83	19	8.6	4.7	1.5	59	80	24
JAN											
29...	48	56	89	89	22	8.2	6.3	1.6	64	64	21
MAR											
20...	K3	37	74	74	19	6.4	4.1	1.3	56	51	15
MAY											
29...	440	1200	56	56	13	5.6	3.7	1.4	46	37	14
JUL											
23...	45	270	85	85	19	9.2	5.3	1.7	61	57	24
SEP											
04...	63	220	81	81	19	8.2	4.0	1.8	60	53	19

03176500 NEW RIVER AT GLEN LYN, VA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SUM OF CONSTITUENTS, DISSOLVED (MG/L)	GEN, NO2+NO3 DISSOLVED (MG/L AS N)	GEN, AMMONIA DISSOLVED (MG/L AS N)	GEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHORUS, ORTHO, DISSOLVED (MG/L AS P)
NOV											
28...	4.5	<0.1	5.9	113	120	1.60	<0.01	1.6	0.07	0.05	0.03
JAN											
29...	7.6	<0.1	6.9	150	110	1.90	0.08	0.2	0.07	0.07	0.06
MAR											
20...	5.9	0.1	2.9	107	86	1.60	0.03	0.5	0.05	0.03	0.02
MAY											
29...	4.2	0.1	6.3	93	71	0.48	0.09	0.7	0.03	0.02	0.03
JUL											
23...	5.1	0.1	6.7	115	110	1.20	0.04	0.5	0.10	0.10	0.08
SEP											
04...	5.9	<0.1	6.2	111	96	0.98	0.06	0.3	0.07	0.07	0.04

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
NOV											
28...	20	<1	27	<0.5	<1	<1	<3	2	23	5	6
JAN											
29...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	20	<1	31	<0.5	<1	<1	<3	8	45	<1	14
MAY											
29...	10	1	27	<0.5	<1	3	<3	7	25	1	<4
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	30	<1	32	<0.5	<1	<1	<3	4	31	1	10

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
28...	2	<0.1	<10	<1	<1	<1	97	<6	13	6	78
JAN											
29...	--	--	--	--	--	--	--	--	--	7	79
MAR											
20...	14	0.1	<10	3	<1	<1	81	<6	7	8	78
MAY											
29...	9	<0.1	<10	1	<1	<1	58	<6	20	15	86
JUL											
23...	--	--	--	--	--	--	--	--	--	5	87
SEP											
04...	9	<0.1	<10	1	<1	<1	84	<6	4	6	85

03176500 NEW RIVER AT GLEN LYN, VA--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	178	136	162	176	130	160	188	150	210	180	152
2	200	180	150	170	120	140	180	170	160	200	160	158
3	155	170	162	136	120	140	178	170	160	170	160	170
4	160	178	190	139	122	158	---	170	165	170	160	184
5	179	200	180	124	138	160	140	182	195	180	---	188
6	180	182	170	130	140	145	142	170	200	180	---	160
7	190	180	170	138	150	---	160	---	200	165	185	157
8	200	180	180	155	142	140	162	162	178	180	---	170
9	218	170	180	144	158	150	184	162	178	190	178	180
10	200	175	180	155	170	162	150	165	175	180	170	180
11	230	180	190	160	178	165	140	179	165	200	182	190
12	222	198	210	159	190	175	140	179	185	184	190	185
13	220	---	180	180	140	138	162	196	150	190	184	168
14	220	---	170	190	150	142	162	178	165	180	183	166
15	220	179	180	190	150	142	160	180	155	180	163	192
16	230	170	165	210	198	170	175	170	160	175	168	185
17	---	185	178	180	200	178	150	170	181	176	170	203
18	210	180	180	200	180	170	140	145	180	180	143	204
19	200	198	198	200	190	178	135	---	170	178	125	204
20	190	195	162	200	162	165	130	---	172	176	116	203
21	200	198	158	220	162	160	142	150	172	182	---	218
22	220	170	150	260	150	160	155	165	190	200	135	216
23	210	---	162	200	140	160	175	170	190	204	138	213
24	184	190	175	180	132	162	162	120	192	218	160	220
25	180	195	180	210	120	140	150	120	192	225	165	222
26	160	200	190	205	120	144	155	120	200	176	160	222
27	160	198	158	240	120	130	---	122	218	160	140	225
28	180	198	140	238	122	130	---	138	218	160	178	220
29	199	140	142	210	---	140	161	140	218	140	127	219
30	182	130	160	220	---	140	182	---	210	160	123	238
31	182	---	160	179	---	160	---	---	---	180	133	---
MEAN	197	181	171	183	151	152	157	161	181	182	158	194

WTR YR 1985 MEAN 173 MAX 260 MIN 116

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	19.5	10.0	11.0	4.0	7.0	15.0	18.0	19.5	24.0	26.0	24.0
2	15.0	18.5	8.0	12.0	5.0	7.0	13.0	18.5	22.0	23.0	25.0	23.0
3	16.5	16.0	9.5	11.0	4.0	7.5	12.0	17.0	22.0	23.0	24.0	24.0
4	17.5	14.5	7.0	9.0	4.5	9.5	12.5	16.5	24.0	24.0	23.5	25.0
5	18.5	14.5	8.0	8.0	4.5	10.0	13.0	15.5	25.0	24.5	23.5	25.0
6	19.5	14.0	5.0	7.0	5.0	9.0	14.0	18.5	25.0	25.0	24.0	26.0
7	18.5	13.0	4.5	7.0	5.5	8.0	13.0	19.0	24.5	25.0	24.0	26.0
8	19.0	12.5	5.0	7.0	3.5	9.0	11.0	18.0	24.0	24.0	24.5	26.0
9	19.0	12.5	5.0	5.5	2.5	9.0	9.5	18.5	24.0	26.0	25.0	27.0
10	20.0	13.0	5.5	6.0	2.5	9.0	8.5	18.5	24.0	26.0	25.0	27.0
11	20.5	13.5	7.0	5.5	4.0	9.5	10.0	19.0	26.0	25.0	26.0	26.0
12	19.0	12.5	7.5	4.0	4.5	10.0	13.5	20.0	25.0	27.0	27.0	25.0
13	19.0	10.5	8.0	3.0	4.0	9.0	14.0	21.0	22.0	26.0	28.0	23.0
14	18.5	9.5	9.5	3.0	4.0	9.0	14.5	---	20.0	25.0	29.0	20.0
15	19.0	10.0	9.5	4.0	4.0	9.5	17.0	22.0	20.0	26.0	28.0	20.0
16	20.0	11.5	10.0	2.5	4.0	9.5	16.0	22.5	22.0	26.0	27.0	20.0
17	19.0	10.0	10.5	4.0	4.5	10.0	16.5	21.0	22.0	26.5	26.0	20.0
18	21.5	9.5	11.0	4.0	7.0	11.0	15.0	18.5	24.0	27.0	23.0	21.0
19	21.0	9.0	11.0	4.0	7.0	8.5	17.5	19.0	24.0	27.0	23.0	26.0
20	21.5	8.0	11.5	3.0	6.0	10.5	17.0	18.5	22.5	27.0	24.0	22.0
21	21.5	7.0	11.5	2.5	6.5	10.5	17.0	19.5	24.0	27.0	23.5	22.0
22	22.0	6.0	11.0	3.0	7.0	9.5	18.0	19.5	24.0	27.0	22.0	23.0
23	21.5	6.0	8.0	3.5	7.0	9.0	20.0	20.0	24.5	27.0	22.0	22.0
24	21.0	5.5	7.0	5.0	8.0	9.0	19.5	19.5	25.0	26.0	22.0	23.0
25	21.0	5.0	7.5	5.0	9.5	10.0	18.0	19.0	27.0	25.0	22.0	21.5
26	20.5	6.5	6.0	3.5	9.0	10.0	17.5	16.5	27.0	24.0	22.0	22.0
27	21.0	8.5	7.0	3.5	8.5	12.0	17.0	17.0	25.0	24.0	24.0	21.0
28	20.5	11.5	8.5	5.5	8.0	14.0	16.5	18.5	26.0	24.0	23.0	20.0
29	21.0	10.0	9.0	3.0	---	15.0	17.5	20.0	23.0	24.0	25.0	19.0
30	20.5	9.0	10.0	2.5	---	15.0	18.0	20.0	25.0	25.0	25.0	19.0
31	19.5	---	10.5	3.5	---	17.0	---	20.0	---	26.0	23.0	---
MEAN	19.5	11.0	8.5	5.0	5.5	10.0	15.0	19.0	23.5	25.5	24.5	23.0

WTR YR 1985 MEAN 16.0 MAX 29.0 MIN 2.5

03179000 BLUESTONE RIVER NEAR PIPESTEM, WV

LOCATION.--Lat 37°32'38", long 81°00'38", Summers County, Hydrologic Unit 05050002, on left bank 1.2 mi downstream from Mountain Creek, 2.5 mi west of Pipestem, and at mile 10.6.

DRAINAGE AREA.--394 mi^2.

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

REVISED RECORDS.--WSP 1705: 1959. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,527.35 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Jan. 20, 21, 28, 29. Records good except for periods with ice effect, which are poor.

AVERAGE DISCHARGE.--35 years, 471 ft^3/s, 16.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft^3/s, Apr. 5, 1977, gage height, 15.82 ft; minimum, 7.0 ft^3/s, Sept. 21-23, 30, 1955, gage height, 1.60 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 1	2300	*8,280	*11.08	No other peak greater than base discharge.			

Minimum discharge, 35 ft^3/s, Sept. 23-25, minimum gage height, 1.97 ft, Sept. 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	66	307	1740	4630	978	426	150	203	68	328	91
2	127	59	229	2150	6390	793	398	146	176	77	863	76
3	87	52	188	2470	2880	638	362	221	164	88	447	65
4	63	50	165	3150	1560	532	345	225	158	89	242	60
5	53	56	148	2820	1040	489	315	178	169	74	157	57
6	49	74	177	1530	864	437	307	154	344	156	126	54
7	46	119	164	999	769	369	317	143	385	105	141	52
8	42	112	165	750	613	347	313	133	304	81	699	56
9	43	91	193	567	493	458	325	121	232	68	420	56
10	44	79	206	462	460	479	329	113	194	65	234	55
11	45	131	282	415	437	515	342	112	270	118	160	51
12	51	240	322	361	549	754	351	120	425	136	126	48
13	47	188	287	320	670	698	336	116	398	96	104	50
14	41	135	236	288	534	609	320	114	269	167	89	47
15	42	108	197	267	468	516	310	191	197	147	78	44
16	50	93	171	196	387	440	518	178	175	103	71	42
17	47	83	155	267	383	399	602	228	208	118	83	40
18	52	79	144	260	340	363	506	271	198	85	703	40
19	49	548	147	241	330	321	436	313	161	68	1070	39
20	46	724	176	180	378	293	380	283	131	59	438	38
21	47	378	264	100	581	272	336	219	114	53	263	37
22	53	231	404	207	1060	285	302	191	102	49	190	36
23	73	169	430	319	1980	563	272	449	91	46	146	35
24	107	140	365	350	2870	659	250	1540	85	49	124	35
25	107	121	621	314	2810	780	234	2120	81	48	123	35
26	96	108	831	260	2660	729	214	1140	77	57	130	37
27	79	98	566	216	2050	622	194	643	74	155	119	41
28	70	241	424	170	1340	540	188	437	70	168	105	44
29	70	665	337	150	---	478	184	339	65	111	86	49
30	68	445	287	198	---	422	166	290	62	82	76	42
31	75	---	1450	330	---	380	---	233	---	115	83	---
TOTAL	1969	5683	10038	22047	39526	16158	9878	11111	5582	2901	8024	1452
MEAN	63.5	189	324	711	1412	521	329	358	186	93.6	259	48.4
MAX	127	724	1450	3150	6390	978	602	2120	425	168	1070	91
MIN	41	50	144	100	330	272	166	112	62	46	71	35
CFSM	.16	.48	.82	1.81	3.58	1.32	.84	.91	.47	.24	.66	.12
IN.	.19	.54	.95	2.08	3.73	1.53	.93	1.05	.53	.27	.76	.14

CAL YR 1984 TOTAL 199389 MEAN 545 MAX 9670 MIN 29 CFSM 1.38 IN 18.83
WTR YR 1985 TOTAL 134369 MEAN 368 MAX 6390 MIN 35 CFSM .93 IN 12.69

03180500 GREENBRIER RIVER AT DURBIN, WV

LOCATION.--Lat 38°32'37", long 79°50'00", Pocahontas County, Hydrologic Unit 05050003, on left bank at Durbin, 500 ft downstream from confluence of East and West Forks, and at mile 153.4.

DRAINAGE AREA.--133 mi^2.

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

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,699.71 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 15-31 and Feb. 3, 4, 8-19. Records good except for periods with ice effect, which are poor.

AVERAGE DISCHARGE.--42 years, 261 ft^3/s, 26.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s, Mar. 7, 1967, gage height, 9.15 ft, from rating curve extended above 5,000 ft^3/s; maximum gage height, 9.20 ft, Feb. 2, 1956 (ice jam); no flow part of each day, Oct. 2, 3, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 23	2230	Ice Jam	*5.61	May 3	0630	3,150	5.28
Feb. 25	0430	*3,360	5.41	May 23	1230	2,910	5.13

Minimum discharge, 8.4 ft^3/s, Sept. 27, gage height, 0.67 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	276	555	283	169	718	636	184	137	33	202	36
2	137	230	391	354	366	540	507	194	106	50	256	27
3	83	186	349	442	600	463	422	2300	95	60	168	22
4	58	174	293	602	520	447	346	1210	88	38	121	19
5	46	238	255	698	400	601	281	647	95	28	92	17
6	39	237	259	596	332	537	257	422	130	23	74	16
7	34	226	200	480	269	394	216	306	130	22	64	104
8	30	204	234	371	180	478	202	224	713	19	79	100
9	33	189	218	269	160	815	191	177	456	27	54	58
10	33	178	193	233	180	619	171	149	296	183	41	49
11	29	262	255	214	170	697	202	134	204	167	33	39
12	26	280	323	164	200	2010	232	125	181	108	29	31
13	25	266	364	174	230	1270	251	123	187	115	25	25
14	24	231	341	198	200	741	253	103	152	218	22	20
15	22	208	301	170	170	491	238	96	124	122	26	18
16	58	220	260	140	150	354	266	107	110	133	26	16
17	62	188	230	110	140	287	227	91	94	87	32	15
18	55	194	201	120	130	236	208	147	94	65	63	14
19	48	498	388	130	120	192	196	175	77	51	70	13
20	48	610	764	100	140	174	180	129	67	41	35	12
21	48	478	824	75	180	152	164	136	57	36	27	11
22	58	355	1240	50	300	148	151	146	49	33	23	11
23	94	281	957	45	580	255	135	1950	88	27	19	10
24	127	233	667	85	1540	377	127	2230	62	22	24	10
25	123	198	1780	130	2830	402	141	1200	44	21	70	11
26	242	170	1090	120	2670	356	115	612	35	179	53	11
27	212	153	668	90	1800	305	108	380	30	110	69	9.1
28	212	586	467	70	1130	267	197	271	28	73	41	9.4
29	606	1270	348	65	---	387	210	220	27	54	32	11
30	519	781	292	70	---	725	203	167	30	47	27	10
31	375	---	272	100	---	712	---	148	---	147	44	---
TOTAL	3643	9600	14979	6748	15856	16150	7033	14503	3986	2339	1941	754.5
MEAN	118	320	483	218	566	521	234	468	133	75.5	62.6	25.2
MAX	606	1270	1780	698	2830	2010	636	2300	713	218	256	104
MIN	22	153	193	45	120	148	108	91	27	19	19	9.1
CFSM	.89	2.41	3.63	1.64	4.26	3.92	1.76	3.52	1.00	.57	.47	.19
IN.	1.02	2.69	4.19	1.89	4.43	4.52	1.97	4.06	1.11	.65	.54	.21

CAL YR 1984 TOTAL 130746.0 MEAN 357 MAX 6000 MIN 13 CFSM 2.68 IN 36.57
WTR YR 1985 TOTAL 97532.5 MEAN 267 MAX 2830 MIN 9.1 CFSM 2.01 IN 27.28

03182000 KNAPP CREEK AT MARLINTON, WV

LOCATION.--Lat 38°12'40", long 80°04'30", Pocahontas County, Hydrologic Unit 05050003, at city water plant, at Marlinton, 1.0 mi upstream from mouth, and 2.0 mi downstream from discontinued gaging station.

DRAINAGE AREA.--108 mi^2 at discontinued gaging station.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1946 to September 1983, July to September 1985.

COOPERATION.--Records were furnished by Marlinton City Water Plant.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 28.0°C, July 24, 1952, June 2, 1959; minimum daily, 1.0°C, several days during winter periods.

EXTREMES FOR PERIOD JULY TO SEPTEMBER 1985.--
WATER TEMPERATURES: Maximum daily, 24.0°C, Sept. 4-7; minimum daily, 18.0°C, July 1.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										18.0	20.0	22.0
2										19.0	21.0	22.0
3										20.0	20.0	23.0
4										20.0	19.0	24.0
5										21.0	19.0	24.0
6										21.0	20.0	24.0
7										21.0	20.0	24.0
8										22.0	21.0	22.0
9										21.0	21.0	21.0
10										20.0	21.0	21.0
11										21.0	22.0	20.0
12										22.0	22.0	20.0
13										22.0	22.0	21.0
14										21.0	23.0	20.0
15										22.0	22.0	19.0
16										21.0	22.0	20.0
17										21.0	23.0	20.0
18										22.0	21.0	21.0
19										22.0	22.0	---
20										21.0	23.0	20.0
21										20.0	22.0	21.0
22										21.0	22.0	20.0
23										22.0	23.0	19.0
24										22.0	22.0	20.0
25										22.0	22.0	22.0
26										21.0	22.0	21.0
27										21.0	23.0	20.0
28										22.0	23.0	20.0
29										21.0	22.0	21.0
30										21.0	22.0	22.0
31										20.0	23.0	---
MEAN										21.0	21.5	21.0

WTR YR 1985 MEAN 21.5 MAX 24.0 MIN 18.0

03182500 GREENBRIER RIVER AT BUCKEYE, WV

LOCATION.--Lat 38°11'09", long 80°07'51", Pocahontas County, Hydrologic Unit 05050003, on right bank at upstream side of highway bridge at Buckeye, 1,000 ft upstream from Swago Creek, 3.5 mi downstream from Knapp Creek, and at mile 103.2. Records include flow of Swago Creek.

DRAINAGE AREA.--540 mi^2, includes that of Swago Creek.

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 953: 1930-32, 1934-35(M), 1936, 1937(M), 1938-39, 1940(M). WSP 1275: 1936.

GAGE.--Water-stage recorder. Datum of gage is 2,085.89 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 27, 1939, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 17-31 and Feb. 16-20. Records good except for period of ice effect, Jan. 17-31, and period of no gage-height record, Feb. 16-20, which are poor. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--56 years, 881 ft^3/s, 22.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,500 ft^3/s, Feb. 5, 1932, gage height, 17.5 ft, from flood-marks, from rating curve extended above 25,000 ft^3/s; minimum, 3.8 ft^3/s, Aug. 13, 1930, gage height, 1.19 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 25	0500	11,200	9.98	May 24	0500	*11,400	10.05
May 3	1400	*11,400	*10.06				

Minimum discharge, 31 ft^3/s, Sept. 25-28, gage height, 1.75 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	761	688	1750	1080	634	2210	1700	402	454	77	272	96
2	810	558	1230	1440	2140	1610	1410	401	385	87	616	101
3	449	477	1030	2100	2020	1260	1190	6290	312	102	480	85
4	292	430	915	4200	1400	1080	1040	4490	276	127	310	67
5	217	686	780	3170	1170	1090	854	2210	258	107	222	59
6	174	845	792	2120	1060	1120	773	1400	262	86	169	55
7	148	751	685	1630	901	914	686	1020	343	78	146	50
8	136	640	580	1260	634	823	618	776	1060	71	152	46
9	131	563	616	955	560	1700	610	609	1370	66	169	146
10	123	514	620	748	628	1520	571	506	819	128	137	101
11	119	768	714	700	590	1450	623	450	611	354	104	85
12	113	1110	903	600	724	6070	726	429	530	299	87	79
13	106	933	962	550	797	4420	777	1550	470	180	74	69
14	100	775	920	540	682	2550	745	847	428	192	67	55
15	97	650	823	565	580	1670	702	567	346	280	59	46
16	124	594	742	450	520	1200	867	474	291	183	62	42
17	140	549	670	380	480	987	1050	429	267	171	59	38
18	183	507	605	420	450	830	919	385	256	132	85	36
19	157	2070	652	450	430	682	817	497	230	106	179	34
20	145	2940	1730	350	500	594	716	464	190	89	194	34
21	136	1790	2430	250	680	534	630	382	165	78	128	33
22	136	1240	4520	180	894	515	555	523	148	70	110	33
23	148	961	3400	160	1600	1590	498	4930	135	64	87	33
24	213	793	2200	300	5660	2170	453	10000	141	60	85	33
25	316	657	5470	450	9730	1880	463	5280	145	63	140	33
26	375	559	3920	400	8770	1460	425	2600	113	144	258	31
27	495	488	2290	320	5810	1180	357	1510	95	336	218	31
28	452	1030	1600	250	3500	1010	342	1030	84	222	183	33
29	1020	4660	1210	220	---	957	459	796	79	151	149	33
30	1170	2630	983	250	---	1660	428	622	76	116	119	33
31	903	---	983	350	---	1790	---	517	---	121	104	---
TOTAL	9889	31856	46725	26838	53544	48526	22004	52386	10339	4340	5224	1650
MEAN	319	1062	1507	866	1912	1565	733	1690	345	140	169	55.0
MAX	1170	4660	5470	4200	9730	6070	1700	10000	1370	354	616	146
MIN	97	430	580	160	430	515	342	382	76	60	59	31
CFSM	.59	1.97	2.79	1.60	3.54	2.90	1.36	3.13	.64	.26	.31	.10
IN.	.68	2.19	3.22	1.85	3.69	3.34	1.52	3.61	.71	.30	.36	.11

CAL YR 1984 TOTAL 434717 MEAN 1188 MAX 19600 MIN 59 CFSM 2.20 IN 29.95
WTR YR 1985 TOTAL 313321 MEAN 858 MAX 10000 MIN 31 CFSM 1.59 IN 21.58

03183500 GREENBRIER RIVER AT ALDERSON, WV

LOCATION.--Lat 37°43'27", long 80°38'30", Monroe County, Hydrologic Unit 05050003, on left bank 400 ft upstream from highway bridge at Alderson, 0.5 mi upstream from Muddy Creek, and at mile 29.2.

DRAINAGE AREA.--1,364 mi^2.

PERIOD OF RECORD.--July 1895 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 536: 1907-9. WSP 803: 1918(M). WSP 953: 1930-41. WSP 1275: 1897, 1905, 1910, 1914(M), 1915-16, 1917(M), 1919-20(M), 1924-25(M), 1927(M), 1929, 1949, WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,529.42 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1929, nonrecording gage at bridge 400 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 22-24, 28, 29. Records good except for periods with ice effect, which are poor. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--90 years, 2,002 ft^3/s, 19.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,500 ft^3/s, Mar. 14, 1918, gage height, 22.0 ft, from flood-marks, from rating curve extended above 37,000 ft^3/s; minimum, 24 ft^3/s, Aug. 12, Oct. 1, 2, 1930; minimum gage height, 1.63 ft, Sept. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 24	2400	*20,700	*10.29	No other peak greater than base discharge.			

Minimum discharge, 79 ft^3/s, Sept. 30, gage height, 1.86 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	1880	4390	3030	4230	5530	3120	980	1150	175	780	278
2	1420	1520	3250	4130	9020	4130	2940	924	980	191	667	245
3	1960	1280	2550	6140	8150	3270	2560	1270	868	217	1040	222
4	1390	1110	2210	9000	5320	2720	2280	9320	744	213	1040	204
5	952	1100	1960	9200	3700	2420	2040	4800	667	204	657	199
6	678	1550	1850	6210	3020	2290	1840	3100	636	208	477	179
7	511	1910	1820	4630	2520	2170	1700	2260	625	231	382	167
8	427	1730	1600	3730	1980	1910	1560	1780	709	195	382	159
9	375	1510	1370	2980	1570	2140	1460	1430	1370	171	435	148
10	347	1340	1490	2380	1320	3260	1410	1190	2020	167	397	137
11	314	1340	1770	2050	1420	2890	1370	1040	1390	756	340	134
12	289	2330	2400	1850	1760	6670	1460	952	1150	1090	289	199
13	273	2520	2580	1570	2120	9900	1660	1010	938	1080	235	171
14	262	2070	2400	1320	1870	6330	1720	2110	854	720	199	155
15	240	1740	2160	1370	1600	4400	1640	1540	732	511	179	148
16	245	1530	1930	1240	1340	3290	1850	1230	657	443	163	137
17	245	1430	1770	990	1240	2660	2880	1120	577	452	163	123
18	267	1260	1620	1010	1180	2280	2770	994	586	334	1020	112
19	308	1990	1520	1070	1170	1950	2360	882	646	278	2640	107
20	353	7220	2040	1120	1270	1700	2060	868	567	251	1370	102
21	334	5380	3980	705	1550	1510	1820	952	477	208	952	102
22	327	3630	7600	450	2160	1420	1610	816	397	183	688	97
23	397	2700	7900	420	3470	2610	1430	1200	347	167	460	94
24	539	2150	5470	700	7520	5660	1310	13300	308	151	347	92
25	657	1850	6120	1070	15000	5360	1330	15500	273	144	327	90
26	768	1580	9370	1040	16200	4210	1270	7670	245	155	529	88
27	924	1360	5950	848	13600	3370	1180	4410	251	427	520	88
28	1020	1420	4230	600	8200	2850	1070	2920	222	792	646	88
29	1480	5740	3280	580	---	2470	995	2110	195	678	486	84
30	2480	6600	2680	681	---	2350	988	1640	179	435	397	83
31	2370	---	2510	805	---	3080	---	1360	---	382	340	---
TOTAL	22557	70770	101770	72919	123500	106800	53683	90678	20760	11609	18547	4232
MEAN	728	2359	3283	2352	4411	3445	1789	2925	692	374	598	141
MAX	2480	7220	9370	9200	16200	9900	3120	15500	2020	1090	2640	278
MIN	240	1100	1370	420	1170	1420	988	816	179	144	163	83
CFSM	.53	1.73	2.41	1.72	3.23	2.53	1.31	2.14	.51	.27	.44	.10
IN.	.62	1.93	2.78	1.99	3.37	2.91	1.46	2.47	.57	.32	.51	.12

CAL YR 1984 TOTAL 1012893 MEAN 2767 MAX 30300 MIN 155 CFSM 2.03 IN 27.62
WTR YR 1985 TOTAL 697825 MEAN 1912 MAX 16200 MIN 83 CFSM 1.40 IN 19.03

03184000 GREENBRIER RIVER AT HILLDALE, WV

LOCATION.--Lat 37°38'24", long 80°48'19", Summers County, Hydrologic Unit 05050003, on left bank 100 ft downstream from State Highway 3 bridge at Hilldale, 0.1 mi upstream from Howard Creek, 0.9 mi upstream from Powley Creek, 5.0 mi southeast of Hinton, and at mile 5.5. Records include flow of Howard Creek.

DRAINAGE AREA.--1,619 mi^2, includes that of Howard Creek.

PERIOD OF RECORD.--June 1936 to current year.

REVISED RECORDS.--WSP 1435: 1955. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,388.66 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 20-31. Records good except for period with ice effect, which is poor.

AVERAGE DISCHARGE.--49 years, 2,273 ft^3/s, 19.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,100 ft^3/s, Dec. 27, 1973, gage height, 23.13 ft, from floodmark; minimum discharge, 39 ft^3/s, Sept. 18-20, 1946, Sept. 16, 1964; minimum gage height, 0.32 ft, Sept. 16, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.85 ft from data furnished by U.S. Army Corps of Engineers, discharge, 60,800 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 25	0300	*23,200	*12.73	No peak greater than base discharge.			

Minimum discharge, 84 ft^3/s, Sept. 29, 30, gage height, 0.55 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	1950	5160	3640	1190	6560	3250	929	1210	204	700	332
2	1780	1530	3730	5230	3730	4870	3080	884	1030	204	684	285
3	2180	1230	2830	7690	10900	3800	2730	911	911	222	767	255
4	1330	1030	2370	10600	7550	3070	2380	8180	812	236	1020	236
5	884	932	2060	11300	5010	2680	2110	5750	716	236	749	218
6	662	1180	1910	7690	3890	2460	1860	3520	676	227	564	213
7	528	1790	1880	5640	3250	2340	1700	2490	652	236	460	191
8	440	1730	1670	4520	2760	2030	1560	1900	732	240	444	183
9	389	1500	1450	3560	1930	1980	1420	1500	839	209	452	167
10	357	1300	1420	2780	1460	3320	1360	1210	2020	187	476	155
11	335	1270	1860	2300	1450	3180	1320	1020	1480	187	399	148
12	315	2000	2640	2030	1630	6110	1350	920	1150	1060	344	145
13	294	2740	2900	1690	2520	11200	1580	902	983	974	296	204
14	278	2250	2660	1460	2210	7370	1670	1690	866	848	245	179
15	271	1820	2340	1370	1920	5100	1620	1690	767	636	218	163
16	266	1540	2030	1150	1550	3760	1720	1230	700	492	200	152
17	267	1350	1820	1020	1350	2930	2890	1070	620	468	187	145
18	266	1210	1660	974	1250	2450	3080	1000	596	399	378	138
19	289	1420	1540	1040	1240	2050	2580	902	604	314	2490	124
20	317	7180	1790	1200	1290	1740	2180	821	636	285	1540	115
21	346	6610	4230	700	1550	1510	1890	893	532	250	1060	107
22	327	4340	7810	500	2250	1440	1640	839	460	213	794	104
23	348	3110	9220	450	3850	2640	1440	1070	392	191	588	99
24	411	2400	6600	700	7730	6290	1280	11000	344	175	428	97
25	583	1930	5980	1100	15100	6290	1250	19200	314	171	371	92
26	624	1610	10600	1100	17800	5000	1230	9480	285	213	406	92
27	754	1360	7210	900	16200	3890	1130	5240	260	245	652	97
28	811	1420	5080	620	9800	3200	1030	3410	265	700	668	90
29	1020	5030	3820	600	---	2750	947	2470	231	732	580	86
30	2190	7860	3070	700	---	2410	902	1820	209	548	460	84
31	2520	---	3380	800	---	3040	---	1470	---	500	392	---
TOTAL	21688	72622	112720	85054	132360	117460	54179	95411	21292	11802	19012	4696
MEAN	700	2421	3636	2744	4727	3789	1806	3078	710	381	613	157
MAX	2520	7860	10600	11300	17800	11200	3250	19200	2020	1060	2490	332
MIN	266	932	1420	450	1190	1440	902	821	209	171	187	84
CFSM	.43	1.50	2.25	1.70	2.92	2.34	1.12	1.90	.44	.24	.38	.10
IN.	.50	1.67	2.59	1.95	3.04	2.70	1.24	2.19	.49	.27	.44	.11

CAL YR 1984 TOTAL 1162082 MEAN 3175 MAX 35700 MIN 165 CFSM 1.96 IN 26.70
WTR YR 1985 TOTAL 748296 MEAN 2050 MAX 19200 MIN 84 CFSM 1.27 IN 17.19

03184500 NEW RIVER AT HINTON, WV

LOCATION.--Lat 37°40'13", long 80°53'45", Summers County, Hydrologic Unit 05050004, on right bank at Hinton, 0.2 mi upstream from Madam Creek, 1.5 mi downstream from Greenbrier River, at New River mile 62.0 and Kanawha River mile 160.0.

DRAINAGE AREA.--6,256 mi^2.

PERIOD OF RECORD.--June 1936 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,355.18 ft above National Geodetic Vertical Datum of 1929. Prior to June 5, 1949, water-stage recorder at site 400 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1939 by Claytor Lake and since 1949 by Bluestone Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--49 years, 7,928 ft^3/s, 17.21 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 246,000 ft^3/s, Aug. 15, 1940, gage height, 18.97 ft, from rating curve extended above 80,000 ft^3/s on basis of slope-area measurement at station at Bluestone Dam, and gaged inflow from Greenbrier River; minimum, 238 ft^3/s, Aug. 21, 1962, gage height, 1.03 ft; minimum daily, 620 ft^3/s, Nov. 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39,800 ft^3/s, May 25, gage height, 6.85 ft; minimum daily, 1,000 ft^3/s, Sept. 19-21.

REVISIONS.--The minimum daily discharge for water year 1984 has been revised to 1,210 ft^3/s, Sept. 27, 1984. Revised daily discharges, in cubic feet per second, for August and September 1984 are given below. These figures supersede those published in the report for 1984.

Aug. 24....3620	Aug. 26.....2100	Aug. 28.. ..2360	Aug. 30.....2780
25....2450	27.....2070	29.....3030	31....11300

MONTH	TOTAL	MEAN	MAX	MIN
August 1984	199020	6420	31900	2070

Sept. 1...11200	Sept. 9....2230	Sept. 17....2100	Sept. 25....1530
2....5120	10....1970	18....2890	26....1420
3....3150	11....1970	19....1530	27....1210
4....2650	12....2480	20....1530	28....1240
5....3660	13....2480	21....1560	29....1640
6....3780	14....2230	22....1560	30....1940
7....3070	15....2040	23....1590	
8....2520	16....2040	24....1560	

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN
September 1984	75890	2530	11200	1210	.40	.45
Wtr Yr 1984	3631080	9921	62500	1210	1.59	21.59

03184500 NEW RIVER AT HINTON, WV--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2230	4460	10500	8480	16200	15400	5120	3420	5030	1370	2520	2780
2	4380	3980	6560	9620	35000	12200	6280	3380	3660	1670	5030	1970
3	4300	4980	4100	14700	34800	8660	5890	3420	2720	2320	5270	2000
4	3860	4880	3340	23600	23400	6610	6320	9800	2260	2580	3580	1880
5	5750	3580	3980	29300	13800	7100	6520	7700	2000	2360	2610	1880
6	3420	3070	4740	19700	9870	7460	5510	5510	2520	1880	2450	2160
7	2290	3740	4690	11200	10300	7250	4600	4790	3420	1670	2720	2200
8	1910	3700	4220	10800	8120	6320	3740	3980	3700	1590	2850	2040
9	1560	3150	3260	9620	5460	5360	5220	3500	2890	1590	2360	1910
10	1850	2390	2360	7580	4690	6080	6040	3220	3500	1560	2450	1760
11	2040	2480	3300	6660	4420	5650	5460	3070	3740	1590	2450	1730
12	1700	2920	5120	5840	7050	10800	5360	2820	4260	2160	1970	1760
13	1700	3740	5600	4380	11600	16300	5080	2420	4260	2290	2230	1970
14	1670	4300	5510	3380	8660	11800	4500	3820	3900	2850	2230	1940
15	1510	3740	4930	3260	5560	8840	3900	4140	2820	2960	2040	1610
16	1400	3460	4060	3620	4640	6800	4740	4140	2420	2920	1970	1450
17	1400	3500	3220	3220	4420	5700	7580	4690	2320	2850	2260	1450
18	1820	3110	3260	3340	3460	4380	8840	5940	2550	2610	10500	1180
19	2320	3150	3700	3220	4460	4790	8780	4880	2650	1970	24300	1000
20	2450	8540	4790	3030	6040	4640	7150	3540	2680	1670	15300	1000
21	2040	8660	6760	1940	6520	4260	5080	3380	2610	1610	9440	1000
22	1820	6370	9500	2750	7880	4220	4100	3420	2040	1290	7300	1290
23	2230	4980	11100	2520	10900	6230	4550	4180	1730	1080	5170	1450
24	2610	3460	8060	2260	17100	12500	4690	18100	1670	1080	3980	1450
25	3150	2720	7400	2720	26300	11400	4600	32200	1640	1420	3300	1210
26	3740	2520	13000	2890	32900	12300	4550	19200	1450	3740	3070	1080
27	3900	2680	10700	2290	30600	10400	5750	10100	1240	2850	3660	1100
28	2960	3660	8600	1940	20700	7880	4020	8180	1400	5410	5080	1320
29	2360	11600	7100	2820	---	7050	2960	6900	1400	3740	4930	1450
30	3540	17100	5360	2480	---	5840	3220	5800	1370	2230	4300	1450
31	4690	---	5320	3620	---	5030	---	5220	---	1760	4260	---
TOTAL	82600	140620	184140	212780	374850	249250	160150	204860	79850	68670	151580	48470
MEAN	2665	4687	5940	6864	13390	8040	5338	6608	2662	2215	4890	1616
MAX	5750	17100	13000	29300	35000	16300	8840	32200	5030	5410	24300	2780
MIN	1400	2390	2360	1940	3460	4220	2960	2420	1240	1080	1970	1000

CAL YR 1984 TOTAL 3342510 MEAN 9133 MAX 62500 MIN 1210 CFSM 1.46 IN 19.88
WTR YR 1985 TOTAL 1957820 MEAN 5364 MAX 35000 MIN 1000 CFSM .86 IN 11.64

03184950 SOAK CREEK AT SOPHIA, WV

LOCATION.--Lat 37°42'26", long 81°14'33", Raleigh County, Hydrologic Unit 05050004, on left bank, 50 ft downstream from bridge on State Highway 29/6, 1.1 mi upstream from Laurel Branch, and 2.3 mi upstream from Piney Creek.

DRAINAGE AREA.--3.20 mi^2.

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

REVISED RECORDS.--WDR WV-83-1: Drainage area.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV									
01...	1130	.09	265	7.60	16.0	710	--	11	.00
19...	0130	38	--	--	--	--	--	518	53
19...	0200	42	--	--	--	--	--	511	58
19...	0230	45	--	--	--	--	--	497	60
19...	0300	48	--	--	--	--	--	527	68
19...	0330	48	--	--	--	--	--	499	65
19...	0400	47	--	--	--	--	--	464	59
19...	0430	46	--	--	--	--	--	395	49
19...	0500	47	--	--	--	--	--	366	46
19...	0530	49	--	--	--	--	--	362	48
19...	0600	53	--	--	--	--	--	332	48
19...	0630	53	--	--	--	--	--	319	46
19...	0700	51	--	--	--	--	--	309	43
19...	0730	50	--	--	--	--	--	304	41
19...	0800	49	--	--	--	--	--	278	37
19...	0830	49	--	--	--	--	--	260	34
19...	0900	49	--	--	--	--	--	235	31
19...	0930	45	--	--	--	--	--	214	26
19...	1000	41	--	--	--	--	--	189	21
19...	1030	38	--	--	--	--	--	163	17
19...	1100	36	112	6.90	8.0	700	10.6	151	15
19...	1130	33	--	--	--	--	--	136	12
19...	1200	30	--	--	--	--	--	125	10
19...	1230	28	--	--	--	--	--	118	8.9
19...	1300	24	--	--	--	--	--	105	6.8
19...	1330	22	--	--	--	--	--	92	5.5
19...	1400	20	--	--	--	--	--	93	5.0
19...	1430	20	--	--	--	--	--	90	4.9
19...	1500	19	--	--	--	--	--	74	3.8
19...	1530	18	--	--	--	--	--	75	3.6
19...	1600	17	--	--	--	--	--	60	2.8
19...	1630	17	--	--	--	--	--	75	3.4
19...	1700	16	--	--	--	--	--	72	3.1
19...	1730	15	--	--	--	--	--	69	2.8
19...	1800	15	--	--	--	--	--	63	2.6
19...	1830	14	--	--	--	--	--	59	2.2
19...	1900	14	--	--	--	--	--	51	1.9
19...	1930	13	--	--	--	--	--	37	1.3
19...	2000	13	--	--	--	--	--	54	1.9
19...	2030	13	--	--	--	--	--	53	1.9
19...	2100	12	--	--	--	--	--	53	1.7
19...	2130	12	--	--	--	--	--	46	1.5
19...	2200	12	--	--	--	--	--	42	1.4
19...	2230	11	--	--	--	--	--	43	1.3
19...	2300	11	--	--	--	--	--	38	1.1
19...	2330	11	--	--	--	--	--	37	1.1
19...	2400	10	--	--	--	--	--	41	1.1
FEB									
20...	1430	3.5	430	7.50	6.0	--	--	33	.31
21...	1330	4.7	320	7.20	6.0	--	--	35	.44
23...	1330	15	--	--	--	--	--	197	8.0
23...	1400	17	--	--	--	--	--	257	12
23...	1430	18	--	--	--	--	--	329	16
23...	1500	20	--	--	--	--	--	383	21
23...	1530	22	--	--	--	--	--	404	24
23...	1600	22	--	--	--	--	--	417	25
23...	1630	24	--	--	--	--	--	409	27
23...	1700	25	--	--	--	--	--	398	27
23...	1730	25	--	--	--	--	--	378	26
23...	1800	26	--	--	--	--	--	353	25
23...	1830	26	--	--	--	--	--	293	21
23...	1900	26	--	--	--	--	--	270	19
23...	1930	26	--	--	--	--	--	259	18
23...	2000	26	--	--	--	--	--	252	18
23...	2030	26	--	--	--	--	--	227	16
23...	2130	26	--	--	--	--	--	220	15
23...	2200	26	--	--	--	--	--	203	14
23...	2230	26	--	--	--	--	--	204	14
23...	2300	26	--	--	--	--	--	187	13
23...	2330	26	--	--	--	--	--	191	13
23...	2400	26	--	--	--	--	--	186	13
24...	0030	26	--	--	--	--	--	166	12

03184950 SOAK CREEK AT SOPHIA, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR									
09...	1330	2.8	340	7.80	6.5	710	--	14	.11
MAY									
21...	1400	10	140	7.40	15.5	710	8.0	183	4.9
21...	1430	9.2	--	--	--	--	--	184	4.6
21...	1500	8.6	--	--	--	--	--	150	3.5
21...	1530	8.4	--	--	--	--	--	119	2.7
21...	1600	8.2	--	--	--	--	--	94	2.1
21...	1630	8.0	--	--	--	--	--	84	1.8
21...	1700	7.7	--	--	--	--	--	75	1.6
21...	1730	7.5	--	--	--	--	--	66	1.3
21...	1800	7.3	--	--	--	--	--	60	1.2
21...	1830	7.1	--	--	--	--	--	55	1.1
21...	1900	7.1	--	--	--	--	--	50	.96
21...	1930	6.9	--	--	--	--	--	46	.86
21...	2000	6.9	--	--	--	--	--	46	.86
21...	2030	7.7	--	--	--	--	--	48	1.0
21...	2100	8.0	--	--	--	--	--	56	1.2
21...	2130	7.7	--	--	--	--	--	64	1.3
21...	2200	7.5	--	--	--	--	--	88	1.8
21...	2230	7.5	--	--	--	--	--	84	1.7
21...	2300	7.3	--	--	--	--	--	125	2.5
21...	2330	7.1	--	--	--	--	--	117	2.2
21...	2400	7.1	--	--	--	--	--	98	1.9
22...	0030	7.1	--	--	--	--	--	80	1.5
22...	0100	7.1	--	--	--	--	--	68	1.3
22...	0130	6.9	--	--	--	--	--	62	1.2
24...	0935	71	--	--	--	--	--	141	27
24...	1000	74	--	--	--	--	--	162	32
24...	1030	80	--	--	--	--	--	242	52
24...	1100	84	--	--	--	--	--	220	50
24...	1130	86	--	--	--	--	--	278	65
24...	1200	88	--	--	--	--	--	228	54
24...	1230	88	--	--	--	--	--	202	48
24...	1300	86	--	--	--	--	--	196	46
24...	1330	86	--	--	--	--	--	179	42
24...	1400	85	--	--	--	--	--	173	40
24...	1430	85	--	--	--	--	--	186	43
24...	1500	89	--	--	--	--	--	186	45
24...	1530	89	--	--	--	--	--	171	41
24...	1600	89	--	--	--	--	--	170	41
24...	1630	88	--	--	--	--	--	144	34
24...	1700	86	--	--	--	--	--	161	37
24...	1730	86	--	--	--	--	--	153	36
24...	1800	85	--	--	--	--	--	146	34
24...	1830	85	--	--	--	--	--	142	33
24...	1900	85	--	--	--	--	--	144	33
24...	1930	84	--	--	--	--	--	132	30
24...	2000	83	--	--	--	--	--	148	33
24...	2030	82	--	--	--	--	--	124	27
24...	2100	71	--	--	--	--	--	104	20
30...	1100	3.2	160	7.30	16.5	710	7.5	669	5.8
JUN									
07...	1230	1.0	205	7.60	20.5	710	7.9	218	.59
JUL									
10...	0730	60	--	--	--	--	--	2480	402
10...	0800	40	--	--	--	--	--	2560	276
10...	0830	35	--	--	--	--	--	1490	141
10...	0900	33	--	--	--	--	--	1910	170
10...	0930	25	--	--	--	--	--	1560	105
10...	1000	16	--	--	--	--	--	1340	58
10...	1030	12	--	--	--	--	--	1080	35
10...	1100	9.2	--	--	--	--	--	830	21
10...	1130	7.7	--	--	--	--	--	626	13
10...	1200	6.6	--	--	--	--	--	482	8.6
10...	1230	5.8	--	--	--	--	--	383	6.0
10...	1300	5.3	--	--	--	--	--	302	4.3
10...	1330	4.5	--	--	--	--	--	257	3.1
10...	1400	4.2	--	--	--	--	--	213	2.4
10...	1430	4.0	--	--	--	--	--	175	1.9
10...	1500	3.7	--	--	--	--	--	155	1.5
10...	1530	3.5	--	--	--	--	--	133	1.3
AUG									
09...	1300	.77	260	7.50	24.5	710	7.2	6	.01
25...	1630	83	--	--	--	--	--	252	56

03185400 NEW RIVER AT THURMOND, WV

LOCATION.--Lat 37°57'18", long 81°04'36", Fayette County, Hydrologic Unit 05050004, on right bank at Thurmond, at Chessie System pump house, 0.1 mi upstream from Dunloup Creek, 0.3 mi upstream from railroad/highway bridge, at New River mile 25.8 and Kanawha River mile 122.4.

DRAINAGE AREA.--6,687 mi^2.

PERIOD OF RECORD.--February 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,037.71 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 22, Dec. 7, 8, Jan. 13-16, 26, 27, 29, 30, Feb. 8, 9. Records good except for periods of no gage-height record, which are fair. Flow regulated by Claytor Lake and Bluestone Lake. National Park Service gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 91,000 ft^3/s, Feb. 15, 1984, gage height, 18.64 ft; minimum, 860 ft^3/s, Aug. 26, 27, 1981, gage height, 1.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,800 ft^3/s, May 25, gage height, 15.28 ft; minimum, 934 ft^3/s, Oct. 11, gage height, 1.56 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2210	5070	14200	10700	17800	18700	5650	3500	5740	1380	1990	4280
2	3140	4380	8930	12800	40200	15500	6740	3560	5270	1380	4280	1810
3	5610	4560	5930	16700	40000	12100	7320	4030	3120	1900	6320	2360
4	3140	5770	3750	25500	29800	8700	6820	7900	2840	2730	5030	1960
5	6070	4400	4030	33400	17400	7620	7620	10700	2250	2740	2980	1900
6	4910	3470	5210	24100	13500	9000	6970	7050	2210	2130	2680	1950
7	2430	3980	5600	15000	12100	8370	5540	5610	3340	1930	2720	2570
8	2300	4150	5000	12300	10000	8020	4500	4820	4550	1620	3880	2200
9	1720	3890	4480	12700	7000	7250	4340	3890	4050	1580	2980	2180
10	2080	2820	2820	9420	5190	6840	6720	3560	3590	1610	2490	1880
11	1800	2850	3490	8410	5160	7550	6460	3360	4130	1620	2900	1860
12	1830	3050	5500	7150	6730	10100	5940	3220	4600	1700	2310	1820
13	1690	3950	6570	6000	12600	19100	5920	2700	4960	2460	2110	1850
14	1670	4390	6480	5000	12100	15300	5390	2730	4630	2790	2620	2330
15	1650	4560	5950	3700	7570	12200	4600	4950	3980	3110	2260	1930
16	1400	3720	5120	3500	5380	9050	4600	4840	2570	3220	2190	1430
17	1360	3720	3810	4030	5220	7370	7420	5270	2510	3050	2170	1510
18	1360	3700	3550	3540	4610	5520	10500	6580	2600	3000	6100	1500
19	2100	5250	3860	3870	3950	4900	10200	7900	2820	2490	25400	1110
20	2510	8650	5490	3300	6380	5210	9470	4770	2820	1680	19600	1010
21	2450	11800	7850	2660	7620	4790	6700	4160	2780	1630	12800	1010
22	1890	9480	11800	1860	9250	4500	4640	4550	2620	1570	8600	1010
23	1910	6390	14100	3990	13900	5780	4500	11400	1880	1150	6640	1410
24	2510	4780	11200	2400	20000	11800	5120	19700	1780	1040	4850	1500
25	2920	3260	10100	2790	29400	15600	4980	44100	1720	1020	3950	1470
26	3640	2950	14800	3200	37300	13100	4930	25000	1650	2850	3590	1160
27	4080	2740	13900	3000	37800	13600	5320	15500	1400	4230	3440	1130
28	3810	4050	11400	2150	25000	10700	6040	10600	1230	4070	4900	1110
29	2840	9920	9080	2600	---	8450	3140	9320	1440	5500	6120	1420
30	3000	19800	7310	3300	---	7820	3080	7300	1380	3300	4760	1480
31	4750	---	6510	3390	---	6020	---	6120	---	1880	4690	---
TOTAL	84780	161500	227820	252460	442960	300560	181170	258690	90460	72360	167350	52140
MEAN	2735	5383	7349	8144	15820	9695	6039	8345	3015	2334	5398	1738
MAX	6070	19800	14800	33400	40200	19100	10500	44100	5740	5500	25400	4280
MIN	1360	2740	2820	1860	3950	4500	3080	2700	1230	1020	1990	1010

CAL YR 1984 TOTAL 3799180 MEAN 10380 MAX 79900 MIN 1230 CFSM 1.54 IN 20.98
WTR YR 1985 TOTAL 2292250 MEAN 6280 MAX 44100 MIN 1010 CFSM .93 IN 12.66

03186500 WILLIAMS RIVER AT DYER, WV

LOCATION.--Lat 38°22'44", long 80°29'03", Webster County, Hydrologic Unit 05050005, on left bank at Dyer, 0.2 mi downstream from Craig Run, 7.0 mi southwest of Webster Springs, and at mile 2.3.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--September 1929 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1930.

GAGE.--Water-stage recorder. Datum of gage is 2,193.46 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to June 11, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 13-31 and Feb. 2. Records good except for period of no gage-height record, Jan. 13-24, and periods with ice effect, Jan. 25-31, and Feb. 2, which are poor.

AVERAGE DISCHARGE.--56 years, 333 ft^3/s, 35.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s, July 4, 1932, gage height, 18.45 ft, from flood-marks, from rating curve extended above 7,000 ft^3/s on basis of slope-area measurements at gage heights 12.33 ft and 18.45 ft; minimum daily, 0.5 ft^3/s, Oct. 13-16, 21, 1953; minimum gage height, 0.44 ft, Oct. 5, 6, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 24	0330	4,920	7.80	July 10	1400	*6,600	*8.99

Minimum discharge, 3.6 ft^3/s, Sept. 30, gage height, 0.69 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	394	277	458	462	560	690	557	86	154	23	315	29
2	325	244	346	735	550	546	435	86	119	24	421	24
3	169	206	304	755	368	496	359	912	99	36	194	20
4	118	182	268	1280	292	460	297	544	90	37	126	18
5	92	339	232	922	261	730	244	361	94	28	92	16
6	78	414	253	650	265	508	231	270	229	28	74	14
7	67	382	193	502	221	357	206	215	189	33	68	14
8	62	322	196	398	172	1040	198	169	427	34	93	18
9	62	287	188	294	166	1750	189	138	305	30	80	19
10	60	259	232	250	175	842	167	115	472	2710	112	16
11	53	386	740	220	170	841	224	104	453	1470	71	14
12	49	398	655	174	184	2010	353	96	418	506	52	12
13	47	308	502	170	170	1090	543	133	544	292	42	11
14	44	256	394	190	150	729	401	104	461	237	35	9.7
15	44	226	315	160	138	524	316	85	319	161	36	8.7
16	60	250	262	140	127	395	480	124	239	136	33	8.1
17	82	217	226	120	126	324	426	112	196	97	31	7.4
18	70	215	206	150	115	265	332	246	172	74	35	6.8
19	64	1310	585	120	112	215	276	374	161	58	87	6.5
20	62	961	1190	90	116	199	234	230	120	48	54	5.9
21	62	585	928	60	131	174	202	207	103	41	38	5.6
22	74	410	1130	50	240	165	177	375	83	36	32	5.3
23	133	318	740	80	749	557	155	2830	77	32	26	5.0
24	161	256	630	140	2380	773	138	3210	67	27	28	5.0
25	177	212	2580	120	2920	608	134	1350	54	24	104	5.0
26	394	179	1090	100	3050	426	115	713	52	256	85	4.4
27	287	154	690	90	1730	348	99	444	37	227	67	4.7
28	294	898	525	80	1040	323	111	321	31	116	55	5.0
29	802	968	406	70	---	449	124	332	27	75	41	4.4
30	535	575	346	110	---	756	97	232	24	59	33	3.9
31	370	---	378	250	---	522	---	184	---	246	30	---
TOTAL	5291	11994	17188	8932	16678	19112	7820	14702	5816	7201	2590	326.4
MEAN	171	400	554	288	596	617	261	474	194	232	83.5	10.9
MAX	802	1310	2580	1280	3050	2010	557	3210	544	2710	421	29
MIN	44	154	188	50	112	165	97	85	24	23	26	3.9
CFSM	1.34	3.13	4.33	2.25	4.66	4.82	2.04	3.70	1.52	1.81	.65	.09
IN.	1.54	3.49	5.00	2.60	4.85	5.55	2.27	4.27	1.69	2.09	.75	.09

CAL YR 1984 TOTAL 143477.0 MEAN 392 MAX 5130 MIN 16 CFSM 3.06 IN 41.70
WTR YR 1985 TOTAL 117650.4 MEAN 322 MAX 3210 MIN 3.9 CFSM 2.52 IN 34.19

03187500 CRANBERRY RIVER NEAR RICHWOOD, WV

LOCATION.--Lat 38°17'43", long 80°31'36", Nicholas County, Hydrologic Unit 05050005, Monongahela National Forest, on left bank 30 ft downstream from U.S. Forest Service highway bridge, 0.6 mi upstream from Barrenshe Run, 5.0 mi north of Richwood, and at mile 5.6.

DRAINAGE AREA.--80.4 mi^2.

PERIOD OF RECORD.--October 1944 to December 1951, June 1964 to September 1982, March 1984 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,100 ft above National Geodetic Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 22 to Jan. 10 and Jan. 16-30. Records good except for period of no gage-height record, Nov. 22 to Jan. 10, which is fair, and period with ice effect, Jan. 16-30, which is poor. Gage-height data for water years 1972-79 provided by U.S. Forest Service.

AVERAGE DISCHARGE.--26 years (water years 1945-51, 1965-82, 1985), 239 ft^3/s, 40.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft^3/s, Aug. 31, 1984, on basis of slope-area measurement of peak flow, gage height, 11.00 ft, from flood marks; minimum, 0.8 ft^3/s, Sept. 17, 18, 1967, gage height 1.35 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 24	0330	*3,920	*7.25	July 10	1630	3,120	6.67

Minimum discharge, 2.7 ft^3/s, Sept. 26, gage height, 1.63 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	196	290	300	168	464	382	65	113	17	108	18
2	204	171	230	490	238	367	298	64	85	19	181	16
3	111	143	200	520	184	336	245	604	70	27	100	14
4	80	123	170	800	169	312	202	395	65	28	67	13
5	63	209	150	560	165	468	166	271	65	21	50	11
6	53	255	170	410	194	340	152	207	69	19	42	10
7	46	240	130	330	164	244	135	163	70	19	40	9.8
8	43	207	140	260	137	665	127	126	206	21	61	10
9	44	187	120	200	128	1110	121	100	178	18	53	12
10	42	175	150	160	158	542	106	83	210	1310	46	11
11	38	249	480	148	137	577	130	75	228	940	40	9.4
12	35	260	400	120	135	1380	218	69	221	406	30	8.5
13	32	205	330	119	130	731	385	90	287	302	26	7.3
14	31	173	260	132	131	481	291	74	268	172	23	6.8
15	29	156	220	115	117	349	228	58	196	116	20	6.3
16	40	170	170	94	110	264	386	106	152	93	19	5.8
17	59	151	150	80	90	217	323	98	122	68	17	5.4
18	51	147	130	100	80	181	241	260	141	53	21	5.0
19	47	866	400	80	73	150	198	298	152	42	41	4.6
20	45	656	760	60	71	134	166	212	108	34	32	4.0
21	47	404	600	40	77	116	141	178	88	30	23	3.8
22	56	286	740	35	126	108	120	256	70	26	19	3.4
23	85	210	480	54	331	279	102	1940	62	23	16	3.3
24	106	170	420	100	1210	432	92	2670	52	20	21	3.3
25	126	140	1500	80	1900	374	92	1190	42	17	68	3.1
26	272	120	700	70	2260	271	79	573	34	137	58	3.0
27	207	100	470	60	1330	224	67	349	28	155	43	3.0
28	193	600	340	54	735	203	73	250	24	76	35	2.8
29	436	640	260	48	---	392	101	251	21	49	26	2.8
30	334	370	230	70	---	644	76	185	19	55	21	2.7
31	251	---	250	110	---	424	---	145	---	104	19	---
TOTAL	3426	7979	11040	5799	10748	12779	5443	11405	3446	4417	1366	219.1
MEAN	111	266	356	187	384	412	181	368	115	142	44.1	7.30
MAX	436	866	1500	800	2260	1380	386	2670	287	1310	181	18
MIN	29	100	120	35	71	108	67	58	19	17	16	2.7
CFSM	1.38	3.31	4.43	2.33	4.78	5.12	2.25	4.58	1.43	1.77	.55	.09
IN.	1.59	3.69	5.11	2.68	4.97	5.91	2.52	5.28	1.59	2.04	.63	.10

WTR YR 1985 TOTAL 78067.1 MEAN 214 MAX 2670 MIN 2.7 CFSM 2.66 IN 36.12

03189600 GAULEY RIVER BELOW SUMMERSVILLE DAM, WV

LOCATION.--Lat 38°12'54", long 80°53'18", Nicholas County, Hydrologic Unit 05050005, on right bank 0.4 mi downstream from Summersville Dam, 5.0 mi southwest of Summersville, and at mile 35.3.

DRAINAGE AREA.--806 mi^2.

PERIOD OF RECORD.--March 1966 to September 1982, October 1982 to current year (gage heights, discharge measurements, and annual maximum discharge only).

REVISED RECORDS.--WDR WV-67: 1966. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,350.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated by Summersville Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--16 years (water years 1967-82), 2,154 ft^3/s, 36.29 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft^3/s, Mar. 26, 1966, gage height, 19.30 ft; minimum, 1.9 ft^3/s, Feb. 16, 17, 1967, gage height, 3.67 ft; minimum daily, 2.4 ft^3/s, Feb. 10, 13-16, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,200 ft^3/s, Feb. 25, gage height, 18.40 ft; minimum gage height, 5.66 ft, Aug. 28.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.79	10.27	12.08	10.43	11.20	12.43	8.65	5.99	8.23	8.29	6.19	6.00
2	9.40	9.79	10.83	12.20	12.51	10.92	6.25	5.99	7.53	8.29	8.20	6.00
3	9.41	9.52	9.86	13.13	12.20	10.54	6.26	6.01	7.26	7.23	8.91	6.00
4	9.41	9.35	9.40	13.99	10.69	10.67	6.21	6.00	7.50	6.25	7.24	6.43
5	10.15	9.58	9.40	13.91	10.14	10.36	6.18	6.00	7.74	6.13	6.04	7.04
6	10.56	10.96	9.40	12.61	10.14	10.47	6.18	6.00	7.52	6.08	5.86	7.05
7	9.24	11.60	9.61	11.37	10.14	10.27	6.18	6.01	7.23	6.08	6.63	8.87
8	6.23	11.22	9.54	10.89	9.20	10.21	6.18	6.01	7.58	6.67	7.35	9.02
9	6.23	10.54	8.93	10.16	8.60	14.44	6.19	6.01	9.49	7.62	6.56	7.27
10	6.23	10.24	8.82	9.30	9.12	14.61	6.09	6.02	9.48	7.63	6.31	7.45
11	6.23	10.47	10.13	8.88	9.36	13.02	5.95	6.02	9.29	14.52	6.46	7.95
12	6.23	11.23	10.04	8.90	9.17	15.15	5.95	6.02	9.71	10.14	6.48	7.91
13	6.23	11.17	10.66	8.66	9.48	14.79	5.96	6.02	10.40	10.13	5.97	6.98
14	6.23	10.74	11.46	8.43	9.43	12.58	5.96	6.02	10.55	9.95	5.77	7.82
15	6.52	10.27	11.38	8.43	8.97	11.36	5.86	6.03	9.98	9.23	5.77	8.19
16	7.15	10.27	11.35	7.77	8.65	10.59	5.74	6.03	9.07	7.52	5.76	7.49
17	7.28	10.28	11.01	7.60	8.49	10.04	5.80	6.03	8.64	6.26	5.75	7.64
18	7.28	10.13	9.85	7.90	8.49	9.41	5.91	6.04	8.64	5.93	5.82	8.14
19	6.75	12.99	9.74	7.90	8.49	9.27	5.98	6.04	8.64	5.93	6.15	8.50
20	6.23	15.06	11.20	7.91	8.92	8.73	5.98	8.12	8.64	6.20	6.16	8.50
21	6.24	13.71	13.12	7.40	9.44	8.26	5.98	9.44	7.86	6.51	6.16	8.43
22	7.44	11.66	14.41	6.96	9.79	8.59	5.99	10.03	7.07	6.95	5.93	7.93
23	9.64	10.94	13.93	6.95	13.47	9.59	5.98	14.88	6.86	7.64	5.81	8.02
24	10.01	10.92	12.15	7.60	16.39	11.09	5.98	18.33	6.61	8.19	6.54	7.75
25	10.17	10.90	13.99	7.90	18.13	11.47	5.98	18.07	6.61	8.66	7.05	7.67
26	10.16	10.41	14.59	7.90	18.38	10.52	5.99	15.05	6.46	7.81	6.70	7.84
27	10.16	9.58	14.04	7.64	16.61	10.04	5.99	11.95	6.65	7.13	6.49	7.86
28	10.29	10.28	13.06	7.42	14.74	9.88	5.99	10.41	7.69	7.14	6.05	8.04
29	12.70	12.66	11.90	7.42	---	10.01	5.99	9.73	8.29	6.33	5.78	8.07
30	13.88	13.25	10.66	7.18	---	12.30	5.99	9.50	8.29	5.75	5.81	8.06
31	11.98	---	10.09	8.72	---	12.48	---	9.07	---	5.74	5.99	---
MEAN	8.56	11.00	11.18	9.14	11.08	11.10	6.11	8.35	8.18	7.55	6.38	7.66
MAX	13.88	15.06	14.59	13.99	18.38	15.15	8.65	18.33	10.55	14.52	8.91	9.02
MIN	6.23	9.35	8.82	6.95	8.49	8.26	5.74	5.99	6.46	5.74	5.75	6.00

WTR YR 1985 MEAN 8.85 MAX 18.38 MIN 5.74

03192000 GAULEY RIVER ABOVE BELVA, WV

LOCATION.--Lat 38°14'00", long 81°10'52", Nicholas County, Hydrologic Unit 05050005, on right bank 0.5 mi upstream from Belva, 1.0 mi upstream from Twentymile Creek, and at mile 6.3.

DRAINAGE AREA.--1,317 mi^2.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 873: 1938. WSP 1275: 1929-30, WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.00 ft above National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Estimated daily discharges: Jan. 22, 23. Records good except for period with ice effect, which is poor. Flow regulated since 1965 by Summersville Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--57 years, 2,731 ft^3/s, 28.16 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s, July 5, 1932, gage height, 28.60 ft, from rating curve extended above 65,000 ft^3/s on basis of velocity-area studies and inflow and storage adjustment to record for Kanawha River at Kanawha Falls; minimum, 3.2 ft^3/s, Oct. 21, 1953, gage height, 0.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,800 ft^3/s, May 25, gage height, 12.21 ft; minimum discharge, 114 ft^3/s, Aug. 19, minimum gage height, 1.01 ft, Aug. 18, 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	2860	5590	3280	5390	7040	3550	399	1650	1040	300	175
2	1790	2080	4000	5140	7440	4770	1390	392	1130	1050	704	171
3	1820	1930	2970	7180	6810	3610	1230	1490	935	1050	1710	171
4	1760	1660	2250	8840	5160	3540	1090	1850	917	405	1090	168
5	1750	1710	2110	9580	3850	3280	926	1350	1080	291	432	366
6	2470	2830	2150	7090	3550	3070	854	1020	1160	247	251	565
7	2400	4170	2180	5320	3270	3150	768	827	944	226	186	1280
8	573	3860	2170	4330	2670	2600	728	688	908	221	688	1560
9	278	3070	1960	3450	1830	8170	712	587	1620	580	572	872
10	273	2580	1640	2590	1930	9920	696	516	2020	854	446	565
11	277	2660	3990	2010	2220	6800	664	460	1670	6100	354	836
12	272	3590	4190	1870	2290	10900	792	425	2090	3030	425	845
13	261	3900	3830	1670	2610	11500	899	392	2590	2230	336	818
14	254	3220	4470	1470	2560	7220	899	405	3070	2200	205	881
15	251	2890	4120	1450	2140	5210	845	399	2490	1820	128	962
16	401	2500	3920	1250	1780	3750	854	648	1930	1230	120	744
17	570	2620	3700	972	1620	3330	1200	917	1440	587	120	688
18	579	2410	2910	1160	1580	2450	1200	1410	1500	282	117	776
19	582	7090	2180	1160	1660	2300	1120	1680	1680	194	114	1070
20	342	10800	4550	1090	1980	1960	962	1720	1640	175	213	1070
21	266	8120	6630	1030	2620	1510	836	2600	1480	251	247	1420
22	286	5230	9620	670	3890	1550	744	2630	890	348	238	1080
23	1530	3730	8950	640	8270	2050	664	11800	784	648	190	1120
24	2010	3460	6380	850	14200	3720	610	22500	610	768	140	1090
25	2200	3260	9730	1090	19800	4740	572	21900	537	1200	495	926
26	2210	2920	10200	1050	21600	4100	544	13300	502	1120	544	990
27	2240	2190	8620	990	19400	3220	502	6340	392	752	530	1030
28	2250	2870	6750	856	11700	3000	467	4250	587	854	366	1070
29	4210	6370	5240	850	---	2910	467	2970	1010	728	247	1180
30	6510	7160	3840	825	---	4990	432	2560	1050	295	157	1090
31	5230	---	2930	1490	---	5920	---	2050	---	300	137	---
TOTAL	48245	113740	143770	81243	163820	142280	27217	110475	40306	31076	11802	25579
MEAN	1556	3791	4638	2621	5851	4590	907	3564	1344	1002	381	853
MAX	6510	10800	10200	9580	21600	11500	3550	22500	3070	6100	1710	1560
MIN	251	1660	1640	640	1580	1510	432	392	392	175	114	168

CAL YR 1984 TOTAL 1057093 MEAN 2888 MAX 21000 MIN 161 CFSM 2.19 IN 29.86
WTR YR 1985 TOTAL 939553 MEAN 2574 MAX 22500 MIN 114 CFSM 1.95 IN 26.54

03193000 KANAWHA RIVER AT KANAWHA FALLS, WV

LOCATION.--Lat 38°08'17", long 81°12'52", Fayette County, Hydrologic Unit 05050006, on right bank 150 ft downstream from bridge, 0.8 mi downstream from village of Kanawha Falls, 2.0 mi downstream from Gauley Bridge, 2.0 mi downstream from confluence of New River and Gauley River, and at mile 94.3.

DRAINAGE AREA.--8,371 mi^2.

PERIOD OF RECORD.--March 1877 to current year. October 1916 to September 1918 and October 1927 to October 1928, published as "at Lock 2, Montgomery".

REVISED RECORDS.--WSP 923: 1878, 1886, 1897, 1899, 1901-3. WSP 1305: 1902(M), 1940. WSP 1335: 1931. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 621.20 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1928, nonrecording gages at several sites within 9.0 mi of present site at various datums. Oct. 27, 1928, to Sept. 30, 1964, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1939 by Claytor Lake, since 1949 by Bluestone Lake, and since 1965 by Summersville Lake. U.S. Army Corps of Engineers gage height and satellite telemeters and Appalachian Power Co. remote sender at station.

AVERAGE DISCHARGE.--108 years, 12,554 ft^3/s, 20.37 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 320,000 ft^3/s, Sept. 14, 1878, gage height, 37.8 ft, site and datum then in use, from gage-height relation and rating curve extended above 150,000 ft^3/s; minimum, 640 ft^3/s, Aug. 15, 1930, gage height, -0.95 ft datum then in use; minimum daily, 690 ft^3/s, Oct. 29, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78,300 ft^3/s, May 25, gage height, 14.87 ft; minimum, 1,400 ft^3/s, Sept. 22, gage height, 1.83 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4970	8300	22500	13200	20000	29300	10700	4240	8150	2730	2350	5070
2	5110	7150	14500	18600	49500	22600	8490	4530	7480	2750	4320	2440
3	7370	6770	10400	24900	49200	17400	9230	7130	4950	3120	7880	2360
4	5910	7740	6850	35100	39600	13100	8430	8530	4500	3350	7190	2290
5	7050	7050	6660	45800	24400	11600	8890	13500	4060	3450	3570	2290
6	8350	6800	7650	36200	19100	12400	8590	9270	3970	2870	3430	2630
7	5650	8680	8200	24100	15800	12100	6950	7290	4200	2420	2960	3460
8	3500	8590	7760	17100	15200	11100	6390	6300	5910	2280	4720	3910
9	2320	7740	7040	17800	10800	16800	5530	5260	6300	2140	4070	3350
10	2210	6080	5550	13100	8050	19200	7570	4840	5770	2800	3210	2720
11	2610	6080	8330	11700	8070	16000	7610	4360	6780	7260	3300	2720
12	2140	6840	10500	9860	9090	21600	7290	4110	7000	5850	3110	2730
13	2100	8250	11000	8280	15200	33400	7340	3770	8090	4860	2610	2740
14	2120	8280	11700	6590	16500	25900	7020	3630	8330	5110	2860	2910
15	2090	8050	10900	6140	11500	20000	6300	5350	7230	5240	2700	2990
16	2000	6810	9770	5700	8210	14200	5880	6500	5460	4990	2510	2710
17	1910	6820	8160	5680	7840	11900	8210	6860	4610	3970	2350	2220
18	2180	6640	7370	5520	7320	9340	11000	8730	4820	3640	3610	2320
19	2710	13500	6450	5590	6570	7910	11200	11300	5010	3050	23300	2460
20	2960	20500	11000	5120	8920	8180	11300	7950	5220	2430	21500	2170
21	2960	21900	14800	4040	11000	7280	8360	7460	4870	2010	13300	2260
22	2470	15100	22900	3330	14000	6880	6410	7840	4170	2240	8840	2190
23	3620	11200	25100	4620	24000	7960	5580	23900	3440	2060	7630	2310
24	4740	9300	20100	4020	36100	14000	6440	42900	2810	1980	5690	2640
25	5640	7030	22500	4470	50700	22400	5870	70400	2610	2380	5320	2560
26	6120	6400	26500	4810	62300	17400	6020	44500	2490	3440	4070	2250
27	6590	5650	25300	4520	61500	18300	5870	26600	2190	5460	4220	2130
28	6660	6940	20200	3920	41400	14700	7370	15800	2080	4240	4930	2200
29	7470	14800	15700	3650	---	12000	4450	13400	2540	7030	6170	2460
30	9980	29000	12500	4590	---	13700	3910	10800	2900	4480	5090	2600
31	10400	---	9710	5680	---	13800	---	9040	---	2640	5390	---
TOTAL	141910	293990	407600	363730	651870	482450	224200	406090	147940	112270	182200	80090
MEAN	4578	9800	13150	11730	23280	15560	7473	13100	4931	3622	5877	2670
MAX	10400	29000	26500	45800	62300	33400	11300	70400	8330	7260	23300	5070
MIN	1910	5650	5550	3330	6570	6880	3910	3630	2080	1980	2350	2130

CAL YR 1984 TOTAL 5160960 MEAN 14100 MAX 95900 MIN 1910 CFSM 1.68 IN 22.93
WTR YR 1985 TOTAL 3494340 MEAN 9574 MAX 70400 MIN 1910 CFSM 1.14 IN 15.53

03193742 KANAWHA RIVER AT GLASGOW, WV

LOCATION.--Lat 38°12'23", long 81°25'30", Kanawha County, Hydrologic Unit 05050006, on right bank at Glasgow Power Plant, at Glasgow, 0.6 mi upstream from Kellys Creek, and at mile 78.4.

DRAINAGE AREA.--8,631 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1977 to current year.

COOPERATION.--Records were furnished by Appalachian Power Company.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 30°C, Aug. 21, 1978, Aug. 3, 1981, July 22, Aug. 21, 1983, July 12, 1984; minimum daily, -0.5°C, Jan. 27, 1982, Feb. 1, 3, 4, 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily observed, 27.0°C, Aug. 13; minimum daily observed, -0.5°C, Feb. 1, 3, 4.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	18.0	---	---	-0.5	5.5	18.5	20.5	---	---	24.5	---
2	14.0	---	---	9.0	.0	5.5	19.0	19.5	21.0	---	---	---
3	16.0	---	5.0	6.5	-0.5	6.0	19.0	19.5	21.5	---	---	---
4	16.5	---	5.5	6.5	-0.5	6.5	11.0	19.0	21.0	---	---	---
5	17.0	16.0	---	7.0	.0	7.0	---	16.5	21.5	---	---	26.0
6	---	9.5	---	6.5	.0	6.0	---	---	---	---	---	---
7	---	---	5.5	7.0	2.0	8.5	---	14.5	---	---	23.0	---
8	18.0	14.0	6.0	6.5	1.5	8.5	---	14.5	---	---	---	---
9	---	14.5	6.5	6.5	.5	8.0	11.0	16.5	---	---	---	---
10	---	15.0	8.5	8.0	.5	8.0	10.0	16.0	---	---	---	---
11	---	11.0	10.0	4.0	.5	8.0	9.0	---	---	24.0	---	26.0
12	---	10.0	4.5	3.5	1.0	7.0	---	---	---	---	21.0	---
13	---	9.5	5.5	2.0	1.0	7.0	---	19.0	---	---	27.0	25.5
14	---	9.0	6.5	6.5	.0	7.0	---	19.0	---	---	26.5	24.5
15	18.5	10.0	---	.5	---	7.0	11.0	19.0	---	23.0	27.0	23.5
16	19.0	9.0	---	.0	.5	6.5	12.0	20.0	---	---	26.5	24.0
17	19.0	9.0	5.5	1.0	.5	7.0	14.0	---	---	---	26.0	25.0
18	19.5	8.0	6.5	.5	1.0	6.5	13.5	---	---	---	25.5	25.0
19	19.0	8.5	---	1.0	2.0	6.0	---	---	20.0	---	22.0	21.0
20	19.0	8.0	7.0	.0	1.5	---	---	---	23.5	24.5	23.0	22.0
21	19.5	8.0	---	---	3.5	6.5	---	---	23.5	25.5	24.5	---
22	19.5	6.5	---	5.0	---	---	---	---	24.0	26.5	---	---
23	18.0	---	---	1.0	---	---	17.0	---	---	26.5	---	---
24	19.0	---	7.0	1.0	---	---	19.0	---	20.5	26.5	---	---
25	18.5	---	---	---	4.5	---	19.0	---	22.0	27.0	---	---
26	18.0	5.5	4.5	---	5.5	6.5	19.5	---	---	26.0	21.5	---
27	18.5	---	5.5	---	5.5	---	19.5	---	23.5	---	25.0	---
28	19.0	5.5	---	.0	---	---	19.5	---	---	---	24.5	---
29	19.5	5.5	---	---	---	---	19.0	---	---	26.0	24.5	---
30	18.5	4.5	---	.0	---	---	20.0	19.0	---	24.5	---	---
31	19.5	---	---	1.0	---	---	---	---	---	26.0	---	---
MEAN	18.0	10.0	6.0	3.5	1.5	7.0	16.0	18.0	22.0	25.5	24.5	24.5

WTR YR 1985 MEAN 13.0 MAX 27.0 MIN -0.5

03195500 ELK RIVER AT SUTTON, WV

LOCATION.--Lat 38°39'47", long 80°42'35", Braxton County, Hydrologic Unit 05050007, on left bank 150 ft upstream from highway bridge at Sutton, 0.5 mi upstream from Granny Creek, 0.9 mi downstream from Sutton Dam, 2.5 mi downstream from Wolf Creek, and at mile 102.1.

DRAINAGE AREA.--542 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only October 1938 to February 1939, published in WSP 1305.

REVISED RECORDS.--WSP 1305: 1942(M), 1948-50(M). WDR WV82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1940, nonrecording gage and Apr. 5, 1940, to Sept. 30, 1960, water-stage recorder at site 150 ft downstream at datum 8.03 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1960 by Sutton Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--47 years, 1,143 ft^3/s, 28.64 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,200 ft^3/s, Jan. 29, 1957, gage height, 39.30 ft, present datum; minimum, 0.4 ft^3/s, Oct. 25, 26, 28, 29, 1953; minimum gage height, 9.87 ft, Oct. 25, 1953, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 13, 1918, reached a stage of 45.2 ft, present datum, from flood-marks, discharge, about 49,000 ft^3/s, from rating curve extended above 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,550 ft^3/s, Feb. 25, gage height, 20.01 ft; minimum daily, 103 ft^3/s, July 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	1850	2620	1400	2110	2650	3490	195	554	395	130	125
2	725	1320	1970	1890	2920	1670	3350	210	403	395	130	125
3	870	1100	1450	2490	2420	1330	2020	1070	197	262	164	122
4	664	1090	1440	2840	1850	1160	1330	1650	198	138	242	144
5	537	1100	1100	3380	1630	1240	1080	1970	249	121	360	179
6	534	1660	1100	3170	1620	1190	722	2700	360	103	351	182
7	534	2030	1250	2520	1760	886	505	1250	361	104	343	179
8	456	1860	1090	1730	1560	789	322	836	2280	157	294	182
9	410	1570	987	1230	1240	2590	225	686	2720	275	294	260
10	367	1260	1060	1030	750	4200	224	456	1340	240	192	364
11	339	1120	1640	885	849	4160	225	424	1070	984	158	459
12	529	1010	1600	657	1240	5230	226	355	903	1570	155	459
13	346	1070	1560	657	1480	5880	228	355	864	1410	158	450
14	334	1170	1620	657	1520	4650	231	353	1150	617	158	454
15	324	511	1830	657	1220	2750	210	407	1430	392	158	454
16	380	594	1940	515	888	1580	206	544	1300	563	158	454
17	431	743	2000	538	831	1240	207	574	881	691	158	405
18	427	600	1300	703	869	1010	208	1750	523	508	158	403
19	463	2850	855	703	881	822	210	2250	439	272	158	465
20	512	4450	1670	526	1090	693	211	1830	365	225	158	482
21	510	2910	2820	260	1330	651	211	1200	354	195	155	483
22	491	2060	3740	161	2280	648	240	987	262	246	125	483
23	1580	1750	3190	351	3860	810	242	3910	264	330	125	484
24	2540	1190	2540	591	5550	1790	218	6940	263	417	125	484
25	1660	820	4820	591	6800	2350	218	6640	263	503	125	474
26	1270	641	5630	591	7470	1890	217	5570	243	355	125	477
27	1240	459	3710	449	6770	1490	217	4900	225	228	125	483
28	1180	1190	2670	351	4540	1230	220	2940	336	225	125	481
29	2480	4140	2080	399	---	1100	218	1320	396	155	125	483
30	3230	3520	1870	422	---	2290	203	919	395	128	125	473
31	2500	---	1850	714	---	3210	---	556	---	130	125	---
TOTAL	28289	47638	65002	33058	67328	63179	17634	55747	20588	12334	5482	11152
MEAN	913	1588	2097	1066	2405	2038	588	1798	686	398	177	372
MAX	3230	4450	5630	3380	7470	5880	3490	6940	2720	1570	360	484
MIN	324	459	855	161	750	648	203	195	197	103	125	122

CAL YR 1984 TOTAL 475687 MEAN 1300 MAX 6260 MIN 82 CFSM 2.40 IN 32.65
WTR YR 1985 TOTAL 427431 MEAN 1171 MAX 7470 MIN 103 CFSM 2.16 IN 29.34

03195500 ELK RIVER AT SUTTON, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-83, February to September 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February to September 1985.
WATER TEMPERATURE: March 1960 to September 1983, February to September 1985.
TURBIDITY: January 1974 to March 1975, February to September 1985.
SUSPENDED-SEDIMENT DISCHARGE: February to September 1985.

INSTRUMENTATION.--Temperature recorder March 1960 to September 1983.

REMARKS.--Sediment samples were taken once daily by an observer. Specific conductance and turbidity were taken in the lab from the sediment bottles.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 30.0°C, Aug. 12, 14, 15, 1985; minimum, 0.0°C many days during winter periods.

EXTREMES FOR PERIOD FEBRUARY TO SEPTEMBER 1985.--
SPECIFIC CONDUCTANCE: Maximum daily, 117 microsiemens, April 30; minimum daily, 49 microsiemens, Mar. 16.
WATER TEMPERATURE: Maximum daily, 30.0°C, Aug. 12, 14, 15; minimum daily, 1.0°C, February 15.
TURBIDITY: Maximum daily, 30 NTU, Mar. 29; minimum daily, 0.5 NTU, Aug. 11.
SEDIMENT CONCENTRATION: Maximum daily mean, 43 mg/L, May 3; minimum daily mean, 0 mg/L, many days during June to September.
SEDIMENT LOAD: Maximum daily, 640 tons, Feb. 27; minimum daily, 0 ton, on many days during June to September.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	75	64	64	63	62	72	77
2					---	53	58	85	64	61	74	79
3					---	56	58	63	65	64	74	79
4					---	56	53	67	66	67	70	79
5					---	55	55	78	65	62	72	80
6					---	56	64	61	65	61	70	80
7					---	53	57	72	64	61	70	81
8					---	55	54	66	54	61	70	72
9					---	55	62	66	54	60	70	78
10					---	59	55	67	65	65	73	79
11					---	64	56	66	66	59	72	81
12					---	59	58	66	67	59	71	80
13					---	55	56	65	67	60	71	81
14					---	55	54	67	66	61	74	82
15					64	54	64	64	65	62	72	80
16					62	49	69	70	65	64	73	82
17					68	50	64	64	64	66	72	81
18					64	51	65	62	66	69	72	84
19					63	51	67	65	64	71	72	82
20					66	52	65	62	63	74	---	82
21					67	53	65	61	66	70	---	84
22					64	52	58	61	65	69	---	65
23					64	53	57	58	64	70	83	65
24					98	54	64	59	65	70	75	69
25					61	56	62	55	65	70	79	66
26					58	57	69	51	67	69	75	74
27					54	58	66	51	65	70	78	65
28					53	60	82	51	61	70	80	75
29					---	62	63	51	60	72	81	72
30					---	61	117	56	62	73	83	67
31					---	62	---	64	---	74	78	---
MEAN					65	56	63	63	64	66	74	77

WTR YR 1985 MEAN 66 MAX 117 MIN 49

03195500 ELK RIVER AT SUTTON, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	8.0	12.0	22.0	24.0	24.0	27.0	27.0
2					---	10.0	11.0	22.0	22.0	24.0	28.0	26.0
3					---	10.0	12.0	22.0	22.0	24.0	29.0	24.0
4					---	10.0	12.0	22.0	21.0	23.0	27.0	25.0
5					---	11.0	12.0	22.0	23.0	24.0	28.0	24.0
6					---	10.0	12.0	23.0	22.0	25.0	27.0	23.0
7					---	11.0	11.0	23.0	22.0	24.0	27.0	24.0
8					---	11.0	12.0	22.0	23.0	24.0	28.0	25.0
9					---	11.0	12.0	22.0	22.0	23.0	28.0	23.0
10					---	10.0	12.0	22.0	23.0	23.0	29.0	24.0
11					---	10.0	12.0	23.0	23.0	24.0	29.0	23.0
12					---	10.0	13.0	22.0	21.0	24.0	30.0	22.0
13					---	11.0	13.0	22.0	22.0	24.0	29.0	24.0
14					---	11.0	13.0	23.0	22.0	25.0	30.0	22.0
15					1.0	11.0	13.0	22.0	22.0	25.0	30.0	22.0
16					2.0	12.0	13.0	22.0	23.0	23.0	28.0	20.0
17					4.0	11.0	13.0	22.0	22.0	26.0	28.0	22.0
18					4.0	10.0	13.0	21.0	21.0	26.0	29.0	23.0
19					5.0	10.0	14.0	22.0	23.0	25.0	29.0	22.0
20					5.0	10.0	14.0	21.0	23.0	23.0	27.0	20.0
21					5.0	11.0	15.0	21.0	22.0	24.0	28.0	23.0
22					6.0	11.0	15.0	20.0	23.0	27.0	27.0	22.0
23					6.0	10.0	15.0	19.0	23.0	27.0	25.0	20.0
24					10.0	11.0	15.0	19.0	23.0	27.0	25.0	20.0
25					9.0	11.0	17.0	20.0	24.0	25.0	26.0	20.0
26					10.0	11.0	18.0	19.0	23.0	26.0	25.0	18.0
27					10.0	11.0	19.0	19.0	23.0	26.0	26.0	17.0
28					8.0	12.0	20.0	18.0	22.0	29.0	25.0	19.0
29					---	12.0	20.0	20.0	23.0	27.0	24.0	20.0
30					---	12.0	22.0	20.0	24.0	27.0	24.0	21.0
31					---	12.0	---	21.0	---	27.0	26.0	---
MEAN					6.0	10.5	14.0	21.0	22.5	25.0	27.5	22.0

WTR YR 1985 MEAN 19.5 MAX 30.0 MIN 1.0

TURBIDITY (NTU), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	15	9.5	1.5	1.5	1.4	2.4	1.8
2					---	15	10	3.0	1.0	1.0	1.4	2.2
3					---	10	15	9.0	1.5	2.3	2.0	2.1
4					---	8.0	10	1.6	1.5	3.2	1.2	1.9
5					---	6.0	10	2.7	1.2	.90	1.1	1.6
6					---	8.6	8.0	1.9	1.2	1.0	1.1	1.4
7					---	6.0	7.0	2.0	1.6	1.0	1.0	2.1
8					---	6.0	9.5	2.6	7.0	1.2	1.0	2.4
9					---	5.5	6.8	2.6	8.6	1.0	1.0	2.4
10					---	8.0	7.5	2.5	1.0	3.6	1.0	1.5
11					---	10	7.5	2.0	1.4	.70	.50	1.4
12					---	20	7.0	1.5	1.8	.80	1.0	1.6
13					---	6.5	7.0	2.0	3.5	1.0	.90	1.5
14					---	10	6.5	1.5	2.1	1.2	.90	2.0
15					2.5	10	6.4	1.2	2.8	1.6	.90	2.5
16					2.0	9.0	5.9	1.0	2.8	2.1	1.4	1.6
17					2.5	8.0	4.9	1.0	3.3	1.5	.70	2.4
18					2.8	8.3	4.5	.80	1.8	2.5	.80	2.3
19					1.5	9.0	4.2	1.6	3.2	2.1	.90	1.5
20					2.8	9.0	5.2	1.7	2.6	1.5	---	1.8
21					1.5	10	3.5	2.0	1.6	1.6	---	1.8
22					2.0	6.5	3.0	.70	2.0	1.5	---	9.0
23					2.0	10	3.5	2.5	1.4	1.2	2.0	9.6
24					3.0	9.0	3.1	3.4	1.5	1.2	2.0	9.2
25					9.2	4.5	2.5	9.5	1.6	.60	3.0	10
26					10	5.0	2.1	15	2.4	1.0	2.4	8.3
27					25	3.5	2.5	15	1.0	2.3	2.3	9.0
28					15	5.2	2.5	10	.80	1.5	2.0	6.2
29					---	30	1.8	8.9	1.3	1.5	2.0	8.8
30					---	8.5	2.0	3.4	2.0	1.8	3.5	1.5
31					---	6.5	---	1.5	---	1.6	2.6	---
MEAN					5.8	9.3	6.0	3.7	2.2	1.5	1.5	3.7

WTR YR 1985 MEAN 4.1 MAX 30 MIN .50

03195500 ELK RIVER AT SUTTON, WV--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									---	---	19	136
2									---	---	19	86
3									---	---	16	57
4									---	---	13	41
5									---	---	10	33
6									---	---	9	29
7									---	---	10	24
8									---	---	11	23
9									---	---	9	63
10									---	---	11	125
11									---	---	22	247
12									---	---	26	367
13									---	---	15	238
14									---	---	23	289
15									4	13	23	171
16									5	12	21	90
17									6	13	15	50
18									4	9.4	15	41
19									5	12	16	36
20									4	12	16	30
21									4	14	14	25
22									4	25	13	23
23									5	52	13	28
24									7	105	12	58
25									15	275	10	63
26									20	403	8	41
27									35	640	8	32
28									27	331	9	30
29									---	---	33	106
30									---	---	24	148
31									---	---	15	130
TOTAL									---	1916.4	---	2860

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15	141	7	3.7	2	3.0	0	.00	0	.00	1	.34
2	18	163	9	5.6	1	1.1	1	1.1	1	.35	1	.34
3	23	125	43	124	2	1.1	0	.00	0	.00	1	.33
4	21	75	9	40	3	1.6	0	.00	1	.65	1	.39
5	20	58	4	21	2	1.3	1	.33	0	.00	0	.00
6	14	27	5	36	2	1.9	0	.00	1	.95	0	.00
7	12	16	5	17	2	1.9	0	.00	1	.93	1	.48
8	14	12	5	11	7	43	0	.00	0	.00	1	.49
9	10	6.1	5	9.3	11	81	0	.00	0	.00	1	.70
10	10	6.0	3	3.7	7	25	1	.65	0	.00	0	.00
11	9	5.5	3	3.4	2	5.8	1	2.7	0	.00	0	.00
12	9	5.5	2	1.9	1	2.4	0	.00	0	.00	1	1.2
13	8	4.9	1	.96	4	9.3	0	.00	0	.00	1	1.2
14	7	4.4	2	1.9	4	12	4	6.7	1	.43	1	1.2
15	8	4.5	3	3.3	4	15	1	1.1	1	.43	2	2.5
16	6	3.3	4	5.9	4	14	1	1.5	0	.00	1	1.2
17	6	3.4	3	4.6	3	7.1	1	1.9	0	.00	1	1.1
18	5	2.8	3	14	3	4.2	2	2.7	0	.00	1	1.1
19	5	2.8	3	18	2	2.4	3	2.2	0	.00	1	1.3
20	5	2.8	3	15	2	2.0	2	1.2	0	.00	1	1.3
21	6	3.4	3	9.7	2	1.9	2	1.1	0	.00	1	1.3
22	7	4.5	2	5.3	2	1.4	1	.66	0	.00	6	7.8
23	6	3.9	4	42	1	.71	1	.89	1	.34	9	12
24	5	2.9	6	112	1	.71	1	1.1	0	.00	8	10
25	4	2.4	24	430	0	.00	0	.00	1	.34	9	12
26	4	2.3	27	406	1	.66	1	.96	1	.34	6	7.7
27	5	2.9	20	265	1	.61	3	1.8	1	.34	1	1.3
28	4	2.4	15	119	0	.00	2	1.2	1	.34	1	1.3
29	4	2.4	13	46	0	.00	1	.42	0	.00	1	1.3
30	4	2.2	8	20	0	.00	0	.00	1	.34	0	.00
31	---	---	4	6.0	---	---	1	.35	1	.34	---	---
TOTAL	---	698.3	---	1801.26	---	241.09	---	30.56	---	6.12	---	69.87

TOTAL LOAD FOR YEAR: 7623.60 TONS.

03196600 ELK RIVER NEAR FRAMETOWN, WV

LOCATION.--Lat 38°35'32", long 80°53'05", Braxton County, Hydrologic Unit 05050007, on right bank opposite mouth of Birch River, at village of Glendon, 2.2 mi upstream from Strange Creek, 3.2 mi southwest of Frametown, and at mile 82.6. Records include flow of Birch River.

DRAINAGE AREA.--751 mi^2, includes that of Birch River.

PERIOD OF RECORD.--October 1958 to September 1981, October 1981 to current year (gage heights and annual maximum discharge only).

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 775.51 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1959, nonrecording gage at same site and datum.

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated since 1960 by Sutton Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--23 years (water years 1958-81), 1,572 ft^3/s, 28.39 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft^3/s, Mar. 15, 1967, gage height, 16.05 ft; minimum discharge, 9.0 ft^3/s, Sept. 28, 29, 1959; minimum gage height, 1.33 ft several days in June 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,500 ft^3/s, May 24, gage height, 12.35 ft; minimum gage height, 1.44 ft, July 6, Aug. 23, 24.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.25	4.13	4.99	3.92	5.39	5.10	5.85	1.91	2.67	2.21	1.57	1.46
2	2.61	3.67	4.40	4.00	5.78	4.06	5.83	1.92	2.51	2.23	1.60	1.45
3	3.00	3.31	3.76	4.83	5.08	3.74	4.74	4.01	2.04	2.17	1.58	1.45
4	2.87	3.29	3.72	5.17	4.37	3.37	3.87	4.88	1.93	1.69	1.70	1.45
5	2.51	3.50	3.56	5.91	4.08	3.54	3.47	3.57	1.92	1.59	2.00	1.59
6	2.49	3.84	3.39	5.76	4.26	3.49	3.24	4.89	2.19	1.49	2.09	1.65
7	2.49	4.30	3.65	5.08	4.37	3.22	2.73	4.09	2.23	1.48	2.09	1.65
8	2.45	4.19	3.53	4.44	4.22	3.17	2.60	3.07	3.64	1.50	1.99	1.65
9	2.28	3.85	3.35	3.74	3.73	4.84	2.21	2.97	5.05	1.84	1.95	1.70
10	2.24	3.69	3.59	3.42	3.38	6.41	2.15	2.55	3.75	2.14	1.87	1.98
11	2.13	3.52	4.58	3.36	2.93	6.41	2.14	2.42	3.36	2.75	1.61	2.22
12	2.35	3.34	4.38	2.94	4.00	8.27	2.14	2.27	3.22	3.69	1.57	2.26
13	2.22	3.30	4.11	2.88	4.29	8.14	2.13	2.21	3.36	3.61	1.57	2.25
14	2.11	3.42	3.94	2.87	4.14	7.11	2.16	2.18	3.49	2.88	1.57	2.25
15	2.10	3.10	4.08	2.85	3.83	5.37	2.14	2.15	3.73	2.26	1.56	2.25
16	2.30	2.15	4.12	2.70	3.40	4.09	2.27	2.54	3.61	2.38	1.59	2.25
17	2.37	3.06	4.18	2.57	3.22	3.70	2.47	2.67	3.20	2.72	1.59	2.24
18	2.35	2.74	3.84	2.89	3.28	3.41	2.36	3.49	2.77	2.64	1.57	2.08
19	2.33	5.36	3.29	2.90	3.47	3.14	2.31	4.74	2.53	2.14	1.58	2.24
20	2.49	7.21	4.38	2.73	3.78	2.96	2.26	4.34	2.30	1.85	1.58	2.30
21	2.48	5.36	5.28	2.31	4.05	2.82	2.21	3.59	2.25	1.80	1.57	2.30
22	2.53	4.49	6.66	2.00	4.89	2.83	2.16	3.23	2.09	1.75	1.56	2.31
23	3.51	4.02	5.86	2.05	6.79	3.07	2.22	6.99	2.03	2.01	1.47	2.31
24	4.87	3.69	5.14	2.70	7.76	3.94	2.10	11.11	2.00	2.06	1.46	2.32
25	4.18	3.07	7.84	2.74	8.24	4.69	2.07	8.80	1.97	2.38	1.48	2.31
26	3.50	2.91	8.34	2.72	8.72	4.46	2.03	7.36	1.95	2.35	1.49	2.29
27	3.43	2.51	6.18	2.62	8.42	3.89	2.00	6.59	1.80	2.13	1.47	2.33
28	3.38	3.61	5.10	2.37	6.73	3.72	2.02	5.27	1.96	1.89	1.47	2.32
29	4.18	6.30	4.42	2.40	---	4.02	2.07	3.85	2.19	1.82	1.47	2.31
30	5.40	5.96	4.15	2.46	---	5.56	1.98	3.27	2.20	1.57	1.46	2.32
31	4.72	---	4.13	3.54	---	5.79	---	2.82	---	1.51	1.47	---
MEAN	2.91	3.90	4.58	3.32	4.88	4.46	2.66	4.06	2.66	2.15	1.63	2.05
MAX	5.40	7.21	8.34	5.91	8.72	8.27	5.85	11.11	5.05	3.69	2.09	2.33
MIN	2.10	2.15	3.29	2.00	2.93	2.82	1.98	1.91	1.80	1.48	1.46	1.45

WTR YR 1985 MEAN 3.26 MAX 11.11 MIN 1.45

03196800 ELK RIVER AT CLAY, WV

LOCATION.--Lat 38°27'38", long 81°05'16", Clay County, Hydrologic Unit 05050007, on right bank at downstream side of pier of highway bridge at Clay, 0.9 mi downstream from Buffalo Creek, 2.1 mi downstream from Lower Two Run Creek, and at mile 53.7.

DRAINAGE AREA.--992 mi^2.

PERIOD OF RECORD.--October 1958 to September 1978, October 1978 to current year (gage heights, occasional discharge measurements, and annual maximum discharge only). Gage height records collected at same site since 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 677.46 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 27, 1959, nonrecording gage at same site and datum.

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated since 1960 by Sutton Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--20 years (water years 1959-78), 1,926 ft^3/s, 26.31 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,000 ft^3/s, Mar. 15, 1967, gage height, 22.80 ft; minimum, 1.5 ft^3/s, Sept. 22, 1959, gage height, -0.13 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 14, 1918, reached a stage of 32.4 ft, from reports of National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,900 ft^3/s, May 24, gage height, 14.39 ft; minimum gage height, 0.74 ft, Sept. 5.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.38	4.51	6.03	4.62	7.43	6.36	7.41	1.73	2.59	1.69	.88	.78
2	1.68	3.85	4.98	4.15	7.33	4.81	7.14	1.81	2.42	1.74	.94	.76
3	2.23	3.17	4.19	5.44	6.29	4.14	6.07	6.35	2.10	1.81	.91	.75
4	2.38	3.10	3.83	5.96	5.29	3.59	4.72	6.15	1.67	1.63	.89	.75
5	1.93	3.33	3.73	7.10	4.80	3.74	4.01	4.04	1.60	1.26	1.01	.75
6	1.73	3.84	3.45	7.22	5.02	3.66	3.72	5.60	1.57	1.18	1.32	.88
7	1.72	4.62	3.92	6.47	5.31	3.46	2.98	4.87	1.79	1.15	1.36	.94
8	1.73	4.52	3.85	5.70	5.16	3.36	2.78	3.33	2.18	1.12	1.36	.94
9	1.60	4.16	3.55	4.50	4.29	5.67	2.40	2.97	5.69	1.13	1.22	.94
10	1.47	4.16	3.74	3.98	4.12	7.60	2.16	2.58	5.12	1.45	1.21	1.05
11	1.38	3.80	5.53	3.76	3.13	7.63	2.14	2.20	3.95	2.39	1.09	1.28
12	1.31	3.58	5.66	3.33	4.52	9.99	2.12	2.06	3.70	3.17	.90	1.52
13	1.66	3.34	4.90	2.94	5.79	9.72	2.09	1.87	3.80	3.65	.88	1.51
14	1.31	3.36	4.40	2.90	5.19	8.76	2.14	1.83	3.84	3.21	.88	1.51
15	1.28	3.36	4.36	2.86	4.69	6.90	2.13	1.81	4.00	2.12	.87	1.51
16	1.41	2.24	4.41	2.62	4.04	5.19	2.46	2.26	3.92	1.81	.90	1.51
17	1.60	2.36	4.48	2.52	3.61	4.38	3.23	2.80	3.46	1.99	.95	1.50
18	1.57	2.50	4.40	2.62	3.64	3.90	3.10	3.88	3.15	2.06	.90	1.43
19	1.55	5.56	3.40	2.83	3.98	3.49	2.89	5.95	2.48	1.75	.89	1.37
20	1.64	8.39	5.08	2.86	4.77	3.18	2.65	5.35	2.14	1.28	.89	1.52
21	1.77	6.67	6.25	3.18	5.04	2.92	2.42	4.19	1.89	1.10	.88	1.56
22	1.81	5.34	8.26	2.96	5.92	2.91	2.25	3.65	1.86	1.06	.86	1.56
23	2.81	4.35	7.46	2.53	8.25	3.27	2.17	7.44	1.67	1.19	.85	1.56
24	5.20	4.09	6.26	2.64	8.77	4.04	2.13	13.15	1.63	1.31	.81	1.57
25	4.76	3.01	9.10	3.11	9.04	5.60	2.02	11.16	1.62	1.40	.84	1.56
26	3.40	2.68	9.98	2.93	9.38	5.55	1.92	8.98	1.59	1.69	.85	1.56
27	3.19	2.28	7.75	2.86	9.24	4.59	1.83	7.84	1.51	1.82	.84	1.58
28	3.14	3.26	6.34	2.59	8.03	4.41	2.00	6.98	1.26	1.37	.82	1.57
29	3.62	7.09	5.27	2.36	---	4.20	2.01	5.17	1.45	1.16	.79	1.56
30	5.93	7.29	4.76	2.40	---	7.52	1.84	3.65	1.64	1.07	.79	1.56
31	5.28	---	4.63	4.29	---	7.44	---	3.16	---	.90	.78	---
MEAN	2.37	4.13	5.29	3.75	5.79	5.23	2.96	4.67	2.58	1.67	.95	1.29
MAX	5.93	8.39	9.98	7.22	9.38	9.99	7.41	13.15	5.69	3.65	1.36	1.58
MIN	1.28	2.24	3.40	2.36	3.13	2.91	1.83	1.73	1.26	.90	.78	.75

WTR YR 1985 MEAN 3.38 MAX 13.15 MIN .75

03197000 ELK RIVER AT QUEEN SHOALS, WV

LOCATION.--Lat 38°28'15", long 81°17'03", Kanawha County, Hydrologic Unit 05050007, on right bank 50 ft upstream from Queen Shoals Creek, 100 ft downstream from highway bridge at Queen Shoals, 4.0 mi upstream from Big Sandy Creek, and at mile 26.2. Records include flow of Queen Shoals Creek.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--1,145 mi^2, includes that of Queen Shoals Creek.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October, November 1928, published in WSP 1305.

REVISED RECORDS.--WSP 783: Drainage area. WSP 1335: 1929-32, 1935(M), 1936, 1939, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 604.09 ft above National Geodetic Vertical Datum of 1929. Prior to June 19, 1932, nonrecording gage and June 19, 1932, to Sept. 30, 1946, water-stage recorder, at bridge 100 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 17, 22, 23, 27-29. Water-discharge records good except for periods with ice effect, which are poor. Flow regulated since 1960 by Sutton Lake. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--57 years, 2,044 ft^3/s, 24.24 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft^3/s, July 5, 1932, gage height, 29.2 ft, from rating curve extended above 40,000 ft^3/s; minimum, 0.3 ft^3/s, Nov. 4, 5, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,100 ft^3/s, May 24, gage height, 13.35 ft; minimum, 115 ft^3/s, Sept. 4-6, gage height, 3.87 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	2800	4590	2800	7320	5120	6320	471	1020	470	181	124
2	421	2100	3320	2470	6750	3300	5590	457	867	471	212	122
3	590	1550	2560	3380	5250	2380	4680	4350	749	505	192	119
4	845	1290	2010	4280	4020	1910	3130	4690	523	487	176	116
5	746	1350	1890	5750	3290	1740	2240	3140	445	324	168	115
6	501	1820	1700	6120	3340	1770	1850	3160	399	225	231	121
7	480	2400	1890	5100	3830	1620	1430	3440	446	230	345	165
8	480	2580	1910	4210	3630	1450	1080	1860	589	213	355	182
9	487	2290	1750	2940	2860	3570	966	1210	3090	179	333	178
10	397	2150	1850	2250	2590	5870	725	1070	3250	254	290	206
11	367	1940	3840	1910	1890	6470	683	754	2280	819	280	244
12	322	1740	4170	1650	2370	10300	671	653	1740	1070	218	343
13	373	1460	3220	1240	4720	10200	653	555	1730	1660	164	401
14	409	1400	2650	1210	3840	8550	657	498	1850	1460	155	399
15	305	1450	2460	1170	3220	6020	663	481	1880	888	154	403
16	322	1110	2520	1040	2520	3830	784	659	1930	521	162	403
17	397	598	2560	900	2020	2670	1180	975	1660	523	171	403
18	428	1060	2550	944	1890	2110	1260	1630	1300	716	177	402
19	415	3290	1890	1130	2170	1690	1110	3680	920	667	164	349
20	415	7320	3100	1030	3210	1390	994	3630	715	434	156	370
21	494	5550	4720	728	3470	1210	885	2590	560	300	158	418
22	508	3740	7670	450	4400	1120	789	1830	508	255	154	428
23	872	2650	6600	300	7570	1390	704	5220	458	254	149	429
24	2730	2250	4890	550	8370	1840	681	15600	396	325	154	433
25	3120	1570	9350	926	8700	3410	611	12800	366	339	140	430
26	1970	1130	10300	953	9020	3660	549	8800	340	456	152	431
27	1450	971	7320	720	9000	2830	501	6830	319	602	153	441
28	1380	1250	4970	560	7570	2430	507	5640	291	487	145	444
29	1500	5200	3700	500	---	2320	570	3560	264	327	131	436
30	3390	6370	3030	646	---	5820	538	2000	424	268	130	434
31	3650	---	2800	1670	---	6070	---	1440	---	225	130	---
TOTAL	30086	72379	117780	59527	128830	114060	43001	103673	31309	15954	5880	9489
MEAN	971	2413	3799	1920	4601	3679	1433	3344	1044	515	190	316
MAX	3650	7320	10300	6120	9020	10300	6320	15600	3250	1660	355	444
MIN	305	598	1700	300	1890	1120	501	457	264	179	130	115

CAL YR 1984 TOTAL 768962 MEAN 2101 MAX 16100 MIN 99 CFSM 1.84 IN 24.98
WTR YR 1985 TOTAL 731968 MEAN 2005 MAX 15600 MIN 115 CFSM 1.75 IN 23.78

03197000 ELK RIVER AT QUEEN SHOALS, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-75, 1979-81, February to September 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February to September 1985.
WATER TEMPERATURES: November 1960 to April 1975, February to September 1985.
TURBIDITY: February to September 1985.
SUSPENDED-SEDIMENT DISCHARGE: February to September 1985.

REMARKS.--Sediment samples were taken once daily by an observer. Specific conductance and turbidity were taken in the lab from the sediment bottles.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 29.0°C, on several days in July 1963, 1964, 1968; minimum daily, 0.0°C, on many days during winter months.

EXTREMES FOR PERIOD FEBRUARY TO SEPTEMBER 1985.--
SPECIFIC CONDUCTANCE: Maximum daily, 102 microsiemens, Aug. 9; minimum daily, 59 microsiemens, Mar. 14, 15, May 27.
WATER TEMPERATURES: Maximum daily, 27.5°C, Aug. 14; minimum daily, 1.5°C, Feb. 15, 16.
TURBIDITY: Maximum daily, 100 NTU, Feb. 23; minimum daily, 0.7 NTU, May 2, June 26, Sept. 24, 28, 29.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 261 mg/L, May 24; minimum daily mean, 0 mg/L, Apr. 14, 22, 23.
SEDIMENT LOAD: Maximum daily, 11,000 tons, May 24; minimum daily, 0 ton, Apr. 14, 22, 23.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---	62	85	81	---	80	90
2					---	---	66	85	82	85	78	93
3					---	---	60	82	84	82	91	96
4					---	63	63	77	76	79	96	95
5					---	66	67	75	78	82	75	91
6					---	---	63	71	79	79	94	94
7					---	70	67	67	83	82	86	97
8					---	72	63	66	84	80	85	93
9					---	70	65	70	85	80	102	98
10					---	71	69	76	65	81	96	---
11					---	60	68	76	72	80	98	91
12					---	67	72	76	73	90	100	94
13					---	67	73	81	77	83	95	96
14					---	59	72	80	80	82	96	98
15					71	59	73	82	78	67	84	95
16					67	66	72	84	75	72	83	93
17					75	63	70	81	76	68	99	94
18					72	68	72	83	76	69	96	92
19					73	67	72	80	80	74	83	91
20					76	67	71	69	84	73	88	92
21					74	69	72	73	85	73	93	88
22					73	70	73	79	84	74	87	88
23					67	70	75	65	89	75	89	87
24					---	72	77	69	89	76	87	86
25					---	74	80	70	91	76	87	87
26					63	69	80	62	92	82	77	88
27					---	66	79	59	95	86	88	87
28					---	65	79	62	93	87	85	86
29					---	71	79	67	92	85	83	86
30					---	67	80	76	90	83	90	86
31					---	72	---	71	---	86	90	---
MEAN					71	67	71	74	82	79	89	91

WTR YR 1985 MEAN 79 MAX 102 MIN 59

03197000 ELK RIVER AT QUEEN SHOALS, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---	8.5	18.5	20.5	---	27.0	22.0
2					---	---	7.5	19.5	20.0	24.0	26.0	23.0
3					---	---	6.0	17.0	22.0	23.5	26.0	24.0
4					---	10.5	8.0	14.5	21.0	24.5	25.0	25.0
5					---	10.0	10.0	15.5	22.0	24.5	24.0	24.5
6					---	---	11.0	20.5	22.5	24.0	24.0	25.0
7					---	8.5	11.0	17.0	23.0	24.5	25.0	25.5
8					---	7.5	10.5	15.0	22.5	24.5	24.0	26.0
9					---	8.0	7.0	17.0	24.0	26.0	25.0	26.0
10					---	8.0	4.5	18.5	22.0	26.0	25.0	26.0
11					---	7.0	9.0	17.0	20.0	24.5	25.0	25.5
12					---	5.0	10.0	20.0	20.0	25.0	26.0	23.0
13					---	6.0	11.5	22.0	18.0	25.0	26.5	22.0
14					---	5.0	12.5	22.0	19.0	25.0	27.5	21.0
15					1.5	7.0	13.0	23.5	19.0	26.0	27.0	21.0
16					1.5	5.0	14.5	22.5	20.0	25.0	27.0	21.0
17					---	6.5	15.5	21.5	20.5	25.0	27.0	21.0
18					3.0	5.0	15.0	19.5	22.0	25.0	26.0	21.0
19					5.0	5.5	15.0	17.5	21.0	25.5	25.5	22.0
20					5.0	8.0	15.0	20.0	21.0	25.5	25.0	22.0
21					---	7.0	16.5	17.5	20.0	25.0	25.0	21.5
22					7.0	7.0	20.0	19.0	23.0	25.5	23.0	23.0
23					8.0	7.0	20.0	18.0	24.5	25.5	24.0	23.0
24					---	9.0	19.0	16.0	25.0	25.5	23.0	21.0
25					---	7.0	21.0	14.5	24.5	26.0	23.0	22.0
26					6.0	7.0	20.5	15.0	25.0	26.0	23.0	21.5
27					---	8.0	20.0	16.5	23.5	26.0	23.0	19.5
28					---	8.0	20.0	17.0	23.5	25.0	23.0	19.0
29					---	11.5	20.0	17.0	24.0	25.0	23.5	19.0
30					---	9.5	18.5	18.5	24.5	27.0	23.5	18.5
31					---	8.0	---	18.5	---	27.0	23.0	---
MEAN					4.5	7.5	13.5	18.5	22.0	25.0	25.0	22.5

WTR YR 1985 MEAN 19.0 MAX 27.5 MIN 1.5

TURBIDITY (NTU), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---	20	1.1	5.2	---	5.4	1.5
2					---	---	15	.70	4.3	5.8	6.4	1.0
3					---	---	10	25	3.1	2.4	7.1	3.0
4					---	50	10	35	3.7	1.8	6.1	2.6
5					---	7.6	7.0	35	3.9	2.4	2.8	1.9
6					---	---	7.0	10	1.1	2.0	3.8	1.5
7					---	8.5	4.0	4.7	2.6	3.5	5.0	1.9
8					---	3.5	4.3	6.3	20	5.6	2.8	1.8
9					---	20	3.7	3.3	15	10	2.8	2.3
10					---	20	2.4	2.2	40	2.5	3.5	2.2
11					---	10	2.0	4.5	40	15	8.6	1.0
12					---	20	2.5	2.0	20	50	4.7	1.9
13					---	45	2.5	1.4	8.4	10	3.2	1.0
14					---	15	2.0	1.1	4.1	7.6	2.7	1.5
15					3.0	10	2.5	1.3	4.4	3.6	3.5	.80
16					3.4	8.5	4.5	2.5	4.6	9.3	5.0	3.0
17					4.4	9.0	3.5	4.7	2.6	2.9	5.2	1.7
18					2.9	7.5	2.9	5.3	3.7	1.8	2.4	1.2
19					6.5	6.5	5.3	3.8	4.6	2.2	4.0	.90
20					6.2	6.5	4.3	8.4	2.5	2.0	3.8	1.6
21					7.2	4.2	3.9	6.8	3.5	3.0	4.0	1.2
22					5.7	5.0	2.5	4.6	3.6	2.0	2.8	1.0
23					100	7.5	2.2	30	5.6	2.5	4.2	1.3
24					---	7.0	2.5	55	4.0	1.8	2.9	.70
25					---	9.8	2.4	30	1.8	3.1	3.4	1.3
26					20	10	2.6	15	.70	3.6	5.5	1.4
27					---	7.5	1.6	15	3.6	2.7	3.0	1.8
28					---	4.0	1.8	15	2.4	2.1	3.8	.70
29					---	3.8	1.8	15	2.1	3.2	2.6	.70
30					---	80	1.7	10	4.8	2.3	2.9	.80
31					---	30	---	6.6	---	2.6	2.5	---
MEAN					16	15	4.6	12	7.5	5.6	4.1	1.5

WTR YR 1985 MEAN 7.5 MAX 100 MIN .70

03197000 ELK RIVER AT QUEEN SHOALS, WV--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									---	---	24	332
2									---	---	17	151
3									---	---	11	71
4									---	---	3	15
5									---	---	3	14
6									---	---	5	24
7									---	---	8	35
8									---	---	15	59
9									---	---	43	414
10									---	---	57	903
11									---	---	36	629
12									---	---	118	3480
13									---	---	126	3610
14									---	---	45	1040
15									4	35	27	439
16									11	75	16	165
17									30	164	14	101
18									8	41	13	74
19									10	59	10	46
20									10	87	5	19
21									7	66	6	20
22									14	166	8	24
23									44	899	10	38
24									79	1790	17	84
25									90	2110	24	221
26									57	1390	21	208
27									36	875	11	84
28									30	613	8	52
29									---	---	14	88
30									---	---	113	1910
31									---	---	124	2070
TOTAL									---	8370	---	16420

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	41	700	6	7.6	6	17	29	37	8	3.9	6	2.0
2	47	709	5	6.2	5	12	13	17	7	4.0	9	3.0
3	27	341	131	2040	5	10	6	8.2	5	2.6	15	4.8
4	20	169	142	1820	5	7.1	5	6.6	5	2.4	9	2.8
5	15	91	69	585	3	3.6	4	3.5	6	2.7	7	2.2
6	8	40	35	299	5	5.4	4	2.4	5	3.1	7	2.3
7	8	31	43	399	7	8.4	6	3.7	4	3.7	7	3.1
8	9	26	17	85	46	73	10	5.8	2	1.9	6	2.9
9	7	18	8	26	55	459	14	6.8	3	2.7	3	1.4
10	3	5.9	8	23	40	351	14	9.6	4	3.1	4	2.2
11	2	3.7	7	14	70	431	57	126	3	2.3	2	1.3
12	3	5.4	5	8.8	32	150	64	185	2	1.2	5	4.6
13	1	1.8	5	7.5	17	79	25	112	4	1.8	5	5.4
14	0	.00	4	5.4	14	70	14	55	5	2.1	5	5.4
15	1	1.8	5	6.5	10	51	9	22	3	1.2	3	3.3
16	3	6.4	10	18	8	42	14	20	9	3.9	4	4.4
17	2	6.4	11	29	7	31	4	5.6	9	4.2	4	4.4
18	3	10	15	66	9	32	5	9.7	4	1.9	2	2.2
19	5	15	33	328	17	42	5	9.0	2	.89	6	5.7
20	2	5.4	34	333	7	14	5	5.9	2	.84	5	5.0
21	4	9.6	20	140	7	11	2	1.6	3	1.3	3	3.4
22	0	.00	13	64	5	6.9	2	1.4	3	1.2	1	1.2
23	0	.00	124	2250	2	2.5	3	2.1	3	1.2	2	2.3
24	1	1.8	261	11000	4	4.3	3	2.6	6	2.5	2	2.3
25	3	4.9	138	5060	6	5.9	3	2.7	3	1.1	3	3.5
26	1	1.5	64	1520	5	4.6	4	4.9	5	2.1	5	5.8
27	1	1.4	53	977	7	6.0	4	6.5	3	1.2	4	4.8
28	2	2.7	54	822	5	3.9	3	3.9	1	.39	3	3.6
29	4	6.2	48	461	7	5.0	4	3.5	2	.71	2	2.4
30	5	7.3	20	108	25	29	2	1.4	2	.70	3	3.5
31	---	---	9	35	---	---	3	1.8	3	1.1	---	---
TOTAL	---	2222.20	---	28544.0	---	1967.6	---	683.2	---	63.93	---	101.2

TOTAL LOAD FOR YEAR: 58372.13 TONS.

03197680 ELK RIVER AT BLUE CREEK, WV

LOCATION.--Lat 38°26'57", long 81°27'22", Kanawha County, Hydrologic Unit 05050007, on right bank 20 ft downstream from highway bridge at Blue Creek, 0.1 mi upstream from Blue Creek, 1.7 mi east of Elkview, and at mile 14.4.

DRAINAGE AREA.--1,336 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 578.22 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 26 to May 13. Water-discharge records good except for estimated daily discharges which are fair. Flow regulated since 1960 by Sutton Lake.

EXTREMES FOR CURRENT PERIOD.--February to September 1985: Maximum discharge, 19,800 ft^3/s, May 24, gage height, 19.30 ft, from rating curve extended above 13,000 ft^3/s; minimum, 133 ft^3/s, Sept. 5, 6, gage height, 3.81 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	5440	7020	609	1170	608	240	149
2					---	3480	6260	595	946	518	248	146
3					---	2270	5320	3710	832	547	231	143
4					---	1820	3590	4330	653	562	211	138
5					---	1810	2540	3170	528	426	196	135
6					---	1350	2060	2840	473	289	215	137
7					---	1530	1640	3450	469	293	325	167
8					---	1640	1250	2170	663	281	350	200
9					---	6480	1110	1440	2250	242	342	193
10					---	6290	914	950	3460	343	296	207
11					---	6670	836	700	3080	1120	283	219
12					---	12900	804	553	2030	1040	249	294
13					---	11800	740	595	2080	1770	195	374
14					---	9160	748	532	2080	1640	176	376
15					---	5900	869	529	1950	1210	169	376
16					---	4380	1490	910	2060	967	176	378
17					---	4030	1250	1210	1870	614	190	384
18					---	3180	1560	2320	1560	710	197	382
19					---	2240	1270	3880	1160	715	188	355
20					---	1580	1130	3860	825	513	179	331
21					---	1310	1050	2810	667	353	177	384
22					---	1210	932	2120	571	289	175	403
23					---	1020	852	5420	539	270	168	412
24					---	1290	836	15700	457	325	190	412
25					---	4780	756	15100	418	359	198	412
26					8890	4210	693	9390	382	418	175	413
27					8770	2940	665	6840	353	633	191	422
28					7810	2520	651	5710	335	592	177	420
29					---	2560	724	3900	286	378	161	415
30					---	7070	686	2350	362	296	154	412
31					---	6880	---	1610	---	268	154	---
TOTAL					---	129740	50246	109303	34509	18589	6576	9189
MEAN					---	4185	1675	3526	1150	600	212	306
MAX					---	12900	7020	15700	3460	1770	350	422
MIN					---	1020	651	529	286	242	154	135
CFSM					---	3.13	1.25	2.64	.86	.45	.16	.23
IN.					---	3.61	1.40	3.04	.96	.52	.18	.26

03197680 ELK RIVER AT BLUE CREEK, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February to September 1985.
WATER TEMPERATURE: February to September 1985.
TURBIDITY: February to September 1985.
SUSPENDED-SEDIMENT DISCHARGE: February to September 1985.

REMARKS.--Sediment samples were taken once daily by an observer. Specific conductance and turbidity were taken in the lab from the sediment bottles.

EXTREMES FOR PERIOD FEBRUARY TO SEPTEMBER 1985.--
SPECIFIC CONDUCTANCE: Maximum daily, 133 microsiemens, Aug. 27; minimum daily, 51 microsiemens, May 25.
WATER TEMPERATURE: Maximum daily, 28.0°C, Aug. 13-15; minimum daily, 5.0°C, Feb. 27.
TURBIDITY: Maximum daily, 130 NTU, June 11; minimum daily, 0.3 NTU, Aug. 18, 20.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 270 mg/L, May 24; minimum daily mean, 2 mg/L, several days during April, August, and September.
SEDIMENT LOAD: Maximum daily, 12,000 tons, May 24; May 24, minimum daily, 1.1 ton, Sept. 4, 5.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	60	66	---	91	85	112	106
2					---	69	68	---	98	90	114	103
3					---	68	65	---	98	87	103	100
4					---	71	64	---	90	89	103	116
5					---	75	70	---	79	95	102	98
6					---	74	---	70	78	93	100	100
7					---	74	---	72	80	89	96	104
8					---	85	73	74	86	90	105	103
9					---	74	74	75	78	90	108	106
10					---	72	79	77	62	112	104	106
11					---	63	83	---	55	122	106	102
12					---	73	85	84	65	106	104	96
13					---	69	88	85	58	100	102	---
14					---	67	---	93	69	90	109	96
15					---	68	87	109	68	84	102	98
16					---	66	89	107	80	88	100	103
17					---	68	---	113	63	87	---	93
18					---	69	82	106	78	82	110	90
19					---	79	---	88	71	83	110	96
20					---	78	---	85	72	89	94	89
21					---	75	---	78	74	98	105	88
22					---	88	---	79	---	99	98	94
23					---	84	---	77	80	99	95	94
24					---	83	---	69	84	94	97	97
25					---	81	---	51	58	100	130	90
26					60	71	---	67	70	92	118	89
27					62	68	---	71	---	104	133	97
28					59	74	---	62	96	107	114	91
29					---	74	---	74	---	---	107	90
30					---	71	---	81	78	---	106	92
31					---	75	---	80	---	96	114	---
MEAN					60	73	77	81	76	94	107	97

WTR YR 1985 MEAN 87 MAX 133 MIN 51

03197680 ELK RIVER AT BLUE CREEK, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	6.0	10.0	---	23.0	23.0	26.0	23.0
2					---	7.0	9.0	---	22.0	23.0	26.0	25.0
3					---	6.0	9.0	---	24.0	24.0	26.0	26.0
4					---	11.0	10.0	---	23.0	24.0	26.0	26.0
5					---	9.5	15.0	---	23.0	24.0	25.0	26.0
6					---	8.5	---	17.0	24.0	24.0	25.0	26.0
7					---	8.5	---	19.0	23.0	25.0	24.0	27.0
8					---	8.5	10.0	13.0	25.0	26.0	25.0	27.0
9					---	8.5	8.0	19.0	24.0	26.0	26.0	27.0
10					---	9.0	10.0	17.0	25.0	25.0	26.0	27.0
11					---	9.0	11.0	---	21.0	23.0	27.0	27.0
12					---	9.0	11.0	21.0	19.0	26.0	27.0	26.0
13					---	9.0	13.0	20.0	19.0	26.0	28.0	---
14					---	8.0	---	21.0	18.0	26.0	28.0	26.0
15					---	8.5	14.0	23.0	19.0	26.0	28.0	18.0
16					---	9.0	16.0	21.0	19.0	25.0	26.0	18.0
17					---	8.0	---	20.0	19.0	25.0	---	18.0
18					---	8.0	14.0	15.0	21.5	26.0	26.0	20.0
19					---	8.5	---	16.0	---	27.0	26.0	19.0
20					---	9.0	---	16.0	19.0	26.0	24.0	21.0
21					---	8.5	---	20.0	19.0	---	25.0	22.0
22					---	8.0	---	19.0	---	26.0	25.0	21.0
23					---	9.0	---	---	24.0	26.0	26.0	20.0
24					---	8.0	---	15.0	25.0	27.0	22.0	20.0
25					---	9.5	---	13.5	20.0	26.0	22.0	20.0
26					7.0	9.5	---	16.0	21.0	26.0	24.0	20.0
27					5.0	11.0	---	19.0	---	26.0	23.0	18.0
28					6.0	12.0	---	18.0	21.0	26.0	23.0	19.0
29					---	14.0	---	18.0	---	---	23.0	18.0
30					---	12.0	---	21.0	22.0	---	24.0	17.0
31					---	13.0	---	23.0	---	27.0	22.0	---
MEAN					6.0	9.0	11.5	18.5	21.5	25.5	25.0	22.5

WTR YR 1985 MEAN 19.5 MAX 28.0 MIN 5.0

TURBIDITY (NTU), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	20	25	---	7.3	35	7.0	1.8
2					---	15	15	---	6.6	10	2.0	1.4
3					---	10	15	---	4.6	8.0	.90	.90
4					---	9.0	15	---	9.0	3.5	1.5	.40
5					---	9.0	10	---	7.0	5.9	2.5	---
6					---	8.5	---	15	4.5	8.9	4.0	1.4
7					---	6.5	---	7.3	2.5	4.0	2.0	1.1
8					---	10	6.0	5.4	10	7.1	3.0	1.2
9					---	20	5.2	2.7	35	4.0	.40	1.5
10					---	20	4.0	4.0	30	6.3	2.1	1.4
11					---	15	4.5	---	130	85	3.0	1.7
12					---	70	4.0	2.3	45	85	1.0	2.5
13					---	55	3.0	2.1	15	15	1.3	---
14					---	20	---	1.8	20	15	.50	1.2
15					---	10	3.0	3.8	4.7	6.4	1.1	.60
16					---	15	35	15	6.3	25	1.4	.40
17					---	10	---	20	3.4	10	---	1.4
18					---	8.0	6.6	50	15	6.0	.30	1.2
19					---	8.0	---	30	5.5	2.9	1.1	1.6
20					---	7.5	---	20	7.6	2.4	.30	1.1
21					---	5.5	---	10	4.5	3.6	.40	.60
22					---	20	---	15	---	3.0	.60	1.0
23					---	20	---	50	3.5	2.2	.60	.60
24					---	20	---	70	7.5	1.7	1.1	.40
25					---	15	---	40	10	3.6	5.4	.80
26					100	10	---	20	3.8	1.2	4.4	.90
27					20	7.0	---	20	---	2.5	1.1	.80
28					20	5.8	---	20	4.5	2.0	.90	1.0
29					---	5.0	---	15	---	---	.70	.80
30					---	45	---	15	3.1	---	1.4	1.0
31					---	110	---	10	---	2.5	1.3	---
MEAN					45	20	11	19	15	13	1.8	1.1

03197680 ELK RIVER AT BLUE CREEK, WV--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1									---	---	47	690
2									---	---	30	282
3									---	---	20	123
4									---	---	13	64
5									---	---	12	59
6									---	---	11	40
7									---	---	12	50
8									---	---	25	123
9									---	---	117	1900
10									---	---	64	1090
11									---	---	60	1090
12									---	---	185	6700
13									---	---	125	3980
14									---	---	65	1610
15									---	---	32	510
16									---	---	27	319
17									---	---	27	294
18									---	---	21	180
19									---	---	19	115
20									---	---	11	47
21									---	---	13	46
22									---	---	30	98
23									---	---	47	129
24									---	---	29	101
25									---	---	29	374
26									52	1250	32	364
27									55	1300	13	103
28									57	1200	8	54
29									---	---	12	83
30									---	---	128	2650
31									---	---	185	3440
TOTAL									---	3750	---	26708

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	82	1550	8	13	25	79	64	109	22	14	5	2.0
2	48	811	15	24	18	46	18	25	12	8.0	6	2.4
3	31	445	183	2350	19	43	17	25	2	1.2	4	1.5
4	26	252	195	2310	30	53	14	21	5	2.8	3	1.1
5	14	96	109	933	26	37	13	15	6	3.2	3	1.1
6	5	28	34	261	12	15	17	13	6	3.5	4	1.5
7	5	22	27	252	7	8.9	13	10	6	5.3	3	1.4
8	5	17	18	105	22	39	11	8.3	6	5.7	3	1.6
9	3	9.0	10	39	85	604	12	7.8	3	2.8	5	2.6
10	2	4.9	8	21	82	811	71	111	3	2.4	5	2.8
11	2	4.5	7	13	122	1010	155	475	3	2.3	8	4.7
12	3	6.5	6	9.0	72	395	100	281	4	2.7	11	8.7
13	2	4.0	5	8.0	24	135	49	234	4	2.1	14	14
14	2	4.0	4	5.7	35	197	27	120	3	1.4	7	7.1
15	13	31	10	14	18	95	39	154	7	3.2	6	6.1
16	50	193	26	64	19	106	91	238	8	3.8	6	6.1
17	19	64	46	150	16	81	21	35	5	2.6	11	11
18	9	38	132	815	18	76	13	25	4	2.1	5	5.2
19	9	31	87	906	11	34	7	14	5	2.5	5	4.8
20	9	27	45	469	9	20	7	9.7	5	2.4	6	5.4
21	8	23	27	205	8	14	8	7.6	7	3.3	5	5.2
22	7	18	44	252	9	14	10	7.8	10	4.7	4	4.4
23	5	12	130	1900	11	16	9	6.6	11	5.0	4	4.4
24	4	9.0	270	12000	13	16	7	6.1	20	10	3	3.3
25	4	8.2	175	7130	13	15	4	3.9	19	10	4	4.4
26	3	5.6	73	1850	9	9.3	3	3.4	8	3.8	6	6.7
27	3	5.4	51	942	10	9.5	9	15	12	6.2	4	4.6
28	3	5.3	43	663	13	12	7	11	7	3.3	3	3.4
29	8	16	35	369	8	6.2	5	5.1	6	2.6	5	5.6
30	9	17	33	209	17	21	5	4.0	7	2.9	2	2.2
31	---	---	27	117	---	---	9	6.5	7	2.9	---	---
TOTAL	---	3757.4	---	34398.7	---	4017.9	---	2007.8	---	128.7	---	135.3

TOTAL LOAD FOR YEAR: 74903.8 TONS.

03197790 LITTLE SANDY CREEK NEAR ELKVIEW, WV

LOCATION.--Lat 38°27'21", long 81°30'01", Kanawha County, Hydrologic Unit 05050007, on left bank 20 ft downstream from private bridge at Wills, 0.2 mi downstream from Wills Creek, 1.3 mi west of Elkview, and at mile 6.3.

DRAINAGE AREA.--43.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 605 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1-22. Water-discharge records good except for estimated daily discharges, which are fair.

EXTREMES FOR CURRENT PERIOD.--April to September 1985: Maximum discharge, 1,460 ft^3/s, May 24, gage height, 12.65 ft, from rating curve extended above 1,400 ft^3/s; minimum, 0.01 ft^3/s, Sept. 24, gage height, 4.73 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							160	5.6	26	43	34	1.6
2							127	27	22	26	16	.99
3							95	96	21	24	6.5	.66
4							68	37	41	20	3.3	.50
5							46	25	28	13	2.2	.40
6							47	19	22	10	1.9	.35
7							42	15	20	30	2.2	.30
8							36	11	42	13	6.6	.91
9							31	6.6	25	6.3	2.5	1.3
10							28	4.5	25	204	1.6	1.3
11							30	3.3	22	74	1.1	.63
12							27	2.6	67	22	.89	.42
13							25	3.5	52	11	.78	.26
14							24	3.0	33	4.1	.98	.19
15							24	43	25	22	.60	.14
16							81	94	24	27	22	.11
17							79	83	127	5.1	13	.08
18							67	158	117	1.9	3.6	.06
19							57	95	40	1.2	2.0	.05
20							47	44	31	.60	1.4	.04
21							39	25	24	.50	1.6	.03
22							31	31	21	.92	1.3	.02
23							25	79	22	.70	.81	.02
24							23	466	17	.15	16	.07
25							20	281	14	.07	22	.12
26							17	111	9.3	.18	7.6	.13
27							15	65	5.3	42	4.8	.33
28							15	52	3.9	13	2.6	.26
29							12	43	3.3	5.3	1.6	.19
30							7.5	34	4.7	4.1	1.4	.14
31							---	29	---	12	1.9	---
TOTAL							1345.5	1992.1	934.5	637.12	184.76	11.60
MEAN							44.9	64.3	31.2	20.6	5.96	.39
MAX							160	466	127	204	34	1.6
MIN							7.5	2.6	3.3	.07	.60	.02
CFSM							1.03	1.48	.72	.47	.14	.009
IN.							1.15	1.70	.80	.54	.16	.01

03197790 LITTLE SANDY CREEK NEAR ELKVIEW, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
FEB								
22...	1120	266	160	--	6.0	37	106	76
MAR								
05...	1150	39	270	--	10.0	25	35	3.7
08...	1325	58	420	--	9.5	140	279	44
11...	1020	90	215	--	6.5	40	66	16
12...	1410	733	114	--	9.0	110	486	962
21...	1330	31	220	--	8.0	4.9	5	.42
29...	1500	138	185	7.30	15.0	180	613	228
30...	1410	340	130	--	12.0	50	1220	1120
31...	1410	202	175	--	13.5	55	116	63
APR								
05...	1110	54	210	--	14.5	12	13	1.9
16...	1030	110	255	--	14.5	85	148	44
16...	1415	98	255	--	--	40	67	18
29...	1030	14	300	7.60	16.0	5.0	18	.68
MAY								
02...	1110	20	480	--	17.5	30	54	2.9
02...	1500	36	350	--	18.0	75	131	13
03...	1030	106	193	--	13.0	60	124	35
03...	1345	84	195	--	15.0	35	64	15
16...	1500	72	260	--	20.5	50	117	23
17...	1400	90	370	--	17.0	180	589	143
21...	1300	24	215	--	--	2.0	47	3.0
23...	1200	449	138	--	15.5	60	295	358
24...	1300	1450	89	--	15.0	110	417	1630
JUN								
04...	1220	74	290	--	21.0	130	2760	551
04...	1320	102	275	7.20	--	210	1860	512
10...	0945	22	570	--	25.0	25	27	1.6
17...	1215	15	475	8.10	22.0	15	33	1.3
18...	1525	78	250	--	20.5	40	78	16
28...	1100	4.2	2250	--	21.5	3.5	11	.12
JUL								
03...	1415	25	1300	--	23.0	25	45	3.0
10...	1230	6.0	1370	--	26.0	28	48	.78
11...	1315	57	310	--	21.0	38	68	10
16...	1220	22	560	7.70	--	20	96	5.7
16...	1330	20	490	--	24.0	50	90	4.9
18...	1430	1.8	1320	--	26.0	5.0	27	.13
AUG								
01...	1400	29	600	--	23.0	130	238	19
14...	0930	1.1	1260	7.80	--	10	16	.05
16...	0900	1.3	2800	--	--	65	111	.39
20...	0945	1.3	1400	--	22.0	9.4	0	.00
21...	1240	1.8	1900	--	25.0	5.0	6	.03
SEP								
06...	1000	.35	2730	--	23.0	60	191	.18
12...	1325	.42	2180	7.80	28.0	110	30	.03
19...	1610	.04	2210	--	25.0	5.8	11	.00
23...	0930	.02	--	7.60	--	--	--	--

03198000 KANAWHA RIVER AT CHARLESTON, WV

LOCATION.--Lat 38°22'10", long 81°42'05", Kanawha County, Hydrologic Unit 05050008, on left bank at old lock 6, 1.0 mi upstream from Davis Creek, 1.5 mi downstream from Twomile Creek, 2.0 mi downstream from Patrick Street Bridge at Charleston, 3.5 mi downstream from Elk River, and at mile 54.3.

DRAINAGE AREA.--10,419 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1939 to current year. Monthly discharge only September 1939 to February 1940, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1943.

GAGE.--Water-stage recorder. Datum of gage is 548.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Auxiliary water-stage recorder 2.3 mi upstream from base gage at datum 547.00 ft, U.S. Army Corps of Engineers datum. Prior to Oct. 1, 1955, auxiliary gages at different sites and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Sept. 30. Water-discharge records poor. Since 1939, flow regulated by increasing number of reservoirs upstream from station. U.S. Army Corps of Engineers gage height telemeter at station.

AVERAGE DISCHARGE.--46 years, 15,000, 19.55 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 216,000 ft^3/s, Aug. 15, 1940; maximum gage height, 39.72 ft, Mar. 7, 1955; minimum discharge, less than 1,030 ft^3/s, during period Oct. 1-5, 1953; minimum gage height, 16.79 ft, Aug. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1861, reached a stage of about 54.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 97,200 ft^3/s, May 25; maximum gage height, 29.28 ft, May 25; minimum daily, 2,470 ft^3/s, July 24; minimum gage height, 17.74 ft, Aug. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5520	11700	29100	18200	34400	37000	18800	5200	10100	3460	2750	5330
2	5890	9670	19300	23700	62900	28100	15800	5500	9120	3530	4860	2680
3	8350	8690	14200	31500	58800	21500	15500	13400	6400	3910	8430	2580
4	7060	9370	9810	43500	46700	16500	13000	15600	5660	4120	7630	2500
5	8070	9000	9380	56700	30300	14700	12400	18300	5160	4040	3940	2480
6	9060	9250	10200	46700	25500	15400	11700	13600	5100	3350	3830	2820
7	6320	11900	11000	32900	22700	14800	9550	11700	5290	2880	3460	3690
8	4170	12000	10500	24300	21500	13800	8540	8970	7170	2740	5240	4150
9	3000	10700	9670	23100	15900	24100	7510	7150	10100	2560	4710	3590
10	2820	8980	8370	17200	13000	28900	9250	6510	9620	3290	3760	2980
11	3180	8900	14000	15400	11600	25800	9220	5660	9830	8590	3810	3020
12	2640	9440	16800	13100	13900	36400	8880	5260	9750	7380	3510	3160
13	2640	10500	16200	10900	23400	48300	8880	4810	11200	6840	2930	3220
14	2690	10300	15900	9060	23300	38200	8560	4560	11300	6820	3150	3360
15	2550	10100	14600	8450	17300	29200	7830	6380	9950	6370	2960	3440
16	2480	8400	13400	7660	12800	20600	7990	9470	8070	5920	2770	3160
17	2470	7840	11800	7540	11800	16700	11300	10700	6870	4860	2650	2660
18	2770	8240	10900	7430	11200	13200	14000	14500	6750	4620	3950	2760
19	3290	21800	9380	7640	11100	11000	13900	19600	6610	3930	23600	2850
20	3610	33300	17100	6730	15600	10800	13700	14800	6510	3050	21800	2580
21	3680	30300	24300	5060	18300	9600	10400	12100	5960	2490	13600	2720
22	3320	20600	35700	4220	23400	9070	8270	11600	5140	2670	9110	2650
23	4920	15100	35900	5680	39300	10600	7220	32200	4340	2490	7870	2780
24	8440	12500	28300	5360	51100	17300	7970	65100	3610	2470	5950	3110
25	9590	9370	37200	6160	64300	27800	7290	97200	3340	2870	5570	3030
26	8540	8150	41600	6460	75000	23200	7300	59100	3160	4030	4510	2730
27	8430	7150	36000	5810	73600	23100	7030	36600	2810	6210	4720	2620
28	8370	9210	28000	5090	51600	18900	8520	23600	2660	4900	5290	2710
29	9350	23500	21600	4760	---	16000	5620	18600	3080	7540	6460	2980
30	14100	37900	17400	5790	---	21400	5000	14100	3580	4900	5230	3100
31	14800	---	14400	9610	---	21700	---	11500	---	3030	5650	---
TOTAL	182120	403860	592010	475710	880300	663670	300930	583370	198240	135860	193700	91440
MEAN	5875	13460	19100	15350	31440	21410	10030	18820	6608	4383	6248	3048
MAX	14800	37900	41600	56700	75000	48300	18800	97200	11300	8590	23600	5330
MIN	2470	7150	8370	4220	11100	9070	5000	4560	2660	2470	2650	2480

CAL YR 1984 TOTAL 6033520 MEAN 16490 MAX 93300 MIN 2470
WTR YR 1985 TOTAL 4701210 MEAN 12880 MAX 97200 MIN 2470

03198000 KANAWHA RIVER AT CHARLESTON, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1953 to August 1970, October 1971 to current year.

INSTRUMENTATION.--Temperature recorder since Mar. 13, 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 35.0°C, Aug. 25, 26, 1959; minimum, 0.0°C, Jan. 22, 23, 1984, Jan. 22-28, 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.5°C, Aug. 15-20; 0.0°C, Jan. 22-28.

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	19.0	19.5	19.0	7.0	7.0	8.5	8.0	1.5	1.0	6.5	6.0
2	19.0	18.0	19.0	18.0	7.5	7.0	8.5	8.5	1.0	.5	6.5	6.0
3	18.0	17.0	18.0	17.5	8.0	7.5	8.5	8.5	1.0	.5	6.5	6.5
4	17.5	17.0	17.5	17.5	8.0	8.0	8.5	7.5	2.0	1.0	7.5	6.5
5	17.5	17.5	17.5	17.0	8.0	8.0	7.5	7.5	2.0	2.0	8.0	7.5
6	17.5	17.5	17.0	15.0	8.0	7.0	7.5	7.0	2.5	2.0	8.0	7.5
7	17.5	17.5	15.0	14.5	7.5	7.0	7.0	6.5	2.5	2.5	8.5	8.0
8	18.0	17.5	14.5	14.0	7.0	6.5	6.5	6.5	2.5	2.5	8.5	8.5
9	18.0	17.5	14.0	13.5	6.5	6.0	6.5	5.5	2.5	2.0	8.5	8.0
10	19.0	18.0	13.5	13.0	6.0	5.0	5.5	5.0	2.0	1.0	8.5	7.5
11	19.0	18.0	13.0	12.5	6.0	5.0	5.0	4.0	1.5	1.0	8.5	7.5
12	19.5	18.5	12.5	12.0	5.5	5.0	4.0	3.5	2.0	1.5	7.5	7.5
13	19.0	18.0	12.0	11.5	6.0	5.5	3.5	3.0	1.5	1.0	7.5	7.5
14	19.5	18.0	11.5	11.0	6.5	5.5	3.5	3.0	1.5	1.0	7.5	7.5
15	19.0	18.0	11.0	10.5	6.5	6.5	3.0	3.0	1.5	1.0	8.0	7.5
16	19.0	18.5	10.5	10.5	6.5	6.5	3.0	2.0	1.0	1.0	8.0	8.0
17	19.5	18.5	10.5	10.0	7.0	6.5	2.0	2.0	1.5	1.0	8.0	7.5
18	20.0	19.0	10.0	9.0	7.5	7.0	2.0	2.0	2.0	1.5	8.0	8.0
19	20.0	19.0	9.0	9.0	8.0	7.5	2.0	1.5	3.0	2.0	8.0	7.5
20	20.0	19.0	9.0	8.5	8.5	8.0	1.5	1.0	3.0	3.0	8.5	8.0
21	20.0	19.5	8.5	8.0	9.0	8.5	1.0	.5	4.0	3.0	8.0	7.5
22	20.0	20.0	8.0	7.5	9.0	9.0	.5	.0	4.0	4.0	8.5	8.0
23	20.0	19.5	7.5	7.0	9.0	9.0	.5	.0	4.0	4.0	8.5	8.0
24	19.5	18.5	7.0	7.0	9.0	8.5	.0	.0	5.0	4.0	8.5	8.0
25	19.5	19.0	7.0	6.0	8.5	8.0	.5	.0	5.0	5.0	8.5	8.5
26	20.0	19.5	7.0	6.0	8.0	7.0	.5	.0	5.5	5.0	8.5	8.5
27	19.5	19.0	6.5	6.0	7.0	6.5	.0	.0	6.0	5.5	8.5	8.5
28	19.0	19.0	7.0	6.0	6.5	6.5	1.0	.0	6.5	6.0	8.5	8.5
29	19.0	19.0	7.0	7.0	7.0	6.5	1.0	.5	---	---	10.0	8.5
30	19.0	19.0	7.0	7.0	8.0	7.0	1.0	.5	---	---	10.5	10.0
31	19.5	19.5	---	---	8.0	8.0	1.5	1.0	---	---	11.5	10.5
MONTH	20.0	17.0	19.5	6.0	9.0	5.0	8.5	.0	6.5	.5	11.5	6.0

03198000 KANAWHA RIVER AT CHARLESTON, WV--Continued

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	11.5	20.5	19.5	19.5	18.5	26.0	25.0	29.0	29.0	---	---
2	11.5	11.0	20.5	19.5	20.5	19.5	26.0	26.0	29.0	29.0	---	---
3	11.0	11.0	19.5	18.0	21.5	20.5	26.0	26.0	29.0	29.0	---	---
4	11.5	11.0	18.0	17.0	22.0	21.5	26.5	26.0	29.0	29.0	---	---
5	12.5	11.5	17.5	17.0	22.0	21.5	27.0	26.5	29.0	29.0	---	---
6	12.5	12.0	17.5	17.0	22.0	21.0	27.0	27.0	29.0	28.5	---	---
7	12.0	12.0	17.5	17.5	22.0	21.5	28.5	26.0	28.5	28.5	---	---
8	12.0	11.5	18.0	17.5	22.5	21.5	28.5	28.5	28.5	28.5	---	---
9	11.5	10.5	18.0	17.5	22.5	22.5	29.5	28.5	29.0	28.5	---	---
10	11.5	10.5	18.5	18.0	22.5	22.5	29.5	29.0	29.0	28.5	---	---
11	11.5	11.5	18.5	18.5	22.5	21.5	29.0	28.5	29.0	29.0	---	---
12	11.5	11.5	21.0	18.5	22.0	21.5	29.0	28.5	29.0	29.0	---	---
13	12.0	11.5	21.0	19.5	21.5	21.0	29.0	29.0	29.5	29.0	---	---
14	11.5	11.5	22.0	20.5	21.0	20.0	29.5	29.0	30.0	29.5	---	---
15	12.5	11.5	21.5	21.0	20.5	20.0	29.5	29.5	30.5	30.0	---	---
16	13.5	12.5	21.5	21.5	20.0	19.5	29.5	27.5	30.5	30.5	---	---
17	13.5	13.5	21.5	21.0	21.0	20.0	28.5	27.5	30.5	30.0	---	---
18	14.5	13.5	21.0	19.5	20.5	20.0	28.5	28.0	30.5	30.0	---	---
19	15.5	14.5	19.5	19.5	20.5	20.5	28.5	28.5	30.5	30.0	---	---
20	16.5	15.5	19.5	18.5	21.5	20.5	29.0	28.5	30.5	30.0	---	---
21	17.0	16.0	18.5	18.5	22.0	21.0	29.0	29.0	30.0	29.5	---	---
22	17.5	17.0	19.0	18.5	22.5	21.5	29.0	29.0	29.5	27.5	---	---
23	18.5	17.5	19.0	18.0	23.5	21.5	29.0	29.0	28.0	27.5	---	---
24	18.5	18.5	18.0	13.5	24.0	22.5	29.0	29.0	27.5	27.5	---	---
25	19.5	18.5	15.0	13.0	24.5	23.5	29.0	29.0	27.5	27.5	---	---
26	19.5	19.5	15.0	15.0	25.0	23.5	29.0	29.0	27.5	27.0	---	---
27	19.5	19.5	15.5	15.0	25.0	23.5	29.5	29.0	---	---	27.0	26.5
28	19.5	19.5	16.5	15.5	25.0	23.5	29.5	29.5	---	---	26.5	25.5
29	20.5	19.5	17.0	16.5	25.5	24.0	29.5	29.5	---	---	25.5	25.5
30	20.5	19.5	18.0	17.0	25.5	24.5	29.5	29.5	---	---	25.5	25.5
31	---	---	---	18.0	---	---	29.5	29.0	---	---	---	---
MONTH	20.5	10.5	22.0	13.0	25.5	18.5	29.5	25.0	30.5	27.0	27.0	25.5
YEAR	30.5	.0										

REVISION OF RECORDS FOR A DISCONTINUED STATION

03198022 TRACE FORK D/S DRYDEN HOLLOW AT RUTH, WV

LOCATION.--Lat 38°18'55", long 81°43'42", Kanawha County, Hydrologic Unit 05050008, on right upstream wingwall of private bridge, 100 ft west of intersection of State Highways 214 and 16/1, and 0.4 mi north of Ruth.

DRAINAGE AREA.--4.72 mi^2.

PERIOD OF RECORD.--July 1980 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 680 ft, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 430 ft^3/s, July 10, 1980, gage height, 9.31 ft; no flow part of each day, Oct. 28, 31, 1982, July 16, 17, 1983; minimum gage height, 4.40 ft, June 22, 1984.

REVISIONS.--The maximum discharge for the water year 1983 has been revised to 311 ft^3/s, May 16, 1983, gage height, 7.76 ft; revised daily discharges, in cubic feet per second, supersede those published in the 1983 report.

Apr. 29, 1983.....6.3
30.....20

	TOTAL	MEAN	MAX	MIN	CFSM	IN
April 1983	291.7	9.72	76	3.0	2.06	2.30
Wtr Yr 1983	1,659.56	4.55	84	.08	.96	13.08

03198500 BIG COAL RIVER AT ASHFORD, WV

LOCATION.--Lat 38°10'47", long 81°42'42", Boone County, Hydrologic Unit 05050009, on left bank at downstream side of highway bridge at Ashford, 300 ft upstream from Lick Creek, 1.0 mi downstream from Brush Creek, 1.8 mi upstream from Bull Creek, and at mile 30.2 upstream from Kanawha River.

DRAINAGE AREA.--391 mi^2.

PERIOD OF RECORD.--June 1908 to September 1916, May 1930 to current year. Published as Coal River at Brushton, June 1908 to September 1916 and as Coal River at Ashford, May 1930 to September 1960.

REVISED RECORDS.--WSP 1305: 1913-14(M). WSP 1335: 1912, 1916(M). WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 622.46 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 9, 1916, nonrecording gage at site 1.0 mi upstream at different datum. May 7, 1930, to Feb. 10, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 21-23. Records good except for period with ice effect, which is poor.

AVERAGE DISCHARGE.--63 years, 518 ft^3/s, 17.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,800 ft^3/s, Aug. 9, 1916, gage height, 36.3 ft, from floodmark, site and datum then in use, or 35.66 ft, from floodmark, present site and datum, from rating curve extended above 25,000 ft^3/s; no flow Sept. 18-21, 24, Oct. 6-12, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 25	0130	*9,280	*14.53	No other peak greater than base discharge.			

Minimum daily discharge, 16 ft^3/s, Sept. 19-23; minimum gage height, 1.39 ft, Sept. 21, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	133	601	951	3030	912	627	194	420	118	112	38
2	145	122	463	1280	3250	781	691	201	366	118	136	35
3	118	110	391	1460	1660	656	641	1110	338	109	139	33
4	80	99	349	1780	1100	575	576	1130	314	112	95	30
5	62	135	299	2280	886	546	511	728	298	112	72	27
6	54	217	323	1720	939	476	501	545	350	98	61	27
7	49	277	353	1300	950	417	462	444	290	95	61	27
8	49	245	339	1020	811	464	423	369	306	109	106	27
9	60	205	345	799	680	1430	407	306	306	98	167	29
10	62	199	376	656	631	1420	389	263	270	95	115	28
11	55	239	616	623	596	1220	386	233	480	206	81	42
12	49	343	731	558	785	1970	396	217	505	181	68	37
13	46	320	644	500	1130	2050	393	198	625	118	56	27
14	45	274	523	467	969	1520	396	174	495	103	48	23
15	44	246	430	433	821	1120	387	335	374	124	44	21
16	45	230	370	361	693	871	580	1990	314	178	42	21
17	43	215	338	386	652	741	761	1500	278	136	54	21
18	43	235	310	382	662	644	705	2220	326	98	59	19
19	43	2280	409	366	727	554	626	2410	306	78	56	16
20	51	1810	1280	296	1020	498	557	1640	270	70	51	16
21	72	814	1680	130	1180	452	497	1020	230	68	45	16
22	74	519	1950	240	1680	436	441	801	199	68	40	16
23	194	389	1580	330	2980	497	387	2000	192	65	40	16
24	230	314	1120	333	3060	571	352	4750	164	57	40	19
25	162	265	2380	303	2210	683	327	6390	145	53	67	19
26	130	227	2010	263	1660	747	301	2430	130	56	130	19
27	108	197	1300	261	1360	698	273	1350	121	65	83	25
28	96	484	929	247	1100	648	265	905	112	74	56	27
29	148	1210	720	236	---	589	242	715	106	68	45	25
30	180	823	619	243	---	563	214	590	103	59	41	22
31	164	---	605	651	---	538	---	495	---	83	41	---
TOTAL	2791	13176	24383	20855	37222	25287	13714	37653	8733	3072	2251	748
MEAN	90.0	439	787	673	1329	816	457	1215	291	99.1	72.6	24.9
MAX	230	2280	2380	2280	3250	2050	761	6390	625	206	167	42
MIN	43	99	299	130	596	417	214	174	103	53	40	16
CFSM	.23	1.12	2.01	1.72	3.40	2.09	1.17	3.11	.74	.25	.19	.06
IN.	.27	1.25	2.32	1.98	3.54	2.41	1.30	3.58	.83	.29	.21	.07

CAL YR 1984 TOTAL 196273 MEAN 536 MAX 7680 MIN 33 CFSM 1.37 IN 18.67
WTR YR 1985 TOTAL 189885 MEAN 520 MAX 6390 MIN 16 CFSM 1.33 IN 18.07

03200500 COAL RIVER AT TORNADO, WV

LOCATION.--Lat 38°20'20", long 81°50'30", Kanawha County, Hydrologic Unit 05050009, on downstream side of highway bridge at Tornado, 0.2 mi upstream from Falls Creek, and at mile 11.5.

DRAINAGE AREA.--862 mi^2, includes that of Falls Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1908 to September 1911, October 1911 to June 1912 (gage heights only), November 1928 to September 1931, August 1961 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 570.46 ft above National Geodetic Vertical Datum of 1929. Aug. 1, 1971, to Jan. 9, 1973, nonrecording gage at same site and datum. Prior to Aug. 1, 1961, nonrecording gage at same site at different datum.

REMARKS.--Estimated daily discharges: Jan. 20-22, Feb. 10. Water-discharge records good except for periods with ice effect, which are poor. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--29 years (water years 1909-11, 1930-31, 1962-85), 1,224 ft^3/s, 19.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,500 ft^3/s, Mar. 7, 1967, gage height, 31.98 ft; minimum (estimated), 2.0 ft^3/s, Oct. 1-10, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 25	0900	*15,300	*18.63	No peak greater than base discharge.			

Minimum discharge, 28 ft^3/s, Sept. 22, 23, gage height, 10.01 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	304	1470	1820	6420	1970	1640	468	837	246	207	127
2	284	275	1080	2300	5960	1710	1620	480	730	292	311	108
3	294	275	888	2660	3620	1450	1510	1820	657	265	340	96
4	208	266	790	3560	2500	1280	1360	2240	605	265	246	84
5	185	490	685	4480	2080	1230	1190	1530	618	246	186	74
6	133	503	715	3780	2500	1080	1170	1130	685	237	158	66
7	121	555	775	3020	2590	956	1100	922	605	214	146	62
8	121	529	715	2480	2190	1100	1010	760	631	228	158	58
9	127	490	745	1970	1800	3150	956	644	685	228	292	62
10	151	568	820	1620	1600	3260	905	566	566	221	246	54
11	139	725	1340	1530	1490	2790	871	516	730	480	214	51
12	115	740	1640	1380	2130	4250	871	468	956	432	172	79
13	100	650	1490	1230	2860	4450	837	456	1300	302	146	74
14	95	529	1170	1150	2410	3440	837	410	1060	237	127	51
15	100	454	956	1040	2060	2610	820	516	790	228	102	45
16	105	430	820	854	1750	2060	1250	2370	644	390	90	40
17	105	394	745	905	1670	1750	1800	2700	566	350	121	40
18	100	492	700	905	1750	1510	1670	3920	592	246	158	40
19	100	4410	888	837	2080	1280	1470	4390	644	200	158	37
20	164	4940	2520	540	2950	1120	1280	3020	540	172	139	37
21	157	2260	4100	270	3240	1010	1130	1950	504	172	121	35
22	257	1340	4680	420	4320	973	1010	1780	432	165	108	31
23	374	939	3650	715	7100	1130	888	2950	420	165	90	29
24	650	775	2700	745	6160	1300	805	6240	380	152	96	37
25	454	644	5000	715	4580	1560	760	13200	340	139	108	40
26	334	553	4560	644	3440	1640	685	5500	311	127	274	42
27	275	492	2990	540	2840	1560	618	2990	283	139	330	48
28	248	905	2220	579	2330	1470	605	2040	274	165	200	62
29	275	2810	1730	579	---	1400	566	1530	256	172	152	84
30	364	2110	1470	528	---	1340	516	1210	237	146	127	62
31	364	---	1470	2060	---	1380	---	990	---	152	121	---
TOTAL	6663	30847	55522	45856	86420	57209	31750	69706	17878	7173	5444	1755
MEAN	215	1028	1791	1479	3086	1845	1058	2249	596	231	176	58.5
MAX	650	4940	5000	4480	7100	4450	1800	13200	1300	480	340	127
MIN	95	266	685	270	1490	956	516	410	237	127	90	29
CFSM	.25	1.19	2.08	1.72	3.58	2.14	1.23	2.61	.69	.27	.20	.07
IN.	.29	1.33	2.40	1.98	3.73	2.47	1.37	3.01	.77	.31	.23	.08

CAL YR 1984 TOTAL 408468 MEAN 1116 MAX 15400 MIN 78 CFSM 1.30 IN 17.63
WTR YR 1985 TOTAL 416223 MEAN 1140 MAX 13200 MIN 29 CFSM 1.32 IN 17.96

03200500 COAL RIVER AT TORNADO, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1983.
TEMPERATURE: May to July 1975 (partial-record station), June to September 1976 (published as once-daily), October 1976 to September 1984.
TURBIDITY: October 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1972 to September 1984.

COOPERATION.--Turbidity records from October 1984 to current year were furnished by Washington Public Service District.

INSTRUMENTATION.--Temperature recorder November 1973 to September 1984, discontinued. Turbidity recorder October 1981 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,020 micromhos, Oct. 23, 24, 1973; minimum daily, 88 micromhos, Dec. 9, 1978, June 22, 1979.
WATER TEMPERATURES: Maximum recorded, 31.5°C, July 8, 19, 20, 1977; minimum recorded, -0.5°C, Dec. 31, 1980, Jan. 1, 2, 1981.
TURBIDITY: Maximum, 1,500 NTU, May 30, 1982; minimum, 0.2 NTU, Nov. 15, 1982.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,000 mg/L, Mar. 17, 1973; minimum daily mean, 0 mg/L, on several days in April 1978, Feb. 5, Mar. 21, 22, 1979, Jan. 17, Apr. 29, 1982.
SEDIMENT LOADS: Maximum daily, 263,000 tons, Jan. 26, 1978; minimum daily, 0 ton, on several days in April 1978, Feb. 5, Mar. 21, 22, 1979, Jan. 17, Apr. 29, 1982.

EXTREMES FOR CURRENT YEAR.--
TURBIDITY: Maximum daily, 280 NTU, May 25; minimum daily, 2.0 NTU, Jan. 23, 26-28.

TURBIDITY (NTU), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	10	30	20	190	35	35	6.0	25	15	20	20
2	30	20	25	45	200	30	30	20	30	10	20	20
3	25	15	25	45	80	15	20	55	30	10	20	20
4	30	10	20	65	25	20	15	75	35	10	25	15
5	25	20	10	50	30	25	10	45	20	10	25	15
6	50	30	20	40	30	20	10	25	25	15	25	15
7	85	25	20	25	40	20	10	9.0	70	10	20	15
8	20	10	20	25	35	25	5.5	10	70	15	20	15
9	25	15	15	25	15	100	25	25	65	15	20	15
10	25	25	20	25	10	55	20	10	55	10	20	15
11	25	20	30	20	8.0	60	5.0	25	40	80	15	10
12	25	20	50	20	40	70	9.0	15	110	140	20	15
13	30	15	30	20	50	65	5.0	15	140	50	15	15
14	30	15	35	10	20	35	6.0	15	55	40	15	10
15	20	15	40	20	25	25	5.0	15	25	30	15	15
16	20	10	20	10	10	15	25	45	30	25	20	10
17	20	10	15	8.0	10	10	40	90	25	40	20	10
18	15	10	20	5.0	10	20	30	180	20	30	20	10
19	20	280	25	7.0	20	15	20	200	20	25	20	15
20	15	180	65	10	75	20	20	80	25	20	20	15
21	20	35	150	3.0	60	10	20	40	25	30	20	15
22	20	35	140	2.5	75	5.0	10	110	25	25	15	15
23	20	20	120	2.0	220	10	9.0	200	20	20	15	6.0
24	20	20	40	2.5	100	20	9.0	160	20	30	15	10
25	25	10	120	2.2	55	35	9.0	280	20	30	15	8.0
26	25	15	45	2.0	60	10	8.0	140	10	25	25	8.0
27	20	25	35	2.0	90	15	10	50	10	25	20	10
28	25	20	30	2.0	80	8.0	7.0	45	9.0	20	40	10
29	30	95	25	3.0	---	9.0	9.0	20	9.0	25	20	10
30	20	40	25	3.0	---	15	9.0	25	10	20	20	9.0
31	15	---	25	70	---	10	---	25	---	20	20	---
MEAN	26	36	40	19	60	27	15	65	36	28	20	13

WTR YR 1985 MEAN 32 MAX 280 MIN 2.0

03200650 KANAWHA RIVER AT POCA, WV

LOCATION.--Lat 38°28'29", long 81°49'09", Putnam County, Hydrologic Unit 05050008, on left bank at John Amos Power Plant, at Poca, 200 ft upstream from Pocatalico River, and at mile 39.2.

DRAINAGE AREA.--11,435 mi^2, excludes that of Pocatalico River.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1975 to current year.

COOPERATION.--Records were furnished by Appalachian Power Company.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 37.0°C, July 27, 1982; minimum daily, 0.0°C, Jan. 18, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily observed, 36.0°C, Aug. 14; minimum daily observed, 8.0°C, Jan. 20.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.5	29.5	---	---	19.0	20.0	26.5	27.0	---	30.0	32.0	---
2	26.0	---	---	24.5	19.0	20.5	26.5	31.0	28.0	28.5	---	---
3	26.0	---	29.5	24.5	19.0	21.0	26.5	25.5	29.0	29.5	---	---
4	28.0	---	21.0	24.5	19.0	21.5	25.0	21.5	30.5	---	---	---
5	24.0	30.0	---	25.0	19.5	23.0	28.0	23.5	30.0	---	---	31.0
6	---	25.5	---	24.5	20.0	21.5	21.5	29.0	29.5	---	---	---
7	---	---	17.0	25.0	16.0	20.0	20.5	28.0	---	---	30.5	---
8	28.0	23.5	18.0	24.5	15.0	28.0	23.0	24.0	---	---	---	---
9	26.0	24.5	18.5	23.5	14.0	20.0	18.0	24.0	---	---	---	---
10	24.5	25.0	20.0	18.5	13.5	18.5	18.0	28.0	---	---	---	---
11	23.5	24.0	21.0	21.0	21.5	24.0	25.5	28.5	---	31.0	---	31.0
12	26.0	23.0	23.5	16.5	19.5	25.0	24.5	30.0	---	---	31.5	---
13	24.0	21.0	24.5	14.5	15.5	21.0	26.5	29.0	---	31.5	35.5	28.0
14	15.0	20.5	30.0	20.5	20.0	24.0	25.0	30.5	---	31.5	36.0	26.5
15	23.0	20.0	29.0	14.5	18.0	21.5	27.0	31.0	---	34.5	33.0	26.5
16	23.5	25.0	26.5	15.0	15.0	---	28.0	30.5	---	---	32.0	26.5
17	19.0	21.0	33.5	22.0	19.5	19.0	22.0	---	---	29.0	30.0	28.0
18	27.0	22.0	30.5	---	18.5	18.5	25.5	---	---	---	26.5	27.0
19	29.0	24.5	---	16.5	23.5	19.0	---	---	28.0	29.0	26.5	28.0
20	23.5	23.5	26.5	8.0	20.0	26.0	---	---	25.5	29.5	28.5	25.5
21	28.5	21.0	---	---	20.0	23.5	---	---	26.0	29.0	27.0	27.0
22	30.0	18.5	---	15.0	---	---	---	---	26.0	29.5	27.0	28.5
23	29.0	---	---	16.5	---	---	32.0	---	27.0	29.0	27.0	29.5
24	29.0	---	21.0	19.5	---	---	32.0	---	30.0	29.0	28.0	29.0
25	30.5	---	---	---	23.5	---	20.0	---	30.0	26.5	31.0	25.0
26	33.5	21.0	18.5	---	25.0	22.0	20.5	---	---	33.5	30.5	---
27	29.5	24.5	24.5	---	24.5	---	28.0	---	26.5	29.5	29.0	---
28	31.5	29.5	---	18.5	---	29.0	26.5	---	26.5	28.5	29.0	---
29	33.5	24.0	---	---	---	29.5	28.0	---	26.5	30.5	29.0	---
30	31.0	24.5	---	16.5	---	28.5	26.5	29.5	28.5	31.5	---	---
31	28.5	---	---	23.5	---	28.5	---	---	---	32.0	---	---
MEAN	27.0	23.5	24.0	19.5	19.0	23.0	25.0	27.5	28.0	30.0	30.0	28.0

WTR YR 1985 MEAN 25.0 MAX 36.0 MIN 8.0

03201300 KANAWHA RIVER AT WINFIELD DAM, AT WINFIELD, WV
(National stream-quality accounting network station)

LOCATION.--Lat 38°31'32", long 81°54'40", Putnam County, Hydrologic Unit 05050008, on left bank at intake line to Ohio River Valley Water Sanitation Commission (ORSANCO) monitor at Kanawha Valley Power Company raw water intake at Winfield Dam, 1.0 mi downstream from Winfield Bridge, and at mile 31.1.

DRAINAGE AREA.--11,809 mi^2.

PERIOD OF RECORD.--Water years 1957-70, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1957 to September 1970, January 1974 to September 1980.
pH: October 1974 to September 1980.
WATER TEMPERATURES: October 1956 to September 1970, January 1974 to September 1980.
DISSOLVED OXYGEN: October 1974 to September 1980.

REMARKS.--Discharges in water-quality tables are estimated.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,700 micromhos, Apr. 21, 1961; minimum 76 micromhos, Mar. 17, 1978.
pH: Maximum daily, 8.6 units, May 14, 1977; minimum daily, 5.3 units, July 16, 1979.
WATER TEMPERATURES: Maximum daily, 33.0°C, July 24, 1964; minimum daily, 0.0°C, Feb. 14, 1958, Mar. 12, 1960, Jan. 30, 1978.
DISSOLVED OXYGEN: Maximum daily, 16.0 mg/L, Feb. 19, 20, 1977; minimum daily, 3.1 mg/L, July 28, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
15...	1430	E10800	183	7.20	11.0	7.5	745	9.9	92	170	K30
MAR											
05...	0900	E13500	152	7.20	8.0	7.5	749	12.2	105	96	K26
MAY											
15...	1000	E10000	198	7.40	21.0	8.1	745	9.7	111	59	K15
JUL											
24...	0930	E4900	208	7.50	24.0	3.5	751	7.2	87	K63	K37

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV											
15...	53	21	13	4.9	12	1.6	39	0	32	30	12
MAR											
05...	47	11	12	4.1	7.3	1.1	44	0	36	28	8.0
MAY											
15...	55	10	14	4.8	15	1.4	55	0	45	37	14
JUL											
24...	52	24	13	4.7	20	1.7	34	0	28	38	19

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV											
15...	<.10	4.9	120	98	.58	.270	.40	.030	<.010	<.010	<1
MAR											
05...	<.10	5.3	69	88	--	--	.40	--	.020	<.010	<1
MAY											
15...	<.10	4.3	118	120	<.10	.260	--	<.010	--	<.010	<1
JUL											
24...	<.10	3.2	135	120	.48	.310	.90	.010	.120	.010	1

K Results based on colony count outside the accepted range (non-ideal colony count).

03201300 KANAWHA RIVER AT WINFIELD DAM, AT WINFIELD, WV--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
NOV												
15...	38	<.0	3	1	<3	1	93	2	<4	41	<10	1
MAR												
05...	42	<.5	22	<1	<3	4	57	1	<4	49	<10	6
MAY												
15...	47	<.5	2	<1	<3	4	17	2	6	7	<10	3
JUL												
24...	50	<.5	<1	<1	<3	5	6	1	23	<1	<10	4

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV												
15...	<1	<1	110	<6	9	<1.2	<.4	<1.1	<.4	12	350	98
MAR												
05...	<1	<1	94	<6	12	--	--	--	--	15	547	86
MAY												
15...	<1	<1	130	<6	12	<3.4	<1.2	1.6	<1.2	31	837	84
JUL												
24...	<1	<1	120	<6	9	--	--	--	--	12	159	89

03201500 OHIO RIVER AT POINT PLEASANT, WV

LOCATION.--Lat 38°50'25", long 82°08'30", Mason County, Hydrologic Unit 05030202, on left bank at Point Pleasant, 1,200 ft upstream from Kanawha River, and at mile 265.4 measured downstream from Pittsburgh, Pa.

DRAINAGE AREA.--52,760 mi^2, approximately, includes that of Kanawha River.

PERIOD OF RECORD.--March 1940 to September 1977, (since October 1952, no low-flow records). October 1977 to current year (gage heights only). Records of gage heights collected in this vicinity since 1889 are in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 514.10 ft, Sandy Hook datum. Prior to Oct. 1, 1951, water-stage recorder at site 0.3 mi upstream at same datum.

REMARKS.--U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--12 years (water years 1941-52), 74,350 ft^3/s, 19.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 55.00 ft, Apr. 16, 1948; minimum gage height recorded, 22.52 ft, Sept. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1896, 62.8 ft, Mar. 30, 1913. Flood of Jan. 27, 1937, reached a stage of 62.7 ft.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 37.23 ft, Feb. 27; minimum, 23.80 ft, July 5.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.78	24.78	25.44	26.76	25.94	29.61	33.49	24.95	24.91	24.45	24.29	24.57
2	24.74	24.59	24.96	26.52	26.72	27.96	34.17	24.92	25.45	24.29	24.22	24.47
3	24.79	24.44	24.76	26.08	26.38	27.23	32.04	25.13	24.40	23.97	24.47	24.27
4	24.90	24.43	25.02	26.46	26.06	26.68	28.50	25.56	24.40	23.88	24.40	24.30
5	24.99	24.69	25.11	26.85	25.77	26.01	27.79	25.45	24.36	23.84	24.20	24.28
6	24.97	24.76	25.03	26.26	25.68	26.17	27.09	24.82	24.22	23.91	24.18	24.37
7	24.96	24.97	24.95	25.71	25.67	26.47	26.56	24.61	24.26	23.87	24.14	24.46
8	24.78	25.01	25.11	25.37	25.63	25.92	26.25	24.49	24.25	24.04	24.24	24.50
9	24.74	24.75	24.59	25.23	25.58	26.22	25.78	24.77	24.48	24.27	24.41	24.52
10	24.66	24.75	24.54	25.09	25.43	26.87	25.90	25.02	24.53	24.45	24.32	24.53
11	24.62	25.13	25.31	24.72	25.61	26.81	25.36	24.92	24.48	24.90	24.63	24.62
12	24.67	25.65	26.11	24.55	25.40	28.66	25.23	24.87	24.48	24.69	24.57	24.58
13	24.76	25.55	26.22	24.87	25.98	31.47	24.93	24.94	24.71	24.55	24.47	24.30
14	24.89	25.16	25.36	24.71	25.49	32.72	25.00	24.36	24.78	24.30	24.46	24.42
15	24.86	24.87	25.45	24.54	25.02	31.05	24.75	24.39	24.64	24.68	24.61	24.53
16	24.71	24.74	25.48	24.98	24.99	27.90	24.74	24.61	24.46	24.61	24.38	24.37
17	24.74	24.60	25.44	24.83	24.71	26.67	24.95	24.56	24.43	24.48	24.04	24.21
18	24.77	24.62	24.91	25.03	24.80	25.89	25.14	24.57	24.36	24.30	24.24	24.15
19	24.75	24.95	25.19	25.16	24.79	25.29	24.85	24.71	24.29	24.28	24.54	24.15
20	24.69	25.18	25.06	25.13	25.11	24.98	24.64	24.47	24.33	24.22	24.37	23.93
21	24.70	25.16	25.94	24.98	25.08	24.78	24.64	24.51	24.25	24.29	24.37	24.04
22	24.86	24.90	27.94	24.94	25.83	24.78	24.90	24.29	24.41	24.28	24.48	24.18
23	24.78	24.69	27.93	25.03	28.32	24.76	25.05	24.48	24.14	24.22	24.51	24.06
24	24.79	24.64	26.85	25.38	31.32	25.03	24.79	25.06	24.18	24.23	24.50	23.93
25	24.81	24.55	26.64	25.04	34.36	25.21	24.88	26.36	24.47	24.42	24.61	24.03
26	25.01	24.60	26.92	25.56	35.93	25.46	24.87	25.60	24.37	24.27	24.45	24.46
27	24.75	24.81	26.38	25.23	37.09	25.62	24.79	24.68	24.35	24.38	24.27	24.28
28	24.88	24.81	25.64	25.06	34.01	25.34	25.04	24.78	24.47	24.34	24.32	24.29
29	24.77	24.98	25.38	25.01	---	25.25	24.75	24.99	24.63	24.36	24.59	24.20
30	24.59	25.78	25.51	25.53	---	26.51	24.96	24.51	24.35	24.21	24.52	24.22
31	24.72	---	26.47	25.50	---	31.56	---	24.53	---	24.20	24.46	---
MEAN	24.79	24.88	25.67	25.36	27.24	26.93	26.19	24.84	24.46	24.30	24.40	24.31
MAX	25.01	25.78	27.94	26.85	37.09	32.72	34.17	26.36	25.45	24.90	24.63	24.62
MIN	24.59	24.43	24.54	24.54	24.71	24.76	24.64	24.29	24.14	23.84	24.04	23.93

WTR YR 1985 MEAN 25.27 MAX 37.09 MIN 23.84

03202400 GUYANDOTTE RIVER NEAR BAILEYSVILLE, WV

LOCATION.--Lat 37°36'14", long 81°38'43", Wyoming County, Hydrologic Unit 05070101, on right bank 75 ft upstream from Doublecamp Branch, 3.1 mi east of Baileysville, and at mile 130.8.

DRAINAGE AREA.--306 mi^2.

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

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,140.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 10, 1969, at site 25 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--17 years, 441 ft^3/s, 19.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,700 ft^3/s, Apr. 5, 1977, gage height, 26.89 ft, from rating curve extended above 14,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 21 ft^3/s, Oct. 14, 1970, gage height, 2.44 ft.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 1	1800	5,450	10.36	May 24	1200	4,660	9.55
May 23	1100	*5,510	*10.42				

Minimum discharge, 36 ft^3/s, Sept. 30, gage height, 2.75 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	76	362	1370	3430	797	567	185	357	135	258	66
2	109	72	273	1190	2780	692	522	200	314	137	1040	58
3	78	67	247	1190	1360	579	468	468	286	159	337	57
4	64	66	230	1220	933	511	410	352	269	159	195	56
5	61	79	205	1470	759	495	362	261	286	135	146	53
6	58	155	250	1070	759	416	352	223	405	125	129	57
7	56	175	258	830	698	368	314	210	286	139	171	56
8	54	139	240	663	609	378	314	190	258	123	550	53
9	58	121	236	527	527	556	309	178	223	113	347	53
10	63	113	226	444	489	567	295	164	258	125	220	53
11	60	155	261	416	473	597	295	157	295	205	173	49
12	54	213	286	362	597	797	304	155	585	155	146	48
13	54	183	278	314	657	791	295	146	640	127	129	43
14	56	155	240	300	573	710	291	144	421	131	109	45
15	57	133	213	295	489	585	286	178	314	119	100	52
16	58	131	198	240	410	495	337	295	265	119	98	47
17	61	121	190	273	427	450	314	282	236	104	102	48
18	56	123	183	261	368	399	291	394	236	98	119	49
19	54	1310	203	247	399	357	282	439	208	93	113	45
20	66	957	352	208	462	333	278	342	193	83	98	44
21	69	450	500	119	615	314	265	675	178	81	89	44
22	66	282	692	159	902	328	250	963	171	78	86	45
23	79	213	615	180	1620	383	243	3610	166	73	81	43
24	135	183	489	171	2220	462	236	4340	159	70	84	42
25	123	164	669	178	2000	692	243	3000	150	76	104	42
26	93	144	785	161	1530	675	220	1460	150	95	104	41
27	79	133	603	133	1220	597	208	945	141	131	86	48
28	76	328	462	166	963	522	208	704	133	141	81	64
29	125	766	373	178	---	462	200	567	129	98	72	44
30	115	489	318	180	---	405	195	473	127	83	67	37
31	88	---	766	444	---	394	---	394	---	121	67	---
TOTAL	2321	7696	11203	14959	28269	16107	9154	22094	7839	3631	5501	1482
MEAN	74.9	257	361	483	1010	520	305	713	261	117	177	49.4
MAX	135	1310	785	1470	3430	797	567	4340	640	205	1040	66
MIN	54	66	183	119	368	314	195	144	127	70	67	37
CFSM	.25	.84	1.18	1.58	3.30	1.70	1.00	2.33	.85	.38	.58	.16
IN.	.28	.94	1.36	1.82	3.44	1.96	1.11	2.69	.95	.44	.67	.18

CAL YR 1984 TOTAL 156793 MEAN 428 MAX 9340 MIN 42 CFSM 1.40 IN 19.06
WTR YR 1985 TOTAL 130256 MEAN 357 MAX 4340 MIN 37 CFSM 1.17 IN 15.83

03202750 CLEAR FORK AT CLEAR FORK, WV

LOCATION.--Lat 37°37'23", long 81°42'27", Wyoming County, Hydrologic Unit 05070101, on left bank 0.2 mi downstream from Walls Branch, 0.7 mi upstream from Spratt Branch, 1.4 mi southwest of Clear Fork, and at mile 2.6.

DRAINAGE AREA.--126 mi^2.

REVISED RECORDS.--WDR WV-81-1: Drainage area.

PERIOD OF RECORD.--June 1974 to current year. Prior to October 22, 1974, partial record station.

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 28, 1974 to Oct. 22, 1974, nonrecording gage; Oct. 23, 1974 to Oct. 26, 1977, digital recorder at site 0.9 mi upstream at different datum; Oct. 27, 1977 to Dec. 31, 1980, digital recorder at site 0.2 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 1. Records good except for period with ice effect, which is poor.

AVERAGE DISCHARGE.--11 years, 203 ft^3/s, 21.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft^3/s, Apr. 5, 1977, gage height, 18.64 ft, site and datum then in use, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 3.6 ft^3/s, Oct. 11, 1983, gage height, 1.47 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 1	Ice jam	Unknown	8.02	May 24	2000	3,380	8.75
May 16	0500	*3,530	*8.95				

Minimum discharge, 4.1 ft^3/s, Sept. 23, gage height, 1.61 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	32	178	634	2020	314	352	49	103	51	399	16
2	32	26	134	622	1280	250	371	54	87	40	497	15
3	23	22	123	564	571	192	293	434	79	60	143	14
4	17	21	108	704	348	168	229	358	70	57	77	11
5	12	27	93	916	267	153	181	220	72	38	52	10
6	10	54	119	575	278	128	176	155	95	35	41	9.4
7	9.4	63	128	378	253	123	146	123	74	42	130	11
8	8.9	52	125	275	217	123	137	95	72	36	326	11
9	13	45	115	203	192	375	128	77	62	27	173	11
10	14	40	110	170	176	385	121	65	89	32	97	9.4
11	12	44	148	158	165	371	121	58	110	62	65	8.0
12	11	72	173	132	236	671	121	54	119	41	48	7.5
13	9.4	65	165	115	278	634	117	49	163	30	37	7.5
14	8.9	51	134	113	239	460	121	44	128	29	32	6.2
15	8.4	44	110	103	194	317	117	95	97	25	26	6.2
16	8.9	46	95	81	165	239	165	2070	79	29	25	5.8
17	8.4	46	87	103	163	197	176	713	67	25	30	6.2
18	8.4	55	79	93	143	153	168	1110	74	21	34	6.2
19	8.4	907	108	87	176	128	155	796	62	18	29	5.1
20	12	490	368	72	267	115	141	475	55	17	22	5.1
21	20	214	497	56	452	103	128	402	48	17	20	5.5
22	20	137	696	66	756	106	113	494	42	17	17	4.8
23	21	101	515	76	1380	141	99	1600	40	16	15	4.4
24	34	81	326	70	1690	203	91	2750	37	14	18	5.5
25	35	67	501	78	1180	456	87	1970	35	13	63	5.5
26	29	57	515	70	747	467	75	756	33	18	44	5.5
27	21	49	336	56	552	355	68	399	31	49	31	17
28	21	165	236	70	409	275	68	259	29	44	22	17
29	40	355	181	76	---	223	65	194	26	26	20	12
30	57	229	155	80	---	209	54	148	30	20	17	8.9
31	42	---	270	350	---	200	---	123	---	74	17	---
TOTAL	600.1	3657	6928	7146	14794	8234	4384	16189	2108	1023	2567	267.7
MEAN	19.4	122	223	231	528	266	146	522	70.3	33.0	82.8	8.92
MAX	57	907	696	916	2020	671	371	2750	163	74	497	17
MIN	8.4	21	79	56	143	103	54	44	26	13	15	4.4
CFSM	.16	.98	1.80	1.86	4.26	2.15	1.18	4.21	.57	.27	.67	.07
IN.	.18	1.10	2.08	2.14	4.44	2.47	1.32	4.86	.63	.31	.77	.08

CAL YR 1984 TOTAL 75211.8 MEAN 205 MAX 5240 MIN 6.2 CFSM 1.65 IN 22.56
WTR YR 1985 TOTAL 67897.8 MEAN 186 MAX 2750 MIN 4.4 CFSM 1.50 IN 20.37

03202915 GUYANDOTTE RIVER BELOW R. D. BAILEY DAM, WV

LOCATION.--Lat 37°35'53", long 81°49'46", Mingo County, Hydrologic Unit 05070101, on right bank, 500 ft upstream from Little Huff Creek, 2,500 ft downstream from R. D. Bailey Dam and 0.5 mi northeast of Justice, and at river mile 111.6.

DRAINAGE AREA.--535 mi^2.

PERIOD OF RECORD.--November 1978 to September 1982, October 1982 to current year (gage heights, discharge measurements and annual maximum discharge only).

GAGE.--Water-stage recorder. Datum of gage is 880.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated since February 1980 by R. D. Bailey Lake at mile 112.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft^3/s, June 22, 1979, gage height, 13.90 ft; minimum discharge, 2.1 ft^3/s, Dec. 18, 1978; minimum daily discharge, 38 ft^3/s, Nov. 22, 23, 1978; minimum gage height observed, 1.91 ft, Aug. 30, 1983 (gates closed) but may have been less Sept. 14, 30, 1983 (gates closed).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft^3/s, Feb. 25, gage height, 9.02 ft; minimum gage height recorded, 2.72 ft, Apr. 7-9.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.23	3.49	5.10	6.40	7.56	5.55	5.12	3.74	4.68	3.47	---	2.90
2	3.33	3.43	4.45	7.31	8.38	5.63	3.39	3.81	4.42	3.33	---	2.90
3	3.36	3.36	4.05	7.31	8.40	5.68	2.77	5.12	4.24	3.32	---	2.90
4	3.36	3.33	3.89	7.31	8.38	5.00	2.76	5.50	4.11	3.42	---	2.90
5	3.36	3.33	3.61	7.34	8.34	5.00	2.75	4.76	4.06	3.56	---	2.87
6	3.36	3.59	3.62	7.33	7.97	4.75	2.75	4.36	4.66	3.41	---	2.82
7	3.33	3.98	4.10	7.04	6.90	4.42	2.73	4.15	4.79	3.26	---	2.82
8	3.26	4.02	4.31	6.12	5.80	4.48	2.73	3.93	4.33	3.26	---	2.82
9	3.27	3.75	4.31	5.50	5.50	5.34	2.99	3.70	3.84	3.24	---	3.06
10	3.27	3.69	4.31	4.66	5.25	5.92	4.26	3.65	4.02	3.28	---	3.08
11	3.23	3.69	4.09	4.84	4.92	5.92	4.68	3.52	4.45	3.88	---	3.03
12	3.29	3.76	4.31	4.84	5.55	6.40	4.52	3.51	4.82	3.78	---	3.03
13	3.29	4.17	4.58	4.38	5.82	6.72	4.38	3.51	5.51	3.39	---	3.03
14	3.29	4.00	4.26	4.12	5.45	5.92	4.38	3.41	4.88	3.33	---	3.07
15	3.29	3.84	4.02	4.32	5.25	5.40	4.39	3.57	4.43	3.42	---	3.11
16	3.29	3.72	4.02	3.95	5.00	5.21	4.65	7.13	4.15	3.52	---	3.17
17	3.29	3.47	3.87	4.19	4.86	5.42	4.70	7.43	4.01	3.25	---	3.27
18	3.29	3.64	3.68	4.11	4.92	5.00	4.42	6.70	4.09	3.16	---	3.31
19	3.29	6.48	3.87	3.88	4.81	4.67	4.59	6.47	3.89	---	---	3.31
20	3.29	7.40	4.92	3.87	5.53	4.14	4.62	5.66	3.83	---	---	3.31
21	3.29	6.00	5.66	3.69	6.06	4.31	4.39	5.77	3.55	---	---	3.27
22	3.29	4.73	5.98	3.43	6.86	4.50	4.21	6.80	3.37	---	---	3.15
23	3.29	4.18	5.98	4.18	7.86	4.78	4.21	7.85	3.37	---	---	3.14
24	3.51	3.45	5.96	3.96	8.50	5.16	4.21	8.88	3.37	---	---	3.15
25	3.76	2.93	5.95	3.79	8.84	5.98	3.84	8.82	3.37	---	---	3.11
26	3.75	3.78	6.37	3.89	8.55	6.57	3.90	8.84	3.37	---	3.16	2.93
27	3.50	3.93	5.95	3.88	7.66	5.88	4.06	8.84	3.36	---	3.16	3.11
28	3.32	4.40	5.24	3.56	6.55	5.33	3.88	8.81	3.27	---	3.14	3.09
29	3.33	6.05	4.71	3.52	---	5.21	3.72	8.24	3.17	---	2.98	3.09
30	3.59	5.98	4.70	3.70	---	5.07	3.72	6.76	3.27	---	2.90	3.09
31	3.62	---	5.13	5.00	---	4.92	---	5.11	---	---	2.90	---
MEAN	3.36	4.19	4.68	4.88	6.62	5.30	3.92	5.75	4.02	---	---	3.06
MAX	3.76	7.40	6.37	7.34	8.84	6.72	5.12	8.88	5.51	---	---	3.31
MIN	3.23	2.93	3.61	3.43	4.81	4.14	2.73	3.41	3.17	---	---	2.82

03203600 GUYANDOTTE RIVER AT LOGAN, WV

LOCATION.--Lat 37°50'32", long 81°58'34", Logan County, Hydrologic Unit 05070101, on right bank 200 ft downstream from Midelburg Bridge at Logan, 0.8 mi downstream from Dingess Run, 1.1 mi upstream from Island Creek, and at mile 81.0.

DRAINAGE AREA.--833 mi^2.

PERIOD OF RECORD.--October 1960 to September 1962 (annual maximum only), October 1962 to current year. Gage-height records collected in this vicinity since November 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 640.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1962, at datum 1.32 ft lower.

REMARKS.--Estimated daily discharges: Jan. 21-25 and Aug. 2-29. Records good except for period of ice effect, Jan. 21-25 and period of no gage-height record, Aug. 2-29, which are poor. Flow regulated since February 1980 by R. D. Bailey Lake at mile 112. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--23 years, 1,190 ft^3/s, 19.40 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,000 ft^3/s, Mar. 12, 1963, gage height, 34.98 ft, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurements at gage heights 25.6 ft and 34.98 ft; minimum discharge, 33 ft^3/s, Sept. 17, 1964; minimum gage height, 3.96 ft, Sept. 16, Oct. 2, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,400 ft^3/s, May 24, gage height, 14.42 ft; minimum, 111 ft^3/s, Sept. 9, 10, gage height, 4.42 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	285	1410	2050	6560	2040	1750	378	959	349	1740	145
2	234	277	1050	3640	6070	1540	1200	440	849	302	3490	138
3	230	245	702	3680	4860	1720	668	1030	668	319	2900	134
4	219	230	635	4060	4440	1290	547	1550	677	293	1400	131
5	213	267	495	4280	4370	1190	474	1030	617	331	450	129
6	211	314	525	3720	4470	1090	517	719	858	308	400	126
7	209	426	532	3310	3370	897	454	627	1070	280	350	129
8	207	495	746	2380	1950	922	427	510	960	241	1200	123
9	213	428	746	1690	1550	1760	408	421	555	230	1100	115
10	199	359	774	1150	1400	2180	532	384	653	340	960	152
11	193	383	802	1100	1250	2230	954	350	759	504	500	151
12	184	372	746	1140	1500	3000	912	337	1080	531	320	141
13	192	444	965	965	2110	3380	774	328	1520	308	250	139
14	189	528	891	728	1670	2540	764	319	1210	261	220	138
15	190	385	643	728	1460	1770	764	346	872	244	190	146
16	190	390	603	737	1290	1330	851	5180	675	349	170	151
17	190	306	587	619	1160	1440	1080	4160	583	247	170	164
18	191	346	488	755	1230	1290	821	4010	679	204	170	185
19	190	3470	579	595	1270	1020	831	3140	541	186	160	191
20	243	3570	1250	587	1860	861	901	2310	498	173	160	191
21	224	2530	2060	500	2510	693	831	1650	412	160	170	188
22	238	1120	2760	350	3870	901	668	2910	330	164	160	173
23	267	851	2320	580	6310	1010	643	4200	305	157	150	154
24	273	555	2040	500	6760	1460	635	8820	297	148	190	157
25	335	310	2590	450	6150	2030	595	7550	293	129	340	155
26	341	314	2520	508	5830	2730	421	5830	288	152	260	163
27	330	454	2340	503	4340	2230	517	5350	284	231	210	148
28	240	1190	1630	462	2850	1550	532	5130	272	237	200	159
29	279	1970	1120	326	---	1420	421	4810	254	233	183	154
30	277	2330	1060	380	---	1420	390	2590	231	220	155	150
31	341	---	1170	1420	---	1360	---	1420	---	186	162	---
TOTAL	7206	25144	36779	43893	92460	50294	21282	77829	19249	8017	18480	4520
MEAN	232	838	1186	1416	3302	1622	709	2511	642	259	596	151
MAX	341	3570	2760	4280	6760	3380	1750	8820	1520	531	3490	191
MIN	174	230	488	326	1160	693	390	319	231	129	150	115

CAL YR 1984 TOTAL 479750 MEAN 1311 MAX 14800 MIN 84 CFSM 1.57 IN 21.42
WTR YR 1985 TOTAL 405153 MEAN 1110 MAX 8820 MIN 115 CFSM 1.33 IN 18.09

03204000 GUYANDOTTE RIVER AT BRANCHLAND, WV
(National stream-quality accounting network station)

LOCATION.--Lat 38°13'15", long 82°12'10", Lincoln County, Hydrologic Unit 05070102, on right bank at upstream side of highway bridge at Branchland, opposite mouth of Fourmile Creek, and at mile 35.3. Records include flow of Fourmile Creek.

DRAINAGE AREA.--1,224 mi^2, includes that of Fourmile Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1915 to September 1917, October 1917 to September 1922 (gage heights only), December 1928 to current year. Prior to October 1959, published as Guyandot River at Branchland. Monthly discharge only for July to September 1916, published in WSP 1305.

REVISED RECORDS.--WSP 853: 1918(M). WSP 1335: 1916-17, 1929-30, 1932-35. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 547.91 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to June 20, 1932, nonrecording gage and June 20, 1932, to Oct. 24, 1968, water-stage recorder at site 20 ft downstream at same datum. Oct. 1, 1942, to Jan. 23, 1969, auxiliary nonrecording gage and since Jan. 24, 1969, auxiliary water-stage recorder 4.0 mi upstream from base gage at datum 4.99 ft higher.

REMARKS.--Estimated daily discharges: Jan. 21-26. Records good except for period with ice effect, which is poor. Flow regulated since February 1980 by R. D. Bailey Lake at mile 112. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--58 years (water years 1916-17, 1930-85), 1,642 ft^3/s, 18.22 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,500 ft^3/s, Mar. 13, 1963, gage height, 43.83 ft; minimum, 3.6 ft^3/s, Oct. 25, 1930, gage height, 2.66 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood, probably in 1907, reached a stage of about 44 ft, from floodmark, discharge, 43,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,000 ft^3/s, May 25, gage height, 23.47 ft; minimum, 130 ft^3/s, Sept. 11, gage height, 3.10 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	472	2560	2200	6430	3570	2520	593	1590	339	430	213
2	204	418	1690	3660	9450	2690	2680	598	1200	442	3760	196
3	350	400	1250	4600	6900	2210	1880	1120	1080	454	3450	178
4	328	361	973	5660	5640	2190	1310	1680	959	460	1370	168
5	306	424	864	6370	5210	1730	1120	1800	979	430	810	162
6	290	508	816	5650	5700	1580	1070	1270	1090	454	551	160
7	280	520	809	4920	5360	1410	1030	981	1140	472	519	154
8	285	619	803	4120	4080	1360	939	854	1660	484	810	150
9	306	694	932	2930	2730	2680	887	754	1270	389	1560	151
10	306	707	993	2240	2280	3360	829	626	877	406	1290	142
11	275	782	1230	1690	2030	3470	998	563	959	1130	750	136
12	260	755	1270	1620	2390	4380	1260	522	1370	877	582	170
13	240	639	1170	1520	3360	5180	1180	495	1660	803	441	155
14	245	653	1210	1310	3210	4940	1080	471	1860	546	385	147
15	245	694	1110	1120	2620	3690	1060	455	1410	448	337	144
16	245	559	898	1030	2220	2700	1480	2060	1140	585	307	142
17	245	533	809	1030	2040	2170	1630	4780	1060	592	345	148
18	245	533	789	1010	2030	2090	1600	4510	966	442	319	152
19	245	3990	911	1010	2380	1780	1300	4300	945	350	303	167
20	306	5230	1860	857	3320	1450	1260	3500	816	301	276	186
21	436	4110	4430	700	4150	1240	1250	2300	741	280	270	191
22	383	2630	5330	600	5420	1130	1140	2440	639	260	261	191
23	559	1320	4240	1000	8750	1370	981	3380	559	260	240	191
24	653	1030	3390	850	9950	1620	939	8990	490	235	220	180
25	484	762	5470	750	8470	2150	912	14800	460	222	254	168
26	502	540	4690	800	7380	2890	830	9290	442	199	481	163
27	484	430	3910	898	6290	3340	691	6620	418	217	434	164
28	526	1010	2940	898	4870	2700	759	5830	400	361	303	175
29	466	2480	2130	857	---	2110	783	5470	389	345	262	166
30	454	2820	1630	660	---	2030	640	4420	361	334	241	162
31	424	---	1660	1600	---	2180	---	2810	---	306	227	---
TOTAL	10710	36623	62767	64160	134660	77390	36038	98282	28930	13423	21788	4972
MEAN	345	1221	2025	2070	4809	2496	1201	3170	964	433	703	166
MAX	653	5230	5470	6370	9950	5180	2680	14800	1860	1130	3760	213
MIN	133	361	789	600	2030	1130	640	455	361	199	220	136

CAL YR 1984 TOTAL 660912 MEAN 1806 MAX 18500 MIN 133 CFSM 1.48 IN 20.09
WTR YR 1985 TOTAL 589743 MEAN 1616 MAX 14800 MIN 133 CFSM 1.32 IN 17.92

03204000 GUYANDOTTE RIVER AT BRANCHLAND, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1965, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to November 1976, February to September 1977.
WATER TEMPERATURES: March to December 1976, February to September 1977.
TURBIDITY: October 1975 to December 1976.
SUSPENDED SEDIMENT DISCHARGE: March 1976 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 845 micromhos, Aug. 27, 1976; minimum daily, 108 micromhos, Feb. 11, 1977.
WATER TEMPERATURES: Maximum daily, 32.0°C, July 14, 1977; minimum daily, 1.0°C, several days in February 1977.
TURBIDITY: Maximum daily, 200 JTU, Mar. 21, Aug. 15, 1976; minimum daily, 1 JTU, on several days in 1976.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,250 mg/L, Dec. 9, 1976; minimum daily mean, 5 mg/L, Oct. 24, 1976 and July 17, 20, 1977.
SEDIMENT LOADS: Maximum daily, 205,000 tons, Apr. 5, 1977; minimum daily, 2.3 tons, July 20, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT												
17...	1015	271	650	7.70	20.0	4.1	747	7.2	81	K22	--	150
DEC												
18...	1000	808	350	7.30	11.0	8.5	744	11.1	103	--	320	92
MAR												
06...	0945	1260	315	7.40	9.0	9.5	--	10.7	--	930	180	98
APR												
17...	1100	1680	288	7.60	15.0	--	747	9.5	96	930	380	--
JUN												
12...	1000	1260	323	7.40	22.5	65	741	7.6	90	4400	7100	97
JUL												
23...	1000	237	575	8.00	24.0	10	753	7.8	94	160	96	150
SEP												
04...	1000	192	591	7.60	25.0	2.5	742	7.4	92	60	270	150

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT											
17...	35	34	15	71	3.9	93	0	113	111	180	20
DEC											
18...	40	21	9.7	34	2.0	43	0	52	53	86	13
MAR											
06...	62	21	11	23	2.0	--	--	--	36	93	10
APR											
17...	--	--	--	--	--	47	0	57	--	--	--
JUN											
12...	49	22	10	25	2.8	--	--	--	48	89	8.8
JUL											
23...	56	35	15	62	4.1	76	0	93	95	150	23
SEP											
04...	51	33	16	64	3.8	--	--	--	98	150	26

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

03204000 GUYANDOTTE RIVER AT BRANCHLAND, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 to SEPTEMBER 1985

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
OCT 17...	.20	1.2	403	370	<.10	<.010	.40	.010	<.010	.010	10
DEC 18...	.10	5.5	195	190	<.10	<.010	.50	.020	<.010	<.010	--
MAR 06...	<.10	7.3	203	190	--	--	.30	<.010	<.010	--	20
APR 17...	--	--	--	--	.13	<.010	1.0	<.010	<.010	.010	--
JUN 12...	.10	4.8	234	190	--	--	.80	<.010	<.010	--	10
JUL 23...	.20	2.2	377	330	.18	<.010	.40	.010	<.010	<.010	--
SEP 04...	<.10	3.0	368	360	--	--	--	--	--	--	40

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 17...	<1	80	<.0	<1	<1	<3	2	61	2	37	47
DEC 18...	--	--	--	--	--	--	--	--	--	--	--
MAR 06...	<1	56	<.5	<1	<1	<3	<1	22	1	15	37
APR 17...	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	2	55	.5	<1	<1	<3	1	47	1	7	2
JUL 23...	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	<1	90	<.5	<1	<1	<3	2	37	1	13	36

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 17...	<.1	<10	3	<1	<1	620	<6	<3	--	--	--
DEC 18...	--	--	--	--	--	--	--	--	20	44	75
MAR 06...	.4	<10	3	1	<1	360	<6	<3	49	167	52
APR 17...	--	--	--	--	--	--	--	--	45	204	55
JUN 12...	.4	<10	3	1	<1	330	<6	<3	176	599	84
JUL 23...	--	--	--	--	--	--	--	--	19	12	90
SEP 04...	.6	<10	2	<1	<1	620	<6	<3	--	--	--

03206000 OHIO RIVER AT HUNTINGTON, WV

LOCATION.--Lat 38°24'48", long 82°30'02", Lawrence County, Ohio, Hydrologic Unit 05090101, on right bank at lock 28 at Sybene, Ohio, 0.1 mi upstream from Fourpole Creek, 3.0 mi downstream from Symmes Creek, and at mile 311.6, measured downstream from Pittsburgh, Pa.

DRAINAGE AREA.--55,900 mi^2, approximately.

PERIOD OF RECORD.--August 1934 to current year (since October 1968, no low-flow records). Gage-height records collected at same site since 1913 are in reports of National Weather Service.

REVISED RECORDS.--WSP 853: 1934, 1936. WSP 893: Drainage area. WSP 1305: 1935(M), 1939(M).

GAGE.--Water-stage recorder. Datum of gage is 490.263 ft, Sandy Hook datum. Prior to July 8, 1942, at datum 1.737 ft higher. Auxiliary water-stage recorder 4.7 mi upstream from base gage at datum 490.102 ft (Sandy Hook datum).

REMARKS.--Estimated daily discharges: Oct. 29-31, Nov. 6-11, 13-23, Dec. 2-9, 11, 16-19, 27-29, Jan. 3-12, Feb. 1-5, 9, 16-18, 22-28, Mar. 5-8, 12-29, Apr. 7-20, May 6, 7, 16-20, 23-31, June 1-4, 13-15, and July 10-17. Records poor. Discharges less than 50,000 ft^3/s not published. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream. U.S. Army Corps of Engineers gage-height telemeter and data platform at station.

AVERAGE DISCHARGE.--34 years (water years 1935-68), 75,240 ft^3/s, 18.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 654,000 ft^3/s, Jan. 28, 1937; maximum gage height, 69.45 ft, Jan. 27, 1937, present datum; minimum daily discharge determined, 3,200 ft^3/s, Sept. 6, 13, Nov. 2, 1934, Oct. 3, 1935, Oct. 1, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 303,000 ft^3/s, Feb. 27; gage height, 42.28 ft; minimum discharge, not determined; minimum gage height, 24.67 ft, Sept. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	120000	153000	61000	250000	285000	---	92000	---		
2	---	---	88000	152000	128000	203000	276000	---	110000	---		
3	---	---	75000	132000	150000	180000	264000	110000	70000	---		
4	---	---	59000	170000	112000	165000	221000	130000	53000	---		
5	---	---	56000	195000	87000	130000	192000	126000	---	---		
6	---	60000	57000	160000	77600	130000	177000	86000	---	---		
7	---	70000	60000	120000	76200	135000	155000	62000	---	---		
8	---	78000	51000	105000	84100	130000	140000	---	---	---		
9	---	67000	54000	86000	58000	131000	128000	---	---	---		
10	---	78000	50100	72000	55300	148000	121000	---	---	50000		
11	---	144000	80000	62000	---	157000	105000	---	---	76000		
12	---	128000	96200	52000	---	220000	96000	---	---	79000		
13	---	118000	106000	---	84800	280000	88000	---	60000	52000		
14	---	97000	103000	---	120000	290000	79000	---	62000	---		
15	---	80000	107000	---	107000	255000	66000	---	50000	50000		
16	---	68000	101000	---	72000	185000	64000	54000	---	65000		
17	---	58000	96000	---	66000	155000	70000	52000	---	54000		
18	---	59000	86000	---	63000	125000	75000	53000	---	---		
19	---	70000	76000	---	77800	105000	64000	64000	---	---		
20	---	80000	87300	---	74200	90000	56000	60000	---	---		
21	---	74000	104000	---	91100	79000	---	---	---	---		
22	---	65000	154000	---	120000	70000	---	---	---	---		
23	---	55000	172000	---	190000	64000	---	51000	---	---		
24	---	---	173000	---	275000	68000	---	101000	---	---		
25	---	---	148000	---	282000	93000	---	140000	---	---		
26	---	---	146000	---	300000	115000	---	150000	---	---		
27	---	---	133000	---	303000	110000	---	99000	---	---		
28	---	---	115000	---	290000	105000	---	60000	---	---		
29	50000	64100	97000	---	---	97000	---	77000	---	---		
30	56000	104000	112000	---	---	154000	---	58000	---	---		
31	59000	---	133000	---	---	256000	---	55000	---	---		
TOTAL	---	---	3095600	---	---	4675000	---	---	---	---		
MEAN	---	---	99860	---	---	150800	---	---	---	---		
MAX	---	---	173000	---	---	290000	---	---	---	---		
MIN	---	---	50100	---	---	64000	---	---	---	---		

03206600 EAST FORK TWELVEPOLE CREEK NEAR DUNLOW, WV

LOCATION.--Lat 38°01'02", long 82°17'46", Wayne County, Hydrologic Unit 05090102, on left bank 0.2 mi upstream from Maynard Branch, 0.9 mi downstream from McComas Branch, 1.5 mi upstream from Devilstrace Branch, and 7.5 mi east of Dunlow, and at mile 60.2.

DRAINAGE AREA.--38.5 mi^2.

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

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 710.00 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 10-20, Dec. 7-9, Jan. 16, 17, 20-23, 31, Feb. 8-11, 16, 17. Records fair except for period of estimated record, Oct. 10-20, and periods with ice effect, Dec. 7-9, Jan. 16, 17, 20-23, 31, Feb. 8-11, 16, 17, which are poor. U.S. Army Corps of Engineers gage height and satellite telemeters at station.

AVERAGE DISCHARGE.--21 years, 53.8 ft^3/s, 18.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,040 ft^3/s, Dec. 9, 1978, gage height, 15.84 ft, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 0.01 ft^3/s, July 2-13, 1966, Sept. 18-28, 1967, Sept. 8, 9, 1973; minimum gage height, 4.44 ft, Sept. 26, 27, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 840 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 24	1930	*1,220	*10.31	No other peak greater than base discharge.			

Minimum discharge, 0.26 ft^3/s, Sept. 20, 21, gage height, 4.56 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	7.7	53	90	100	67	78	11	16	3.2	109	3.9
2	5.8	9.2	38	94	198	58	73	16	13	4.7	87	3.0
3	3.7	8.9	33	95	128	47	67	46	11	6.5	30	2.4
4	2.5	8.3	26	181	100	42	58	31	28	4.8	16	2.0
5	2.0	17	23	209	95	46	51	26	35	3.1	10	1.8
6	1.8	22	33	159	143	35	65	22	41	2.3	8.0	1.6
7	1.5	17	21	140	134	33	54	18	33	3.7	12	1.5
8	1.8	13	21	116	100	86	51	15	72	4.6	16	1.4
9	3.1	15	28	92	79	166	48	12	40	3.5	8.4	1.3
10	2.5	20	51	79	68	128	43	9.8	29	25	6.6	1.2
11	1.8	38	80	82	70	130	40	8.5	22	59	5.5	1.1
12	1.5	33	72	72	138	236	36	8.3	81	13	4.6	.91
13	1.5	23	58	69	157	191	33	9.2	54	7.7	3.8	.60
14	1.3	18	44	62	135	142	32	6.8	35	7.7	3.0	.48
15	1.2	15	35	50	106	107	32	7.2	26	33	2.6	.44
16	1.3	14	30	46	84	87	51	8.5	20	57	6.2	.42
17	1.4	10	27	45	76	73	53	16	17	21	8.6	.39
18	1.3	34	28	40	92	60	45	20	19	11	6.3	.38
19	1.0	458	105	36	130	49	40	28	12	7.8	4.4	.34
20	7.1	143	176	28	198	43	36	19	9.3	6.3	3.7	.31
21	7.0	73	412	26	216	37	32	18	7.6	5.6	4.5	.30
22	5.8	46	279	26	342	44	28	30	6.8	5.6	3.2	.33
23	24	33	154	29	450	49	25	87	7.5	4.9	2.3	.42
24	35	26	136	29	271	59	24	725	6.0	3.7	4.6	.73
25	16	21	405	29	156	62	22	507	5.6	3.1	7.0	1.0
26	10	18	197	23	122	59	18	150	4.7	2.9	13	1.2
27	7.9	16	129	20	96	56	17	82	3.7	4.6	13	3.2
28	7.5	88	93	22	78	53	17	51	3.0	3.6	7.1	1.8
29	16	104	70	20	---	50	15	36	2.6	2.6	5.5	1.6
30	13	74	62	19	---	46	12	26	2.3	2.4	4.7	.94
31	9.6	---	70	221	---	56	---	20	---	8.2	4.9	---
TOTAL	203.4	1423.1	2989	2249	4062	2397	1196	2070.3	663.1	332.1	421.5	36.99
MEAN	6.56	47.4	96.4	72.5	145	77.3	39.9	66.8	22.1	10.7	13.6	1.23
MAX	35	458	412	221	450	236	78	725	81	59	109	3.9
MIN	1.0	7.7	21	19	68	33	12	6.8	2.3	2.3	2.3	.30
CFSM	.17	1.23	2.50	1.88	3.77	2.01	1.04	1.74	.57	.28	.35	.03
IN.	.20	1.38	2.89	2.17	3.92	2.32	1.16	2.00	.64	.32	.41	.04

CAL YR 1984 TOTAL 19490.17 MEAN 53.3 MAX 1390 MIN .60 CFSM 1.38 IN 18.83
WTR YR 1985 TOTAL 18043.49 MEAN 49.4 MAX 725 MIN .30 CFSM 1.28 IN 17.43

03206790 EAST FORK TWELVEPOLE CREEK BELOW EAST LYNN DAM, WV

LOCATION.--Lat 38°08'52", long 82°23'00", Wayne County, Hydrologic Unit 05090102, on left bank 800 ft downstream from Laurel Creek, 1,700 ft downstream from East Lynn Dam, 1.4 mi south of East Lynn, and at mile 41.7.

DRAINAGE AREA.--138 mi^2.

PERIOD OF RECORD.--June 1962 to September 1982, October 1982 to current year (gage height, discharge measurements and annual maximum discharge only). Prior to October 1967 published as near East Lynn.

GAGE.--Water-stage recorder. Datum of gage is 610.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1981, at datum 10.00 ft lower. Prior to Oct. 1, 1967, water-stage recorder at site 0.7 mi downstream.

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated since March 1972 by East Lynn Lake.

AVERAGE DISCHARGE.--20 years (water years 1963-82), 177 ft^3/s, 17.42 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,960 ft^3/s, Mar. 12, 1968, gage height, 31.50 ft datum then in use, from floodmarks; no flow, Sept. 10-27, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1913, about 13,000 ft^3/s, Feb. 3, 1939, gage height, about 37 ft datum then in use, from floodmarks, from rating curve based on conveyance-slope study. Flood of Feb. 28, 1962, reached a stage of 36.25 ft, datum then in use, from floodmarks, discharge, about 12,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,560 ft^3/s, May 25, gage height, 8.92 ft; minimum gage height, 1.43 ft, July 14, 15.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.58	2.51	3.49	4.02	7.58	3.51	2.30	1.70	1.59	1.66	2.25	1.53
2	1.55	2.78	2.77	4.19	7.95	3.51	1.80	1.76	1.59	1.67	3.56	1.53
3	1.54	2.76	2.65	4.27	5.21	3.16	1.72	2.70	1.87	1.69	3.65	1.53
4	1.54	2.76	2.63	6.33	3.52	2.81	1.66	2.93	2.11	1.68	2.78	1.53
5	1.54	3.01	2.85	7.52	4.09	2.82	1.59	2.57	2.11	1.67	2.40	1.54
6	1.54	3.23	2.95	6.22	4.97	2.81	1.62	2.44	2.96	1.67	1.85	1.54
7	1.54	3.24	2.89	5.01	5.13	2.81	1.57	2.44	3.34	1.68	1.53	1.53
8	1.55	3.25	2.85	4.56	4.00	3.03	1.55	2.43	3.31	1.70	1.53	1.52
9	1.54	3.98	2.84	3.82	3.51	4.70	1.54	1.92	3.29	1.68	1.53	1.53
10	1.55	4.42	3.05	3.96	3.51	5.41	1.53	1.73	3.16	1.70	1.53	1.54
11	1.55	4.69	4.00	3.69	3.93	5.43	1.52	1.72	2.48	1.73	1.53	1.55
12	1.55	4.50	4.11	3.50	5.02	6.50	1.51	1.73	3.59	2.53	1.53	1.55
13	1.55	3.47	3.46	3.50	5.58	6.11	1.52	1.73	4.19	2.16	1.53	1.55
14	1.55	2.96	3.09	3.49	4.81	4.51	1.56	1.72	3.49	1.59	1.54	1.55
15	1.55	2.39	3.09	2.99	4.13	4.49	1.59	1.65	2.53	1.51	1.54	1.55
16	1.55	2.24	2.72	2.56	3.76	3.80	1.91	1.84	2.35	2.52	1.55	1.55
17	1.55	2.21	2.55	2.65	3.55	3.00	3.39	2.26	2.34	2.20	1.55	1.54
18	1.56	2.48	2.56	2.82	3.58	2.78	4.04	2.31	2.32	1.70	1.55	1.54
19	1.56	5.00	3.08	2.81	4.11	3.13	3.73	2.94	2.31	1.70	1.55	1.54
20	1.60	6.33	4.58	2.81	5.09	3.27	3.18	3.15	2.32	1.69	1.55	1.54
21	1.57	4.55	6.05	2.45	6.28	3.27	2.90	2.95	1.87	1.70	1.54	1.55
22	1.61	2.81	6.86	2.28	7.07	3.28	2.73	2.88	1.65	1.70	1.53	1.55
23	1.79	5.22	7.94	2.28	7.56	3.29	2.46	3.50	1.66	1.70	1.53	1.55
24	1.67	5.17	7.09	2.29	7.39	3.42	2.79	4.35	1.65	1.69	1.57	1.57
25	1.58	3.67	6.00	2.29	7.25	3.54	2.58	7.52	1.65	1.69	1.56	1.57
26	1.55	2.94	6.42	2.29	6.45	3.52	2.43	8.72	1.65	1.70	1.55	1.57
27	1.54	2.69	5.50	2.29	4.78	3.52	2.43	8.21	1.65	1.71	1.54	1.57
28	1.79	3.00	4.22	2.29	3.68	3.51	2.43	5.63	1.66	1.70	1.54	1.57
29	1.88	4.53	3.64	2.29	---	3.51	2.19	3.49	1.66	1.69	1.54	1.58
30	2.04	4.59	3.51	2.28	---	2.99	1.93	2.51	1.66	1.69	1.54	1.60
31	2.02	---	3.57	5.28	---	3.05	---	1.80	---	1.72	1.54	---
MEAN	1.62	3.58	3.97	3.52	5.12	3.69	2.19	3.07	2.33	1.77	1.77	1.55
MAX	2.04	6.33	7.94	7.52	7.95	6.50	4.04	8.72	4.19	2.53	3.65	1.60
MIN	1.54	2.21	2.55	2.28	3.51	2.78	1.51	1.65	1.59	1.51	1.53	1.52

WTR YR 1985 MEAN 2.83 MAX 8.72 MIN 1.51

03207057 BEECH FORK BELOW BEECH FORK DAM, WV

LOCATION.--Lat 38°18'18", long 82°25'28", Wayne County, Hydrologic Unit 05090102, on left bank 2,500 ft downstream from Beech Fork Dam, and 1.7 mi southeast of Lavalette and at mile 3.0.

DRAINAGE AREA.--79.2 mi^2.

PERIOD OF RECORD.--July 1976 to September 1982, October 1982 to current year (gage heights and annual maximum discharge only).

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 549.54 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to June 12, 1979, at datum 0.46 ft higher.

REMARKS.--Records for winter periods not adjusted for ice effect. Flow regulated since January 1978 by Beech Fork Lake.

AVERAGE DISCHARGE.--6 years (water years 1977-82), 91.3 ft^3/s, 15.65 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft^3/s, Apr. 5, 1977, gage height, 10.29 ft; minimum discharge, 0.02 ft^3/s, July 20, 1977; minimum gage height, 0.04 ft, July 21, 22, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft^3/s, Feb. 22, gage height, 6.93 ft; minimum gage height, 0.49 ft, Aug. 24.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	2.17	1.92	3.17	5.03	1.65	1.55	.83	.69	.65	.66	1.85
2	.64	2.17	1.88	3.28	3.75	1.58	.81	.83	.66	.62	.67	.62
3	.67	2.17	1.84	2.87	3.70	1.58	.79	.67	.66	.60	.67	.63
4	.65	2.16	1.51	3.37	1.98	1.37	.82	.61	.68	.60	.67	.59
5	.65	2.19	1.11	3.80	1.10	1.03	.83	.58	.66	.60	.63	.57
6	.65	2.20	1.82	3.77	2.89	1.38	.84	.58	.66	.59	.60	.54
7	.65	2.20	1.86	4.69	3.02	1.69	.83	.58	.66	.59	.60	.58
8	.68	2.20	1.45	3.97	2.24	1.89	.83	.58	.66	.63	.60	.60
9	.65	2.20	1.25	3.19	1.80	3.08	.82	.58	.64	.63	.60	.60
10	.62	2.21	2.34	1.72	1.80	3.47	.79	.63	.64	.82	.60	.60
11	.62	2.54	3.04	1.74	2.19	3.88	.81	.61	.64	1.85	.60	.59
12	.62	3.31	2.57	1.48	3.70	4.70	.83	.62	.69	2.10	.60	.54
13	.62	2.69	2.35	1.47	3.65	3.64	.83	.62	1.27	1.26	.59	.60
14	.62	2.79	1.74	2.26	3.08	2.70	.83	.62	1.26	1.25	.60	.63
15	.62	2.82	1.43	1.77	2.48	2.22	.83	.61	.74	1.19	.60	.65
16	.62	2.77	1.42	1.46	2.12	1.82	.85	.62	.70	1.13	.61	.67
17	.62	2.73	1.07	1.46	2.13	1.82	.84	.64	.70	1.37	.65	.67
18	.62	2.75	.89	1.29	2.13	2.09	.82	.65	.71	1.37	.81	.67
19	.62	3.59	2.41	1.09	3.21	1.84	.82	.66	.71	1.47	.72	.66
20	.65	3.89	3.98	1.09	4.74	1.50	.80	.61	.71	1.38	.65	.59
21	.64	3.81	5.67	1.09	4.65	1.32	.81	.61	.71	.72	.77	.58
22	.66	3.56	5.67	1.00	5.31	1.45	.81	.67	.73	.67	.71	.59
23	.70	3.25	4.84	.91	5.25	1.46	.81	.81	.76	.66	.61	.59
24	.66	3.01	3.33	.90	4.92	1.47	.81	1.39	.78	.65	.68	.60
25	.63	2.91	2.94	.91	5.11	2.84	.81	3.27	.84	.65	.59	.60
26	.62	2.35	4.44	.90	3.11	2.72	.83	5.33	.64	.62	.65	.60
27	.62	1.24	3.85	.90	1.93	1.80	.83	5.24	.64	.61	.63	.62
28	.80	1.90	2.49	.90	1.78	1.77	.83	4.41	.64	.63	.63	.63
29	1.06	2.86	1.45	.90	---	2.25	.83	2.82	.64	.63	.63	.62
30	2.13	2.58	1.46	.90	---	2.65	.83	1.58	.64	.63	.66	.57
31	2.18	---	3.06	3.93	---	2.68	---	.98	---	.63	1.47	---
MEAN	.76	2.64	2.49	2.01	3.17	2.17	.85	1.29	.73	.90	.67	.65
MAX	2.18	3.89	5.67	4.69	5.31	4.70	1.55	5.33	1.27	2.10	1.47	1.85
MIN	.62	1.24	.89	.90	1.10	1.03	.79	.58	.64	.59	.59	.54

WTR YR 1985 MEAN 1.52 MAX 5.67 MIN .54

03213000 TUG FORK AT LITWAR, WV

LOCATION.--Lat 37°29'08", long 81°50'38", McDowell County, Hydrologic Unit 05070201, on left bank 200 ft downstream from War Branch, 0.5 mi downstream from Litwar, 2.2 mi northwest of Iaeger, 2.7 mi downstream from Dry Fork, and at mile 106.1.

DRAINAGE AREA.--504 mi^2.

PERIOD OF RECORD.--May 1930 to September 1984, October 1984 to current year (gage heights and annual maximum discharge only).

REVISED RECORDS.--WSP 728: 1931. WSP 1335: 1930, 1931-35(M), 1937, 1943-46, 1947(M), 1948, 1949(P), 1950, 1952-53, WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 936.36 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 16, 1942, nonrecording gage at highway bridge 0.5 mi upstream at same datum.

REMARKS.--Records for winter periods not adjusted for ice effect. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--54 years (water years 1931-84), 556 ft^3/s, 14.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,500 ft^3/s, Apr. 4, 1977, gage height, 27.37 ft; minimum observed, 11 ft^3/s, Oct. 3, 4, 7, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft^3/s, Feb. 1, gage height, 8.66 ft; minimum gage height observed, 0.82 ft, Oct. 17, but may have been lower during other periods.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.05	.93	1.50	2.32	6.24	2.35	2.08	1.46	1.69	1.29	1.94	.98
2	1.05	.90	1.32	2.94	4.96	2.26	2.05	1.47	1.61	1.24	2.44	.93
3	1.01	---	1.24	3.12	3.51	2.13	2.08	1.78	1.59	1.32	1.67	---
4	.97	---	1.18	2.89	2.91	2.06	1.93	1.62	1.62	1.25	1.38	---
5	.93	---	1.16	3.35	2.66	2.02	1.87	1.52	1.76	1.20	1.24	---
6	---	1.02	1.28	2.83	2.91	1.92	1.87	1.48	1.97	1.18	1.19	.96
7	---	1.04	1.29	2.45	2.98	1.85	1.80	1.44	1.70	1.18	1.35	.98
8	---	1.03	1.27	2.19	2.70	1.86	1.81	1.40	1.77	1.15	1.65	.93
9	---	1.02	1.28	1.98	2.44	2.01	1.79	1.36	1.65	1.12	1.38	.91
10	---	1.02	1.27	1.86	2.30	1.97	1.76	1.32	1.67	1.13	1.22	---
11	---	1.03	1.29	1.81	2.20	2.00	1.74	1.33	1.85	1.39	1.13	---
12	---	1.19	1.27	1.72	2.29	2.10	1.74	1.32	2.26	1.26	1.08	---
13	---	1.20	1.25	1.63	2.22	2.08	1.72	1.30	2.30	1.35	1.04	---
14	---	1.10	1.23	1.61	2.07	2.06	1.72	1.31	1.94	1.26	1.02	---
15	---	1.02	1.18	1.58	2.00	2.00	1.72	1.59	1.71	1.23	.99	---
16	---	.99	1.15	1.48	1.92	1.91	1.84	2.49	1.60	1.30	.98	---
17	---	.95	1.13	1.53	1.93	1.89	1.87	2.11	1.64	1.19	1.10	---
18	---	.97	1.11	1.53	1.89	1.86	1.82	2.22	1.69	1.13	1.23	---
19	---	2.44	1.18	1.50	1.99	1.80	1.78	2.09	1.53	1.08	1.29	---
20	---	2.27	1.44	1.36	2.15	1.76	1.78	1.86	1.45	1.06	1.13	---
21	.92	1.64	1.69	1.25	2.34	1.72	1.76	1.87	1.40	1.07	1.03	---
22	.92	1.38	1.84	1.36	2.64	1.76	1.72	1.91	1.36	1.05	1.02	---
23	1.00	1.25	1.78	1.46	3.23	1.83	1.69	2.51	1.33	1.04	1.00	---
24	1.32	1.16	1.66	1.43	3.13	1.90	1.67	3.83	1.30	1.02	.96	---
25	1.24	1.09	1.82	1.42	2.86	2.10	1.66	3.96	1.28	1.02	1.01	---
26	1.09	1.03	1.93	1.34	2.75	2.11	1.61	2.98	1.27	1.13	1.02	---
27	1.02	.97	1.83	1.22	2.62	2.05	1.58	2.44	1.24	1.52	1.02	---
28	.99	1.47	1.67	1.34	2.46	2.01	1.59	2.13	1.21	1.49	.95	---
29	.98	2.17	1.55	1.31	---	1.96	1.57	2.01	1.20	1.22	.90	---
30	.97	1.72	1.46	1.31	---	1.91	1.50	1.86	1.23	1.13	.90	---
31	.96	---	1.72	1.79	---	1.90	---	1.74	---	1.17	.99	---
MEAN	---	---	1.42	1.84	2.73	1.97	1.77	1.93	1.59	1.20	1.20	---
MAX	---	---	1.93	3.35	6.24	2.35	2.08	3.96	2.30	1.52	2.44	---
MIN	---	---	1.11	1.22	1.89	1.72	1.50	1.30	1.20	1.02	.90	---

03213500 PANTHER CREEK NEAR PANTHER, WV

LOCATION.--Lat 37°26'42", long 81°52'15", McDowell County, Hydrologic Unit 05070201, on left bank 200 ft downstream from Cub Branch, 2.1 mi upstream from Trace Fork, 3.0 mi southwest of Panther, and at mile 4.2.

DRAINAGE AREA.--31.0 mi^2.

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

REVISED RECORDS.--WSP 1505: 1955(P). WSP 1908: 1955(M), 1957(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,050 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 19 to Jan. 8, Jan. 20-31, Feb. 3-18, Feb. 23 to Mar. 6, Apr. 24 to May 1, May 17-23, May 27 to June 5, and June 10-18. Records poor.

AVERAGE DISCHARGE.--39 years, 35.1 ft^3/s, 15.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft^3/s Apr. 4, 1977, gage height, 12.10 ft, from flood-marks, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement at gage height 10.67 ft; no flow at times during August and September 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 1	1015	*690	*6.42	No peak greater than base discharge.			

Minimum daily discharge, 0.84 ft^3/s, Oct. 19; minimum gage height, 2.41 ft, Oct. 7, 18, 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	2.6	35	45	420	55	42	7.5	9.0	5.2	40	1.7
2	2.6	2.4	25	70	179	45	43	9.9	8.0	4.2	29	1.4
3	1.6	2.3	20	90	100	40	41	25	7.0	5.4	12	1.4
4	1.2	2.1	17	110	75	32	36	17	6.5	4.0	6.6	1.4
5	1.1	4.4	15	130	65	25	30	14	7.5	3.3	4.6	1.3
6	1.0	9.9	20	80	70	18	30	13	8.3	3.0	4.4	1.3
7	.92	6.9	15	60	75	17	25	11	7.2	3.0	13	1.6
8	1.1	4.6	14	40	65	21	25	9.3	6.9	3.5	25	1.3
9	1.9	4.6	19	32	55	36	25	8.0	5.9	3.2	12	1.3
10	2.2	5.0	26	27	50	40	24	7.2	8.0	3.8	6.9	1.3
11	1.7	5.0	35	25	55	43	24	6.6	17	12	4.4	1.3
12	1.3	5.0	29	21	70	43	23	6.1	35	5.0	3.6	1.2
13	1.1	4.2	25	22	90	40	22	5.4	25	4.4	3.2	1.1
14	1.0	3.6	22	22	75	38	22	4.6	17	3.2	2.9	1.0
15	1.0	3.5	20	19	65	32	23	22	14	3.3	2.7	1.1
16	1.0	4.0	18	19	55	28	25	25	12	5.9	2.6	1.1
17	.92	3.5	15	18	50	27	22	22	11	3.5	4.0	1.1
18	.92	6.4	14	17	40	24	21	19	13	2.7	4.0	1.0
19	.84	60	40	15	43	21	19	16	9.3	2.4	3.0	.92
20	2.9	45	70	13	61	19	19	13	8.0	2.2	2.6	1.0
21	3.6	30	120	10	73	18	18	11	6.4	2.6	2.3	1.0
22	2.9	20	80	8.0	85	23	16	12	5.4	2.4	2.1	1.0
23	7.2	15	60	15	200	32	15	20	5.2	2.1	2.0	1.0
24	9.6	11	50	15	150	46	14	82	4.6	2.0	2.0	1.1
25	4.4	8.0	110	16	110	56	13	101	4.2	2.1	2.4	1.1
26	3.2	6.0	70	14	90	48	12	36	4.0	3.2	2.2	1.1
27	2.6	5.0	55	13	75	43	11	30	3.5	25	3.0	1.6
28	2.7	40	45	12	65	39	10	23	3.2	8.3	2.4	1.3
29	3.8	60	35	11	---	33	9.2	18	3.0	5.4	1.9	1.1
30	3.6	45	30	13	---	28	8.5	14	3.3	3.8	1.7	1.1
31	3.2	---	40	30	---	30	---	11	---	5.7	2.0	---
TOTAL	77.10	425.0	1189	1032.0	2606	1040	667.7	619.6	278.4	145.8	210.5	36.22
MEAN	2.49	14.2	38.4	33.3	93.1	33.5	22.3	20.0	9.28	4.70	6.79	1.21
MAX	9.6	60	120	130	420	56	43	101	35	25	40	1.7
MIN	.84	2.1	14	8.0	40	17	8.5	4.6	3.0	2.0	1.7	.92
CFSM	.08	.46	1.24	1.07	3.00	1.08	.72	.65	.30	.15	.22	.04
IN.	.09	.51	1.43	1.24	3.13	1.25	.80	.74	.33	.17	.25	.04

CAL YR 1984 TOTAL 7977.65 MEAN 21.8 MAX 1100 MIN .36 CFSM .70 IN 9.57
WTR YR 1985 TOTAL 8327.32 MEAN 22.8 MAX 420 MIN .84 CFSM .74 IN 9.99

03213700 TUG FORK AT WILLIAMSON, WV

LOCATION.--Lat 37°40'23", long 82°16'49", Pike County, Ky., Hydrologic Unit 05070201, on left bank at Williamson, 100 ft upstream from bridge on U.S. Highway 119, 0.8 mi downstream from Pond Creek, and at mile 56.5.

DRAINAGE AREA.--936 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Gage-height records collected in this vicinity since 1926 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 620.90 ft, Ohio River Datum (levels by U.S. Army Corps of Engineers). Prior to Jan. 21, 1969, at datum 0.92 ft lower.

REMARKS.--Estimated daily discharges: Feb. 3-5. Records good except for period of estimated record, and those above 20,000 ft^3/s, which are fair. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

AVERAGE DISCHARGE.--18 years, 1,154 ft^3/s, 16.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,000 ft^3/s, Apr. 5, 1977, gage height, 52.56 ft, from flood-marks, from rating curve extended above 18,000 ft^3/s; minimum discharge, 59 ft^3/s, Oct. 18-20, 1969; minimum gage height, 1.75 ft, Sept. 26, 27, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Jan. 30, 1957, Mar. 12, 1963, and Mar. 7, 1967, reached stages of 43.6 ft, 44.5 ft, and 40.7 ft respectively, from readings by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 2	0200	*13,900	*22.77	No other peak greater than base discharge.			

Minimum daily discharge, 85 ft^3/s, Oct. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	154	882	1390	7170	1660	1120	407	616	239	778	164
2	221	150	657	1980	10400	1500	1150	401	567	273	1820	164
3	196	138	537	2910	4570	1320	1090	609	524	291	1010	148
4	149	132	437	2730	3010	1170	1020	728	538	319	534	136
5	124	166	375	3360	2240	1120	942	564	691	279	363	129
6	113	245	424	2960	2530	1010	988	488	1100	257	286	134
7	96	295	492	2090	2990	893	933	444	965	255	594	154
8	100	251	495	1600	2540	924	889	404	794	236	1400	170
9	133	245	488	1230	1990	1790	880	369	659	208	849	148
10	153	272	488	1010	1670	1790	832	338	728	239	520	138
11	96	301	520	938	1480	1590	824	323	1370	369	360	133
12	120	280	531	854	1570	1760	777	335	1550	355	283	129
13	116	305	516	756	1710	1720	748	312	2000	262	248	121
14	101	277	471	711	1440	1580	724	289	1330	272	222	118
15	95	223	420	699	1300	1380	715	283	889	245	200	114
16	98	198	375	582	1150	1200	752	1800	671	278	202	112
17	95	186	347	613	1160	1090	802	1710	571	267	212	112
18	91	221	341	636	1180	1000	756	1610	740	232	235	112
19	85	2300	382	613	1450	911	703	1300	601	191	256	102
20	136	2360	601	478	2090	832	679	951	469	172	272	102
21	144	1110	1230	363	2440	786	667	786	402	166	230	101
22	201	674	1850	388	3070	841	628	1130	355	188	191	99
23	211	491	1520	457	4710	1020	594	1330	327	175	172	99
24	278	391	1160	567	4120	1340	567	3220	302	156	184	99
25	381	328	1240	553	3090	1680	549	5460	282	149	232	101
26	284	285	1380	499	2530	1620	520	3240	261	163	195	109
27	209	252	1240	454	2230	1420	485	1890	249	447	191	131
28	169	509	1010	404	1900	1280	485	1280	232	491	178	109
29	179	1640	819	437	---	1170	495	988	220	408	172	107
30	201	1280	707	397	---	1060	447	832	216	270	156	105
31	171	---	769	1160	---	1010	---	691	---	268	164	---
TOTAL	4898	15659	22704	33819	77730	39467	22761	34512	20219	8120	12709	3700
MEAN	158	522	732	1091	2776	1273	759	1113	674	262	410	123
MAX	381	2360	1850	3360	10400	1790	1150	5460	2000	491	1820	170
MIN	85	132	341	363	1150	786	447	283	216	149	156	99
CFSM	.17	.56	.78	1.17	2.97	1.36	.81	1.19	.72	.28	.44	.13
IN.	.19	.62	.90	1.34	3.09	1.57	.90	1.37	.80	.32	.51	.15

CAL YR 1984 TOTAL 446359 MEAN 1220 MAX 32800 MIN 85 CFSM 1.30 IN 17.74
WTR YR 1985 TOTAL 296298 MEAN 812 MAX 10400 MIN 85 CFSM .87 IN 11.78

03214000 TUG FORK NEAR KERMIT, WV

LOCATION.--Lat 37°49'03", long 82°23'20", Mingo County, Hydrologic Unit 05070201, on right bank 2.0 mi upstream from Wolf Creek, 3.0 mi upstream from Kermit, 3.0 mi downstream from Pigeon Creek, and at mile 38.1.

DRAINAGE AREA.--1,188 mi^2.

PERIOD OF RECORD.--July 1934 to current year.

REVISED RECORDS.--WSP 953: 1934-41. WSP 1505: 1955.

GAGE.--Water-stage recorder. Datum of gage is 581.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 20-31, Aug. 12, 13, and Aug. 23 to Sept. 30. Records fair except for estimated discharges, which are poor. National Weather Service gage-height telemeter at station. Water-quality data collected at site are published on page 193.

AVERAGE DISCHARGE.--51 years, 1,411 ft^3/s, 16.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft^3/s, Apr. 6, 1977, gage height, 52.91 ft, from floodmarks, from rating curve extended above 29,000 ft^3/s on basis of slope-area measurements at gage heights 45.65 ft and 52.91 ft; minimum, 23 ft^3/s, Sept. 14, 1939, gage height, 1.13 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Feb. 2	0900	*15,500	*24.56	No other peak greater than base discharge.			

Minimum discharge (measured), 104 ft^3/s, Oct. 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	205	1240	1570	7560	2140	1810	515	733	287	1140	200
2	208	196	912	2470	13700	1920	1820	504	676	326	2460	190
3	229	193	738	3310	6410	1700	1650	801	620	343	1620	180
4	196	181	627	3650	3620	1510	1510	930	667	371	855	160
5	160	208	541	4410	2760	1440	1360	771	750	364	545	150
6	142	277	601	4120	3060	1300	1410	639	1260	320	417	150
7	134	330	655	2980	3680	1170	1370	563	1200	336	387	170
8	125	313	684	2270	3260	1190	1300	511	1050	323	1700	180
9	139	293	672	1760	2600	2420	1260	467	852	290	1260	180
10	163	350	696	1450	2170	2600	1190	431	767	330	783	170
11	172	452	784	1360	1940	2320	1130	402	1330	635	531	180
12	154	427	830	1250	2210	2850	1070	406	1710	460	395	160
13	139	378	818	1140	2500	2800	1020	413	2250	357	343	140
14	134	364	725	1060	2150	2400	987	374	1670	313	297	140
15	119	307	635	1010	1890	2020	956	357	1130	333	277	130
16	111	274	563	848	1670	1720	1000	1280	843	395	288	130
17	111	251	515	856	1610	1540	1010	2010	684	323	301	120
18	111	316	496	895	1670	1410	996	1840	784	300	308	120
19	111	3790	586	869	1970	1280	921	1570	746	251	324	110
20	172	3450	1010	767	2940	1160	873	1200	601	220	322	110
21	208	1660	2000	560	3460	1080	856	921	485	217	272	110
22	199	978	3000	620	4380	1110	813	1210	427	233	238	110
23	336	680	2460	700	6620	1280	767	1360	395	226	210	110
24	316	537	1870	800	5900	1640	721	3610	367	199	210	110
25	378	449	2570	760	4190	2150	696	6750	343	187	310	110
26	343	392	2410	720	3310	2150	663	4200	323	187	450	120
27	264	346	2000	660	2840	1910	616	2380	307	374	320	150
28	226	754	1590	600	2450	1720	605	1600	290	518	270	140
29	220	1990	1290	620	---	1640	605	1220	274	474	230	120
30	245	1820	1100	540	---	1610	567	1020	271	326	200	110
31	229	---	1110	1500	---	1560	---	848	---	316	210	---
TOTAL	5966	22161	35728	46125	102520	54740	31552	41103	23805	10134	17473	4260
MEAN	192	739	1153	1488	3661	1766	1052	1326	794	327	564	142
MAX	378	3790	3000	4410	13700	2850	1820	6750	2250	635	2460	200
MIN	111	181	496	540	1610	1080	567	357	271	187	200	110
CFSM	.16	.62	.97	1.25	3.08	1.49	.89	1.12	.67	.28	.48	.12
IN.	.19	.69	1.12	1.44	3.21	1.71	.99	1.29	.75	.32	.55	.13

CAL YR 1984 TOTAL 594884 MEAN 1625 MAX 59200 MIN 105 CFSM 1.37 IN 18.63
WTR YR 1985 TOTAL 395567 MEAN 1084 MAX 13700 MIN 110 CFSM .91 IN 12.39

03214500 TUG FORK AT KERMIT, WV

LOCATION.--Lat 37°50'16", long 82°24'32", Mingo County, Hydrologic Unit 05070201, behind fire station, at Kermit, 0.8 mi downstream from Wolf Creek, and at mile 34.9.

DRAINAGE AREA.--1,280 mi^2.

PERIOD OF RECORD.--June 1915 to December 1920, January 1929 to September 1934. Records published as near Kermit at different site and datum July 1934 to September 1985. Present site, February to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 570.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: July 25, 26. Records fair except for period of no gage-height record, which is poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period February to September, 8,150 ft^3/s, May 25, gage height, 16.94 ft; minimum, 111 ft^3/s, Sept. 26, gage height, 1.99 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	2280	1990	514	754	303	1340	212
2					---	2040	1990	520	706	371	2870	210
3					---	1810	1800	841	657	379	1640	199
4					---	1600	1610	888	721	396	848	178
5					---	1510	1440	747	779	386	575	162
6					---	1360	1520	640	1270	331	450	155
7					---	1200	1440	574	1220	345	421	179
8					3510	1180	1340	520	1050	328	1670	200
9					2770	2450	1280	474	841	288	1180	195
10					2310	2760	1190	438	767	289	730	173
11					2070	2460	1120	409	1290	681	524	196
12					2460	3130	1040	420	1770	496	410	171
13					2790	3140	966	420	2270	401	341	153
14					2380	2650	931	374	1730	330	300	144
15					2070	2210	912	361	1150	367	269	144
16					1840	1870	954	1150	838	486	301	139
17					1780	1660	960	2040	703	364	326	137
18					1860	1500	932	1830	772	331	319	135
19					2170	1340	861	1560	750	275	320	129
20					3260	1210	822	1160	627	235	322	119
21					3850	1110	806	848	525	229	317	118
22					4890	1150	773	1130	467	249	259	116
23					7680	1350	731	1370	436	245	224	117
24					6740	1690	702	3860	407	217	227	117
25					4670	2220	674	7650	383	200	329	116
26					3610	2270	644	4690	357	210	491	122
27					3060	2020	608	2570	334	301	346	160
28					2620	1830	600	1720	311	550	275	152
29					---	1740	602	1300	289	575	241	124
30					---	1770	563	1040	279	385	213	122
31					---	1700	---	857	---	333	220	---
TOTAL					---	58210	31801	42915	24453	10876	18298	4594
MEAN					---	1878	1060	1384	815	351	590	153
MAX					---	3140	1990	7650	2270	681	2870	212
MIN					---	1110	563	361	279	200	213	116
CFSM					---	1.47	.83	1.09	.64	.28	.46	.12
IN.					---	1.70	.93	1.25	.71	.32	.53	.13

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
01595200 - STONY RIVER NEAR MOUNT STORM,WV (LAT 39 16 10 LONG 079 15 45)							
OCT , 1984							
22...	1145	7.4	--	--	16.0	--	--
DEC							
11...	1200	133	--	--	7.0	--	--
JAN , 1985							
29...	1200	27	--	--	.0	--	--
FEB							
22...	1125	67	--	--	3.5	--	--
MAR							
04...	0920	206	--	--	7.5	--	--
APR							
29...	1155	34	--	--	13.0	--	--
JUN							
26...	1330	31	--	--	18.0	--	--
AUG							
19...	1300	6.7	--	--	20.0	--	--
21...	1235	12	--	--	20.0	--	--
01604500 - PATTERSON CREEK NEAR HEADSVILLE, WV (LAT 39 26 35 LONG 078 49 20)							
OCT , 1984							
11...	1725	16	310	8.50	17.0	8.7	752
NOV							
27...	1630	31	345	8.30	4.0	12.8	749
JAN , 1985							
23...	1655	44	425	7.00	.0	13.5	750
FEB							
21...	0830	401	170	7.90	1.0	13.7	757
APR							
23...	1610	61	230	8.10	20.0	8.5	742
JUN							
19...	1515	61	226	8.00	21.5	9.0	745
AUG							
13...	1700	15	270	8.00	28.0	8.0	744
01607500 - SO FK SO BR POTOMAC R AT BRANDYWINE, WV (LAT 38 37 53 LONG 079 14 38)							
OCT , 1984							
12...	1400	13	194	8.50	18.0	9.7	722
JAN , 1985							
24...	1300	31	225	8.40	1.5	13.0	727
FEB							
21...	1315	103	120	8.30	3.5	13.2	728
APR							
24...	1105	26	149	8.50	18.0	8.8	717
JUN							
21...	1000	19	155	8.10	17.0	10.0	721
AUG							
14...	1430	12	173	8.40	28.0	9.0	720
01608000 - SO FK SOUTH BRANCH POTOMAC R NR MOOREFIELD, WV (LAT 39 00 44 LONG 078 57 23)							
OCT , 1984							
12...	1115	29	223	8.40	16.5	9.4	755
JAN , 1985							
24...	1110	90	340	7.70	1.0	12.7	749
FEB							
21...	1115	301	155	7.40	3.0	13.2	750
APR							
24...	0910	73	164	8.00	18.0	11.1	754
JUN							
20...	0855	77	175	7.80	18.0	8.5	750
AUG							
14...	1150	24	190	8.30	27.0	9.0	740

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	
01636451 - NORTH FORK LONG MARSH RUN NEAR MEYERSTOWN,WV (LAT 39 11 09 LONG 077 52 47)								
OCT , 1984								
11...	0945	2.3	500	8.90	13.0	9.0	760	
NOV								
27...	1025	2.2	535	8.50	5.5	12.3	752	
DEC								
13...	1610	2.5	540	8.30	14.0	--		--
JAN , 1985								
23...	1110	3.4	660	7.30	.0	--		--
FEB								
20...	1000	4.1	520	8.20	5.5	--		--
MAR								
19...	1130	2.6	515	8.30	7.0	--		--
APR								
23...	0855	2.6	520	8.30	14.5	--		--
MAY								
20...	1150	2.3	470	8.20	22.0	--		--
JUN								
18...	0915	2.1	510	8.20	17.5	--		--
JUL								
23...	0930	1.6	495	8.20	17.0	--		--
AUG								
13...	1045	1.6	510	8.20	19.0	--		--
SEP								
12...	1010	1.2	480	8.20	13.5	--		--
30...	1520	1.2	480	8.20	20.0	--		--
01636460 - BULLSKIN RUN ABOVE KABLETOWN,WV (LAT 39 13 10 LONG 077 51 59)								
OCT , 1984								
11...	0800	9.4	540	8.60	13.5	9.0	759	
NOV								
27...	0825	7.4	540	8.20	4.0	12.1	759	
DEC								
14...	0815	11	525	8.30	11.0	--		--
JAN , 1985								
23...	0935	10	600	7.80	.0	--		--
FEB								
20...	0830	17	550	8.10	4.0	--		--
MAR								
18...	1520	10	490	8.10	9.0	--		--
APR								
23...	0730	10	500	8.20	15.5	--		--
MAY								
20...	1325	8.0	520	8.20	19.0	--		--
JUN								
18...	1045	6.8	505	8.20	19.0	--		--
JUL								
23...	0800	5.1	500	8.10	18.0	--		--
AUG								
13...	0915	4.0	510	8.10	19.0	--		--
SEP								
12...	0825	3.3	490	7.60	14.0	--		--
30...	1350	3.6	520	8.20	16.0	--		--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
01636462 - BULLSKIN RUN AT KABLETOWN,WV (LAT 39 12 57 LONG 077 51 25)							
OCT , 1984							
11...	0845	12	500	8.50	13.5	8.8	760
NOV							
27...	0915	9.9	535	8.20	6.0	11.0	759
DEC							
14...	0855	13	520	8.10	11.0	--	--
JAN , 1985							
23...	1015	11	550	7.20	3.0	--	--
FEB							
20...	0910	22	500	7.90	6.0	--	--
MAR							
18...	1605	13	495	8.20	9.0	--	--
APR							
23...	0810	13	495	8.10	15.5	--	--
MAY							
20...	1240	11	540	7.90	16.5	--	--
JUN							
18...	1005	7.7	520	7.90	17.5	--	--
JUL							
23...	0835	7.2	500	7.90	17.0	--	--
AUG							
13...	1000	6.0	500	7.90	18.0	--	--
SEP							
12...	0910	5.3	490	7.80	14.0	--	--
30...	1430	5.7	515	7.90	15.0	--	--
01636475 - EVITTS RUN NEAR RANSON,WV (LAT 39 17 38 LONG 077 53 16)							
OCT , 1984							
10...	1535	6.2	500	8.50	17.0	9.7	756
NOV							
27...	1215	5.3	495	8.10	9.5	11.2	756
DEC							
13...	1450	9.3	540	8.00	13.0	--	--
JAN , 1985							
23...	1250	6.4	535	7.00	4.0	--	--
FEB							
20...	1110	11	480	7.70	8.0	--	--
MAR							
18...	1400	7.3	470	8.00	13.0	--	--
APR							
23...	1025	7.5	455	8.10	18.0	--	--
MAY							
20...	1040	5.8	460	8.00	19.0	--	--
JUN							
18...	0800	4.6	480	7.90	16.5	--	--
JUL							
23...	1035	3.5	460	8.00	18.0	--	--
AUG							
13...	1230	2.9	450	7.90	21.5	--	--
SEP							
12...	1110	2.4	455	7.90	15.5	--	--
30...	1645	2.1	445	8.30	20.0	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03056250 - THREE FORK CREEK NR GRAFTON, WV (LAT 39 20 13 LONG 079 59 36)							
DEC , 1984							
04...	0945	225	--	--	4.0	--	--
JAN , 1985							
28...	1130	101	--	--	.0	--	--
FEB							
25...	1310	773	--	--	1.0	--	--
MAR							
21...	1130	95	--	--	7.0	--	--
APR							
01...	1210	1420	--	--	3.5	--	--
MAY							
09...	1430	70	--	--	17.0	--	--
JUL							
22...	1305	43	--	--	23.0	--	--
SEP							
03...	1010	7.3	--	--	22.0	--	--
30...	1120	2.1	--	--	16.5	--	--
03057000 - TYGART VALLEY RIVER AT COLFAX, WV (LAT 39 26 15 LONG 080 07 55)							
DEC , 1984							
11...	1505	3990	--	--	4.0	--	--
MAR , 1985							
20...	1520	2510	--	--	1.0	--	--
JUL							
16...	1700	3320	--	--	18.0	--	--
AUG							
28...	1655	555	--	--	24.0	--	--
03061000 - WEST FORK RIVER AT ENTERPRISE, WV (LAT 39 25 20 LONG 080 16 40)							
DEC , 1984							
05...	1200	868	--	--	4.0	--	--
MAR , 1985							
20...	1245	678	--	--	1.0	--	--
MAY							
09...	0930	483	--	--	16.0	--	--
JUL							
16...	1300	721	--	--	18.0	--	--
AUG							
28...	1215	151	--	--	23.0	--	--
03061500 - BUFFALO CREEK AT BARRACKVILLE, WV (LAT 39 30 15 LONG 080 10 20)							
OCT , 1984							
24...	1625	152	--	--	14.5	--	--
DEC							
05...	1445	96	--	--	3.0	--	--
JAN , 1985							
30...	1425	72	--	--	1.0	--	--
MAR							
19...	1105	97	--	--	5.0	--	--
MAY							
09...	1105	47	--	--	16.0	--	--
JUL							
15...	1400	375	--	--	20.0	--	--
AUG							
28...	1445	5.1	--	--	23.0	--	--
SEP							
25...	1450	2.3	--	--	27.0	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03062400 - COBUN CREEK AT MORGANTOWN, WV (LAT 39 36 30 LONG 079 57 20)							
JAN , 1985							
24...	1610	7.4	--	--	.5	--	--
29...	1445	7.2	--	--	.5	--	--
APR							
25...	1005	8.3	--	--	17.0	--	--
JUL							
01...	1445	1.2	--	--	20.5	--	--
AUG							
27...	1430	.65	--	--	20.0	--	--
03070000 - CHEAT RIVER AT ROWLESBURG, WV (LAT 39 20 50 LONG 079 40 00)							
DEC , 1984							
04...	1355	3510	--	--	5.0	--	--
MAY , 1985							
24...	1315	7340	--	--	15.0	--	--
JUL							
24...	1520	919	--	--	26.0	--	--
SEP							
03...	1335	333	--	--	24.5	--	--
03070500 - BIG SANDY CREEK AT ROCKVILLE, WV (LAT 39 37 15 LONG 079 42 20)							
DEC , 1984							
04...	1650	563	--	--	4.0	--	--
MAR , 1985							
21...	1640	244	--	--	5.0	--	--
MAY							
24...	1600	512	--	--	14.5	--	--
JUL							
24...	1740	146	--	--	23.5	--	--
SEP							
03...	1605	28	--	--	24.5	--	--
03179000 - BLUESTONE RIVER NEAR PIPESTEM, WV (LAT 37 32 38 LONG 081 00 38)							
OCT , 1984							
15...	1640	40	370	9.00	18.0	--	--
FEB , 1985							
20...	0940	388	360	6.60	1.5	--	--
APR							
25...	1415	226	--	--	21.0	--	--
MAY							
29...	1145	339	--	--	18.5	--	--
JUL							
29...	1515	104	--	--	25.0	--	--
SEP							
17...	1045	37	--	--	15.0	--	--
03180500 - GREENBRIER RIVER AT DURBIN, WV (LAT 38 32 37 LONG 079 50 00)							
OCT , 1984							
17...	1135	56	157	6.70	15.0	--	--
APR , 1985							
03...	1635	419	--	--	6.5	--	--
MAY							
31...	1245	152	--	--	16.0	--	--
JUL							
25...	1040	20	--	--	20.0	--	--
SEP							
19...	1120	13	--	--	13.0	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03182500 - GREENBRIER RIVER AT BUCKEYE, WV (LAT 38 11 09 LONG 080 07 51)							
OCT , 1984							
17...	1510	137	157	7.80	21.5	--	--
APR , 1985							
03...	1235	--	--	--	7.0	--	--
12...	1235	1160	--	--	.5	--	--
MAY							
30...	1845	607	--	--	18.5	--	--
JUL							
24...	1945	59	--	--	26.5	--	--
SEP							
18...	1825	37	--	--	19.5	--	--
03183500 - GREENBRIER RIVER AT ALDERSON, WV (LAT 37 43 27 LONG 080 38 30)							
OCT , 1984							
16...	1710	251	168	8.20	18.5	--	--
DEC							
12...	1315	2340	95	6.70	5.0	--	--
JAN , 1985							
29...	1245	590	150	7.40	.0	--	--
APR							
02...	1810	2640	--	--	10.5	--	--
MAY							
30...	1500	1570	--	--	20.0	--	--
JUN							
25...	1330	258	--	--	25.5	--	--
JUL							
26...	1045	159	--	--	23.5	--	--
SEP							
18...	1330	113	--	--	19.0	--	--
03184000 - GREENBRIER RIVER AT HILLDALE, WV (LAT 37 38 24 LONG 080 48 19)							
OCT , 1984							
16...	1450	254	160	8.40	19.0	--	--
MAY , 1985							
30...	1140	1810	--	--	19.0	--	--
JUL							
25...	1945	184	--	--	24.5	--	--
SEP							
18...	1115	128	--	--	18.5	--	--
03184500 - NEW RIVER AT HINTON, WV (LAT 37 40 13 LONG 080 53 45)							
OCT , 1984							
16...	1140	1350	163	7.50	18.0	--	--
APR , 1985							
02...	1200	6940	--	--	11.5	--	--
MAY							
29...	1800	6830	--	--	28.5	--	--
JUL							
30...	1020	1840	--	--	24.5	--	--
SEP							
17...	1930	1460	--	--	22.5	--	--

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03186500 - WILLIAMS RIVER AT DYER, WV (LAT 38 22 44 LONG 080 29 03)							
NOV , 1984							
08...	1015	316	29	6.40	6.0	--	--
JAN , 1985							
24...	1415	143	36	6.20	.0	--	--
FEB							
28...	1425	953	--	--	3.5	--	--
APR							
24...	1615	133	--	--	18.0	--	--
JUN							
19...	1405	160	--	--	17.0	--	--
AUG							
15...	1140	36	--	--	22.0	--	--
03187500 - CRANBERRY RIVER NEAR RICHWOOD, WV (LAT 38 17 43 LONG 080 31 36)							
NOV , 1984							
08...	1300	192	23	6.00	6.0	--	--
JAN , 1985							
10...	1715	155	23	4.90	.5	--	--
APR							
24...	1320	98	--	--	17.5	--	--
JUN							
20...	1115	115	--	--	14.0	--	--
AUG							
15...	1415	20	--	--	23.0	--	--
03189600 - GAULEY RIVER BELOW SUMMERSVILLE, WV (LAT 38 12 54 LONG 080 53 18)							
NOV , 1984							
05...	1025	1660	64	6.80	16.0	--	--
FEB , 1985							
27...	1710	9870	--	--	4.5	--	--
APR							
23...	0900	130	--	--	8.5	--	--
AUG							
16...	1115	74	--	--	17.5	--	--
03192000 - GAULEY RIVER ABOVE BELVA, WV (LAT 38 14 00 LONG 081 10 52)							
NOV , 1984							
07...	1150	4130	70	6.80	13.5	--	--
JAN , 1985							
09...	1525	3470	60	6.60	3.5	--	--
FEB							
27...	1320	20700	--	--	5.5	--	--
APR							
22...	1315	693	--	--	20.0	--	--
JUN							
18...	1840	1620	--	--	19.0	--	--
AUG							
14...	1415	173	--	--	26.5	--	--
03193000 - KANAWHA RIVER AT KANAWHA FALLS, WV (LAT 38 08 17 LONG 081 12 52)							
JAN , 1985							
30...	1540	4510	155	7.50	.0	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03195500 - ELK RIVER AT SUTTON, WV (LAT 38 39 47 LONG 080 42 35)							
DEC , 1984							
03...	1305	1460	75	--	--	--	--
MAY , 1985							
20...	1230	1640	65	7.50	--	--	--
JUL							
02...	1045	399	71	7.30	--	--	--
03197000 - ELK RIVER AT QUEEN SHOALS, WV (LAT 38 28 15 LONG 081 17 03)							
DEC , 1984							
04...	1125	2080	83	--	--	--	--
MAY , 1985							
22...	0930	2030	81	7.20	--	--	--
JUL							
18...	1030	801	--	--	26.0	--	--
03197680 - ELK RIVER AT BLUE CREEK,WV (LAT 38 26 57 LONG 081 27 22)							
MAR , 1985							
31...	1345	7120	--	--	12.0	--	--
MAY							
24...	1035	16600	170	7.20	--	--	--
JUN							
19...	1015	1180	185	7.20	22.0	--	--
03198500 - BIG COAL RIVER AT ASHFORD, WV (LAT 38 10 47 LONG 081 42 42)							
OCT , 1984							
05...	1230	66	550	7.80	15.0	--	--
NOV							
30...	1140	819	210	6.90	6.0	--	--
JAN , 1985							
23...	1350	324	400	7.00	.5	--	--
MAR							
20...	1005	525	--	--	7.5	--	--
MAY							
22...	1330	806	--	--	17.0	--	--
JUL							
10...	1045	85	--	--	25.0	--	--
AUG							
22...	1500	39	--	--	22.5	--	--
23...	0935	37	--	--	20.0	--	--
03200500 - COAL RIVER AT TORNADO, WV (LAT 38 20 20 LONG 081 50 29)							
OCT , 1984							
05...	1600	152	640	8.10	16.5	--	--
NOV							
29...	1300	3150	240	7.10	8.5	--	--
MAR , 1985							
20...	1630	1110	--	--	8.0	--	--
MAY							
21...	1330	1940	--	--	17.5	--	--
JUL							
08...	1305	202	--	--	25.0	--	--
AUG							
23...	1410	90	--	--	23.0	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)
03202400 - GUYANDOTTE RIVER NEAR BAILEYSVILLE, WV (LAT 37 36 14 LONG 081 38 43)							
NOV , 1984							
28...	1320	252	350	7.30	7.0	--	--
JAN , 1985							
09...	1445	512	310	7.30	4.5	--	--
03202750 - CLEAR FORK AT CLEAR FORK, WV (LAT 37 37 23 LONG 081 42 27)							
NOV , 1984							
29...	1045	366	200	--	6.5	--	--
JAN , 1985							
09...	1405	209	240	7.10	4.0	--	--
03202915 - GUYANDOTTE RIVER BELOW R.D. BAILEY DAM (LAT 37 35 53 LONG 081 49 46)							
JAN , 1985							
10...	1030	758	200	7.30	6.5	--	--
03203600 - GUYANDOTTE RIVER AT LOGAN, WV (LAT 37 50 32 LONG 081 58 34)							
NOV , 1984							
30...	1145	2690	--	--	7.5	--	--
JAN , 1985							
11...	1105	1090	260	--	5.5	--	--
03206600 - EAST FORK TWELVEPOLE CREEK NEAR DUNLOW, WV (LAT 38 01 02 LONG 082 17 46)							
OCT , 1984							
15...	1230	1.2	125	7.30	17.0	--	--
DEC							
06...	1005	36	73	6.80	3.0	--	--
03206790 - EAST FORK TWELVEPOLE CREEK BELOW EAST LYNN DAM (LAT 38 08 52 LONG 082 23 00)							
NOV , 1984							
26...	1400	138	67	6.10	--	--	--
JAN , 1985							
17...	1310	47	60	6.70	1.0	--	--
03213500 - PANTHER CREEK NEAR PANTHER, WV (LAT 37 26 42 LONG 081 52 15)							
NOV , 1984							
27...	1515	4.9	150	7.50	6.0	--	--
JAN , 1985							
08...	1425	41	80	7.70	5.5	--	--
03213700 - TUG FORK AT WILLIAMSON, WV (LAT 37 40 23 LONG 082 16 49)							
OCT , 1984							
16...	1615	99	830	8.10	21.0	--	--
DEC							
04...	1620	403	400	7.10	6.0	--	--
JAN , 1985							
15...	1700	708	390	7.90	1.0	--	--

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.

Crest-stage partial record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1985

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Monongahela River basin					
03057500	Skin Creek near Brownsville, WV	Lat 38°58'30", long 80°26'40", Lewis County, Hydrologic Unit 05020002, 2.6 miles southeast of Brownsville, 4.7 miles southeast of Weston and at mile 3.0.	25.7	1946-60*, 1961-85a	3-12-85	4.46	672
03203000	Guyandotte River at Man, WV	Lat 37°44'25", long 81°52'37", Logan County, Hydrologic Unit 05070101, on right bank at downstream side of highway bridge at Man, 500 feet upstream from Buffalo Creek, and 0.7 mile downstream from Huff Creek, and at mile 93.4.	758	1928-62‡ 1963-85a	5-24-85	10.67	9,010

‡ Not detected.
* Operated as a continuous-record gaging station.
a Gage-height records on file in district office.

Samples are collected at partial-record, special study, and miscellaneous sites to give better areal coverage. The results of these samples are given herein.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

374618080212401 - HOWARD CREEK AT HARTS RUN, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY FIELD (MG/L AS CACO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV												
20...	1530	258	93	6.60	6.5	720	11.4	4900	820	20	<.010	.29
MAR												
18...	1030	75	162	7.30	6.0	721	12.7	K7	K6	--	<.010	.17

374642080193401 - HOWARD CR @ RT 60 BR NR WHITE SULPHUR SPRINGS, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY FIELD (MG/L AS CACO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV												
20...	1630	245	90	6.80	6.0	720	11.2	120	220	19	<.010	.27
MAR												
18...	1345	66	151	7.10	6.0	720	--	K26	K11	--	<.010	.26

374743080180701 - HOWARD CR BL DRY CR AT WHITE SULPHUR SPRINGS, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV											
20...	1400	233	67	6.70	7.0	718	10.6	K4000	92	7.0	1.9
MAR											
19...	0745	49	150	7.20	5.5	718	--	89	K31	18	3.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV											
20...	1.8	16	13	1.9	41	<.010	.17	180	23	<10	10
MAR											
19...	2.3	56	24	5.0	82	--	.19	90	12	<10	3

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

380700082355401 - TUG FORK AT FORT GAY, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, NON-VOLA-TILE, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)
DEC												
07...	1030	E 860	400	7.70	2.0	15	13.5	88	235	27	--	6
JAN												
18...	1045	E1250	400	7.90	1.0	20	--	94	248	13	--	3
MAR												
01...	1210	E2990	320	7.50	8.0	15	--	84	193	45	--	4
APR												
04...	1010	E2310	340	8.00	11.0	1.5	--	79	189	22	--	4
MAY												
16...	1430	E 490	660	8.20	22.5	60	7.8	140	370	117	96	21
JUN												
21...	1140	E 670	550	7.90	21.5	15	8.0	120	305	32	26	6
AUG												
15...	1745	E 350	600	8.20	28.5	1.5	7.2	140	359	11	5	6

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC											
07...	1500	1400	10	110	60	50	1.5	1.4	25	58	88
JAN											
18...	950	910	40	190	20	170	2.4	2.0	15	51	60
MAR											
01...	2000	2000	30	120	100	20	1.9	2.7	60	484	80
APR											
04...	1200	1200	20	70	--	<10	1.8	2.5	54	337	26
MAY											
16...	3700	1500	2200	110	20	90	2.1	2.5	139	184	97
JUN											
21...	1200	1200	10	40	30	10	2.9	1.9	31	56	83
AUG											
15...	330	330	<10	40	--	<10	4.2	2.8	2	1.9	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

383051081512501 - BIG SANDY CREEK NEAR CLENDENIN, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
FEB								
28...	1355	140	114	--	7.0	10	5	1.9
MAR								
05...	1220	94	130	--	10.0	6.5	3	.76
08...	1350	125	210	--	9.0	39	58	20
11...	1055	267	125	--	7.0	20	22	16
12...	1500	2630	125	--	9.0	180	874	6210
29...	1550	510	125	7.20	14.0	200	705	971
30...	1430	1400	90	--	12.0	85	235	888
31...	1120	652	95	--	11.5	40	77	136
APR								
01...	1420	725	96	--	10.5	60	98	192
05...	1225	157	114	--	14.5	15	14	5.9
16...	1250	370	105	--	--	55	94	94
30...	1000	54	128	7.40	17.0	1.8	15	2.2
MAY								
02...	1145	49	156	--	17.5	20	31	4.1
03...	1110	1380	85	--	14.5	180	710	2650
16...	1315	368	128	--	20.5	95	224	223
17...	1325	178	119	--	17.0	55	86	41
21...	1015	108	93	7.50	--	13	29	8.5
23...	1300	1410	85	--	16.5	130	802	3050
24...	1045	2460	68	--	14.0	80	274	1820
JUN								
04...	1300	52	131	--	22.5	80	136	19
10...	1010	106	136	--	22.0	120	274	78
17...	1050	44	116	7.40	20.0	3.5	14	1.7
18...	1510	248	98	--	21.0	80	154	103
JUL								
03...	1410	42	164	--	22.0	26	49	5.6
10...	1300	12	173	--	24.0	14	22	.71
11...	1235	226	130	--	21.5	260	520	317
16...	1015	84	138	7.50	--	180	372	84
16...	1300	105	148	--	23.0	200	251	71
18...	1400	20	145	--	26.0	30	40	2.2
AUG								
01...	1320	18	198	--	23.5	60	52	2.5
13...	1100	3.2	245	7.40	--	10	10	.09
16...	1025	8.7	340	--	--	150	201	4.7
20...	1000	5.9	239	--	22.0	90	13	.21
21...	1135	5.2	228	--	22.5	140	58	.81
SEP								
12...	1115	.66	343	7.40	28.0	4.5	10	.02
19...	1400	.10	362	--	19.0	4.4	5	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

382245081233301 - BLUE CREEK NEAR QUICK, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR								
01...	1430	93	147	--	6.0	18	37	9.3
05...	1110	73	160	--	9.5	3.9	3	.59
08...	1450	72	170	--	8.5	7.0	12	2.3
11...	1150	141	111	--	7.0	6.6	11	4.2
29...	1340	96	136	7.10	15.5	10	23	6.0
30...	1655	176	95	--	12.0	7.0	19	9.0
APR								
05...	1015	87	134	--	12.5	2.5	5	1.2
16...	1330	80	121	--	15.0	6.5	18	3.9
16...	1500	78	115	--	--	4.2	9	1.9
29...	1300	30	150	7.50	18.0	.7	3	.24
MAY								
02...	1015	23	171	--	16.5	2.0	8	.50
03...	0945	336	76	--	13.5	55	893	810
16...	0930	77	88	--	16.5	130	306	64
23...	1100	594	72	--	15.5	65	748	1200
23...	1400	588	60	--	--	23	170	270
24...	1435	664	65	--	14.5	45	569	1020
JUN								
04...	1100	31	178	--	19.5	3.5	12	1.0
10...	1430	44	160	--	23.0	80	186	22
18...	1110	31	136	--	20.0	2.5	1810	151
19...	1200	23	128	7.40	21.0	2.0	1	.06
28...	1000	15	195	--	19.0	.9	3	.12
JUL								
10...	1130	13	185	--	23.0	1.6	1170	41
11...	1355	32	146	--	22.0	18	34	2.9
15...	1430	21	143	--	--	.6	0	.00
16...	0900	32	134	--	22.0	10	28	2.4
18...	0930	18	153	--	21.0	1.5	0	.00
AUG								
01...	0900	9.4	245	--	23.0	1.6	3	.08
12...	1120	2.8	270	7.40	28.0	.7	0	.00
20...	0940	4.3	295	--	21.5	.9	0	.00
21...	0920	5.6	293	--	21.0	.6	0	.00
SEP								
13...	1320	1.6	340	7.30	28.0	2.0	1	.00
19...	1305	.20	392	--	20.0	1.3	3	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

01636477 - EVITTS RUN @ LIBERTY ST BR @ CHARLES TOWN, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	TEMPER-ATURE (DEG C)	PH (STAND-ARD UNITS)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT												
10...	1630	6.4	500	16.0	8.30	757	--	1100	2800	82	9.1	2.8
APR												
22...	1615	6.1	620	12.0	8.30	748	10.0	510	240	80	8.2	2.9
JUL												
22...	1400	.25	460	24.0	8.10	745	8.2	1100	3700	84	8.0	2.8

DATE	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
10...	220	15	7.9	290	<.010	4.5	190	--	23	20	--	11
APR												
22...	238	14	7.7	234	<.010	.11	190	--	9	30	--	13
JUL												
22...	--	17	8.7	266	<.010	<.10	250	240	7	30	10	18

03196750 - BUFFALO CREEK AT CLAY, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
FEB								
26...	1100	282	97	5.50	5.0	3.5	8	6.1
MAR								
04...	1145	115	110	--	10.0	1.6	3	.93
21...	1030	108	113	--	7.0	1.4	0	.00
31...	0850	354	75	--	10.5	3.0	10	9.6
APR								
04...	1015	186	93	--	14.0	1.6	4	2.0
16...	1105	151	90	--	6.0	2.0	14	5.7
30...	1225	64	107	7.40	17.0	1.2	3	.52
MAY								
02...	1350	50	106	--	16.5	1.2	0	.00
03...	1230	1110	57	--	14.0	40	297	890
16...	1100	141	115	--	19.5	15	33	13
17...	1145	103	130	--	17.5	6.2	13	3.6
23...	1130	1580	62	--	--	45	609	2600
JUN								
04...	1400	60	140	--	23.0	6.0	13	2.1
10...	1110	112	135	--	23.0	16	70	21
18...	1400	66	125	--	22.0	2.5	7	1.2
JUL								
03...	1300	22	188	--	22.0	2.3	22	1.3
10...	1415	16	175	--	24.0	2.4	5	.22
16...	1140	32	195	--	24.0	5.2	202	17
17...	1250	24	180	--	--	1.1	0	.00
18...	1150	16	175	--	23.0	.5	5	.22
AUG								
01...	1135	11	195	--	24.0	1.8	8	.24
15...	1100	5.6	250	6.40	27.5	.4	1	.02
21...	1030	6.1	240	--	22.0	1.5	36	.59
SEP								
13...	1100	2.9	296	6.80	29.0	16	0	.00
19...	1500	1.0	309	--	21.0	1.5	1	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

03214000 - TUG FORK NEAR KERMIT, WV

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT											
16...	1250	104	820	8.10	20.0	--	--	--	--	--	--
DEC											
05...	1300	558	380	7.50	5.0	751	12.7	--	--	--	--
JAN											
16...	1400	744	440	7.80	.5	753	14.2	--	--	--	--
FEB											
28...	1600	2770	340	7.50	9.0	--	--	--	--	--	--
APR											
03...	1520	1920	370	8.10	12.0	752	--	--	--	--	--
MAY											
15...	1550	351	725	8.20	25.0	750	8.2	42	19	72	3.3
JUN											
20...	1545	582	540	8.00	22.5	750	7.8	--	--	--	--
AUG											
15...	1230	274	560	8.10	28.0	750	7.5	--	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, NON-VOLA-TILE, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	ARSENIC DIS-SOLVED (UG/L AS AS)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT											
16...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	100	--	234	11	--	8	--	--	--	--
JAN											
16...	--	84	--	229	14	--	2	--	--	--	--
FEB											
28...	--	89	--	228	34	--	<1	--	--	--	--
APR											
03...	--	89	--	201	10	--	<1	--	--	--	--
MAY											
15...	161	170	18	470	8	2	6	<1	10	0	10
JUN											
20...	--	120	--	309	52	42	10	--	--	--	--
AUG											
15...	--	130	--	335	10	4	6	--	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
OCT											
16...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	1000	1000	10	--	--	--	200	20
JAN											
16...	--	--	--	820	810	10	--	--	--	100	30
FEB											
28...	--	--	--	1900	1900	20	--	--	--	110	70
APR											
03...	--	--	--	920	880	40	--	--	--	70	20
MAY											
15...	8	4	4	420	400	23	6	3	3	--	--
JUN											
20...	--	--	--	2000	2000	<10	--	--	--	70	60
AUG											
15...	--	--	--	360	350	10	--	--	--	50	30

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

03214000 - TUG FORK NEAR KERMIT, WV--Continued

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 05...	180	--	--	--	--	--	1.8	1.7	12	18	75
JAN 16...	70	--	--	--	--	--	1.7	1.7	13	26	62
FEB 28...	40	--	--	--	--	--	1.9	2.2	89	666	49
APR 03...	50	--	--	--	--	--	1.9	2.0	25	130	48
MAY 15...	--	<.10	<.1	10	0	8	2.0	2.5	9	8.5	47
JUN 20...	10	--	--	--	--	--	4.0	2.2	60	94	83
AUG 15...	20	--	--	--	--	--	4.6	2.0	0	.00	--

03214900 - TUG FORK AT GLENHAYES, WV

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
DEC 06...	1400	809	400	7.80	4.0	15	747	12.2
MAR 01...	1035	2890	320	7.50	8.0	15	--	--
APR 02...	1340	2760	330	7.80	13.0	1.1	750	10.1
MAY 16...	1145	475	675	8.20	23.0	4.1	750	7.8
JUN 21...	1000	650	540	8.00	21.5	23	750	8.0
AUG 15...	1615	339	590	8.10	29.5	3.0	750	7.2

DATE	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, NONVOLATILE, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
DEC 06...	90	237	29	--	1	--	1500	1500	10
MAR 01...	85	195	48	--	<1	--	2000	2000	20
APR 02...	78	183	34	--	2	--	1500	1500	10
MAY 16...	150	439	48	39	9	--	1900	1900	<10
JUN 21...	120	312	48	40	8	10	1600	1600	10
AUG 15...	130	346	11	6	5	--	310	300	10

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 06...	140	60	80	1.7	1.7	30	66	83
MAR 01...	90	80	10	1.8	2.7	154	1200	42
APR 02...	60	30	30	1.8	2.1	43	320	76
MAY 16...	70	--	<10	1.9	1.9	49	63	81
JUN 21...	70	--	<10	1.5	2.0	68	119	58
AUG 15...	30	--	<10	4.4	2.4	10	9.2	78

GROUND-WATER-QUALITY RECORDS

REMARKS CODES.--The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

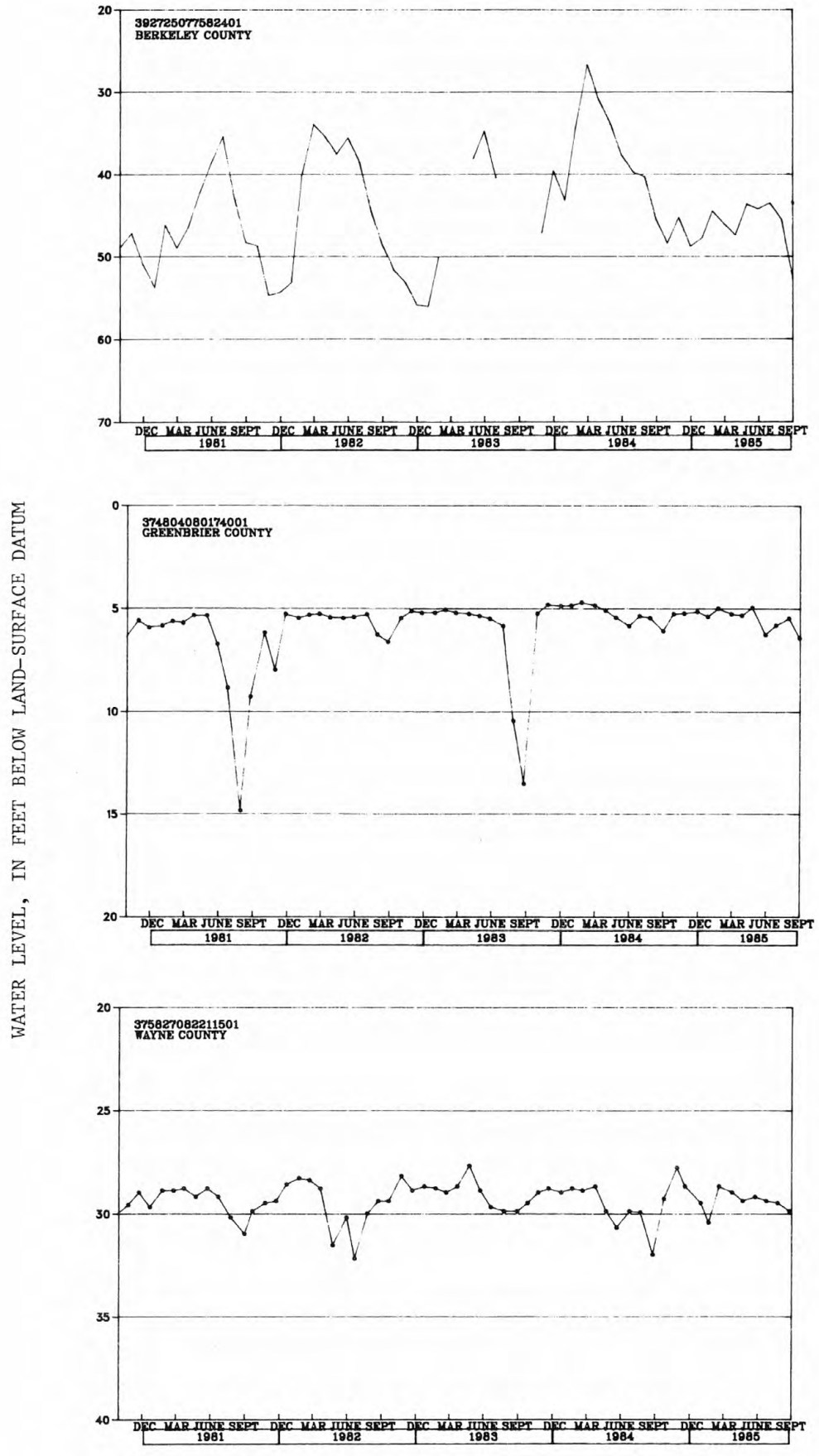


Figure 6.--End of month water levels for selected observation wells, October 1980 to September 1985.

GROUND WATER LEVELS

BERKELEY COUNTY

392725077582401. Local number, 20-5-7.
LOCATION.--Lat 39°37'25", long 77°58'24", Hydrologic Unit 02070004, at John Street and Porter Avenue, Martinsburg.
Owner: Martinsburg Mills, Inc.
AQUIFER.--Beekmantown Group of Lower Ordivician age.
WELL CHARACTERISTICS.--Drilled unused water-table well, djameter 8 in., depth 250 ft, cased with steel to 10 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 445 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter base, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--November 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.00 ft, estimated, below land-surface datum, June 24, 1972; lowest, 68.45 ft below land-surface datum, Dec. 7, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.04	48.58	46.94	47.88	46.76	45.30	45.75	44.92	43.27	43.70	44.85	47.75
10	46.21	49.45	47.39	47.51	47.64	46.17	46.64	45.50	41.57	43.73	44.72	49.34
15	47.39	50.55	48.63	47.61	41.65	46.80	47.46	45.69	42.58	43.23	46.56	50.81
20	48.09	50.84	49.21	47.72	43.21	47.78	47.56	44.74	42.97	44.18	47.72	52.25
25	47.69	52.12	48.71	47.74	44.12	46.76	47.52	43.67	43.46	44.74	47.56	53.51
EOM	48.39	45.26	48.77	47.74	44.47	46.04	47.40	43.63	44.21	43.45	45.50	52.58

WTR YR 1985 HIGH 41.32 JUN 9 LOW 53.76 SEP 26

BRAXTON COUNTY

384003080462601. Local number, 34-2-15.
LOCATION.--Lat 38°40'03", long 80°46'26", Hydrologic Unit 05050007, at Kanawha Street, Gassaway.
Owner: Claude Cunningham.
AQUIFER.--Conemaugh Group of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 100 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 1,100 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.92 ft above land-surface datum.
PERIOD OF RECORD.--August 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.28 ft below land-surface datum, Mar. 7, 1973; lowest measured, 74.88 ft below land-surface datum, Aug. 11, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	73.82	JAN 02, 1985	73.52	APR 03, 1985	73.36	JUL 03, 1985	73.67
10	73.83	09	73.51	10	73.37	10	73.68
17	73.83	16	73.49	17	73.46	17	73.70
24	73.76	23	73.49	24	73.55	24	73.71
31	73.69	30	73.58	MAY 01	73.59	31	73.73
NOV 07	73.66	FEB 06	73.53	08	73.62	AUG 07	73.74
14	73.60	13	73.48	15	73.63	14	73.76
21	73.57	20	73.41	22	73.65	21	73.77
28	73.57	27	73.39	29	73.58	28	73.78
DEC 05	73.57	MAR 06	73.37	JUN 05	73.61	SEP 04	73.80
12	73.56	13	73.35	12	73.63	11	73.82
19	73.55	20	73.35	19	73.64	18	73.84
26	73.54	27	73.35	26	73.65	25	73.85

BROOKE COUNTY

401216080362703. Project number P-1.
LOCATION.--Lat 40°12'16", long 80°36'27", Hydrologic Unit 05030106, about 2.5 mi west of Bethany on hilltop about 1700 ft west of Buffalo Creek.
Owner: C. E. Reeves.
AQUIFER.--Waynesburg coal in the Monongahela Group of Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 50.5 ft, cased with steel to 46.5 ft.
INSTRUMENTATION.--Continuous strip-chart water-level recorder.
DATUM.--Elevation of land-surface datum is about 1,150 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.20 ft above land-surface datum.
REMARKS.--Aquifer test data available. Water-quality sample taken on Nov. 9, 1984 (water level 38.51 ft below land-surface datum), and on Apr. 1, 1985 (water level 35.63 ft below land-surface datum). No water-level record Oct. 8 to Nov. 8, Dec. 15-18, Jan. 21 to Feb. 11, Feb. 13 to Mar. 31, due to recorder malfunction.
PERIOD OF RECORD.--July 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.87 ft below land-surface datum, Apr. 3, 1985; lowest, 41.93 ft below land-surface datum, Sept. 29, 1985 (42.83 ft on Sept. 22, 1982, result of recharge test).

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.31	---	36.27	36.05	---		35.00	36.23	36.12	40.08	40.99	41.51
10	---	36.79	36.49	37.00	---		35.55	37.23	37.03	40.23	41.08	41.59
15	---	35.53	---	37.80	---		35.59	38.58	37.96	40.35	41.20	41.77
20	---	35.97	35.80	38.44	---		36.68	39.13	38.89	40.56	41.30	41.76
25	---	36.31	35.57	---	---		37.70	39.55	39.47	40.74	41.30	41.82
EOM	---	36.51	35.89	---	---		38.72	39.28	39.84	40.87	41.42	41.92

WTR YR 1985 HIGH 34.87 APR 3 LOW 41.93 SEP 29

BROOKE COUNTY

401216080362703.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV									
09...	1010	38.15	630	630	7.50	10.0	340	80	33
APR									
01...	1230	35.63	675	644	7.40	9.0	330	79	32

DATE	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV									
09...	8.4	400	0	331	--	20	2.5	.10	376
APR									
01...	8.3	480	0	393	210	21	2.3	.10	367

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
NOV								
09...	<.10	.80	<.010	1300	440	110	57	--
APR								
01...	<.10	.30	<.010	930	500	50	46	1.9

GILMER COUNTY

385604080495901. Local number, 33-3-1.
LOCATION.--Lat 38°56'04", long 80°49'59", Hydrologic Unit 05030203, at Glenville State College Campus, Glenville. Owner: Glenville State College.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 3 ft, depth 25 ft, cased with concrete tile.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 820 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of concrete cover at land-surface datum.
REMARKS.--West Virginia index well. Water-quality sample taken on Oct. 26, 1984 (water level 17.15 ft below land-surface datum), and on Apr. 4, 1985 (water level 15.00 ft below land-surface datum).
PERIOD OF RECORD.--October 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.58 ft below land-surface datum, Jan. 26, 1958; lowest measured, 18.75 ft below land-surface datum, Nov. 30, 1953.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1984	17.41	JAN 07, 1985	15.42	APR 04, 1985	15.00	JUL 01, 1985	16.79
08	17.34	14	15.51	08	16.52	08	16.81
15	17.41	24	16.06	15	16.28	15	16.81
22	17.43	28	16.25	22	16.10	22	16.79
26	17.15	FEB 04	15.55	29	16.27	29	16.60
29	17.70	11	15.40	MAY 06	15.65	AUG 05	16.65
NOV 05	16.78	18	15.18	13	16.08	12	16.77
12	16.49	25	15.08	20	15.77	19	16.90
19	16.01	MAR 04	15.55	27	15.64	26	17.11
26	15.67	11	15.29	JUN 03	15.80	SEP 03	17.29
DEC 03	15.61	18	15.47	10	16.26	09	17.36
10	15.49	25	15.80	17	16.26	16	17.55
17	15.50	APR 01	14.78	24	16.48	23	17.70

385604080495901.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT								
26...	0930	17.15	510	459	8.00	11.5	160	40
APR								
04...	1030	15.00	500	544	7.20	15.0	190	48

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT									
26...	15	24	--	--	--	49	66	.10	265
APR									
04...	18	26	94	0	77	76	78	.10	301

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT								
26...	.92	.30	.020	750	190	30	14	--
APR								
04...	.20	.50	<.010	320	23	10	4	2.3

GRANT COUNTY

391652079181401.

LOCATION.--Lat 39°16'52", long 79°18'14", Hydrologic Unit 02070002, about 200 ft north of U.S. Route 50, about 3.5 mi west of Mount Storm.

Owner: Buffalo Coal Company.

AQUIFER.--Thin bed of coal in the Conemaugh Group of Upper Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 24 ft, cased with plastic to 23 ft.

INSTRUMENTATION.--Digital water-level recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is about 2,890 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter base, 1.50 ft above land-surface datum.

REMARKS.--Well is near reclaimed surface mine. Water-quality sample taken on Oct. 22, 1984 (water level 16.10 ft below land-surface datum), and on Apr. 11, 1985 (water level 11.48 ft below land-surface datum).

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.33 ft below land-surface datum, Mar. 11-15, 1979; lowest, 21.24 ft below land-surface datum, Nov. 28, 29, 1982.

WATER LEVEL, IN FEET BELFOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.82	14.74	12.84	10.90	14.26	11.67	10.84	12.59	13.29	13.93	13.82	15.35
10	15.99	14.39	12.18	11.75	14.52	11.51	11.42	12.34	12.20	14.19	13.74	15.50
15	15.87	14.29	12.39	11.99	14.26	11.13	11.58	12.63	11.98	13.10	14.08	15.97
20	16.05	14.31	11.93	12.44	14.37	11.25	11.78	13.29	12.15	12.94	14.43	16.00
25	16.21	14.19	11.40	12.97	13.81	11.62	11.85	13.69	12.88	13.39	14.72	15.99
EOM	15.79	13.61	11.04	13.84	12.89	11.33	12.57	14.09	13.48	13.78	15.03	16.37

WTR YR 1985 HIGH 10.73 APR 6 LOW 16.40 SEP 29

GRANT COUNTY

391652079181401.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
22...	1100	16.10	140	132	6.10	--	64	16
APR								
11...	1535	11.48	222	218	7.50	8.5	110	32

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
22...	5.8	.80	68	0	56	9.7	1.5	.10	96
APR									
11...	7.5	.60	170	0	138	6.7	2.4	.30	108

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
22...	<.10	.80	<.010	130000	470	2100	1100	--
APR								
11...	<.10	.20	<.010	450000	13	5800	530	1.6

GREENBRIER COUNTY

374804080174001. Local number, 45-8-2.
LOCATION.--Lat 37°48'04", long 80°17'40", Hydrologic Unit 05050003, at Fish Culture Station, U.S. Fish and Wildlife Service Hatchery, White Sulphur Springs.
Owner: U.S. Government.
AQUIFER.--Marcellus Formation and Harrell Shale of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 61 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 1,875 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--November 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.80 ft below land-surface datum, Mar. 16, 1955; lowest measured, 14.82 ft below land-surface datum, Aug. 29, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1984	5.48	JAN 05, 1985	4.80	APR 06, 1985	5.33	JUL 06, 1985	6.25
13	5.77	12	5.28	13	5.38	13	6.15
20	5.85	19	5.35	20	5.27	20	6.45
27	5.25	26	5.38	27	5.32	27	5.79
NOV 03	5.34	FEB 02	4.37	MAY 04	5.40	AUG 03	5.49
10	5.30	09	5.05	11	5.50	10	5.61
17	5.30	16	5.25	18	5.54	17	5.93
24	5.22	23	4.98	25	4.94	24	5.41
DEC 01	5.10	MAR 02	5.20	JUN 01	5.47	31	5.46
08	5.32	09	5.28	08	5.48	SEP 07	5.77
15	5.18	16	5.28	15	5.62	14	6.67
22	4.97	23	4.96	22	6.04	21	6.25
29	5.14	30	5.25	29	6.25	28	6.40

GREENBRIER COUNTY (continued)

375747080465901. Project number, M005.
LOCATION.--Lat 37°57'47", long 80°46'59", Hydrologic Unit 05050005, 0.40 mi southwest on Rt. 20 from the junction of U.S. Route 60 and State Route 20 in Rainelle.
Owner: Chesapeake and Ohio Railroad.
AQUIFER.--Bluestone and Princeton Formations of Upper Mississippian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10.5 in., depth 119 ft, cased with galvanized iron to 59.5 ft.
INSTRUMENTATION.--January 1980 to October 1982, periodic measurement with chalked tape by USGS personnel; October 1982 to current year, digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 2,380 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.50 ft below land-surface datum.
REMARKS.--No water-level record Apr. 9-22 due to bad timer.
PERIOD OF RECORD.--January 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water-level, 19.08 ft below land-surface datum, Dec. 14, 1983; lowest, 29.91 ft below land-surface datum, Apr. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.45	22.92	21.35	20.85	21.84	21.68	22.12	22.62	23.18	23.52	23.38	24.43
10	23.61	22.36	21.57	21.14	22.31	21.84	---	23.23	22.65	24.93	23.62	24.31
15	23.48	22.11	23.09	21.70	22.40	22.63	---	23.10	22.60	24.75	23.80	24.45
20	23.65	21.85	22.88	22.41	22.62	22.32	---	22.71	22.67	24.21	23.76	24.73
25	23.78	21.53	21.84	23.18	21.80	21.94	22.84	21.31	22.91	24.13	23.82	24.73
EOM	23.64	21.38	21.26	23.12	21.21	22.01	22.88	20.96	23.55	23.58	23.96	24.65

WTR YR 1985 HIGH 20.69 JAN 7 LOW 24.93 JUL 10

HAMPSHIRE COUNTY

391257078404601. Local number, 23-6-46.
LOCATION.--Lat 39°12'57", long 78°40'46", Hydrologic Unit 02070003, about 4 mi south of Augusta on State Route 7.
Owner: Loring Hott.
AQUIFER.--Hampshire Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 24 ft, casted with tile.
INSTRUMENTATION.--Continuous strip-chart water-level recorder.
DATUM.--Elevation of land-surface datum is about 1,400 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
REMARKS.--Plastic liner inserted in well Mar. 9, 1982, to eliminate float hanging. No water-level record Nov. 29 to Dec. 12, Dec. 29 to Jan. 22, Feb. 3-19, Feb. 21 to Apr. 9, Apr. 11 to June 18, due to recorder malfunction. Water-quality sample taken on Oct. 18, 1984 (water level 13.32 ft below land-surface datum), and on Apr. 10, 1985 (water level 9.70 ft below land-surface datum).
PERIOD OF RECORD.--February 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.30 ft below land-surface datum, Sept. 25, 1975; lowest, 16.69 ft, estimated, below land-surface datum, July 15, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.05	11.83	---	---	---		---		---	12.77	13.17	13.40
10	13.15	12.06	---	---	---		9.70		---	12.35	13.15	13.58
15	13.14	12.36	13.47	---	---		---		---	12.58	13.40	13.92
20	13.20	11.85	14.33	---	2.30		---		11.90	12.75	13.45	14.14
25	12.89	11.85	12.81	10.72	---		---		12.27	13.06	13.37	14.43
EOM	11.13	---	---	11.25	---		---		12.64	13.02	13.15	14.51

WTR YR 1985 HIGH 2.30 FEB 20 LOW 14.51 SEP 29 AND OTHERS

HAMPSHIRE COUNTY

391257078404601.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT									
18...	1330	13.32	143	164	6.60	--	66	19	4.4
APR									
10...	1500	9.70	75	74	6.90	10.0	23	6.1	2.0

DATE	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
18...	3.3	62	0	51	--	15	4.5	<.10	104
APR									
10...	3.1	--	--	--	14	13	2.4	<.10	56

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
18...	1.4	.50	.030	5800	16	250	39	--
APR								
10...	.56	1.2	.010	7700	22	250	29	3.3

HARDY COUNTY

385714078441301. Local number, 25-4-5.
LOCATION.--Lat 38°57'14", long 78°44'13", Hydrologic Unit 02070003, about 3 mi east of Lost River near entrance to Trout Pond Recreation Area.
Owner: U.S. Forest Service.
AQUIFER.--Helderberg Group of Early Devonian age and Tonoloway Formation of Late Silurian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 460 ft, cased with steel to 190 ft.
INSTRUMENTATION.--Continuous strip-chart water-level recorder prior to November 1976, then periodic measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is about 1,920 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well casing, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--March 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 263.00 ft, estimated, below land-surface datum, July 15, 1972; lowest, 274.35 ft below land-surface datum, Sept. 12, 1983.

NOTE.--Water-level measurement Oct. 12, 1984, 272.90 ft below land-surface datum. Water-level measurement Apr. 10, 1985, 271.60 ft below land-surface datum.

LEWIS COUNTY

390553080280802. Local number, 16-1-9.
LOCATION.--Lat 39°05'53", long 80°28'08", Hydrologic Unit 05020002, at Jackson's Mill State 4-H Camp, Jackson's Mill.
Owner: West Virginia University.
AQUIFER.--Conemaugh Group and Allegheny Formation of Upper and Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in., depth 122 ft, cased.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer prior to October 1977, then periodic measurement by USGS personnel.
DATUM.--Elevation of land-surface datum is about 1,020 ft above National Geodetic Vertical Datum of 1929. Measuring point: Drilled hole in steel plate covering casing at land-surface datum.
REMARKS.--Water level affected by stage of West Fork River.
PERIOD OF RECORD.--May 1961 to May 1976, October 1977 to current year. No measurements May 1976 to October 1977, observer resigned.
REVISED RECORDS.--WDR WV-85-1: Highest water level.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.00 ft below land-surface datum, Dec. 11, 1972; lowest measured, 24.80 ft below land-surface datum, Oct. 6, 1977.
REVISIONS.--The highest water level reported in previous years as 8.88 ft is in error.

NOTE.--Water-level measurement Oct. 15, 1984, 22.68 ft below land-surface datum. Water-level measurement Apr. 4, 1985, 20.66 ft below land-surface datum.

LEWIS COUNTY (continued)

390008080283401. Project number, SJ4.
LOCATION.--Lat 39°00'08", long 80°28'34", Hydrologic Unit 05020002, about 75 ft northeast of County Route 30 bridge across West Fork River at Brownsville.
Owner: U.S. Geological Survey.
AQUIFER.--Monongahela Formation of the Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 102 ft, cased with galvanized iron to 18 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 1,026 ft above National Geodetic Vertical Datum of 1929. Measuring point: Three hacksaw marks on top of casing at land-surface datum.
REMARKS.--Water-quality sample taken on Oct. 15, 1984 (water level 10.34 ft below land-surface datum), and on Apr. 4, 1985 (water level 9.54 ft below land-surface datum).
PERIOD OF RECORD.--March 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.30 ft below land-surface datum, Aug. 31, 1984; lowest, 12.64 ft below land-surface datum, Oct. 7, 8, 10, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.21	8.87	9.83	9.30	9.39	9.79	9.91	9.04	10.52	10.55	10.35	10.50
10	10.24	9.27	9.56	9.70	9.78	8.87	10.43	10.53	10.41	9.48	10.40	10.56
15	10.32	9.85	9.71	9.88	9.34	8.62	10.53	10.72	10.19	10.38	9.89	10.67
20	10.11	6.91	7.76	10.03	8.49	9.91	10.32	9.37	10.43	10.47	10.54	10.72
25	8.78	9.92	7.05	9.99	8.91	8.08	10.56	8.38	10.45	10.47	10.49	10.75
EOM	9.34	8.57	9.64	9.57	9.60	6.24	10.54	9.82	10.53	10.46	10.48	11.59

WTR YR 1985 HIGH 3.70 MAR 12 LOW 11.59 SEP 30

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
15...	1345	10.34	265	226	4.50	16.0	66	16
APR								
04...	1315	9.54	290	279	5.70	10.5	90	23

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
15...	6.4	8.2	0	0	0	74	8.3	.10	148
APR									
04...	7.8	12	27	0	22	93	5.2	.20	169

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
15...	1.4	.30	<.010	6500	380	660	640	--
APR								
04...	.67	.40	<.010	1400	50	810	710	1.4

MARION COUNTY

393101080150501.
LOCATION.--Lat 39°31'01", long 80°15'05", Hydrologic Unit 05020003, about 1,250 ft north of State Route 91 and 100 ft west of State Route 15 in Farmington.
Owner: State of West Virginia.
AQUIFER.--Open to a mine in Pittsburgh coal, Member of Monongahela Group of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 266 ft, cased with steel to 252 ft.
INSTRUMENTATION.--Daily water-level measurements by observer.
DATUM.--Elevation of land-surface datum is about 970 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel plate at land-surface datum.
REMARKS.--Well formerly used by U.S. Bureau of Mines to back fill abandoned mine with shale slurry. Water level affected by mine pumpage. No water-level record Nov. 5, Dec. 25, Jan. 20, July 10. Some unpublished daily values also missing.
PERIOD OF RECORD.--April 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 163.84 ft below land-surface datum, Sept. 27, 1985; lowest measured, 219.47 ft below land-surface datum, May 12, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	167.81	---	167.95	167.98	167.79	168.01	167.15	166.77	166.17	165.20	164.66	164.09
10	167.81	167.62	167.94	167.97	168.09	167.93	167.58	166.87	165.97	---	164.44	163.99
15	167.52	167.78	168.09	168.17	167.98	167.97	167.01	166.79	165.92	164.88	164.39	164.12
20	167.78	168.18	168.00	---	168.19	167.71	167.12	166.59	165.65	164.89	164.32	163.94
25	167.96	168.02	---	168.09	168.19	167.94	167.05	166.43	165.61	164.85	164.24	163.93
EOM	167.96	167.67	167.88	167.94	168.15	167.32	167.04	166.28	165.45	164.61	164.19	163.96

WTR YR 1985 HIGH 163.84 SEP 27 LOW 168.37 MAR 6

393057080161901.
LOCATION.--Lat 39°30'57", long 80°16'19", Hydrologic Unit 05020003, on State Route 250/9, 1.20 mi west of Farmington.
Owner: Richard White.
AQUIFER.--Dunkard Group of Pennsylvanian and Permian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 74 ft, cased with steel to 6 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 1,140 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, flush with instrument shelf 0.30 ft above land-surface datum.
REMARKS.--No water-level record Oct. 1, 2, May 31 to July 15, due to recorder malfunction.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.70 ft below land-surface datum, Apr. 23, 1984; lowest, 56.32 ft below land-surface datum, Oct. 18-20, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.77	41.92	42.71	41.60	38.78	41.84	39.06	47.36		---	53.14	53.71
10	50.83	38.73	42.78	42.22	40.32	42.75	41.54	47.74		---	53.26	53.86
15	51.08	42.25	41.42	43.63	38.65	38.62	42.60	48.72		---	53.28	54.07
20	51.23	46.11	39.98	44.69	39.25	41.70	44.36	49.19		51.95	53.26	54.28
25	42.02	43.94	38.66	44.90	38.64	42.23	46.23	49.73		52.41	53.39	54.46
EOM	38.77	38.69	41.46	44.56	39.03	38.64	47.65	---		52.91	53.63	54.58

WTR YR 1985 HIGH 38.62 MAR 12 AND OTHERS LOW 54.58 SEP 30

MASON COUNTY

385451082062001. Local number, 38-3-54.
LOCATION.--Lat°38 54'51", long 82°06'20", Hydrologic Unit 05030202, about 0.50 mi east of intersection of State Route 62 and Secondary State Route 13.
Owner: West Virginia University, Ohio Valley Agricultural Experiment Station.
AQUIFER.--Conemaugh Group of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 131 ft, cased with steel to 60 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--Water-quality sample taken on Oct. 29, 1984 (water level 25.14 ft below land-surface datum), and on Apr. 3, 1985 (water level 24.52 ft below land-surface datum). Water levels outside extreme low Apr. 4-6 are due to pumping.
PERIOD OF RECORD.--November 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.26 ft below land-surface datum, Aug. 22-25, 1980; lowest, 26.20 ft below land-surface datum, Jan. 1, 1966, (33.27 ft below land-surface datum, Oct. 29, 1984, due to pumping).

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.14	25.26	25.30	25.13	25.08	24.91	27.04	24.45	24.52	24.53	24.92	25.10
10	25.18	25.18	25.25	25.14	25.11	24.90	25.11	24.45	24.52	24.73	24.95	25.14
15	25.19	25.23	25.29	25.12	25.00	24.79	24.76	24.45	24.53	24.74	24.99	25.20
20	25.22	25.22	25.28	25.08	25.05	24.75	24.65	24.46	24.53	24.80	24.99	25.21
25	25.21	25.26	25.24	25.07	25.01	24.68	24.59	24.48	24.53	24.83	24.99	25.21
EOM	25.55	25.23	25.19	25.08	24.98	24.59	24.59	24.51	24.53	24.88	25.03	25.24

WTR YR 1985 HIGH 24.43 MAY 17 AND OTHERS LOW 30.16 APR 4

MASON COUNTY

385451082062001.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 29...	1305	28.54	465	455	--	15.5	33	10	2.0
APR 03...	1400	24.52	445	481	8.00	--	39	12	2.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 29...	96	--	--	--	--	12	28	.90	277
APR 03...	94	280	0	232	199	12	29	.80	278

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT 29...	<.10	.30	<.010	3000	18	120	110	--
APR 03...	<.10	.30	<.010	1600	90	70	59	2.2

MERCER COUNTY

372149081055001. Local number, 48-5-1.
LOCATION.--Lat 37°21'49", long 81°05'50", Hydrologic Unit 05050002, at Princeton Water Service, Company No. 1 well, Princeton.
Owner: West Virginia Service Company.
AQUIFER.--Hinton Formation of Upper Mississippian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 249 ft, cased.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 2,387 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing extension, 5.50 ft above land-surface datum. Prior to September 1975 measuring point was top of casing at land-surface datum.
REMARKS.--Water level affected by nearby pumping. Well flows at times. Water-quality sample taken on Oct. 31, 1984 (water level 1.80 ft below land-surface datum), and on Apr. 16, 1985 (water level flowing at land-surface datum).
PERIOD OF RECORD.--March 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing at land-surface datum, many days since 1968; lowest measured, 90.58 ft below land-surface datum, Dec. 10, 1969.
REVISED RECORDS.--WDR WV-79-1: 1977-78 (water levels).

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	1.39	JAN 09, 1985	F	APR 16, 1985	F	JUL 17, 1985	0.84
10	1.56	16	F	17	F	24	1.09
17	1.62	23	F	24	F	31	0.57
24	1.80	30	F	MAY 01	F	AUG 07	F
31	1.87	FEB 06	F	08	F	14	0.63
NOV 07	1.76	13	F	15	F	21	F
14	1.64	20	F	22	F	28	F
21	1.58	27	F	29	F	SEP 04	F
28	0.88	MAR 06	F	JUN 05	F	11	0.77
DEC 05	0.97	13	F	12	F	18	1.17
12	0.88	20	F	19	F	25	1.32
19	0.53	27	F	26	0.52		
26	F	APR 03	F	JUL 03	0.74		
JAN 02, 1985	F	10	F	10	0.86		

F - flowing.

MERCER COUNTY

372149081055001.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
31...	1025	1.80	580	536	9.20	12.0	37	12	1.6
APR									
16...	0835	0.00	570	599	9.00	13.0	53	17	2.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT									
31...	110	270	36	248	--	27	18	.20	303
APR									
16...	120	270	38	283	218	25	45	.20	338

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT								
31...	<.10	.50	.050	11000	35	650	97	--
APR								
16...	<.10	.60	.050	15000	3	1300	120	2.3

MINERAL COUNTY

392114079081101. Local number, 22-5-23.
LOCATION.--Lat 39°21'14", long 79°08'11", Hydrologic Unit 02070002, 2.20 mi north of U.S. Route 50 on State Route 42 at Sulphur City near Elk Garden.
Owner: Gerald Whisner.
AQUIFER.--Conemaugh Group of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 37 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer 1968 to 1976, periodic measurement with chalked tape by USGS personnel 1977 to current year.
DATUM.--Elevation of land-surface datum is about 2,480 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.70 ft above land-surface datum.
REMARKS.--Well flows at times. Water level affected by nearby pumpage at times. Well depth 6 ft, Oct. 24, 1980. Water-quality sample taken on Apr. 11, 1985 (water level flowing at land-surface datum).
PERIOD OF RECORD.--August 1968 to October 1976, May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.69 ft above land-surface datum, many days since 1968; lowest measured, 10.81 ft below land-surface datum, Oct. 29, 1968.

NOTE.--Water-level measurement Oct. 22, 1984, 4.80 ft below land-surface datum. Apr. 11, 1985 well flowing.

MINERAL COUNTY

392114079081101.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 11...	1315	-0.70	385	387	7.20	10.0	200	68

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 11...	7.4	.70	270	0	217	17	3.6	.20	205

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
APR 11...	<.10	.30	.010	33000	3000	240	180	1.3

MINGO COUNTY

373554081493401.
LOCATION.--Lat 37°35'54", long 81°49'34", Hydrologic Unit 05070101, downstream of toe of R. D. Bailey Dam northeast of Justice.
Owner: U.S. Army Corps of Engineers.
AQUIFER.--New River Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in., depth 66 ft, cased with steel.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 920 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter base, flush with top of casing, 1.00 ft above land-surface datum.
REMARKS.--No water-level record June 13, Aug. 2-26, due to recorder malfunction.
PERIOD OF RECORD.--March 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.39 ft below land-surface datum, May 12, 1984; lowest, 44.29 ft below land-surface datum, Oct. 6, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.10	35.24	35.09	32.02	30.67	33.35	35.03	33.69	34.37	34.89	---	35.15
10	35.15	35.01	34.62	33.97	33.29	32.60	33.93	34.55	34.45	35.18	---	35.08
15	35.15	34.93	34.80	34.30	33.12	32.98	33.94	34.79	34.58	35.05	---	35.05
20	35.17	32.39	34.09	34.68	32.46	34.13	33.81	33.41	34.67	35.19	---	34.93
25	34.92	35.68	33.24	34.61	30.32	32.58	34.51	30.50	35.01	35.29	---	35.05
EOM	35.06	33.68	34.10	33.85	32.24	33.43	34.58	33.58	35.22	35.18	35.17	35.11

WTR YR 1985 HIGH 30.11 FEB 26 LOW 35.68 NOV 25

MONONGALIA COUNTY

394006080194801. Local number, 9-1-47.
LOCATION.--Lat 39°40'06", long 80°19'48", Hydrologic Unit 05020005, 1 mi east of Wadestown on State Route 7.
Owner: Howard Shriver.
AQUIFER.--Dunkard Group of Pennsylvanian and Permian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 65 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 1,060 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Water-quality sample taken on Apr. 18, 1985 (water level 5.88 ft below land-surface datum).
PERIOD OF RECORD.--July 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.40 ft below land-surface datum, Dec. 18, 1984; lowest measured, 11.35 ft below land-surface datum, Aug. 6, 1971.

MONONGALIA COUNTY (continued)

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1984	7.62	JAN 08, 1985	5.01	APR 16, 1985	5.68	JUL 16, 1985	6.96
09	7.59	15	5.00	18	5.88	23	7.19
16	7.60	22	5.02	23	5.70	30	7.46
23	7.15	29	4.88	30	5.42	AUG 06	7.50
30	7.30	FEB 05	4.80	MAY 07	5.66	13	7.53
NOV 06	7.15	12	4.60	14	6.18	20	7.70
13	7.22	19	4.57	21	6.34	27	8.10
20	7.17	26	4.90	28	6.17	SEP 03	8.12
27	5.19	MAR 05	5.06	JUN 04	6.19	10	8.15
DEC 04	4.70	12	5.17	11	6.20	17	8.25
11	4.55	19	5.46	18	6.29	24	8.55
18	4.40	26	5.02	24	6.50		
27	5.19	APR 02	5.26	JUL 02	6.53		
JAN 01, 1985	4.95	09	5.48	09	6.90		

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 18...	0900	5.88	900	1230	8.30	12.0	48	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 18...	3.1	280	700	0	570	1.5	98	1.4	677

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
APR 18...	<.10	.80	.020	9100	5	150	89	2.5

392923079571801. Local number, 9-7-33.
LOCATION.--Lat 39°29'23", long 79°57'18", Hydrologic Unit 05020003, 1 mi northwest of Halleck on Secondary State Route 79.
Owner: Paul H. Price.
AQUIFER.--Buffalo Mahoning sandstone member of Conemaugh Group of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 141 ft, cased with steel to 21 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel, 1953 to 1961, and 1962 to 1978; digital water-level recorder, 1961-62, 1978 to current year.
DATUM.--Elevation of land-surface datum is about 1,850 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, flush with shelter floor, 0.35 ft above land-surface datum.
PERIOD OF RECORD.--March 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.95 ft below land-surface datum, Jan. 4, 1960; lowest measured, 80.57 ft below land-surface datum, Oct. 25, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	79.53	67.46	53.12	55.30	52.20	56.68	54.91	56.26	57.32	69.12	72.06	69.50
10	79.76	65.74	52.59	56.51	53.78	54.62	57.53	62.66	61.57	71.13	70.88	69.90
15	79.68	65.60	51.95	55.46	53.19	53.87	56.25	66.59	54.29	71.46	69.79	70.00
20	79.80	61.76	50.86	57.63	56.14	59.78	56.00	55.67	62.46	71.90	69.55	70.63
25	79.96	55.77	50.74	59.94	52.53	53.99	59.78	55.48	65.98	71.11	70.08	71.38
EOM	79.65	51.61	51.22	56.00	54.45	53.38	64.21	53.51	68.42	69.17	69.88	71.82

WTR YR 1985 HIGH 49.91 DEC 22 LOW 79.96 OCT 25

MORGAN COUNTY

393043078174001. Local number, 19-5-14.
LOCATION.--Lat 39°30'43", long 78°17'40", Hydrologic Unit 02070004, on Cacapon State Park south of Berkeley Springs on U.S. Route 522.
Owner: West Virginia Department of Natural Resources.
AQUIFER.--Tonoloway Formation of Upper Silurian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., reported depth 250 ft, cased with steel to 33 ft.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer, 1971-75; monthly measurement with chalked tape by USGS personnel, 1976-77; digital water-level recorder--60-minute punch, 1977 to current year.
DATUM.--Elevation of land-surface datum is about 875 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter base, 1.10 ft above land-surface datum. Prior to Aug. 16, 1977 measuring point was 1.20 ft above land-surface datum.
REMARKS.--Water-quality sample taken on Oct. 17, 1984 (water level 34.77 ft below land-surface datum), and on Apr. 9, 1985 (water level 33.47 ft below land-surface datum).
PERIOD OF RECORD.--July 1971 to July 1973, November 1974 to Marchf 1975, July 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.14 ft below land-surface datum, May 21, 1980; lowest measured, 37.80 ft below land-surface datum, Sept. 8, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.33	33.45	33.66	33.51	33.73	33.27	33.39	33.55	33.07	33.78	35.00	35.68
10	34.65	33.74	33.64	33.75	33.79	33.45	33.53	33.80	33.51	33.56	34.03	35.13
15	34.61	33.99	33.67	33.73	33.30	33.44	33.57	33.80	33.86	33.68	33.53	36.29
20	33.49	33.76	33.57	33.75	33.08	33.51	33.56	33.81	34.07	34.59	34.33	36.89
25	33.59	33.85	33.48	33.75	33.26	32.88	33.65	33.81	34.07	35.19	33.49	37.19
EOM	33.69	33.27	33.69	33.69	33.23	33.14	33.81	33.01	34.58	34.40	34.54	36.93

WTR YR 1985 HIGH 31.01 FEB 12 LOW 37.28 SEP 26

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
17...	1200	34.77	540	506	7.00	12.0	270	79
APR								
09...	1640	33.47	490	491	7.50	11.0	260	76

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
17...	17	1.6	270	0	220	33	7.2	<.10	316
APR									
09...	17	1.5	310	0	254	36	5.1	.10	241

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
17...	.90	.40	--	900	11	10	4	--
APR								
09...	1.0	1.1	<.010	160	13	<10	<1	2.2

NICHOLAS COUNTY

381513081094201. Project number, T-2.
LOCATION.--Lat 38°15'13", long 81°09'42", Hydrologic Unit 05050005, about 3 mi east of Belva and Route 16 on left of Secondary Route 20/21.
Owner: Burt Whiston.
AQUIFER.--Kanawha Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 95 ft, cased with galvanized iron to 13 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 742.6 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.
REMARKS.--Water-quality sample taken on Oct. 30, 1984 (water level 11.08 ft below land-surface datum), and on Apr. 17, 1985 (water level 10.14 ft below land-surface datum).
PERIOD OF RECORD.--July 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level 2.52 ft below land-surface datum, Apr. 25, 1983; lowest, 11.98 ft below land-surface datum, Sept. 26, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.73	11.27	10.57	9.21	9.46	10.10	9.80	9.80	10.80	11.30	11.52	11.75
10	11.76	11.01	10.45	9.66	9.76	9.66	10.21	10.48	10.82	11.35	11.60	11.51
15	11.73	11.06	10.22	10.22	9.45	9.50	10.22	10.96	10.78	11.26	11.73	11.71
20	11.79	10.09	9.82	10.49	9.44	9.99	9.98	9.80	11.03	11.38	11.73	11.79
25	11.25	10.76	7.72	10.29	9.23	10.12	10.37	8.26	11.21	11.51	11.66	11.85
EOM	11.16	9.92	9.90	10.10	9.62	9.34	10.67	10.17	11.41	11.65	11.66	11.79

WTR YR 1985 HIGH 4.72 MAY 23 LOW 11.93 SEP 24

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT									
30...	1145	11.08	410	383	7.10	14.0	0	.00	.00
APR									
17...	0945	10.14	--	272	7.60	12.0	82	21	7.2

DATE	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
30...	.00	150	0	121	--	61	12	.10	237
APR									
17...	24	--	--	--	100	18	14	<.10	170

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
30...	<.10	.30	<.010	2100	0	160	0	--
APR								
17...	<.10	.70	.040	860	250	70	74	2.0

POCAHONTAS COUNTY

380653080155301.
LOCATION.--Lat 38°06'53", long 80°15'53", Hydrologic Unit 05050003, on Droop Mountain State Park north of Droop on U.S. Route 219.
Owner: West Virginia Department of Natural Resources.
AQUIFER.--Mauch Chunk Group of Upper Mississippian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 86 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer, 1970-76; periodic measurement by USGS personnel, 1978-80; digital water-level recorder--60-minute punch, 1980 to current year.
DATUM.--Elevation of land-surface datum is about 3,000 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter base at land-surface datum. May 28, 1980 to July 7, 1983, measuring point 0.65 ft above land-surface datum. Prior to May 28, 1980 measuring point was top of casing at land-surface datum.
REMARKS.--Water-quality sample taken on Oct. 25, 1984 (water-level 68.83 ft below land-surface datum), and on Apr. 15, 1985 (water level 68.68 ft below land-surface datum).
PERIOD OF RECORD.--December 1970 to January 1976, April 1978 to current year. Published as local well number "44-4-1", 1973-78.
REVISED RECORDS.--WDR WV-79-1: Well location, well characteristics, and water levels. WDR WV-83-1: Station identification number and lowest water level.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.86 ft below land-surface datum, May 30, 1982; lowest, 70.12 ft below land-surface datum, Sept. 4, 1983. (73.39 ft below land-surface datum, Oct. 25, 1984, due to pumping.)

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	69.05	68.84	68.71	67.99	68.57	68.49	68.65	68.73	69.14	69.30	69.23	69.32
10	69.07	68.92	68.71	68.48	68.80	68.45	68.70	69.01	69.16	69.05	69.22	69.52
15	69.25	68.87	68.47	68.70	68.94	68.36	68.68	69.19	69.19	69.13	69.36	69.63
20	69.23	68.61	68.06	68.83	68.98	68.67	68.79	69.21	69.18	69.31	69.23	69.69
25	73.39	68.84	67.79	68.91	67.86	68.35	68.84	68.48	69.16	69.52	68.84	69.76
EOM	68.93	68.51	68.30	68.95	68.18	68.52	69.07	68.88	69.34	68.80	69.23	69.77

WTR YR 1985 HIGH 67.79 DEC 25 LOW 73.39 OCT 25

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
25...	1130	68.83	500	498	7.30	13.0	260	67
APR								
15...	1335	68.68	530	526	7.40	15.0	270	71

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
25...	23	2.8	160	0	130	36	4.6	.10	316
APR									
15...	23	2.6	370	0	300	29	1.4	.10	276

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
25...	.17	.90	.010	1800	120	110	78	--
APR								
15...	.30	.90	.010	5400	31	230	56	1.8

PRESTON COUNTY

393306079474501. Local number, 11-3-8.
LOCATION.--Lat 39°33'06", long 79°47'45", Hydrologic Unit 05020003, East Depot Street, Masontown.
Owner: G. E. Lemmons.
AQUIFER.--Pottsville Group of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 8 in., depth 785 ft, cased to 350 ft, perforated at or near Upper Freeport coal.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer, 1941-46, and 1948-50; digital water level recorder--60-minute punch, 1946-48; monthly measurement by USGS personnel, 1950 to current year.
DATUM.--Elevation of land-surface datum is about 1,770 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of extended casing, 3.53 ft above land-surface datum. Prior to July 1978 measuring point was 3.00 ft below land-surface datum.
PERIOD OF RECORD.--July 1941 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.15 ft below land-surface datum, Jan. 20, 1947; lowest measured, 108 ft below land-surface datum, Feb. 3, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	45.14	JAN 24, 1985	41.99	APR 26, 1985	46.12	JUL 22, 1985	46.89
NOV 27	39.97	FEB 25	41.21	MAY 24	47.77	AUG 22	47.89
DEC 28	40.90	MAR 20	41.55	JUN 18	46.70	SEP 27	47.87

PUTNAM COUNTY

382545081553101.
LOCATION.--Lat 38°25'45", long 81°55'31", Hydrologic Unit 05050008, about 2 mi south of I-64 Winfield exit on Poplar Fork Road.
Owner: Lloyd and Susie Fridley.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 102 ft, cased with steel.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 750 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.20 ft above land-surface datum.
PERIOD OF RECORD.--June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.36 ft below land-surface datum, June 26, 1985; lowest, 37.59 ft below land-surface datum, Aug. 23, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5									---	36.54	37.28	36.85
10									---	36.67	37.36	37.00
15									---	36.87	37.49	37.17
20									---	37.01	37.50	37.24
25									---	37.07	37.35	37.40
EOM									---	37.20	36.92	37.38

WTR YR 1985 HIGH 36.36 JUN 26 LOW 37.59 AUG 23

RANDOLPH COUNTY

385341079575401. Local number, 18-3-110.
LOCATION.--Lat 38°53'41", long 79°57'54", Hydrologic Unit 05020001, 0.20 mi east of Coalton High School, Coalton.
Owner: Presbyterian Church.
AQUIFER.--Homewood Sandstone Member of Kanawha Formation of Early Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled exploratory water-table well, diameter 6 in., depth 155 ft, cased to 18 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel, 1966-67; digital water-level recorder--60-minute punch, 1968-77; periodic measurement with chalked tape by USGS personnel, 1977 to current year.
DATUM.--Elevation of land-surface datum is 2,171 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.60 ft above land-surface datum. Prior to Jan. 4, 1983, measuring point was 2.45 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping. Water-quality sample taken on Oct. 19, 1984 (water level 15.00 ft below land-surface datum), and on Apr. 8, 1985 (water level 14.60 ft below land-surface datum).
PERIOD OF RECORD.--December 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.85 ft below land-surface datum, Dec. 12, 1966; lowest, 23.35 ft below land-surface datum, Oct. 28, 1971.

NOTE.--Water-level measurement Oct. 19, 1984, 15.00 ft below land-surface datum. Water-level measurement Apr. 8, 1985, 14.60 ft below land-surface datum.

385341079575401.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUC-TANCE (US/CM)	SPE-CIFIC CON-DUC-TANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT								
19...	1230	15.00	--	100	6.00	11.5	42	9.3
APR								
08...	1130	14.60	112	100	6.80	10.5	41	9.1

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT									
19...	4.5	.80	52	0	43	16	.80	<.10	63
APR									
08...	4.4	.80	71	0	58	17	.80	<.10	66

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT								
19...	<.10	.30	<.010	13000	9000	360	330	--
APR								
08...	<.10	2.5	<.010	12000	8500	330	320	.90

385100079522901. Project number, H-63.
LOCATION.--Lat 38°51'00", long 79°52'29", Hydrologic Unit 05020001, 1800 ft west of U.S. Route 250 and 0.60 mi north of intersection of State Route 33 and U.S. Route 250, at Beverly.
Owner: Edsel Lucas.
AQUIFER.--Shale of Upper-Middle Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 98 ft, cased with plastic to 14 ft.
INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel, 1978-79, and 1982 to current year; digital water-level recorder--60-minute punch, 1979-82.
DATUM.--Elevation of land-surface datum is about 1,940 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.00 ft above land-surface datum.
REMARKS.--U.S. Geological Survey Test Well No. 2. Geologic log and aquifer test data available. At times, water level affected by stage of Tygart Valley River. Water-quality sample taken on Oct. 19, 1984 (water level 1.40 ft below land-surface datum), and on Apr. 8, 1985 (water level 0.80 ft below land-surface datum).
PERIOD OF RECORD.--November 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.00 ft above land-surface datum, Mar. 20, 1982; lowest, 3.24 ft below land surface datum, Sept. 20, 1983.

NOTE.--Water level measurement Oct. 19, 1984, 1.40 ft below land-surface datum. Water-level measurement Apr. 8, 1985, 0.80 ft below land-surface datum.

RANDOLPH COUNTY

385100079522901.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT									
19...	1015	1.40	240	193	6.40	15.0	78	21	6.2
APR									
08...	1410	0.80	213	175	7.00	9.5	70	19	5.5

DATE	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
19...	11	150	0	125	--	1.3	.40	<.10	168
APR									
08...	8.7	--	--	--	87	16	5.1	.10	136

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
19...	<.10	.80	.370	20000	17000	630	550	--
APR								
08...	<.10	1.2	.350	23000	15000	640	510	5.8

RITCHIE COUNTY

391226081024901. Local number, 28-3-3.
LOCATION.--Lat 39°12'26", long 81°02'49", Hydrologic Unit 05030203, at Stout and East South Street, Harrisville. Owner: Terry Stonestreet.
AQUIFER.--Dunkard Group of Pennsylvanian and Permian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 118 ft, cased with steel.
INSTRUMENTATION.--Weekly measurements with chalked tape by observer, 1966; graphic water-level recorder, 1968-70; digital water-level recorder--60-minute punch, 1970-75; monthly measurements with chalked tape by USGS personnel, 1975-76; digital water-level recorder--60-minute punch, 1976 to current year.
DATUM.--Elevation of land-surface datum is about 840 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Formerly public-supply well. No water-level data collected November 1966 to March 1968. No water-level record Jan. 5-21 due to timer malfunction.
PERIOD OF RECORD.--August 1966 to October 1966, April 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.46 ft below land-surface datum, Jan. 25, 1978; lowest measured, 21.80 ft below land-surface datum, Sept. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.48	19.44	19.46	---	18.93	19.73	19.35	19.51	19.52	19.70	19.83	19.99
10	20.56	19.21	19.19	---	19.47	19.64	19.84	19.83	19.67	19.81	19.92	20.18
15	20.39	19.31	19.37	---	19.31	19.39	19.63	20.05	19.55	19.57	20.02	20.51
20	20.61	19.49	19.11	---	19.28	19.62	19.70	19.41	19.77	19.59	19.88	20.63
25	20.21	19.50	19.28	19.28	19.33	19.80	19.88	19.44	19.72	19.81	19.85	20.76
EOM	19.81	19.26	19.20	19.24	19.50	19.18	20.00	19.27	19.98	19.81	19.99	20.65

WTR YR 1985 HIGH 18.77 FEB 12 LOW 20.93 SEP 28

TUCKER COUNTY

390135079275601. Local number, 15-6-17.
LOCATION.--Lat 39°01'35", long 79°27'56", Hydrologic Unit 05020004, at Canaan Valley State Park off W. Va. State Route 32.
Owner: West Virginia Department of Natural Resources.
AQUIFER.--Pocono Group of Lower Mississippian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 281 ft, cased with steel.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer, 1971-75; periodic measurement by USGS personnel, 1978-80; digital water-level recorder--60-minute punch, 1980 to current year.
DATUM.--Elevation of land-surface datum is about 3,275 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelter base, 1.60 ft above land-surface datum. Prior to May 29, 1980 measuring point was top of casing, 1.55 ft above land-surface datum.
REMARKS.--No water-level data collected fJanuary 1975 to March 1978. No water-level record Nov. 13 to Dec. 10, Feb. 19 to Apr. 11 due to battery failure. Records fair. Water-quality sample taken on Oct. 22, 1984 (water level 10.22 ft below land-surface datum), and on Apr. 12, 1985 (water level 9.55 ft below land-surface datum).
PERIOD OF RECORD.--June 1971 to December 1975, April 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.72 ft below land-surface datum, June 6, 7, 1981; lowest measured, 11.54 ft below land-surface datum, July 19, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.13	9.74	---	9.23	10.08		---	9.15	9.19	10.05	10.03	10.41
10	10.24	9.84	---	9.60	10.17		---	9.95	9.15	8.26	9.73	10.46
15	10.36	---	9.09	9.83	10.06		9.55	10.20	9.58	9.35	10.12	10.63
20	10.35	---	8.59	9.98	---		9.80	10.23	9.64	9.96	10.18	10.50
25	9.82	---	8.24	10.11	---		9.74	9.68	10.03	10.14	10.22	10.51
EOM	9.57	---	9.16	10.20	---		9.98	8.39	10.23	9.99	10.21	10.51

WTR YR 1985 HIGH 8.17 JUL 11 LOW 10.66 SEP 16

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
22...	1545	10.22	218	195	7.90	9.0	70	15
APR								
12...	1050	9.55	227	226	8.50	7.5	74	16

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
22...	8.0	14	100	0	85	8.4	1.5	.10	112
APR									
12...	8.2	20	120	7	113	15	2.3	.30	126

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
22...	.39	.20	.020	500	10	10	4	--
APR								
12...	.39	<.10	<.010	300	4	<10	2	1.2

TYLER COUNTY

393211081021201. Project number, 8028.
LOCATION.--Lat 39°32'11", long 81°02'12", Hydrologic Unit 05030201, 2.50 mi southwest of Sistersville on Route 2, 15 ft northwest of gravel road, between railroad and river.
Owner: U.S. Geological Survey.
AQUIFER.--Monongahela Formation of the Upper Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 70 ft, cased with steel to 58 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 620 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well casing, 3.90 ft above land-surface datum.
REMARKS.--Aquifer test data available. No water-level record Mar. 30, 31. Water-quality sample taken on Nov. 8, 1984 (water level 18.17 ft below land-surface datum), and on Apr. 2, 1985 (water level 11.44 ft below land-surface datum.
PERIOD OF RECORD.--November 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.63 ft below land-surface datum, Apr. 4, 1985; lowest, 22.69 ft below land-surface datum, Oct. 3, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.71	18.26	18.60	17.75	18.06	16.47	14.45	18.03	18.95	19.21	19.28	18.66
10	18.92	18.23	18.53	18.19	18.20	16.04	16.86	18.70	18.99	17.87	18.45	18.65
15	18.71	18.12	17.65	18.51	18.34	14.21	17.93	18.89	18.88	19.03	18.47	19.07
20	19.02	18.16	18.15	18.21	18.50	17.45	18.47	18.94	18.94	19.10	19.38	18.89
25	18.76	18.60	17.10	17.98	12.36	17.65	18.37	18.76	18.95	18.96	18.69	18.62
EOM	18.24	17.81	15.61	18.20	14.21	---	18.44	18.50	19.23	19.12	18.94	19.06

WTR YR 1985 HIGH 12.36 FEB 25 AND OTHERS LOW 19.38 AUG 20

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
NOV												
08...	1200	18.17	1170	7.40	12.5	420	93	45	85	370	0	305
APR												
02...	1500	11.44	1270	7.20	12.5	450	100	48	75	460	0	376

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
NOV												
08...	17	220	.10	703	.14	.20	<.010	1100	450	60	37	--
APR												
02...	17	210	.10	708	.12	.30	<.010	1800	1200	50	47	2.1

WAYNE COUNTY

375827082211501. Local number, 50-6-5.
LCOATION.--Lat 37°58'27", long 82°21'15", Hydrologic Unit 05090102, on Cabwaylingo State Forest on Secondary State Route 35.
Owner: West Virginia Department of Natural Resources.
AQUIFER.--Kanawha Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 119 ft, cased with steel to 10 ft.
INSTRUMENTATION.--Weekly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 740 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing cover, 1.33 ft above land-surface datum. Prior to Nov. 27, 1979 measuring point was top of casing, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--May 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.67 ft below land-surface datum, May 24 and June 1, 1983, May 9, 1984; lowest measured, 32.17 ft below land-surface datum, July 21, 1982.

WAYNE COUNTY (continued)

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	29.77	JAN 09, 1985	28.22	APR 17, 1985	29.07	JUL 17, 1985	29.27
10	29.87	16	28.57	24	28.97	24	29.37
17	29.92	23	28.77	MAY 01	29.27	AUG 07	29.37
24	29.27	30	29.47	08	29.17	14	29.37
NOV 07	29.17	FEB 06	30.27	15	29.27	23	29.47
14	28.97	13	30.37	22	29.37	SEP 04	29.47
21	27.97	20	30.42	JUN 05	29.37	11	29.57
28	27.77	MAR 06	28.77	12	29.27	18	29.67
DEC 05	28.17	13	29.87	19	29.17	24	29.87
12	27.77	20	28.67	24	29.17		
19	28.67	APR 03	29.07	JUL 03	29.17		
JAN 02, 1985	28.47	10	29.17	10	29.17		

WEBSTER COUNTY

382008080292801. Project number, M006.
LOCATION.--Lat 38°20'08", long 80°29'28", Hydrologic Unit 05050005, at Biship Knob Campground about 0.50 mi from junction of U.S. Forest Service Roads 81 and 82 and about 4 mi from Dyer.
Owner: U.S. Forest Service.
AQUIFER.--Kanawha Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 80 ft, cased with galvanized iron to 60 ft.
INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel, 1980-82; digital water-level recorder--60-minute punch, 1982 to current year.
DATUM.--Elevation of land-surface datum is about 3,100 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of extended casing, 2.00 ft above land-surface datum.
REMARKS.--No water-level record Apr. 19-24, June 12-18, June 27 to Aug. 3, Aug. 16 to Sept. 30, due to recorder malfunction.
PERIOD OF RECORD.--March 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.05 ft below land-surface datum, Jan. 7, 1985; lowest, 27.02 ft below land-surface datum, Oct. 15, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.34	21.73	21.62	21.14	22.72	22.09	22.38	23.34	22.76		23.17	
10	23.34	21.59	21.65	21.31	22.53	22.26	22.98	23.24	22.82		23.08	
15	23.34	21.66	21.68	21.79	22.61	21.93	22.69	23.32	---		23.47	
20	23.34	21.66	21.77	22.27	23.08	22.13	---	23.32	22.39		---	
25	23.27	21.50	21.54	22.77	22.81	22.60	23.05	22.74	23.22		---	
EOM	22.24	21.54	21.42	23.30	22.29	22.48	23.34	22.25	---		---	

WTR YR 1985 HIGH 21.06 JAN 7 LOW 23.47 AUG 15

WETZEL COUNTY

392858080373401. Local number, 6-6-8.
LOCATION.--Lat 39°28'58", long 80°37'34", Hydrologic Unit 05030201, on Secondary State Route 82 in Lewis-Wetzel Public Hunting Area near Jacksonburg.
Owner: West Virginia Department of Natural Resources.
AQUIFER.--Dunkard Group of Pennsylvanian and Permian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 76 ft, cased with steel.
INSTRUMENTATION.--Weekly measurements with chalked tape by observer.
DATUM.--Elevation of land-surface datum is about 890 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.10 ft above land-surface datum.
PERIOD OF RECORD.--September 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.10 ft below land-surface datum, Nov. 28, 1973; lowest measured, 20.90 ft below land-surface datum, Oct. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	17.00	JAN 02, 1985	12.10	APR 04, 1985	10.30	JUL 24, 1985	15.50
10	18.60	09	10.10	10	15.50	31	16.90
17	19.00	16	11.60	17	18.40	AUG 07	17.40
23	18.70	23	10.10	24	11.80	15	18.10
31	13.20	30	11.80	MAY 01	12.60	21	17.50
NOV 08	10.80	FEB 05	11.50	09	11.10	28	16.50
14	10.90	13	11.70	29	13.10	SEP 03	17.70
21	17.80	20	11.90	JUN 05	18.90	11	19.70
28	18.50	27	12.50	19	14.40	19	11.20
DEC 05	17.60	MAR 06	14.40	26	12.30	26	12.10
12	9.10	14	17.50	JUL 03	12.70		
19	15.60	20	16.70	10	13.90		
26	12.90	27	15.70	18	18.50		

WYOMING COUNTY

373839081255201. Local number, 54-2-12.
LOCATION.--Lat 37°38'39", long 81°25'52", Hydrologic Unit 05070101, at Twin Falls State Park.
Owner: U.S. Geological Survey.
AQUIFER.--New River Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 80 ft, cased with steel to 28 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is about 2,015 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelter floor, 2.62 ft above land-surface datum.
REMARKS.--Aquifer test data available. Water-level record affected by nearby pumping at times. No water-level record Oct. 1-29, due to recorder malfunction. Water-quality sample taken Oct. 30, 1984 (water level 41.74 ft below land-surface datum), and on Apr. 16, 1985 (water level 24.66 ft below land-surface datum).
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.19 ft below land-surface datum, Mar. 13, 1980; lowest, 43.13 ft below land-surface datum, Sept. 30, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	40.84	30.56	25.75	24.98	24.60	24.40	29.09	27.28	31.76	34.22	36.67
10	---	39.10	29.27	25.63	24.98	24.57	24.87	30.11	26.78	31.67	33.34	38.20
15	---	36.81	28.59	25.44	24.82	24.49	24.53	31.27	26.46	32.55	34.44	39.47
20	---	35.63	27.70	25.42	25.06	24.42	25.32	29.91	26.39	33.43	34.92	40.80
25	---	33.56	27.18	25.33	24.64	24.47	27.77	27.97	27.85	35.08	34.65	42.11
EOM	41.63	31.74	26.36	25.39	24.85	24.05	28.25	26.97	30.85	35.77	35.34	43.07

WTR YR 1985 HIGH 24.05 MAR 31 LOW 43.07 SEP 30

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
30...	1440	41.74	275	--	6.30	13.0	64	17
APR								
16...	1240	24.66	385	381	6.10	12.5	92	24

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
30...	5.2	3.7	69	0	57	64	1.0	.10	123
APR									
16...	7.9	3.9	73	0	60	130	1.0	<.10	221

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
30...	<.10	.40	<.010	33000	25000	570	540	--
APR								
16...	<.10	2.2	<.010	48000	44000	1100	1100	1.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

380935079590301 - MINNEHAHA SPRINGS

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
25...	1300	232	265	6.90	20.0	140	--	45
APR								
15...	0950	300	256	7.90	19.5	120	18	41

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
25...	5.7	1.1	--	--	--	--	7.0	.80	175
APR									
15...	5.2	2.2	130	0	106	92	36	.90	161

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	TRITIUM TOTAL (PCI/L)	TRITIUM TOTAL, COUNTING ERROR (PCI/L)	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)
OCT								
25...	260	5	10	<1	3.6	1.4	1.1	.4
APR								
15...	160	4	<10	<1	--	--	--	--

390745078282201 - CAPON SPRING

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
18...	1030	248	255	7.10	18.0	120	30	40
APR								
10...	0945	213	268	7.40	18.0	140	10	46

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
18...	5.2	2.2	110	0	91	--	35	1.0	160
APR									
10...	5.7	1.1	160	0	129	91	7.2	1.0	140

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	TRITIUM TOTAL (PCI/L)	TRITIUM TOTAL, COUNTING ERROR (PCI/L)	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)
OCT								
18...	390	5	10	<1	2.2	1.5	.7	.5
APR								
10...	110	13	<10	<1	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

393734078134601 - BERKLEY SPRINGS

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)
OCT												
17...	1600	275	269	6.80	22.0	140	12	47	4.8	4.5	150	0
APR												
09...	1500	255	291	7.40	22.0	140	0	48	4.9	4.7	190	0

DATE	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	TRITIUM TOTAL (PCI/L)	TRITIUM TOTAL, COUNTING ERROR (PCI/L)	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)
OCT												
17...	125	16	2.0	171	310	4	10	<1	3.4	1.5	1.1	.5
APR												
09...	158	16	2.7	166	130	7	<10	<1	--	--	--	--

* U.S. GOVERNMENT PRINTING OFFICE: 1987 750-029

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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