Water Resources Data Maryland and Delaware Water Year 1985

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-85-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

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1985

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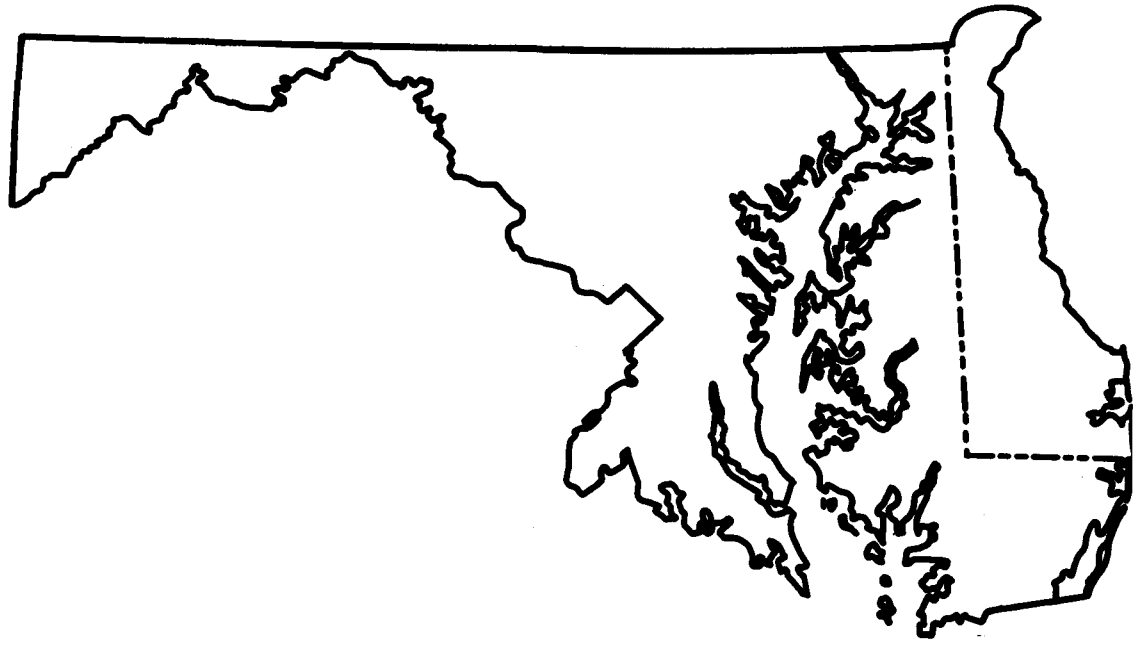
Water Resources Data Maryland and Delaware Water Year 1985

by Robert W. James, Jr., Robert H. Simmons, and Bernard F. Strain



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-85-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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U.S. Geological Survey
208 Carroll Building
8600 La Salle Road
Towson, Maryland 21204

1986

PREFACE

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

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. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

J. E. Auvil	B. M. Helinsky	L. B. Maclin
F. A. Danner	S. N. Hiortdahl	J. J. Manning
D. F. Gillen	J. F. Hornlein	M. S. Martin
J. L. Griffith	M. N. Lys	M. J. Smigaj

M. E. Walters typed the text of the report.

This report was prepared under the general supervision of H. J. Freiberger, District Chief, Mid-Atlantic District, and S. P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware and with other agencies.

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16. Abstract (Limit: 200 words)

Water resources data for the 1985 water year for Maryland and Delaware consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 101 gaging stations; stage and contents at 1 reservoir; water quality at 25 gaging stations and 123 wells; and water levels at 24 observation wells. Also included are data for 12 crest-stage, 11 low-flow, and 6 tidal crest-stage partial-record stations. 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 operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.

17. Document Analysis a. Descriptors

*Maryland, *Delaware, *District of Columbia, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents]

GROUND-WATER LEVELS

QUALITY OF GROUND WATER

QUALITY OF GROUND WATER--Continued Page

MARYLAND:

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 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 Maryland and Delaware 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 - Maryland and Delaware."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 101 gaging stations; stage and contents at 1 reservoir; water quality at 25 gaging stations and 123 wells; and water levels at 24 observation wells. Also included are data for 12 crest-stage , 11 low-flow, and 6 tidal crest-gage partial-record stations. Locations of these sites are shown on figures 3 and 4. Additional water data were collected at various sites not involved in the systematic data-collection program. 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 Maryland and Delaware.

This series of annual reports for Maryland and Delaware 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 Maryland and Delaware 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 Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

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 MD-DE-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 (301) 828-1535.

COOPERATION

The U.S. Geological Survey and agencies of the State of Maryland have had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have been had between the Survey and agencies of the State of Delaware since 1943. Organizations that assisted in collecting the data in this report through cooperative agreements with the Survey are:

Maryland Geological Survey, K. N. Weaver, director.

Delaware Geological Survey, R. R. Jordan, State geologist.

Maryland State Highway Adminstration, M. S. Caltrider, adminstrator.

Maryland Department of Health and Mental Hygiene, Environmental Health Adminstration, William Eichbaum, assistant secretary.

District of Columbia Department of Public Works, William B. Johnson, director.

Assistance with funds or services was given by the U.S. Army Corps of Engineers for collecting records at 20 gaging stations and 4 water-quality stations throughout Maryland and Delaware, and by the National Park Service for collecting records at 1 gaging station on Rock Creek in Washington, D. C.

The following organizations aided in collecting records:

Delaware: State Department of Natural Resources and Environmental Control, and New Castle County.

Maryland: Maryland Water Resources Administration, Washington Suburban Sanitary Commission, Upper Potomac River Commission, Baltimore and Howard Counties.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow at the start of the 1985 water year was in the normal range throughout the bistate area. On the Eastern Shore and in Delaware, monthly rainfall averaged 0.5 to 2.0 inches below normal during the months of November through July. Flows dropped into the deficient range (lower 25 percent of record) in November and remained deficient until August when the remnants of Hurricane Danny, with rainfall averaging 4 to 6 inches above normal, brought flows back into the normal range. In September Hurricane Gloria struck the area and produced rainfall averaging 2 to 4 inches above normal. Flows moved into the excessive range (upper 25 percent of record) and remained there through the end of the water year. In Maryland west of the Chesapeake Bay, flows remained in the normal range until January, when below-normal precipitation dropped flows into the deficient range. Above-normal precipitation in February brought flows back into the normal range but below normal rainfall in March caused flows to return to the deficient range. While flows in central and southern Maryland remained deficient through May, flows in the Potomac River basin moved into the normal range in May. In June and for the remainder of the year, flows were in the normal range.

During the 1985 water year, three of the four index stations used--Potomac River near Washington, D.C., in central Maryland, North Branch Potomac River at Paw Paw, W. Va., in western Maryland, and Seneca Creek at Dawsonville in central Maryland--were in the normal range. The fourth, Choptank River at Greensboro on the Eastern Shore, had deficient runoff for the year (43 percent of normal reference period 1951-80). Runoff for seven months was deficient and ranged from 27 to 51 percent of normal.

Monthly and annual mean discharges are compared with the long-term averages (reference period 1951-80) for two representative gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks in central Maryland, reflects runoff conditions in the Potomac River basin, excluding the Coastal Plain. Data for the station, Choptank River at Greensboro on the eastern shore of Maryland, reflects runoff from a 113 mi^2 area, of which 21.6 mi^2 is in Delaware in the central part of the Delmarva peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 56,000 ft^3/s, based on flows of the James, Potomac, and Susquehanna Rivers. This is 73 percent of the long-term average during the reference period 1951-85. Inflow to the Bay was relatively normal throughout the year.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System (combined usable capacity of 85,340,000,000 gal) decreased from 96 percent of capacity in September 1984, to 75 percent of capacity at the end of September 1985.

Water levels throughout Maryland and Delaware at the beginning of the 1985 water year were at normal levels, as reflected by the States' network of observation wells. During the year, only the Coastal Plain physiographic province had any record high- or low-water levels. Three record highs were set as a result of decreased pumpage during the winter and early spring and local storms. Record low-water levels (36 in Maryland and one in Delaware) were recorded during August and September. Increased pumpage in the areas of Annapolis, Elkton, Glen Burnie, Lexington Park, Ocean City, and Waldorf resulted in the record lows. Water levels rose in western Maryland and remained essentially the same throughout the remainder of the bistate area at the end of the water year.

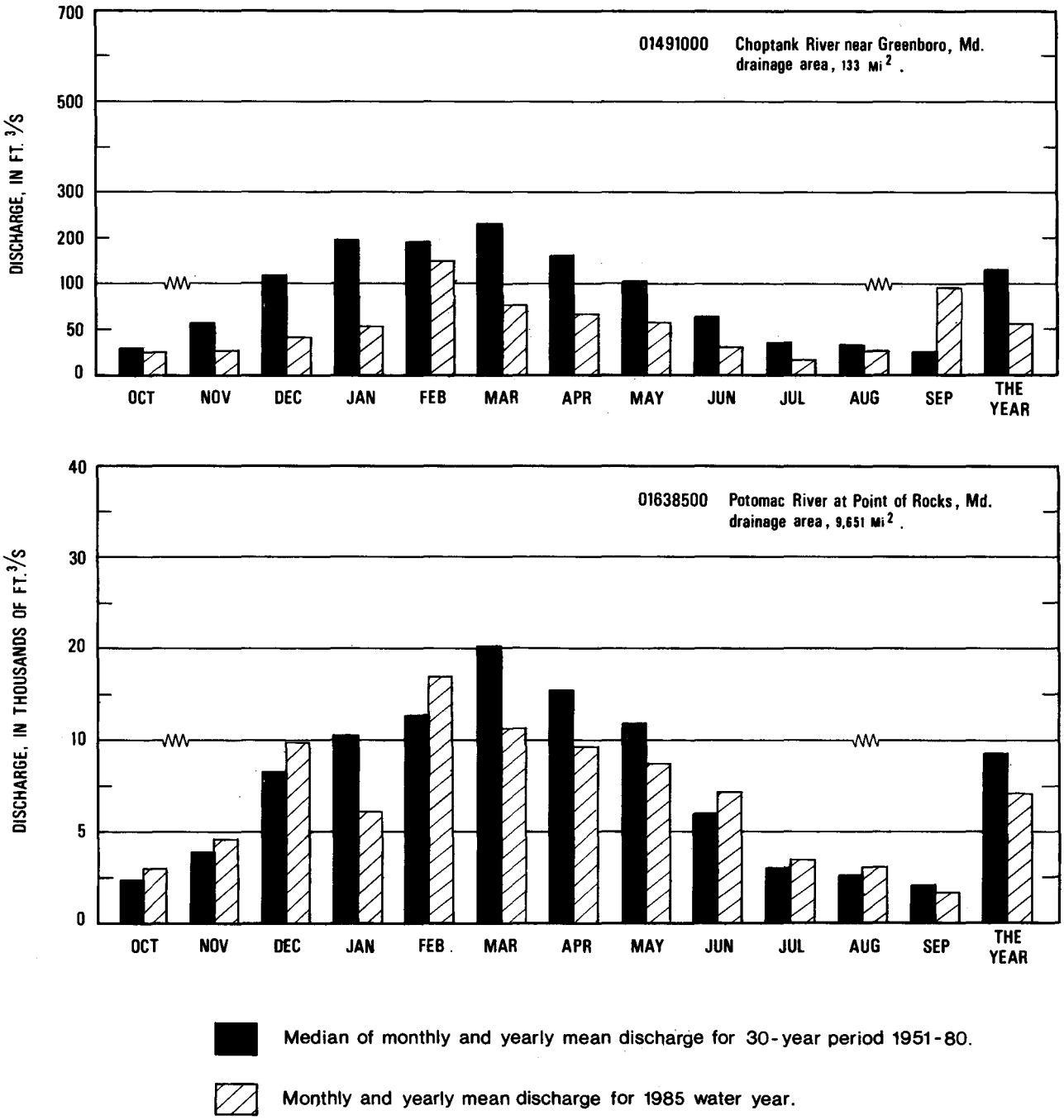

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1985 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

SPECIAL NETWORKS AND PROGRAMS

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.

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 3 and 4. 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 Maryland and Delaware, 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 01477800, which appears just to the left of the station name, includes the two-digit Part number "01" plus the six-digit downstream-order number "477800." The Part number designates the major river basin; for example, Part "01" is the North Atlantic slope basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned 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 2 below.)

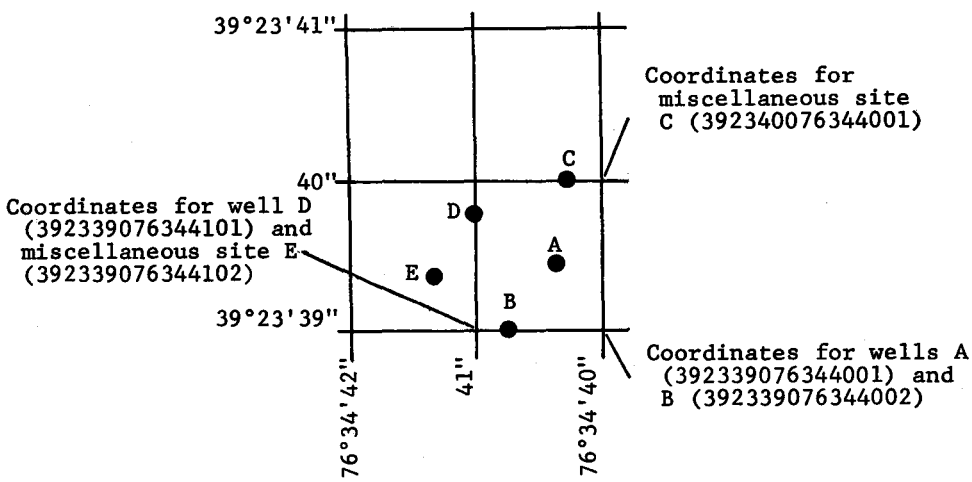

Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

A second well-numbering system used in Maryland utilizes the county prefix and a 5-minute grid. The first 2 letters of the identification number are the county prefix; for example, for Charles County the prefix is CH. Each county is divided by 5-minute quadrangles of latitude and longitude. Each quadrangle is identified by 2 uppercase letters; the first designates north to south and the second west to east. The wells are numbered serially within each quadrangle. A similar system used in Delaware divides the state, rather than the counties, by 5-minute quadrangles of latitude and longitude which are designated as explained above. Each 5-minute quadrangle is further subdivided by 1-minute quadrangles. Each of the 1-minute quadrangles from north to south is designated by a number from 1 to 5, and west to east by a number from 1 to 5. Thus ID 55-1 is the first well inventoried in the southeast 1-minute quadrangle of Delaware.

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 figures 3 and 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 daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

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

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

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

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

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data 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 Maryland and Delaware offices of the Mid-Atlantic District. 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 offices whose addresses are given on the back of the title page of this report.

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 3.

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. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey Maryland and Delaware offices.

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 Geological Survey Maryland 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 Maryland and Delaware Offices.

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. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory 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 Maryland and Delaware are shown in figure 4.

Data Collection and Computation

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

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

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for 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 water-level 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 at the end of the introductory text. 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

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

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

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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^2).

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

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

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

Bottom material: See Bed material.

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

Cubic-foot-per-second day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

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

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

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

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

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 0.02832 cubic meters per second.

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 um 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 (ug/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 (UG/L, ug/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 sedimentaiton methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with 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/(m².time)] for periphyton and macrophytes and [mg C/(m³.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 [mg O_2/(m².time)] for periphyton and macrophytes and [mg O_2/(m³.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 as follows: concentration (mg/L) x discharge (ft³/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.

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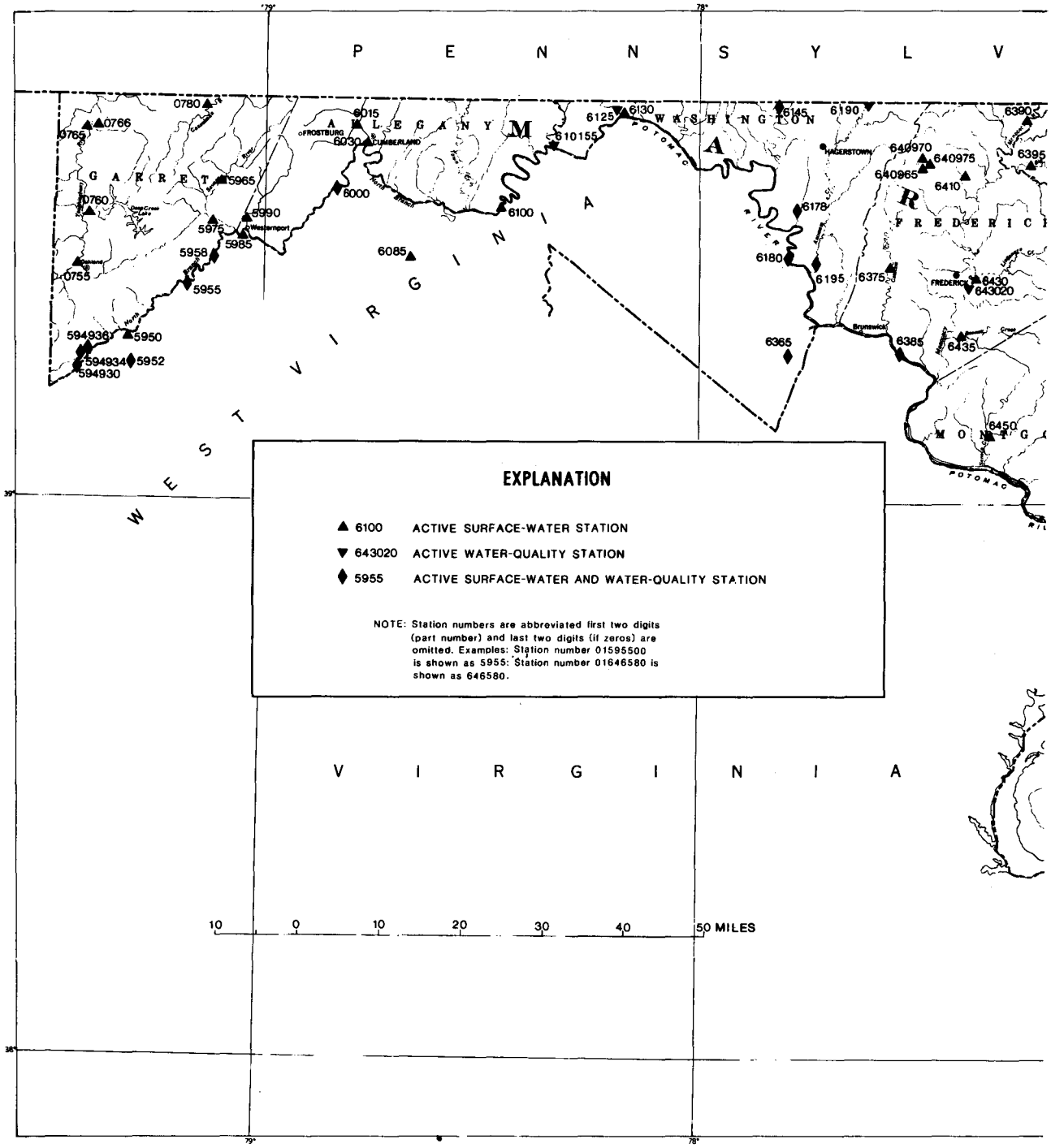
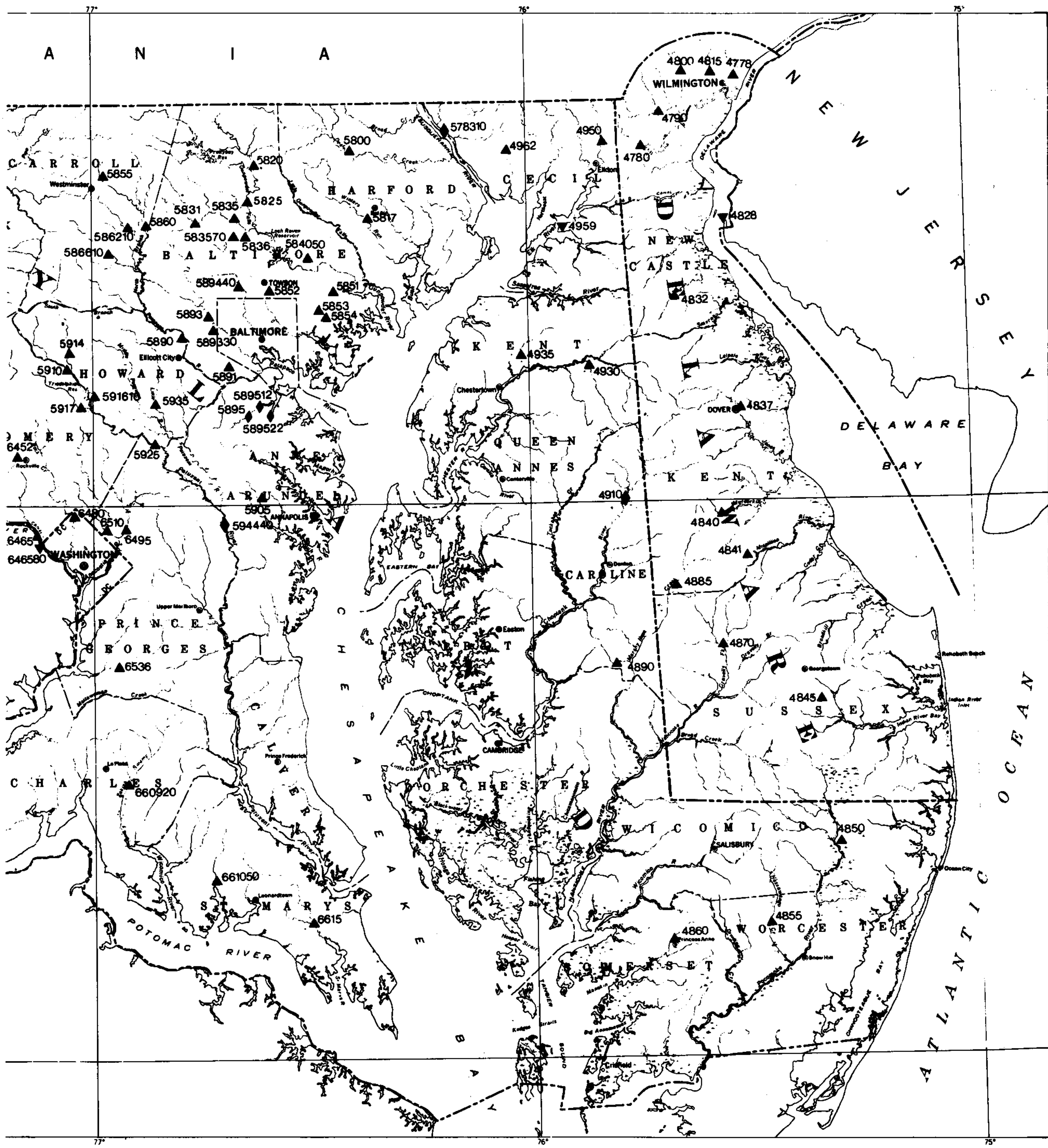


Figure 3. Location of surface-water and water-quality stations in Maryland and Delaware.


77°
76°
75°
39°
38°
A N I A
C A R R O L L
Westminster
H A R F O R D
C E C I L
B A L T I M O R E
TOWSON
BALTIMORE
Ellicott City
H O W A R D
A N N E
A R U N D E L
ANNAPOLIS
WASHINGTON
P R I N C E
G E O R G E S
Upper Marlboro
C H A R L E S
La Plata
C A L V E R T
Prince Frederick
S T M A R Y S
Leonardtown
POTOMAC RIVER
C H E S A P E A K E
B A Y
K E N T
Chestertown
Q U E E N
A N N E S
Centreville
EASTERN BAY
CAROLINE
Denton
Easton
CHOPTANK
CAMBRIDGE
D O R C H E S T E R
W I C O M I C O
SALISBURY
S O M E R S E T
Princess Anne
Crisfield
W O R C E S T E R
Snow Hill
Ocean City
WILMINGTON
Elkton
N E W
C A S T L E
DOVER
K E N T
S U S S E X
Georgetown
Rehoboth Beach
Indian River Inlet
D E L A W A R E
B A Y
N E W J E R S E Y
A T L A N T I C O C E A N
4800
4815
4778
4790
4780
4950
4962
578310
5800
5820
5855
5825
5831
5835
5817
5860
586210
583570
5836
584050
586610
4959
4828
589440
5852
5851
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4860

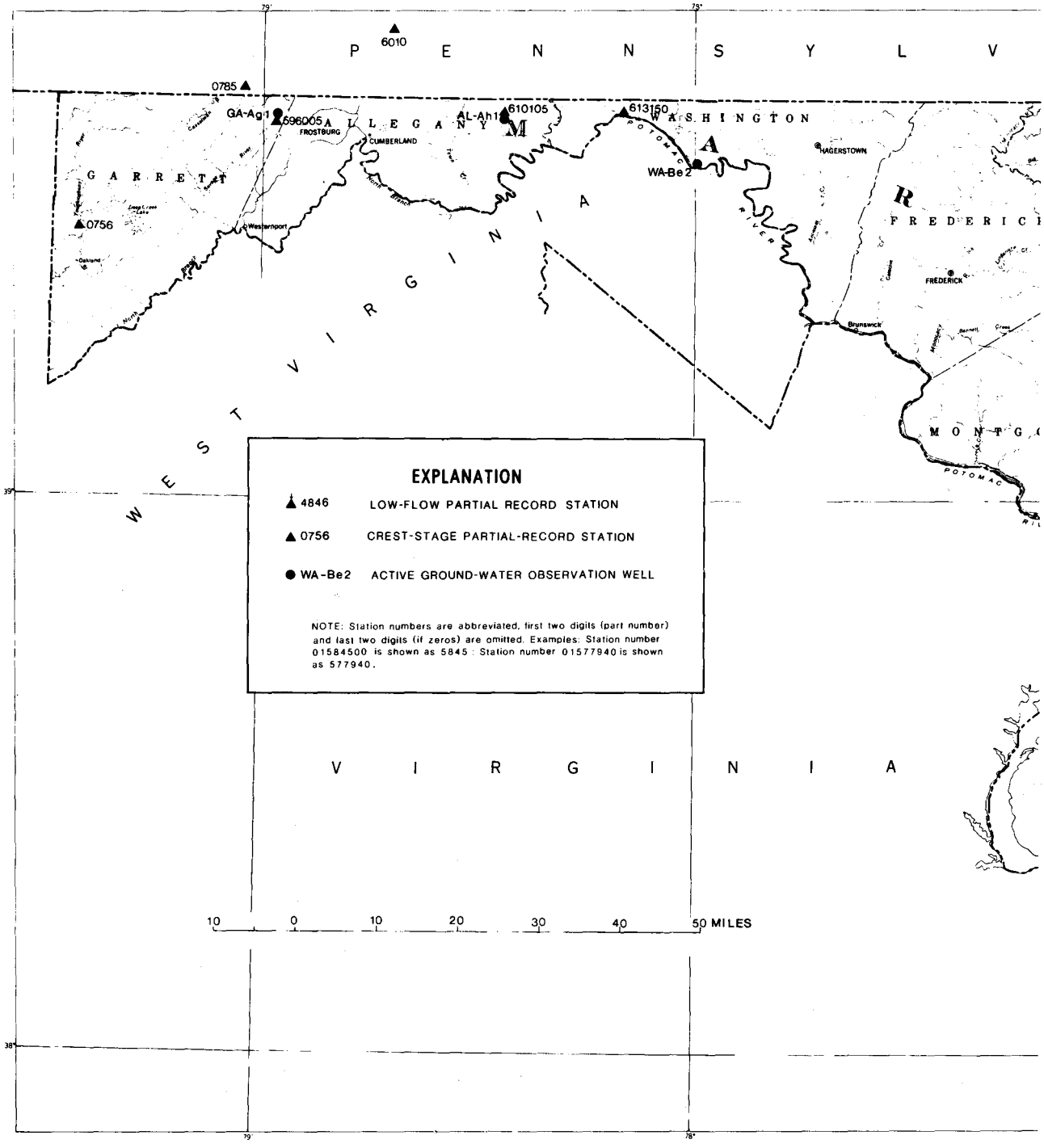
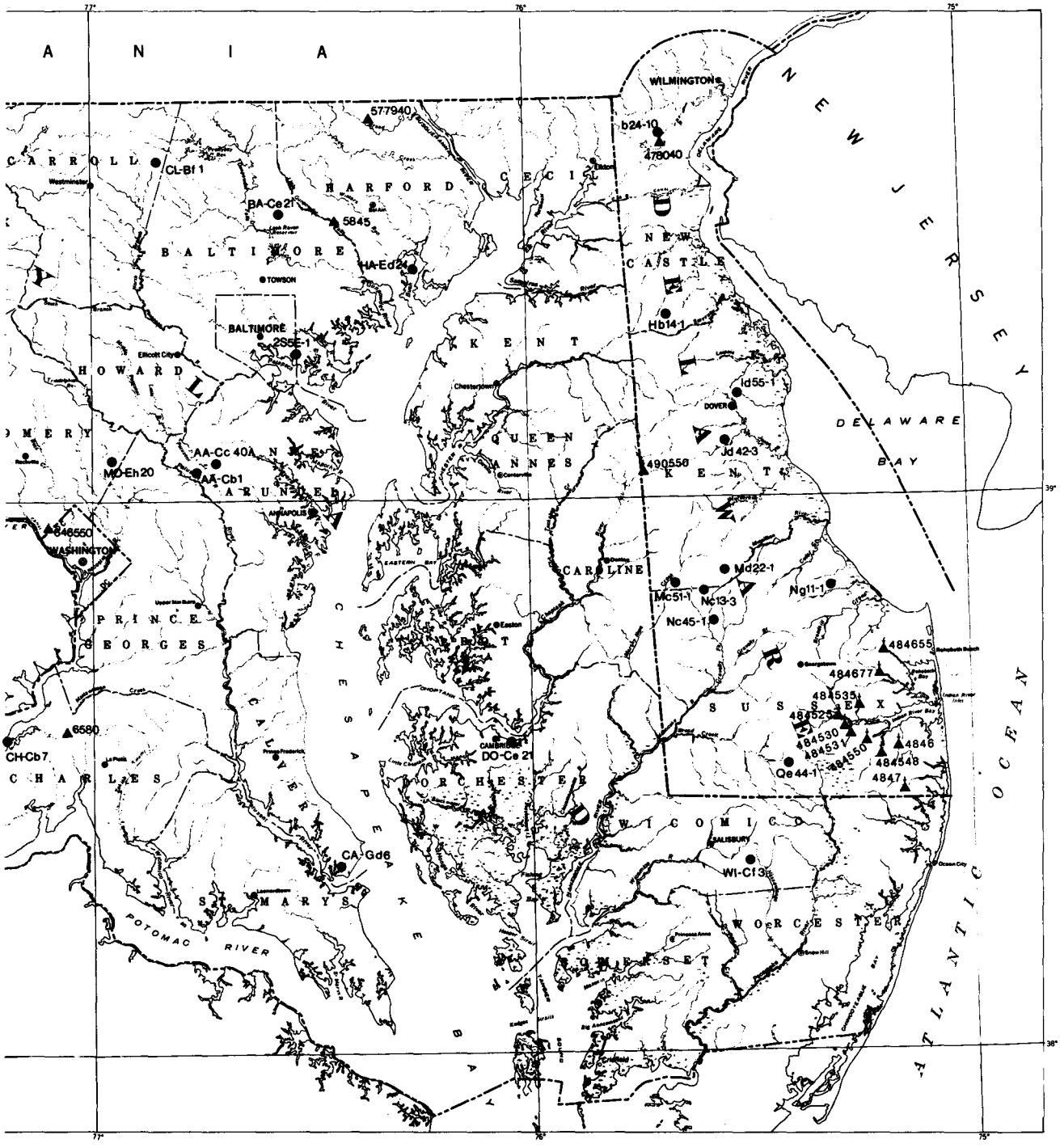


Figure 4. Location of low-flow and crest-gage partial-record stations and ground-water observation wells in Maryland and Delaware.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NEW JERSEY
577940
b24-10
478040
CARROLL
CL-Bf 1
HARFORD
CECIL
BA-Ce 2
5845
BALTIMORE
HA-Ed 2
TOWSON
NEWCASTLE
BALTIMORE
2S5E-1
Hb14-1
KENT
HOWARD
Id55-1
DOVER
DELAWARE
BAY
QUEEN ANNES
AA-Cc 40
Jd 42-3
490556
KENT
MO-Eh 20
AA-Cb1
ANNAPOLIS
ARUNDEL
846550
WASHINGTON
CAROLINE
Md22-1
Mc51-1
Nc13-3
Ng11-1
Nc45-1
PRINCE GEORGES
CHESAPEAKE
EASTON
SUSSEX
484655
484677
484535
484525
484530
484531
484550
4846
484548
4847
6580
CH-Cb7
CHARLES
CAMBRIDGE
DO-Ce 2
Qe44-1
DORCHESTER
WICOMICO
SALISBURY
CA-Gd6
WI-Cf 3
CALVERT
ST MARYS
POTOMAC RIVER
WORCESTER
SOMERSET
ATLANTIC OCEAN
BAY

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SURFACE-WATER RECORDS

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

PRINTED OUTPUT	REMARK
E	Estimated
>	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 egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, Hydrologic Unit 02040205, on right bank 100 ft east of intersection of 44th and Pine Streets in Clifton Park, 700 ft downstream from bridge on North Market Street in Wilmington, 0.2 mi downstream from Matson Run, and 2.3 mi upstream from mouth.
DRAINAGE AREA.--7.46 mi².
PERIOD OF RECORD.--December 1945 to current year.
REVISED RECORDS.--WSP 1382: 1948(m).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 above ft National Geodetic Vertical Datum of 1929.
REMARKS.--Estimated daily discharges: Jan. 20-24, Feb. 3-9, and Aug. 8 to Sept. 5. Records good except those for periods of ice effect, Jan. 20-24 and Feb. 3-9, and period of backwater from rocks on control, Aug. 8 to Sept. 5, which are poor. Occasional regulation at low flow from unknown source upstream from 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.--39 years (water years 1947-85), 9.64 ft³/s, 17.55 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,850 ft³/s, Sept. 13, 1971, gage height, 11.91 ft, from rating curve extended above 200 ft³/s on basis of culvert and flow-over-road measurements at gage heights 9.10 ft and 11.91 ft; minimum daily discharge, 0.09 ft³/s, Oct. 2, 4, 1968.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1940, that of Sept. 13, 1971. Flood of Aug. 1, 1945, reached a stage of about 8.5 ft, from floodmarks.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1325	1,570	5.37	Sept. 26	2220	718	3.89
May 17	1340	1,300	4.94	Sept. 27	0105	1,160	4.70
July 31	1650	*4,390	*8.87	Sept. 27	0835	1,350	5.03

Minimum daily discharge, 0.40 ft³/s, Sept. 13, 14, 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	20	1.1	1.3	1.7	18	1.7	19	1.4	4.0	.63	8.5	.70
2	3.9	1.1	1.2	5.7	20	1.7	3.2	7.9	1.0	.61	2.2	.70
3	1.4	1.2	6.4	2.9	7.2	1.6	3.7	78	.98	.59	1.3	.70
4	1.1	1.1	2.5	2.7	5.3	1.9	2.8	3.7	1.7	.57	.99	.70
5	1.2	16	3.5	5.6	3.0	5.5	2.2	1.9	1.4	.57	.85	.60
6	1.0	1.9	25	2.9	2.5	2.0	1.8	1.5	1.2	1.3	.80	.50
7	1.1	1.4	2.3	2.3	2.3	1.7	1.5	1.5	.79	2.0	.77	.41
8	1.1	1.3	1.6	2.1	1.8	3.3	1.5	1.2	3.3	9.4	48	8.9
9	.94	1.2	1.6	1.7	1.7	2.3	1.6	1.1	1.4	5.7	1.4	14
10	.84	1.2	1.5	1.6	1.9	1.8	1.6	1.1	1.0	15	1.1	13
11	.95	3.5	1.4	1.7	2.6	1.8	1.5	1.1	.73	1.8	1.6	2.8
12	.78	2.0	1.4	1.8	209	11	2.2	1.0	.77	.79	1.2	.76
13	.70	1.2	1.4	1.7	12	3.1	2.1	1.2	.72	.70	1.1	.40
14	.71	1.1	1.3	1.8	5.5	2.3	1.9	.91	.74	.55	1.1	.40
15	.72	1.1	1.9	2.2	4.3	2.1	2.3	.81	.69	4.3	1.0	.51
16	.70	.96	1.5	1.8	3.7	1.8	2.2	.86	21	7.0	1.2	.43
17	.86	.99	1.3	1.7	3.0	1.8	1.9	181	12	1.7	1.0	.47
18	.78	1.4	1.3	1.8	2.8	1.7	1.9	17	3.4	.59	1.3	.47
19	.79	4.4	2.8	1.9	3.0	1.7	2.3	3.2	1.1	.49	1.9	.40
20	1.4	1.4	2.1	1.4	3.1	1.7	2.4	2.0	.81	.47	1.2	.53
21	1.3	1.1	4.8	1.2	2.6	1.6	1.9	3.4	.72	1.1	5.7	.45
22	10	1.0	6.1	1.1	2.6	1.6	1.7	3.3	.70	2.8	1.6	.41
23	20	1.0	2.0	1.3	3.0	5.1	1.6	7.5	.68	3.2	1.0	.44
24	9.3	1.0	1.8	1.8	2.9	6.5	1.6	2.6	.67	.57	.94	.79
25	2.3	1.1	3.1	1.9	2.5	6.0	1.7	1.5	.59	9.2	20	.58
26	1.4	1.0	1.6	1.8	2.5	2.5	1.9	1.3	.56	25	7.6	57
27	1.2	.98	1.6	1.6	2.0	2.4	1.5	1.1	.74	9.7	1.9	346
28	1.1	1.4	1.6	1.8	1.7	2.8	1.8	1.8	.94	1.2	1.0	4.4
29	5.1	11	1.5	1.7	---	2.9	2.0	2.6	.97	.70	.76	1.9
30	1.6	1.6	1.5	1.6	---	3.0	1.3	1.0	.74	.63	.76	1.4
31	1.2	---	1.6	1.7	---	3.9	---	.98	---	383	.76	---
TOTAL	95.47	66.73	90.5	64.5	332.5	90.8	76.6	335.46	66.04	491.86	120.53	460.75
MEAN	3.08	2.22	2.92	2.08	11.9	2.93	2.55	10.8	2.20	15.9	3.89	15.4
MAX	20	16	25	5.7	209	11	19	181	21	383	48	346
MIN	.70	.96	1.2	1.1	1.7	1.6	1.3	.81	.56	.47	.76	.40
CFSM	.41	.30	.39	.28	1.60	.39	.34	1.45	.30	2.13	.52	2.06
IN.	.48	.33	.45	.32	1.66	.45	.38	1.67	.33	2.45	.60	2.30

CAL YR 1984 TOTAL 3643.60 MEAN 9.96 MAX 294 MIN .69 CFSM 1.34 IN 18.17
WTR YR 1985 TOTAL 2291.74 MEAN 6.28 MAX 383 MIN .40 CFSM .84 IN 11.43

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

LOCATION.--Lat 39°38'14", long 75°43'43", New Castle County, Hydrologic Unit 02040205, on right bank 60 ft downstream from highway bridge, 0.5 mi southeast of Coochs Bridge, 3.3 mi south of Newark, 3.6 mi upstream from Belltown Run, and 22.6 mi upstream from mouth.

DRAINAGE AREA.--20.5 mi².

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

REVISED RECORDS.--WDR MD-DE-79-1: 1943-70(P).

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 14, 1944, nonrecording gage on upstream side of bridge at same datum. Sept. 14, 1944, to May 13, 1969, recording gage at site on left bank at downstream side of highway bridge at same datum. May 26, 1969, to Dec. 5, 1973, recording gage on left bank 82 ft downstream from highway bridge at same datum.

REMARKS.--Estimated daily discharges: Feb. 6-8. Records good except those for period with ice effect, Feb. 6-8, which are fair. Low and medium flow regulated by mill upstream from station. 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, 28.5 ft³/s, 18.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,330 ft³/s, May 1, 1947, gage height, 12.41 ft; minimum daily discharge, 0.2 ft³/s, Aug. 7, 14, 18, 21, 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1730	2,020	10.91	Sept. 27	1300	*2,090	*10.98
July 31	1915	1,580	10.48				

Minimum daily discharge, 1.5 ft³/s, Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	9.6	12	11	64	12	90	5.5	4.9	4.8	70	2.7
2	18	8.8	11	15	146	12	17	22	4.4	2.0	8.8	2.9
3	11	8.3	17	16	44	11	16	254	13	5.0	6.3	2.8
4	8.8	8.0	15	16	18	11	15	21	9.4	2.0	5.1	4.0
5	7.8	59	14	24	13	17	13	12	8.8	4.1	4.2	1.9
6	8.5	12	149	16	14	12	11	9.8	6.2	4.2	2.7	2.2
7	8.1	9.7	20	14	13	11	10	8.8	4.7	5.3	3.8	2.2
8	7.9	8.9	14	13	11	16	10	7.9	10	8.2	54	7.5
9	7.7	9.9	13	11	9.1	13	11	7.1	6.3	6.6	7.0	40
10	8.7	8.9	12	9.1	9.6	11	11	7.1	5.3	47	8.6	7.0
11	8.6	8.7	12	8.9	11	11	9.6	6.7	4.3	8.6	4.4	3.7
12	6.7	11	12	9.7	558	40	9.8	8.8	5.0	3.7	9.6	2.8
13	6.6	7.9	11	9.7	110	15	9.5	7.4	3.2	3.4	3.5	2.3
14	5.9	8.0	12	10	32	12	9.1	6.3	5.4	3.1	3.0	2.2
15	7.1	6.6	11	11	21	11	10	5.5	2.6	12	3.1	2.1
16	7.0	8.0	9.2	8.6	20	10	9.8	5.6	32	12	5.2	2.1
17	6.0	7.9	11	8.7	17	10	9.3	58	13	3.5	1.8	2.2
18	7.3	8.1	9.3	12	17	9.8	8.6	15	7.7	2.8	2.2	4.6
19	5.9	17	13	11	17	9.5	8.6	7.2	5.2	2.6	4.7	2.5
20	5.1	9.9	12	10	14	10	8.3	6.9	4.1	2.6	3.2	2.3
21	6.5	8.4	15	8.7	14	12	8.3	5.1	3.9	2.4	19	2.2
22	15	8.1	25	7.5	15	9.7	8.3	6.7	3.7	6.6	4.6	2.2
23	51	8.2	13	8.6	16	18	7.1	16	3.7	2.3	5.4	1.9
24	34	8.0	11	9.1	16	29	8.2	10	3.6	4.2	1.6	1.5
25	13	7.9	13	11	16	37	6.8	6.7	3.4	14	67	4.5
26	9.8	9.9	10	9.1	13	13	7.7	6.0	3.1	23	37	28
27	9.1	7.1	11	9.0	13	12	6.5	5.3	4.6	10	8.4	842
28	8.8	9.0	11	9.8	13	11	6.5	8.4	4.4	4.4	5.3	30
29	18	95	11	8.8	---	13	6.6	7.7	4.3	4.6	4.0	9.7
30	11	15	10	8.6	---	14	5.9	5.2	3.6	2.2	3.9	6.3
31	9.9	---	10	8.6	---	15	---	5.0	---	355	1.9	---
TOTAL	403.8	412.8	529.5	343.5	1274.7	448.0	368.5	564.7	193.8	572.2	369.3	1028.3
MEAN	13.0	13.8	17.1	11.1	45.5	14.5	12.3	18.2	6.46	18.5	11.9	34.3
MAX	65	95	149	24	558	40	90	254	32	355	70	842
MIN	5.1	6.6	9.2	7.5	9.1	9.5	5.9	5.0	2.6	2.0	1.6	1.5
CFSM	.63	.67	.83	.54	2.22	.71	.60	.89	.32	.90	.58	1.67
IN.	.73	.75	.96	.62	2.31	.81	.67	1.02	.35	1.04	.67	1.87

CAL YR 1984 TOTAL 12388.4 MEAN 33.8 MAX 727 MIN 4.3 CFSM 1.65 IN 22.48
WTR YR 1985 TOTAL 6509.1 MEAN 17.8 MAX 842 MIN 1.5 CFSM .87 IN 11.81

01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°51'47", long 75°40'33", New Castle County Hydrologic Unit 02040205, on left bank 35 ft downstream from bridge on private road at Delaware Park Race Track, 0.4 mi downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi downstream from Pike Creek, 3.8 mi east of Newark, and 5.0 mi upstream from mouth. Prior to April 8, 1976, at site 0.5 mi upstream.

DRAINAGE AREA.--89.1 mi².

PERIOD OF RECORD.--October 1931 to September 1936, June 1943 to September 1957, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: 1933(M). WSP 1382: 1932, 1934. WDR MD-DE-83-1: 1978-82(P).

GAGE.--Water-stage recorder. Datum of gage is 9.00 ft above National Geodetic Vertical Datum of 1929. Nov. 17, 1931, to Sept. 30, 1936, June 4, 1943, to Sept. 30, 1957, and Oct. 1, 1959, to Apr. 7, 1976, at site 0.5 mi upstream at datum 2.6 ft higher.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 11. Records good except those for period with ice effect, Jan. 10 to Feb. 11, which are fair. Slight diurnal fluctuation at low flow caused by mills above station. Records do not include a negligible diversion upstream from station by E. I. du Pont de Nemours & Co. Gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some periods have been collected at this location.

AVERAGE DISCHARGE.--45 years (water years 1932-36, 1944-57, 1960-85, 114 ft³/s, 17.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft³/s, June 22, 1972, gage height, 15.91 ft, present datum, from rating curve extended above 6,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow minimum discharge, 4.7 ft³/s, Sept. 11, 1966 minimum daily discharge, 5.0 ft³/s, Sept. 10, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23 ft, previous site and datum, in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	2215	*4,400	*14.68	Sept. 27	1515	3,170	13.52
July 31	2200	2,430	12.65				

Minimum daily discharge, 22 ft³/s, Sept. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	65	84	69	115	82	176	45	48	37	475	28
2	122	65	75	79	530	81	82	63	45	32	76	28
3	74	62	92	79	230	79	77	542	49	31	56	28
4	63	61	94	74	73	77	77	110	63	31	49	27
5	59	302	81	95	70	88	72	76	51	30	44	25
6	57	106	377	81	73	77	69	67	50	31	42	24
7	56	77	129	77	68	73	65	63	44	40	39	24
8	56	70	96	75	64	80	63	59	52	41	540	35
9	56	68	88	67	62	77	63	55	48	48	86	47
10	57	67	82	64	62	73	62	54	44	64	54	44
11	55	70	79	68	150	71	62	53	40	47	50	43
12	56	67	75	66	1960	103	62	54	40	33	49	28
13	54	62	74	66	620	84	61	72	38	31	38	25
14	54	61	71	66	183	74	60	56	38	29	35	25
15	53	60	74	66	136	72	61	51	38	33	34	24
16	52	61	72	60	113	69	61	50	88	40	32	23
17	53	60	70	63	99	69	60	127	77	30	32	23
18	54	62	69	65	92	67	56	107	50	26	33	23
19	53	87	75	64	90	65	55	63	41	24	36	23
20	62	69	74	56	91	66	55	55	38	24	32	23
21	61	62	80	41	86	65	53	52	40	25	48	22
22	64	62	116	42	86	64	52	55	39	34	35	23
23	190	62	84	50	94	76	50	70	34	31	29	25
24	134	61	74	58	98	87	49	66	34	27	28	27
25	93	61	80	62	97	95	52	55	33	58	97	25
26	74	59	71	63	92	74	50	50	31	71	105	48
27	69	59	72	62	91	68	49	48	36	64	44	1710
28	66	60	70	62	84	67	47	51	36	41	34	208
29	148	341	69	61	---	67	47	51	36	30	31	87
30	86	107	67	61	---	69	46	48	35	28	29	64
31	70	---	66	64	---	70	---	47	---	731	29	---
TOTAL	2360	2536	2780	2026	5609	2329	1894	2415	1336	1842	2341	2809
MEAN	76.1	84.5	89.7	65.4	200	75.1	63.1	77.9	44.5	59.4	75.5	93.6
MAX	190	341	377	95	1960	103	176	542	88	731	540	1710
MIN	52	59	66	41	62	64	46	45	31	24	28	22
CFSM	.85	.95	1.01	.73	2.25	.84	.71	.87	.50	.67	.85	1.05
IN.	.99	1.06	1.16	.85	2.34	.97	.79	1.01	.56	.77	.98	1.17

CAL YR 1984 TOTAL 59889 MEAN 164 MAX 1530 MIN 52 CFSM 1.84 IN 25.00
WTR YR 1985 TOTAL 30277 MEAN 83.0 MAX 1960 MIN 22 CFSM .93 IN 12.64

01480000 RED CLAY CREEK AT WOODDALE, DE

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, Hydrologic Unit 02040205, on right bank 12 ft upstream from bridge on State Highway 48, 0.3 mi south of Wooddale, 2.3 mi north of Marshallton, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--47.0 mi².

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

REVISED RECORDS.--WSP 1141: 1948. WSP 1272: 1951(m). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WSP 2102: 1960(M), 1964(M), 1966-67(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 21-24 and Feb. 8-11. Records good except those for periods with ice effect, Jan. 21-24 and Feb. 8-11, which are fair. Some diurnal fluctuation at low flow caused by mills upstream from 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, 64.3 ft³/s, 18.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft³/s, July 21, 1975, gage height, 10.32 ft; minimum discharge, 2.9 ft³/s, Sept. 4, 1966; minimum daily discharge, 4.5 ft³/s, Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1930	*2,950	*7.34	Sept. 27	1245	1,670	5.57
July 31	1945	1,640	5.52				

Minimum discharge, 14 ft³/s, July 21, gage height, 2.31 ft; minimum daily discharge, 15 ft³/s, July 19-21, Sept. 15, 16, 19-22.

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	76	39	43	38	73	38	92	26	26	19	145	19
2	62	39	38	41	151	40	46	28	23	19	35	19
3	43	36	48	41	60	38	44	219	23	19	27	18
4	38	35	48	39	44	37	46	55	30	18	24	18
5	36	127	41	46	46	47	42	39	27	17	22	17
6	34	54	148	42	49	38	39	35	26	18	21	17
7	34	43	61	42	41	36	35	33	23	21	20	16
8	34	40	48	42	35	41	35	31	26	19	247	25
9	35	39	44	35	32	38	35	29	27	34	44	30
10	35	38	43	34	32	35	34	29	23	29	56	36
11	34	39	42	35	38	35	34	28	21	25	30	38
12	33	39	40	35	931	56	33	27	21	19	26	19
13	32	36	40	34	161	43	32	34	21	19	26	18
14	31	35	38	35	72	38	32	29	20	18	23	16
15	31	34	41	34	59	36	33	26	20	18	22	15
16	31	34	39	30	51	35	34	26	42	22	20	15
17	32	33	39	32	47	34	33	83	75	18	20	16
18	33	33	38	34	46	33	31	66	30	16	20	16
19	32	46	40	33	47	32	31	35	25	15	23	15
20	40	37	40	27	47	34	30	30	22	15	20	15
21	35	35	40	22	43	33	30	29	25	15	24	15
22	34	34	59	21	45	32	29	29	21	18	22	15
23	89	34	44	23	51	41	29	34	20	29	19	16
24	66	34	40	30	51	42	28	35	19	16	19	18
25	49	34	44	33	49	51	30	29	19	20	41	16
26	42	33	38	33	46	38	29	27	19	46	61	18
27	39	33	39	32	47	36	28	25	19	45	26	719
28	38	34	39	33	43	36	27	25	24	23	22	76
29	89	132	39	34	---	36	27	27	21	19	20	39
30	48	50	37	34	---	36	26	25	19	18	20	31
31	42	---	36	36	---	36	---	24	---	383	20	---
TOTAL	1327	1309	1414	1060	2437	1181	1054	1217	757	1030	1165	1361
MEAN	42.8	43.6	45.6	34.2	87.0	38.1	35.1	39.3	25.2	33.2	37.6	45.4
MAX	89	132	148	46	931	56	92	219	75	383	247	719
MIN	31	33	36	21	32	32	26	24	19	15	19	15
CFSM	.91	.93	.97	.73	1.85	.81	.75	.84	.54	.71	.80	.97
IN.	1.05	1.04	1.12	.84	1.93	.93	.83	.96	.60	.82	.92	1.08

CAL YR 1984 TOTAL 30632 MEAN 83.7 MAX 690 MIN 29 CFSM 1.78 IN 24.24
WTR YR 1985 TOTAL 15312 MEAN 42.0 MAX 931 MIN 15 CFSM .89 IN 12.12

01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi downstream from Rising Sun Bridge, in Wilmington, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--314 mi².

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

REVISED RECORDS.--WSP 1432: 1948, 1950.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21-24. Records good except those for period with ice effect, Jan. 21-24, which are fair. Some diurnal fluctuation at low flow caused by mills upstream from station. Flow regulated since November 1973 by Marsh Creek Reservoir, capacity 7,230,000,000 gal, about 27 mi upstream. No diversion just upstream from station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960. 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.--39 years, 483 ft³/s, 20.89 in/yr, adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s, June 23, 1972, gage height, 15.49 ft, from rating curve extended above 18,000 ft³/s; minimum discharge, about 30 ft³/s, Dec. 26, 1948, during period of ice effect; minimum daily discharge, 56 ft³/s, Aug. 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0400	*9,690	*9.88	Sept. 28	0145	6,150	8.31

Minimum discharge, 82 ft³/s, June 26, gage height, 2.52 ft; minimum daily discharge, 94 ft³/s, Sept. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	223	348	216	222	258	465	157	188	142	785	138
2	533	214	274	235	540	256	367	170	172	137	235	128
3	357	206	277	322	348	238	277	1580	162	133	168	123
4	255	193	353	247	225	237	284	763	181	199	151	116
5	225	612	271	258	212	278	262	420	167	164	141	111
6	212	405	717	251	227	263	243	339	167	135	129	108
7	203	266	649	232	215	228	230	270	157	324	132	111
8	196	227	354	241	203	238	213	234	159	227	915	117
9	200	209	293	217	192	246	216	211	161	443	298	144
10	201	202	292	170	193	222	218	205	158	215	209	162
11	197	196	533	217	190	219	210	196	150	174	166	158
12	190	197	533	206	2830	273	210	182	145	150	155	122
13	188	183	527	216	4750	296	204	203	144	144	138	110
14	183	175	285	209	838	234	202	188	143	136	133	104
15	174	172	244	214	588	222	205	172	143	134	133	98
16	170	172	238	173	488	207	212	169	230	384	130	99
17	170	169	227	195	437	205	217	746	532	218	127	100
18	169	168	219	214	412	204	201	623	247	146	126	98
19	168	204	220	213	406	195	203	337	183	134	132	97
20	176	192	239	177	411	196	203	248	159	123	131	94
21	174	174	234	140	386	196	199	210	160	122	138	98
22	164	170	346	133	379	194	198	232	152	133	142	96
23	374	168	323	140	463	220	188	260	144	170	127	101
24	337	167	245	168	494	253	189	284	136	130	122	108
25	276	164	266	173	441	275	198	228	131	124	217	107
26	225	166	287	178	405	243	194	196	122	229	402	130
27	206	164	274	170	394	212	183	186	122	700	195	3900
28	193	166	275	174	304	210	170	181	142	390	148	2850
29	360	885	273	172	---	212	164	217	145	185	132	568
30	298	626	231	169	---	218	159	189	152	157	131	397
31	231	---	205	173	---	210	---	175	---	661	139	---
TOTAL	7332	7435	10052	6213	17193	7158	6684	9771	5154	6863	6427	10693
MEAN	237	248	324	200	614	231	223	315	172	221	207	356
MAX	533	885	717	322	4750	296	465	1580	532	700	915	3900
MIN	164	164	205	133	190	194	159	157	122	122	122	94
(†)	+3.1	-7.4	-24.6	0	+7.2	+10.7	+8.1	+3.9	-1.5	+2.1	-1.8	+10.9
MEAN#	240	241	299	200	621	242	231	319	171	223	205	367
CFSM#	0.76	0.77	0.95	0.64	1.98	0.77	0.74	1.02	0.54	0.71	0.65	1.17
IN#	0.88	0.85	1.10	0.74	2.06	0.89	0.82	1.17	0.61	0.82	0.75	1.31

CAL YR 1984 TOTAL 268430 MEAN 733 MAX 4640 MIN 164 MEAN# 730 CFSM# 2.32 IN# 31.67
WTR YR 1985 TOTAL 100975 MEAN 277 MAX 4750 MIN 94 MEAN# 278 CFSM# 0.89 IN# 11.99

† Change in contents in Marsh Creek Reservoir, equivalent in cubic feet per second, furnished by Pennsylvania Department of Environmental Resources.
# Adjusted for change in reservoir contents.

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, water-quality recorder located on platform about 0.4 mi downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi², approximately.

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURE: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1970.

REMARKS.--Interruptions in record due to instrument malfunctions and pump failures.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 microsiemens, Nov. 15, 1978; minimum, 100 microsiemens on several days during August 1969, April 1970, February 1974, January, February, and March 1979.
pH: Maximum, 8.9 units, Mar. 4, 1980; minimum, 5.4, units Dec. 31, 1972.
WATER TEMPERATURE: Maximum, 31.5°C, July 21, 1977, July 19, 1982; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 16, 19, 1976; minimum, 0.3 mg/L, Sept. 16, 17, 1971.

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	22600	13200	17400	---	---	---	19800	12500	15500	16900	7200	11900
2	20600	14300	17400	---	---	---	19000	10800	14700	16700	7040	11700
3	21000	12700	16800	---	---	---	20600	11600	15900	16100	8200	11800
4	19800	12600	15100	---	---	---	19600	11100	14900	18400	8400	13000
5	20300	12000	15700	---	---	---	18000	9320	12800	17500	9280	12900
6	20900	12700	16100	---	---	---	20600	10400	14700	18400	8480	12300
7	18700	13000	15700	---	---	---	15400	9200	11800	17300	8330	11000
8	19200	12600	15200	---	---	---	17800	7960	11500	---	---	---
9	18700	12400	15000	---	---	---	17500	7360	10900	---	---	---
10	19400	12300	15200	---	---	---	18700	8520	12700	---	---	---
11	18600	13600	---	---	---	---	18200	9080	12600	---	---	---
12	---	---	---	---	---	---	18200	9000	12800	---	---	---
13	---	---	---	---	---	---	17400	9000	12600	---	---	---
14	---	---	---	---	---	---	17500	8600	12200	---	---	---
15	23800	15800	---	---	---	---	17900	9240	13000	---	---	---
16	22600	16000	18900	20500	14400	---	17000	8920	13000	---	---	---
17	22600	15400	18300	19900	12000	15100	16500	9360	12200	---	---	---
18	21600	15200	18100	22000	11600	16400	16300	9160	11600	---	---	---
19	23200	14800	18300	22800	12300	17300	17400	9440	12300	---	---	---
20	21600	14600	17800	22600	13500	17300	18000	9400	12200	---	---	---
21	22400	14200	17500	23000	13500	16800	16900	9360	11700	---	---	---
22	20700	14400	17000	23000	13600	17400	18300	9760	12800	---	---	---
23	---	---	---	24500	14400	18400	15400	8920	10900	---	---	---
24	---	---	---	23400	14400	17500	16100	8200	10700	---	---	---
25	---	---	---	23600	14300	17700	12800	6200	9140	---	---	---
26	---	---	---	22800	13900	18000	11800	5720	8280	---	---	---
27	---	---	---	21300	14100	17100	---	---	---	---	---	---
28	---	---	---	22800	14300	18300	14400	6400	---	---	---	---
29	---	---	---	21500	14700	17500	12700	5760	8720	---	---	---
30	20400	17400	---	20100	13200	15900	12300	6200	8830	---	---	---
31	---	---	---	---	---	---	16300	6760	10800	---	---	---
MONTH	23800	12000	16800	24500	11600	17200	20600	5720	12100	18400	7040	12100

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	---	---	---	11600	7170	9920	17700	9730	13800	17500	8170	12000
2	---	---	---	15600	7130	11800	17200	9250	12200	18800	8610	12200
3	---	---	---	16300	5570	10200	18400	8210	12100	19300	8410	13200
4	---	---	---	17900	7130	11700	15300	7170	10600	20300	8250	13400
5	---	---	---	16100	8090	11200	15500	7170	10200	18600	7810	11500
6	---	---	---	---	---	---	14900	6090	9700	15900	7290	10500
7	---	---	---	---	---	---	13800	5850	8900	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	8930	4960	6710	---	---	---
10	---	---	---	---	---	---	11900	5370	7800	---	---	---
11	---	---	---	12100	6850	9150	---	---	---	---	---	---
12	---	---	---	15300	6770	9960	---	---	---	---	---	---
13	---	---	---	11100	4720	6890	---	---	---	11900	6010	8590
14	---	---	---	13200	4560	7590	---	---	---	11500	5450	8140
15	---	---	---	13800	4440	7070	---	---	---	14900	6930	10000
16	---	---	---	11000	3680	6340	---	---	---	13200	6650	9470
17	---	---	---	12900	3760	7470	---	---	---	14200	7130	9660
18	17600	8850	12600	13300	4000	7770	---	---	---	14500	6570	9390
19	18000	8850	12000	17300	5290	10500	---	---	---	14300	6450	9120
20	18100	8490	11900	16200	6770	10600	---	---	---	12400	6090	8260
21	16000	8290	11900	13300	5610	8460	---	---	---	14800	5810	8340
22	16100	8410	11700	12600	6170	8540	11700	6530	8770	13900	5250	7990
23	14000	7170	10200	12900	6450	9560	14600	6250	9360	14000	5850	8710
24	14600	7650	10600	14700	6810	10500	15000	7410	10300	14700	5930	9340
25	14900	7090	10000	12000	7130	9670	14200	6570	9800	14600	6410	9900
26	14100	6810	10200	13300	6490	9500	14000	6770	10200	14900	7010	10200
27	16600	7690	11800	14400	6250	9740	15500	7330	10200	15200	7330	10400
28	---	---	---	15200	7170	10300	15500	7210	11200	14700	6930	10000
29	---	---	---	15400	7210	10400	15300	7570	11100	17300	8250	12200
30	---	---	---	16300	7130	11700	16700	7890	11900	16700	8370	11900
31	---	---	---	16100	8210	12300	---	---	---	16500	8530	11300
MONTH	18100	6810	11300	17900	3680	9570	18400	4960	10300	20300	5250	10200
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15900	7530	10300	18500	10100	13100	18000	8250	11000	19700	11900	15100
2	16000	7250	9790	19500	10200	13200	17600	8930	12000	20500	12100	15500
3	14100	8370	10100	19000	10400	13200	18500	10300	12600	17700	11800	14300
4	16500	8370	10800	18700	10300	12900	17100	10100	11900	18900	12100	15100
5	16800	8850	11500	15900	10400	13000	17000	9810	11700	18900	11900	14500
6	16100	8610	11200	15500	10000	10200	13900	8570	10800	---	---	---
7	15700	8410	11100	13500	9450	9100	15200	9050	11700	---	---	---
8	15100	8850	10000	14600	9890	10500	13800	7370	10700	---	---	---
9	14800	8370	9500	16400	9410	12000	---	---	---	21000	13900	17000
10	12800	8410	9000	17500	10300	13300	---	---	---	22600	12600	17200
11	15800	8050	10900	17900	9770	12900	---	---	---	24200	13300	17400
12	16300	8970	11900	18300	9370	13300	16700	7730	11300	22600	14000	18200
13	16100	8530	11600	16000	8570	11800	19200	7610	12300	23300	14700	17600
14	16600	7930	11100	15700	7810	11200	18000	8410	11900	23200	14800	18700
15	19200	7450	11500	19500	9130	13300	19100	8050	11900	23300	14700	18400
16	18600	8130	12400	17900	8610	12000	18700	8850	12000	22500	15500	18800
17	17800	8370	11900	18500	9010	12000	18600	9290	12800	24200	15400	19300
18	15600	8730	11700	19200	8890	13700	17500	10100	11900	23700	15600	19200
19	18400	8290	11800	20300	10900	14500	17700	10800	12700	23800	15700	18900
20	17700	8490	10700	20600	10500	14000	19300	10700	14600	23300	15800	18600
21	15300	7730	9300	18500	10500	13700	18400	10900	14200	23100	15900	18400
22	17000	8370	8600	17000	10200	12800	19500	11000	14800	23400	15700	18400
23	12500	8010	9000	16100	9930	12400	19400	11100	14400	24300	16700	20100
24	12100	7450	8940	16900	9810	12900	20100	11800	15000	24800	16700	20600
25	15400	7170	10200	17300	10300	12800	18400	11700	14200	24900	16300	19400
26	16500	7810	10900	16000	9730	12400	18300	10700	13200	24300	17100	20200
27	20300	8610	13400	15400	7650	10100	17800	10500	12900	24500	15100	19500
28	19300	9690	14100	17400	8090	10700	17700	10100	12300	17800	2560	13200
29	19100	9810	12800	18400	9130	12300	18300	10400	12900	13900	5530	9720
30	18500	9770	12300	18100	9330	12300	19400	10800	14100	13700	4400	8140
31	---	---	---	19400	9210	12900	19000	10900	14000	---	---	---
MONTH	20300	7170	10900	20600	7650	12400	20100	7370	12700	24900	2560	17100

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.5	7.4	7.4	---	---	---	7.9	7.8	7.9	7.9	7.7	7.8
2	7.5	7.4	7.4	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8
3	7.6	7.4	7.5	---	---	---	7.9	7.8	7.9	7.9	7.7	7.8
4	7.6	7.4	7.5	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8
5	7.5	7.4	7.5	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8
6	7.6	7.4	7.5	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8
7	7.5	7.4	7.5	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8
8	7.6	7.4	7.5	---	---	---	7.9	7.8	7.9	---	---	---
9	7.5	7.4	7.5	---	---	---	7.9	7.8	7.9	---	---	---
10	7.5	7.4	7.4	---	---	---	7.9	7.8	7.8	---	---	---
11	7.5	7.4	---	---	---	---	8.1	7.8	8.0	---	---	---
12	---	---	---	---	---	---	8.1	7.9	8.0	---	---	---
13	---	---	---	---	---	---	8.1	7.9	8.0	---	---	---
14	---	---	---	---	---	---	8.0	7.9	8.0	---	---	---
15	7.8	7.6	---	---	---	---	8.1	7.9	8.0	---	---	---
16	7.7	7.6	7.6	7.9	7.8	---	8.0	7.9	7.9	---	---	---
17	7.6	7.5	7.5	7.9	7.8	7.9	8.0	7.8	7.9	---	---	---
18	7.6	7.5	7.5	8.0	7.8	7.9	8.0	7.8	7.9	---	---	---
19	7.6	7.5	7.6	7.9	7.8	7.9	7.9	7.8	7.9	---	---	---
20	7.6	7.5	7.5	7.9	7.8	7.9	7.9	7.8	7.8	---	---	---
21	7.6	7.4	7.5	8.0	7.9	7.9	7.9	7.7	7.8	---	---	---
22	7.5	7.4	7.4	8.0	7.8	7.9	7.9	7.8	7.8	---	---	---
23	---	---	---	8.0	7.8	7.9	7.9	7.8	7.8	---	---	---
24	---	---	---	8.0	7.8	7.9	7.9	7.7	7.8	---	---	---
25	---	---	---	8.2	7.9	8.0	7.8	7.7	7.8	---	---	---
26	---	---	---	8.0	7.9	7.9	7.8	7.7	7.8	---	---	---
27	---	---	---	7.9	7.8	7.9	---	---	---	---	---	---
28	---	---	---	7.9	7.8	7.9	7.9	7.7	---	---	---	---
29	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8	---	---	---
30	7.4	7.4	---	7.9	7.8	7.8	7.9	7.8	7.8	---	---	---
31	---	---	---	---	---	---	7.9	7.7	7.8	---	---	---
MONTH	7.8	7.4	7.5	8.2	7.8	7.9	8.1	7.7	7.9	7.9	7.7	7.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.9	7.7	7.8	8.4	8.0	8.3	8.1	7.6	7.8
2	---	---	---	8.0	7.7	7.8	8.4	7.9	8.1	8.1	7.6	7.8
3	---	---	---	8.0	7.7	7.8	8.5	7.9	8.1	8.0	7.7	7.9
4	---	---	---	8.1	7.7	7.8	8.3	7.8	8.0	8.1	7.7	7.9
5	---	---	---	7.9	7.7	7.8	8.3	7.8	8.0	8.0	7.6	7.7
6	---	---	---	---	---	---	8.3	7.7	7.9	---	---	---
7	---	---	---	---	---	---	8.2	5.6	7.6	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	7.8	7.3	10.3	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	7.9	7.6	7.7	---	---	---	---	---	---
12	---	---	---	8.0	7.7	7.8	---	---	---	---	---	---
13	---	---	---	7.8	7.7	7.7	---	---	---	7.7	7.6	7.6
14	---	---	---	8.0	7.7	7.8	---	---	---	7.7	7.5	7.6
15	---	---	---	8.0	7.7	7.8	---	---	---	7.8	7.6	7.7
16	---	---	---	8.0	7.7	7.8	---	---	---	7.7	7.6	7.6
17	---	---	---	8.1	7.7	7.8	---	---	---	7.6	7.6	7.6
18	7.9	7.7	7.9	8.2	7.7	7.9	---	---	---	7.8	7.5	7.6
19	7.9	7.7	7.8	8.4	7.9	8.1	---	---	---	7.8	7.6	7.7
20	7.9	7.7	7.8	8.4	7.8	8.1	---	---	---	7.8	7.6	7.7
21	7.9	7.7	7.8	8.2	7.8	7.9	---	---	---	7.7	7.6	7.7
22	7.9	7.7	7.8	8.2	7.8	7.9	8.1	7.7	7.9	7.7	7.5	7.6
23	7.9	7.7	7.8	8.2	7.8	8.0	8.3	7.6	7.9	7.7	7.5	7.6
24	8.0	7.8	7.8	8.3	7.8	8.0	8.3	7.7	7.9	7.7	7.6	7.6
25	8.0	7.8	7.9	8.1	7.8	8.0	8.2	7.6	7.8	7.7	7.6	7.6
26	8.0	7.7	7.8	8.2	7.8	8.0	8.1	7.6	7.8	7.6	7.5	7.6
27	8.0	7.3	7.8	8.3	7.8	8.0	8.2	7.6	7.8	7.6	7.5	7.6
28	---	---	---	8.4	7.8	8.1	8.1	7.6	7.9	7.6	7.5	7.5
29	---	---	---	8.4	7.8	8.1	8.1	7.6	7.8	7.3	7.1	7.2
30	---	---	---	8.4	7.8	8.1	8.1	7.7	7.9	7.2	7.1	7.2
31	---	---	---	8.4	7.9	8.2	---	---	---	7.3	7.1	7.2
MONTH	8.0	7.3	7.8	8.4	7.6	7.9	8.5	5.6	8.1	8.1	7.1	7.6

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.2	7.1	7.1	7.4	7.3	7.3	7.3	7.2	7.3	7.4	7.3	7.3
2	7.2	7.0	7.1	7.3	7.3	7.3	7.4	7.2	7.3	7.5	7.3	7.4
3	7.1	7.0	7.0	7.3	7.2	7.3	7.4	7.2	7.3	7.4	7.3	7.4
4	7.1	7.0	7.0	7.3	7.2	7.2	7.5	7.2	7.3	7.4	7.3	7.3
5	7.1	7.0	7.0	7.3	7.2	7.2	7.5	7.2	7.3	7.5	7.3	7.4
6	7.1	7.0	7.1	7.2	7.2	7.2	7.4	7.2	7.3	7.6	7.3	7.5
7	7.1	7.0	7.1	7.2	7.1	7.2	7.4	7.2	7.3	---	---	---
8	7.1	7.1	7.1	7.2	7.1	7.2	---	---	---	---	---	---
9	7.2	7.1	7.1	7.3	7.2	7.2	---	---	---	7.6	7.4	7.5
10	7.1	7.1	7.1	7.3	7.1	7.2	---	---	---	7.6	7.4	7.5
11	7.2	7.0	7.1	7.3	7.2	7.2	---	---	---	7.6	7.4	7.5
12	7.2	7.1	7.1	7.3	7.1	7.2	7.5	7.1	7.3	7.6	7.5	7.6
13	7.3	7.1	7.2	7.3	7.1	7.2	7.6	7.2	7.4	7.7	7.5	7.6
14	7.3	7.2	7.2	7.3	7.1	7.2	7.4	7.2	7.3	7.7	7.6	7.6
15	7.4	7.2	7.3	7.3	7.1	7.2	7.4	7.1	7.3	7.7	7.6	7.6
16	7.3	7.2	7.3	7.2	7.1	7.2	7.3	7.1	7.2	7.7	7.6	7.6
17	7.3	7.2	7.2	7.3	7.1	7.2	7.4	7.2	7.2	7.7	7.6	7.6
18	7.2	7.2	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.6	7.6	7.6
19	7.3	7.2	7.2	7.3	7.1	7.2	7.3	7.2	7.3	7.6	7.5	7.6
20	7.3	7.2	7.2	7.2	7.1	7.2	7.3	7.2	7.2	7.6	7.5	7.5
21	7.3	7.1	7.2	7.2	7.1	7.2	7.3	7.1	7.2	7.5	7.5	7.5
22	7.2	7.2	7.2	7.2	7.1	7.2	7.3	7.1	7.2	7.5	7.4	7.5
23	---	---	7.1	7.3	7.1	7.2	7.4	7.2	7.2	7.6	7.5	7.5
24	7.2	7.1	7.1	7.3	7.2	7.2	7.4	7.2	7.3	7.6	7.5	7.5
25	7.2	7.1	7.2	7.4	7.2	7.3	7.3	7.2	7.3	7.6	7.5	7.5
26	7.3	7.1	7.2	7.4	7.2	7.3	7.3	7.2	7.3	7.6	7.5	7.5
27	7.4	7.2	7.3	7.3	7.2	7.2	7.3	7.2	7.3	7.7	7.5	7.6
28	7.4	7.3	7.3	7.4	7.2	7.3	7.3	7.2	7.3	7.8	7.4	7.5
29	7.4	7.3	7.3	7.3	7.2	7.3	7.4	7.2	7.3	7.5	7.3	7.4
30	7.4	7.3	7.3	7.3	7.2	7.2	7.4	7.2	7.3	7.4	7.2	7.4
31	---	---	---	7.3	7.1	7.2	7.3	7.2	7.3	---	---	---
MONTH	7.4	7.0	7.2	7.4	7.1	7.2	7.6	7.1	7.3	7.8	7.2	7.5

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	19.0	17.5	18.0	---	---	---	9.0	8.0	8.0	8.5	7.5	7.5
2	18.0	17.0	17.5	---	---	---	8.5	8.0	8.0	8.0	7.5	8.0
3	18.0	17.0	17.5	---	---	---	8.5	8.0	8.0	7.5	7.0	7.0
4	18.0	17.0	17.5	---	---	---	8.0	7.5	8.0	7.0	6.5	7.0
5	18.0	17.0	17.5	---	---	---	7.5	7.0	7.5	7.0	6.5	6.5
6	18.0	16.5	17.0	---	---	---	7.5	7.0	7.0	7.5	6.0	6.5
7	17.5	16.5	17.0	---	---	---	7.0	6.0	6.5	8.5	6.5	6.5
8	17.5	16.5	17.0	---	---	---	6.5	5.5	6.0	---	---	---
9	17.5	17.0	17.0	---	---	---	6.5	5.5	6.0	---	---	---
10	18.0	17.0	17.0	---	---	---	6.5	6.0	6.5	---	---	---
11	17.0	17.0	---	---	---	---	7.0	6.5	6.5	---	---	---
12	---	---	---	---	---	---	6.5	6.0	6.5	---	---	---
13	---	---	---	---	---	---	7.5	6.5	7.0	---	---	---
14	---	---	---	---	---	---	7.0	7.0	7.0	---	---	---
15	17.5	17.0	---	---	---	---	7.5	7.0	7.0	---	---	---
16	17.5	16.5	17.0	12.0	10.5	---	7.5	7.0	7.0	---	---	---
17	17.0	17.0	17.0	11.0	10.0	10.5	8.0	7.0	7.5	---	---	---
18	17.5	17.0	17.0	10.5	10.0	10.0	8.5	7.5	7.5	---	---	---
19	18.0	17.0	17.5	10.0	9.0	10.0	7.5	7.0	7.5	---	---	---
20	18.5	17.5	17.5	9.5	8.5	9.0	8.0	7.5	7.5	---	---	---
21	19.0	17.5	18.0	9.0	8.0	8.5	7.5	7.0	7.5	---	---	---
22	19.0	18.0	18.5	8.5	7.5	8.0	8.5	7.5	8.0	---	---	---
23	---	---	---	8.5	7.5	8.0	8.0	7.0	7.5	---	---	---
24	---	---	---	8.0	7.5	8.0	8.0	7.0	7.5	---	---	---
25	---	---	---	8.5	7.5	8.0	7.5	6.5	7.0	---	---	---
26	---	---	---	8.5	7.5	8.0	7.5	6.0	6.5	---	---	---
27	---	---	---	8.5	7.5	8.0	---	---	---	---	---	---
28	---	---	---	9.0	8.0	8.5	7.5	7.0	---	---	---	---
29	---	---	---	8.5	8.0	8.0	8.0	7.0	7.5	---	---	---
30	19.0	19.0	---	9.0	8.0	8.0	8.0	7.5	7.5	---	---	---
31	---	---	---	---	---	---	7.5	7.0	7.5	---	---	---
MONTH	19.0	16.5	17.5	12.0	7.5	8.5	9.0	5.5	7.0	8.5	6.0	7.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	---	---	---	7.0	5.5	6.0	10.5	9.0	9.5	19.5	17.0	18.0
2	---	---	---	7.5	5.5	6.0	10.0	9.0	9.5	18.0	16.5	17.5
3	---	---	---	7.5	5.5	6.5	9.5	8.5	9.0	16.5	16.0	16.5
4	---	---	---	6.5	5.5	6.0	10.0	9.0	9.5	18.0	16.0	16.5
5	---	---	---	8.0	6.5	7.0	11.5	9.5	10.0	18.0	16.5	17.0
6	---	---	---	6.5	1.5	3.0	11.5	10.5	11.0	---	---	---
7	---	---	---	5.5	.0	3.0	11.0	9.0	10.5	---	---	---
8	---	---	---	10.0	5.5	8.0	---	---	---	---	---	---
9	---	---	---	12.5	8.0	10.0	10.5	9.5	10.0	---	---	---
10	---	---	---	13.5	6.5	9.5	10.0	5.5	8.0	---	---	---
11	---	---	---	7.5	7.0	7.5	12.5	5.5	9.0	---	---	---
12	---	---	---	8.0	7.0	7.5	17.5	8.5	12.5	---	---	---
13	---	---	---	8.5	7.0	8.0	14.5	11.0	12.5	21.5	19.5	20.0
14	---	---	---	9.0	7.5	8.0	16.0	10.5	12.5	22.0	20.0	20.5
15	---	---	---	9.0	7.5	8.0	---	---	---	21.0	19.5	20.0
16	---	---	---	9.0	7.5	8.0	---	---	---	21.0	19.5	20.0
17	---	---	---	9.0	7.5	8.0	---	---	---	20.5	20.0	20.0
18	3.5	2.0	2.5	8.0	7.0	7.5	---	---	---	20.5	19.5	20.0
19	3.0	8.0	2.5	8.5	6.0	7.0	---	---	---	20.0	19.0	19.5
20	3.5	2.0	2.5	8.5	7.0	7.5	---	---	---	21.0	20.0	20.0
21	3.0	2.0	2.5	8.0	7.5	7.5	---	---	---	21.5	20.0	20.5
22	4.0	2.5	3.5	7.5	7.0	7.5	17.0	15.5	16.0	21.5	20.0	20.5
23	4.5	3.5	4.0	7.5	7.0	7.5	16.5	15.5	16.0	20.5	20.0	20.5
24	5.5	4.0	5.0	7.5	7.0	7.5	16.0	15.5	15.5	20.5	19.5	20.0
25	6.0	5.0	5.5	8.0	7.5	7.5	17.0	15.5	16.5	22.0	20.0	20.5
26	6.0	5.0	5.5	8.0	7.0	7.5	18.0	16.5	17.5	22.0	20.5	21.0
27	6.5	4.5	5.5	10.0	7.5	8.0	18.5	17.0	18.0	23.0	20.5	21.5
28	5.0	.5	2.5	10.0	8.0	9.0	18.5	17.5	18.0	23.0	21.5	22.0
29	---	---	---	10.5	8.5	9.5	18.5	21.0	18.0	21.5	21.0	21.0
30	---	---	---	10.0	9.0	9.5	19.5	17.0	18.0	22.5	21.0	21.5
31	---	---	---	9.5	9.0	9.0	---	---	---	22.0	21.0	21.5
MONTH	6.5	.5	4.0	13.5	.0	7.5	19.5	5.5	13.0	23.0	16.0	20.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	21.5	22.0	24.0	23.0	23.5	27.0	26.0	26.5	25.5	24.5	25.0
2	23.5	21.5	22.0	24.0	23.0	23.5	27.0	26.0	26.5	26.0	24.5	25.5
3	23.5	22.5	23.0	24.5	23.0	23.5	27.5	26.0	26.5	26.5	25.5	26.0
4	23.5	22.5	23.0	25.5	23.5	24.0	27.5	26.0	26.5	26.5	25.5	26.0
5	23.0	22.5	22.5	25.0	24.0	24.5	27.5	26.0	26.5	27.0	26.0	26.5
6	23.5	22.0	22.5	25.0	24.5	24.5	26.5	26.0	26.5	30.5	26.0	28.0
7	23.5	22.0	22.5	25.5	24.5	25.0	27.0	26.0	26.5	32.5	26.5	29.5
8	22.5	22.0	22.0	25.5	24.5	25.0	27.5	26.0	26.5	29.5	26.5	27.5
9	23.5	22.0	22.5	27.0	24.5	25.0	---	---	---	28.0	27.0	27.5
10	24.0	23.0	23.5	26.0	25.0	25.5	---	---	---	28.0	27.0	27.5
11	24.5	23.0	23.5	26.5	25.0	25.5	---	---	---	27.0	25.5	26.5
12	24.0	23.0	23.5	26.0	25.5	25.5	28.0	27.0	27.5	26.0	24.5	25.5
13	23.5	22.5	23.0	27.0	25.5	26.0	28.5	26.5	27.5	24.5	23.5	24.0
14	23.0	22.0	22.5	28.0	26.0	26.5	29.0	27.0	27.5	24.0	22.5	23.5
15	23.5	22.0	22.5	28.0	26.5	27.0	29.0	27.5	28.0	24.0	22.5	23.0
16	23.5	22.0	22.5	28.0	26.5	27.0	28.5	27.5	28.0	24.0	22.5	23.0
17	23.5	22.5	23.0	28.0	26.0	27.0	28.0	27.0	27.5	23.5	22.5	23.0
18	24.0	22.5	23.5	28.5	26.0	27.0	27.5	26.5	27.0	23.5	22.5	23.0
19	24.0	22.5	23.0	27.5	26.5	27.0	26.5	26.5	27.0	23.5	22.5	23.0
20	23.5	23.0	23.0	27.5	26.5	27.0	27.5	26.5	27.0	24.0	23.0	23.0
21	24.0	22.5	23.5	28.0	27.0	27.5	27.0	26.0	26.5	24.0	23.0	23.5
22	24.0	23.0	23.5	28.0	27.5	27.5	26.5	26.0	26.0	24.0	23.0	23.5
23	25.0	23.5	23.5	27.5	26.5	27.0	26.5	25.5	26.0	23.5	23.0	23.0
24	25.5	24.0	.0	27.5	26.5	27.0	26.5	25.0	26.0	24.0	23.0	23.0
25	25.0	24.0	24.5	28.0	26.5	27.0	26.0	25.0	25.5	24.0	22.5	23.0
26	24.0	23.0	24.0	27.5	26.5	27.0	26.5	25.5	26.0	23.0	22.0	22.5
27	24.0	22.5	23.0	28.5	26.5	27.0	27.0	26.0	26.0	23.0	22.0	22.5
28	23.5	22.5	23.0	28.5	26.5	27.0	26.5	25.5	26.0	22.5	21.5	22.0
29	24.5	22.5	23.0	27.5	27.0	27.0	27.0	25.5	26.0	23.0	21.5	22.0
30	24.0	23.0	23.5	28.0	26.5	27.0	26.5	25.5	26.0	22.5	21.5	22.0
31	---	---	---	27.5	26.5	27.0	26.0	25.0	25.5	---	---	---
MONTH	25.5	21.5	22.0	28.5	23.0	26.0	29.0	25.0	26.5	32.5	21.5	24.5

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.6	6.9	7.3	---	---	---	10.9	10.4	10.6	11.5	11.0	11.3
2	8.8	7.0	7.9	---	---	---	10.9	10.4	10.6	11.6	10.8	11.2
3	8.7	8.0	8.4	---	---	---	11.0	10.4	10.7	12.4	11.2	11.7
4	8.6	8.1	8.4	---	---	---	11.2	10.7	10.9	11.6	11.1	11.3
5	8.5	7.9	8.3	---	---	---	11.1	10.5	10.8	13.6	11.1	11.7
6	8.7	8.1	8.3	---	---	---	10.8	10.5	10.7	14.0	11.5	12.2
7	8.6	8.1	8.3	---	---	---	10.9	10.4	10.6	13.8	11.5	12.0
8	9.1	8.0	8.6	---	---	---	10.9	10.5	10.6	---	---	---
9	8.9	8.5	8.7	---	---	---	10.8	10.4	10.6	---	---	---
10	8.7	8.0	8.3	---	---	---	10.7	10.3	10.5	---	---	---
11	8.4	8.1	---	---	---	---	11.8	10.2	11.1	---	---	---
12	---	---	---	---	---	---	11.7	11.4	11.5	---	---	---
13	---	---	---	---	---	---	11.5	11.1	11.3	---	---	---
14	---	---	---	---	---	---	11.3	10.9	11.1	---	---	---
15	8.8	8.2	---	---	---	---	11.3	10.8	11.0	---	---	---
16	8.6	7.9	8.5	10.0	9.6	---	11.0	10.6	10.8	---	---	---
17	8.6	8.1	8.3	9.9	9.4	9.7	10.9	10.5	10.6	---	---	---
18	8.5	8.1	8.3	9.6	9.3	9.5	10.7	10.2	10.5	---	---	---
19	8.6	8.0	8.4	10.2	9.2	9.7	11.2	10.2	10.8	---	---	---
20	8.7	8.1	8.4	10.1	9.6	9.8	10.9	10.4	10.7	---	---	---
21	8.6	7.4	8.1	10.0	9.6	9.8	10.7	10.2	10.5	---	---	---
22	8.4	7.5	8.0	10.2	9.7	9.9	10.7	10.3	10.5	---	---	---
23	---	---	---	10.1	9.7	9.8	10.6	10.2	10.4	---	---	---
24	---	---	---	10.0	9.6	---	10.8	10.2	10.5	---	---	---
25	---	---	---	10.0	9.7	9.9	10.9	10.3	10.6	---	---	---
26	---	---	---	10.5	9.7	10.1	11.1	10.4	10.6	---	---	---
27	---	---	---	10.4	10.0	10.2	---	---	---	---	---	---
28	---	---	---	11.1	10.1	10.5	11.8	11.2	---	---	---	---
29	---	---	---	11.2	10.7	11.0	12.8	11.2	11.5	---	---	---
30	8.5	7.9	---	11.1	10.6	10.8	11.8	11.4	11.6	---	---	---
31	---	---	---	---	---	---	11.8	11.1	11.5	---	---	---
MONTH	9.1	6.9	8.3	11.2	9.2	10.1	12.8	10.2	10.8	14.0	10.8	11.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.6	12.1	12.4	12.3	11.5	11.8	8.8	8.0	8.3
2	---	---	---	13.2	12.3	12.8	12.0	11.3	11.6	8.7	7.7	8.2
3	---	---	---	13.0	12.0	12.5	11.7	10.9	11.4	8.9	7.9	8.3
4	---	---	---	12.8	11.9	12.3	11.6	10.8	11.2	8.4	7.6	8.1
5	---	---	---	13.4	11.7	12.4	11.4	10.6	11.0	8.7	7.6	8.2
6	---	---	---	---	---	---	11.3	10.1	10.6	---	---	---
7	---	---	---	---	---	---	11.6	10.3	10.6	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	10.6	10.1	10.3	---	---	---
10	---	---	---	---	---	---	10.7	10.0	10.4	---	---	---
11	---	---	---	11.7	11.0	11.4	---	---	---	---	---	---
12	---	---	---	11.9	11.1	11.4	---	---	---	---	---	---
13	---	---	---	11.5	11.0	11.3	---	---	---	8.8	7.6	8.0
14	---	---	---	11.7	11.0	11.4	---	---	---	8.0	7.1	7.5
15	---	---	---	11.8	10.8	11.2	---	---	---	7.8	6.8	7.2
16	---	---	---	11.7	10.7	11.0	---	---	---	7.5	6.6	7.1
17	16.1	---	---	11.3	10.6	11.0	---	---	---	7.3	6.7	7.0
18	---	13.5	14.9	11.3	10.6	11.0	---	---	---	7.6	6.7	7.1
19	15.7	13.7	14.1	11.8	10.7	11.3	---	---	---	7.6	6.7	7.2
20	15.2	13.6	13.8	11.8	11.0	11.4	---	---	---	7.8	7.2	7.5
21	13.9	13.4	13.6	11.9	11.2	11.5	---	---	---	7.6	7.0	7.3
22	13.9	13.3	13.6	11.8	11.1	11.4	9.6	8.7	9.2	7.3	6.8	7.1
23	14.1	13.0	13.3	11.9	11.2	11.5	9.8	8.6	9.2	7.0	6.6	6.8
24	13.4	12.8	13.1	12.0	11.2	11.5	9.9	8.3	9.0	6.9	6.5	6.7
25	13.3	12.5	12.8	11.9	11.3	11.6	9.0	8.0	8.4	7.0	6.4	6.7
26	13.1	12.4	12.7	11.9	11.2	11.5	8.8	8.1	8.4	6.9	6.4	6.6
27	13.3	5.0	13.2	12.5	11.3	11.9	9.2	8.3	8.7	6.8	6.3	6.6
28	---	---	---	12.8	11.7	12.1	8.9	7.9	8.4	6.7	6.3	6.5
29	---	---	---	12.8	11.2	12.0	9.1	8.3	8.6	7.5	6.9	7.2
30	---	---	---	12.5	11.0	12.0	9.3	8.3	8.8	7.5	6.8	7.1
31	---	---	---	12.2	11.0	11.7	---	---	---	7.2	6.7	7.0
MONTH	16.1	5.0	13.5	13.4	10.6	11.7	12.3	7.9	9.9	8.9	6.3	7.3

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--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	7.2	6.7	7.0	7.5	7.1	7.3	6.5	5.8	6.2	7.2	6.4	6.7
2	7.1	6.7	6.9	7.2	6.8	7.0	6.5	5.6	6.1	7.1	6.4	6.8
3	6.9	6.3	6.6	7.5	7.0	7.2	6.4	5.6	6.0	7.2	6.5	6.8
4	6.4	5.8	6.2	7.4	6.8	7.1	6.5	5.7	6.1	6.9	6.2	6.4
5	6.1	5.7	5.9	7.2	6.9	7.0	6.7	5.9	6.2	6.8	5.8	6.1
6	6.1	5.7	5.9	7.2	6.8	7.0	7.2	6.5	6.8	7.0	5.8	6.4
7	6.3	5.9	6.1	7.1	6.7	6.9	6.8	5.5	6.1	6.9	6.2	6.5
8	6.2	5.8	6.0	7.3	7.0	7.2	6.9	5.2	6.0	7.0	6.4	6.7
9	6.3	5.7	5.9	7.7	7.0	7.2	---	---	---	7.1	6.1	6.5
10	6.5	5.6	6.3	7.1	6.6	6.9	---	---	---	6.8	5.9	6.4
11	6.5	5.9	6.2	7.1	6.3	6.5	---	---	---	7.2	6.3	6.8
12	6.5	6.1	6.3	6.5	6.0	6.2	7.3	6.0	6.6	7.2	6.4	6.7
13	6.5	6.2	6.4	6.7	5.8	6.2	7.2	5.4	6.2	7.2	6.5	6.8
14	6.7	6.1	6.4	6.2	5.5	5.9	6.8	5.7	6.4	7.7	6.8	7.2
15	6.7	6.1	6.3	7.0	6.0	6.4	6.9	5.5	6.1	7.4	6.7	7.0
16	7.1	6.3	6.8	6.5	5.5	6.1	7.0	5.7	6.2	7.9	5.2	7.5
17	7.1	6.4	6.8	6.4	5.3	5.7	7.1	6.4	6.7	7.5	6.7	7.1
18	7.0	6.7	6.9	6.4	5.4	5.8	6.5	6.0	6.3	7.0	6.4	6.7
19	7.0	6.6	6.8	6.3	5.7	5.9	6.9	5.9	6.4	7.2	6.5	6.8
20	7.2	6.5	6.8	6.1	5.5	5.7	6.3	5.6	6.0	7.5	6.3	7.0
21	7.2	6.6	6.9	6.4	5.6	5.9	6.1	5.3	5.7	7.3	6.7	7.0
22	7.0	6.5	6.8	6.3	5.5	5.8	6.3	5.2	5.7	7.5	6.8	7.1
23	---	---	---	5.9	5.2	5.5	6.4	5.5	5.8	7.3	6.7	6.3
24	7.2	6.6	6.9	6.1	5.6	5.8	6.4	5.5	6.0	7.0	6.3	6.6
25	6.9	6.5	6.7	6.3	5.6	5.9	6.4	5.6	6.1	6.8	6.0	6.4
26	7.0	6.5	6.7	6.2	5.5	5.8	6.3	5.7	6.0	6.8	5.9	6.2
27	7.1	6.6	6.8	6.8	5.3	5.5	6.1	6.1	6.5	7.7	6.5	6.9
28	7.0	6.4	6.7	6.3	5.5	5.8	7.1	6.3	6.7	7.6	6.1	6.7
29	6.6	6.2	6.4	6.5	5.7	6.1	7.3	6.4	6.8	6.6	5.9	6.2
30	6.5	5.9	6.2	6.4	5.6	6.0	6.7	6.1	6.4	6.9	5.5	5.9
31	---	---	---	6.3	5.7	6.1	6.6	6.2	6.5	---	---	---
MONTH	7.2	5.6	6.5	7.7	5.2	6.3	7.3	5.2	6.2	7.9	5.2	6.7

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE

LOCATION.--Lat 39°21'58", long 75°40'10", New Castle County, Hydrologic Unit 02040205, on right bank 15 ft downstream from highway bridge, 0.5 mi upstream from Barlow Branch, 0.6 mi southwest of Blackbird, 5.6 mi northwest of Smyrna, and 13.8 mi upstream from mouth.

DRAINAGE AREA.--3.85 mi².

PERIOD OF RECORD.--Annual maximum, water years 1952-56, and occasional low-flow measurements, water years 1952-53, 1955-56. October 1956 to current year.

GAGE.--Water-stage recorder. Concrete control since May 23, 1968. Datum of gage is 18.89 ft above National Geodetic Vertical Datum of 1929. Mar. 5, 1951, to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. 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, 4.76 ft³/s, 16.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 712 ft³/s, June 22, 1972, gage height, 5.04 ft, from rating curve extended above 200 ft³/s on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	2130	58	2.25	July 16	0830	93	2.54
May 17	2145	55	2.22	Sept.27	1315	*276	*3.53

Minimum discharge, 0.14 ft³/s, June 22, gage height, 0.75 ft, result of regulation from unknown source; minimum daily discharge, 0.25 ft³/s, Sept. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1.7	2.4	2.5	5.9	2.8	6.8	1.3	2.0	.85	3.5	.70
2	10	1.6	2.0	2.3	15	2.9	3.7	1.5	1.5	.84	1.3	.59
3	2.7	1.3	2.8	2.8	11	2.6	3.3	14	1.4	.96	.88	.51
4	1.4	1.4	2.5	4.1	5.2	2.7	3.1	4.5	1.3	.83	.79	.48
5	1.4	3.4	2.3	4.9	3.5	4.8	2.8	2.4	4.7	.75	.74	.38
6	1.2	2.3	11	3.7	3.8	3.2	2.8	2.0	3.2	.83	.70	.31
7	1.1	1.6	5.6	2.8	3.6	2.7	2.7	1.7	1.6	.83	.66	.55
8	1.1	1.5	2.8	2.5	2.7	3.4	2.8	1.5	2.6	3.9	3.0	1.0
9	1.2	1.4	2.5	2.1	2.3	3.1	3.3	1.4	2.3	5.9	1.6	1.1
10	1.2	1.5	2.5	1.7	2.4	2.7	3.4	1.3	1.6	1.5	.99	2.2
11	1.2	2.1	2.4	2.1	2.7	2.7	3.0	1.2	1.3	1.4	.82	3.2
12	1.2	2.6	2.3	2.1	26	4.4	2.8	1.2	1.7	1.0	.69	1.3
13	1.3	1.7	2.3	2.1	22	3.4	2.6	1.5	1.6	1.5	.59	1.2
14	1.2	1.5	2.2	2.2	6.6	2.9	2.6	1.2	1.2	1.0	.55	.81
15	1.2	1.5	2.2	2.4	4.7	2.6	2.7	1.0	1.2	1.6	.52	.42
16	1.2	1.5	2.2	1.7	3.9	2.5	2.7	1.1	1.3	46	.50	.35
17	1.2	1.4	2.2	2.0	3.7	2.6	2.4	22	2.1	5.1	.51	.30
18	1.0	1.5	2.2	2.3	3.7	2.4	2.2	18	1.6	1.6	.47	.26
19	1.1	4.7	2.2	2.5	3.7	2.3	2.2	3.4	1.8	1.2	.41	.29
20	.99	3.4	2.2	2.2	3.6	2.5	2.1	2.2	1.2	1.0	.62	.26
21	1.1	2.0	2.4	1.4	3.3	2.3	2.1	1.7	1.1	.90	1.8	.25
22	1.4	1.8	3.4	1.5	3.4	2.3	2.0	1.8	.72	.80	1.1	.30
23	1.6	1.7	2.5	1.8	3.6	5.7	1.8	6.5	.71	.72	.62	.58
24	2.1	1.7	2.3	2.0	3.6	5.0	1.8	9.2	.87	.69	.49	.61
25	2.2	1.7	2.4	2.3	3.2	5.4	2.2	3.2	.80	.88	1.4	.37
26	1.5	1.6	2.1	2.4	3.2	3.4	2.0	2.2	.71	3.4	2.4	4.2
27	1.4	1.6	2.1	2.1	3.2	3.0	1.6	1.7	.75	1.9	.97	165
28	1.4	1.9	2.2	2.1	2.8	2.9	1.5	2.7	1.8	1.2	.57	22
29	4.1	7.7	2.2	2.0	---	3.2	1.5	7.0	1.2	.93	.44	4.5
30	3.4	4.1	2.1	1.9	---	3.3	1.4	2.7	.98	.95	1.4	2.7
31	2.0	---	2.2	2.2	---	3.6	---	2.1	---	1.1	1.5	---
TOTAL	67.09	65.4	84.7	72.7	162.3	99.3	77.9	125.2	46.84	92.06	32.53	216.72
MEAN	2.16	2.18	2.73	2.35	5.80	3.20	2.60	4.04	1.56	2.97	1.05	7.22
MAX	12	7.7	11	4.9	26	5.7	6.8	22	4.7	46	3.5	165
MIN	.99	1.3	2.0	1.4	2.3	2.3	1.4	1.0	.71	.69	.41	.25
CFSM	.56	.57	.71	.61	1.51	.83	.68	1.05	.41	.77	.27	1.88
IN.	.65	.63	.82	.70	1.57	.96	.75	1.21	.45	.89	.31	2.09

CAL YR 1984 TOTAL 2155.27 MEAN 5.89 MAX 89 MIN .36 CFSM 1.53 IN 20.82
WTR YR 1985 TOTAL 1142.74 MEAN 3.13 MAX 165 MIN .25 CFSM .81 IN 11.04

01483700 ST. JONES RIVER AT DOVER, DE

LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, Hydrologic Unit 02040207, on left bank 150 ft upstream from Division Street Bridge in Dover, 1,950 ft downstream from Silver Lake, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--31.9 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.00 ft above National Geodetic Vertical Datum of 1929. Prior to June 1973, at datum 0.50 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1, 13-17, 19, Feb. 12, 13, June 27, July 2 and Aug. 18, 19. Records good except those for estimated daily discharges, which are fair. Flow affected by Silver Lake. Flow occasionally affected by tide and wind effect. 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.--27 years, 37.2 ft³/s, 15.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s, Sept. 13, 1960, gage height, 9.45 ft, from flood-mark; no flow at times in 1959, 1961, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 634 ft³/s, Sept. 28, gage height, 6.00 ft; minimum daily discharge, 2.8 ft³/s, July 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	8.3	20	11	31	17	42	6.2	16	3.6	127	7.8
2	49	8.3	13	13	64	20	34	7.7	10	3.6	109	6.1
3	28	6.0	15	18	87	18	23	57	7.3	3.8	31	4.8
4	13	5.7	14	30	71	18	20	54	5.8	3.6	10	4.7
5	8.5	22	12	34	43	26	19	24	22	2.8	6.0	4.2
6	6.9	20	42	30	30	24	18	14	26	4.7	5.0	3.8
7	6.4	12	40	24	25	19	16	11	12	4.2	5.2	4.1
8	6.3	8.6	25	18	21	21	18	7.7	15	19	85	6.5
9	6.8	7.6	16	13	18	20	19	6.4	17	45	108	18
10	6.5	7.4	14	11	16	18	19	6.8	11	27	42	47
11	6.6	12	14	13	16	17	18	6.6	7.4	26	15	50
12	6.1	14	13	12	53	24	16	5.9	8.4	12	9.5	20
13	7.1	11	12	12	115	21	14	6.8	7.9	7.0	6.4	8.4
14	6.2	8.1	11	13	106	19	14	6.0	5.1	5.5	6.3	5.3
15	4.6	6.2	12	13	57	18	16	4.4	4.9	4.1	6.4	4.6
16	4.6	7.9	11	11	35	14	15	5.1	6.0	21	5.8	4.4
17	5.1	6.2	11	12	28	16	14	23	6.5	20	4.7	4.2
18	5.2	6.3	12	12	24	15	11	53	5.5	8.3	5.6	4.1
19	5.9	22	11	13	22	12	12	26	5.3	5.2	11	4.4
20	6.3	22	11	13	22	14	11	11	4.6	4.4	8.7	4.2
21	5.6	16	11	10	21	14	11	11	4.6	3.9	8.1	4.2
22	6.6	11	14	7.7	20	13	10	15	4.1	3.3	7.1	4.8
23	5.0	9.7	12	8.0	21	25	8.5	20	3.7	6.2	5.5	8.3
24	5.9	9.4	11	9.3	21	33	8.0	28	3.5	3.3	4.5	11
25	10	8.9	12	11	21	38	9.6	17	3.5	3.7	10	7.6
26	10	8.7	9.3	14	19	30	9.3	11	4.1	12	16	35
27	9.8	8.5	9.6	13	21	22	8.5	7.6	3.4	8.2	10	395
28	8.5	11	9.9	12	17	19	7.0	16	6.5	5.6	6.5	519
29	13	32	11	12	---	20	6.7	41	7.0	4.1	4.9	207
30	12	30	11	11	---	20	6.4	22	5.4	3.9	8.3	92
31	11	---	10	14	---	32	---	12	---	30	12	---
TOTAL	320.5	366.8	449.8	448.0	1045	637	454.0	543.2	249.5	315.0	700.5	1500.5
MEAN	10.3	12.2	14.5	14.5	37.3	20.5	15.1	17.5	8.32	10.2	22.6	50.0
MAX	49	32	42	34	115	38	42	57	26	45	127	519
MIN	4.6	5.7	9.3	7.7	16	12	6.4	4.4	3.4	2.8	4.5	3.8
CFSM	.32	.38	.46	.46	1.17	.64	.47	.55	.26	.32	.71	1.57
IN.	.37	.43	.52	.52	1.22	.74	.53	.63	.29	.37	.82	1.75

CAL YR 1984 TOTAL 15690.8 MEAN 42.9 MAX 530 MIN 3.3 CFSM 1.35 IN 18.30
WTR YR 1985 TOTAL 7029.8 MEAN 19.3 MAX 519 MIN 2.8 CFSM .61 IN 8.20

01484000 MURDERKILL RIVER NEAR FELTON, DE

LOCATION.--Lat 38°58'33", long 75°34'03", Kent County, Hydrologic Unit 02040207, on left bank 30 ft downstream from northbound lane of bridge on U.S. Highway 13, 400 ft downstream from Black Swamp Creek, 1.3 mi upsstream from Killen Pond, 2.2 mi south of Felton, and 17.6 mi upstream from mouth.

DRAINAGE AREA.--13.6 mi².

PERIOD OF RECORD.--July 1931 to October 1933. Monthly discharge only for July to September 1931, published in WSP 1302. Annual maximum, water years 1952-60, and occasional low-flow measurements, water years 1952-53, 1955-57, 1959-60. June 1960 to September 1985 (discontinued).

REVISED RECORDS.--WSP 1432: 1932.

GAGE.--Water-stage recorder. Datum of gage is 21.87 ft above National Geodetic Vertical Datum of 1929. July 1931 to October 1933, nonrecording gage at bridge 200 ft upstream at datum 2.00 ft higher. March 1951 to May 1960, nonrecording gage and crest-stage gage at bridge 200 ft upstream at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 13. Records good except those for period of backwater Oct. 1 to Nov. 4, which are fair, and for period of missing record, Nov. 5 to Dec. 13, 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.--27 years (water years 1932-33, 1961-85), 18.3 ft³/s, 18.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft³s, Aug. 4, 1967, gage height, 8.83 ft; minimum discharge, 0.80 ft³/s, Aug. 28, Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 4, 1967, is believed to have been the highest since that of 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1715	*368	*5.62	No other peak greater than base discharge.			

Minimum daily discharge, 2.3 ft³/s, Sept. 18-21.

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	12	3.4	6.8	5.0	21	10	14	4.2	5.2	2.9	3.8	5.3
2	9.0	3.4	7.8	5.2	46	13	12	4.3	4.5	2.9	3.0	4.2
3	5.0	3.0	7.0	10	35	11	10	24	4.4	2.8	2.8	3.7
4	4.1	3.1	6.6	15	18	9.9	9.8	12	4.3	2.8	2.7	3.3
5	3.8	6.1	6.2	18	14	11	9.3	8.7	9.8	2.8	2.6	3.0
6	3.6	5.4	20	14	15	9.6	8.9	7.2	9.3	2.8	2.6	2.8
7	3.6	5.2	17	11	14	8.9	8.4	6.4	5.9	2.7	2.7	2.7
8	3.5	5.0	12	9.2	11	9.9	9.8	5.9	9.3	2.9	66	3.1
9	3.6	4.6	10	7.5	12	9.6	9.7	5.5	7.4	4.1	26	3.4
10	3.5	4.0	8.0	6.7	9.8	8.8	9.3	5.4	5.8	3.2	5.7	3.2
11	3.6	5.0	7.6	7.3	10	8.6	8.6	5.1	5.0	3.2	4.2	2.9
12	3.5	6.4	7.3	7.1	45	12	8.3	4.8	5.2	3.0	3.5	2.7
13	3.5	5.0	7.0	6.9	61	10	7.9	4.8	4.9	2.8	3.1	2.6
14	3.5	3.5	7.0	7.2	25	9.5	7.8	4.3	4.4	2.8	3.0	2.6
15	3.5	3.4	6.8	7.3	19	8.9	8.2	4.2	4.2	2.7	2.8	2.6
16	3.5	4.0	6.5	6.0	17	8.4	8.2	4.3	4.3	4.2	2.7	2.5
17	3.5	3.7	6.4	6.5	15	8.5	7.4	24	4.1	3.2	2.6	2.6
18	3.4	3.5	6.3	6.9	14	8.1	6.9	14	4.2	2.9	4.1	2.3
19	3.3	11	6.2	7.1	14	7.6	6.8	7.6	3.9	2.7	9.8	2.3
20	3.3	10	6.0	6.6	13	7.7	6.6	6.2	3.5	2.7	4.3	2.3
21	3.1	7.0	5.8	5.4	12	7.5	6.4	5.9	3.5	2.6	5.0	2.3
22	3.2	5.0	6.6	6.2	12	7.9	6.1	9.7	3.4	2.5	4.0	2.7
23	4.6	4.9	5.6	6.6	12	13	5.7	11	3.2	2.6	3.2	3.5
24	5.6	4.7	5.2	6.5	12	16	5.8	12	3.2	2.6	2.9	3.9
25	4.8	4.5	5.4	6.9	12	18	6.0	8.5	3.0	2.6	9.1	2.8
26	4.1	4.4	4.7	6.8	11	13	5.8	6.6	3.0	5.3	10	16
27	4.0	5.8	4.7	5.9	11	11	5.3	5.8	3.1	3.5	4.7	246
28	3.9	10	4.7	5.9	10	11	5.0	6.1	3.3	3.2	3.6	146
29	7.7	16	4.7	6.0	---	10	4.6	8.3	3.1	3.2	3.2	26
30	5.0	10	4.5	5.6	---	11	4.4	6.3	2.9	3.2	6.9	13
31	3.8	---	4.7	6.6	---	15	---	5.7	---	3.3	12	---
TOTAL	136.1	171.0	225.1	238.9	520.8	324.4	233.0	248.8	141.3	94.7	222.6	522.3
MEAN	4.39	5.70	7.26	7.71	18.6	10.5	7.77	8.03	4.71	3.05	7.18	17.4
MAX	12	16	20	18	61	18	14	24	9.8	5.3	66	246
MIN	3.1	3.0	4.5	5.0	9.8	7.5	4.4	4.2	2.9	2.5	2.6	2.3
CFSM	.32	.42	.53	.57	1.37	.77	.57	.59	.35	.22	.53	1.28
IN.	.37	.47	.62	.65	1.42	.89	.64	.68	.39	.26	.61	1.43

CAL YR 1984 TOTAL 8192.7 MEAN 22.4 MAX 565 MIN 2.9 CFSM 1.65 IN 22.41
WTR YR 1985 TOTAL 3079.0 MEAN 8.44 MAX 246 MIN 2.3 CFSM .62 IN 8.42

01484100 BEAVERDAM BRANCH AT HOUSTON, DE

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, Hydrologic Unit 02040207, on left bank 15 ft upstream from bridge on State Highway 384, 0.8 mi south of Houston, and 1.2 mi upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi².

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

REVISED RECORDS.--WRD MD-DE-84-1: 1981, 1983 (M).

GAGE.--Water-stage recorder and concrete control; timber control prior to Nov. 8, 1979. Datum of gage is 35.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 12-28. Records good except those for period of missing record, Dec. 12-28, which are fair. Diversion for irrigation of about 150 acres upstream from station during some years. 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.--27 years, 3.69 ft³/s, 17.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft³/s, Sept. 12, 1960, gage height, 5.55 ft; no flow July 28, 1977 (result of pumpage for irrigation).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1515	*41	*3.51	No other peak greater than base discharge.			

Minimum daily discharge, 0.41 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	1.6	.94	1.0	1.1	2.8	2.5	2.2	1.4	1.8	1.2	1.4	1.2
2	1.6	.92	.93	1.1	6.4	2.9	2.1	1.4	1.7	1.1	1.0	1.1
3	1.3	.86	.98	1.5	3.5	2.5	2.1	2.6	1.7	1.1	.88	1.0
4	1.1	.86	.93	2.0	2.4	2.5	2.1	1.8	1.6	1.0	.83	.96
5	1.1	.94	.98	2.4	2.3	2.5	2.1	1.7	2.0	1.0	.78	.92
6	1.0	.86	1.9	1.9	2.3	2.3	2.1	1.5	1.9	1.0	.78	.88
7	1.0	.86	1.4	1.7	2.2	2.3	2.0	1.5	1.7	.97	.77	.86
8	1.0	.86	1.3	1.7	2.2	2.4	2.1	1.4	2.5	.99	4.8	.87
9	1.0	.86	1.2	1.6	2.0	2.3	2.1	1.4	2.1	1.3	2.1	.89
10	1.0	.86	1.2	1.6	1.9	2.3	2.1	1.4	1.8	1.1	1.4	.84
11	1.0	.92	1.1	1.7	2.0	2.2	2.1	1.4	1.7	1.0	1.2	.82
12	1.0	.90	1.2	1.6	7.3	2.4	2.0	1.4	1.8	1.0	1.1	.78
13	.99	.86	1.1	1.6	4.6	2.3	1.9	1.4	1.7	.97	1.1	.75
14	.94	.83	1.1	1.6	3.2	2.2	1.9	1.3	1.7	.94	1.0	.74
15	.93	.82	1.1	1.6	3.0	2.2	2.1	1.2	1.6	.88	.95	.73
16	.93	.85	1.1	1.5	2.8	2.1	2.0	1.4	1.7	1.0	.93	.72
17	.93	.82	1.1	1.7	2.8	2.2	1.9	4.9	1.6	.91	.93	.71
18	.93	.88	1.2	1.6	2.7	2.2	1.9	3.6	1.6	.86	1.3	.70
19	.90	1.7	1.1	1.6	2.7	2.1	1.9	2.1	1.5	.82	1.9	.67
20	.89	1.3	1.1	1.6	2.7	2.0	1.8	1.9	1.5	.74	1.3	.64
21	.82	1.1	1.1	1.4	2.7	1.9	1.8	1.9	1.4	.61	1.5	.64
22	.79	.95	1.2	1.4	2.7	1.9	1.8	2.4	1.4	.43	1.3	.75
23	.79	.93	1.1	1.3	2.7	2.3	1.7	2.5	1.4	.41	1.2	.82
24	.86	.93	1.1	1.3	2.7	2.7	1.7	2.5	1.4	.65	1.1	.86
25	.85	.89	1.0	1.4	2.6	2.7	1.7	2.2	1.3	.71	1.1	.74
26	.81	.86	1.0	1.4	2.7	2.3	1.7	2.0	1.3	1.4	1.1	2.2
27	.80	.86	1.1	1.3	2.6	2.2	1.6	1.9	1.2	.91	1.1	23
28	.79	.90	1.0	1.3	2.5	2.2	1.6	1.9	1.3	.82	1.0	5.0
29	1.9	1.5	1.1	1.3	---	2.2	1.5	2.0	1.2	.84	.97	2.6
30	1.3	1.1	1.1	1.3	---	2.2	1.3	1.9	1.1	.82	1.4	2.3
31	1.1	---	1.1	1.4	---	2.1	---	1.8	---	1.5	1.5	---
TOTAL	31.95	28.72	34.92	47.5	83.0	71.1	56.9	59.7	48.2	28.98	39.72	55.69
MEAN	1.03	.96	1.13	1.53	2.96	2.29	1.90	1.93	1.61	.93	1.28	1.86
MAX	1.9	1.7	1.9	2.4	7.3	2.9	2.2	4.9	2.5	1.5	4.8	23
MIN	.79	.82	.93	1.1	1.9	1.9	1.3	1.2	1.1	.41	.77	.64
CFSM	.36	.34	.40	.54	1.05	.81	.67	.68	.57	.33	.45	.66
IN.	.42	.38	.46	.62	1.09	.93	.75	.78	.63	.38	.52	.73

CAL YR 1984 TOTAL 1807.89 MEAN 4.94 MAX 98 MIN .42 CFSM 1.75 IN 23.76
WTR YR 1985 TOTAL 586.38 MEAN 1.61 MAX 23 MIN .41 CFSM .57 IN 7.71

01484500 STOCKLEY BRANCH AT STOCKLEY, DE

LOCATION.--Lat 38°38'19", long 75°20'31", Sussex County, Hydrologic Unit 02060010, on left bank at highway bridge in Stockley, 1.6 mi upstream from mouth, and 4.4 mi southeast of Georgetown.

DRAINAGE AREA.--5.24 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. 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, 6.96 ft³/s, 18.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 217 ft³/s, Feb. 26, 1979, gage height, 5.01 ft; minimum discharge observed, 0.13 ft³/s, Sept. 1-11, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 19	0845	*97	*3.74	Sept. 27	1415	70	3.39

Minimum discharge, 0.81 ft³/s, Aug. 4, 5, 7, 16, 17, gage height, 1.77 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	4.0	1.6	1.9	2.4	7.7	5.5	5.1	2.7	1.9	1.4	1.2	5.2
2	2.5	1.6	1.7	2.4	12	7.2	4.7	2.6	1.8	1.4	.93	4.7
3	1.8	1.6	2.1	3.3	7.3	5.9	4.6	3.2	1.8	1.4	.93	4.6
4	1.7	1.6	1.9	6.0	5.7	5.7	4.6	2.9	1.8	1.4	.87	4.3
5	1.7	1.9	2.0	5.2	5.6	5.8	4.5	2.6	1.9	1.3	.88	4.0
6	1.6	1.7	4.9	3.7	5.7	5.4	4.4	2.5	2.8	1.3	.91	3.8
7	1.6	1.6	2.7	3.5	5.5	5.1	4.1	2.4	2.1	1.3	.89	3.7
8	1.6	1.5	2.3	3.4	5.1	5.5	4.2	2.3	3.1	1.3	4.0	3.7
9	1.6	1.4	2.2	3.3	5.0	5.3	4.2	2.3	2.5	1.6	2.1	3.7
10	1.6	1.4	2.2	3.4	5.0	5.1	4.0	2.3	2.1	1.7	1.4	3.4
11	1.6	2.4	2.3	3.7	5.0	5.0	4.0	2.3	2.0	1.7	1.3	3.4
12	1.6	2.1	2.2	3.5	15	5.4	3.9	2.4	2.1	1.5	1.2	3.1
13	1.6	1.7	2.2	3.4	12	5.0	3.8	2.2	2.2	1.4	1.1	2.9
14	1.6	1.6	2.2	3.4	7.8	4.8	3.8	2.0	1.9	1.4	1.1	2.9
15	1.5	1.5	2.2	3.5	7.2	4.7	3.9	1.9	1.8	1.3	1.0	2.8
16	1.5	1.4	2.2	3.3	6.8	4.6	4.0	2.0	1.9	1.3	.92	2.7
17	1.5	1.4	2.3	3.5	6.7	4.8	3.6	2.6	1.8	1.2	.94	2.7
18	1.4	1.4	2.3	3.5	6.4	4.6	3.5	2.8	1.9	1.2	4.9	2.6
19	1.4	4.5	2.3	3.5	6.4	4.4	3.5	2.3	1.9	1.1	67	2.7
20	1.4	2.5	2.3	3.4	6.2	4.6	3.4	2.1	2.6	1.0	11	2.5
21	1.3	2.0	2.3	3.2	6.0	4.3	3.4	2.0	1.8	1.0	5.9	2.5
22	1.3	1.9	2.4	3.2	5.9	4.3	3.3	2.0	1.7	.97	5.1	2.8
23	1.4	1.8	2.3	3.3	5.9	5.2	3.3	2.6	1.6	.95	4.8	3.1
24	3.5	1.8	2.2	3.3	5.9	6.4	3.3	2.9	1.6	.95	4.4	3.5
25	1.9	1.7	2.3	3.4	5.8	6.2	3.3	2.8	1.5	.95	5.8	3.4
26	1.7	1.7	2.2	3.4	5.7	5.3	3.2	2.3	1.5	.99	4.8	5.8
27	1.6	1.7	2.2	3.2	5.6	5.2	3.1	2.0	1.4	1.0	4.3	48
28	1.6	1.7	2.2	3.3	5.4	5.2	3.1	2.0	1.4	.96	4.0	22
29	1.9	2.3	2.2	3.2	---	5.1	2.9	2.2	1.4	1.1	3.9	11
30	2.3	1.9	2.2	3.1	---	5.1	2.8	2.0	1.4	1.1	5.7	8.9
31	1.7	---	2.4	3.5	---	4.9	---	1.9	---	1.1	8.0	---
TOTAL	55.0	54.9	71.3	107.4	190.3	161.6	113.5	73.1	57.2	38.27	161.27	180.4
MEAN	1.77	1.83	2.30	3.46	6.80	5.21	3.78	2.36	1.91	1.23	5.20	6.01
MAX	4.0	4.5	4.9	6.0	15	7.2	5.1	3.2	3.1	1.7	67	48
MIN	1.3	1.4	1.7	2.4	5.0	4.3	2.8	1.9	1.4	.95	.87	2.5
CFSM	.34	.35	.44	.66	1.30	.99	.72	.45	.37	.24	.99	1.15
IN.	.39	.39	.51	.76	1.35	1.15	.81	.52	.41	.27	1.14	1.28

CAL YR 1984 TOTAL 3287.50 MEAN 8.98 MAX 95 MIN 1.2 CFSM 1.71 IN 23.33
WTR YR 1985 TOTAL 1264.24 MEAN 3.46 MAX 67 MIN .87 CFSM .66 IN 8.97

01485000 POCOMOKE RIVER NEAR WILLARDS, MD

LOCATION.--Lat 38°23'20", long 75°19'30", Worcester County, Hydrologic Unit 02060009, on left bank 30 ft downstream from bridge on State Highway 346, 0.6 mi upstream from Burnt Mill Branch, 1.3 mi east of Willards, 1.3 mi west of Whaleysville, and 50.3 mi upstream from mouth.

DRAINAGE AREA.--60.5 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--35 years (water years 1951-85), 71.6 ft³/s, 16.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s, Feb. 26, 1979, gage height, 13.88 ft; minimum discharge, 2.2 ft³/s, Aug. 18, 19, 1957, gage height, 1.91 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 19	1900	671	9.84	Sept. 27	2200	*722	*10.11

Minimum daily discharge, 5.5 ft³/s, Aug. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.5	19	23	70	51	55	19	14	9.0	7.2	120
2	15	8.4	18	23	223	109	52	18	13	8.6	7.0	82
3	11	8.1	22	26	198	97	48	20	13	8.2	7.1	66
4	9.6	8.0	24	71	130	83	45	19	12	8.1	6.5	56
5	9.0	9.5	23	114	104	78	42	18	13	7.9	6.3	49
6	8.8	9.1	65	95	100	68	41	17	17	7.9	6.2	42
7	8.6	8.4	62	77	92	61	38	16	16	8.3	6.4	38
8	8.2	8.1	47	66	77	59	38	16	15	7.6	8.0	34
9	8.2	8.3	40	54	65	58	39	15	16	8.8	8.8	32
10	8.2	8.2	37	46	58	53	38	15	14	8.4	7.6	31
11	8.1	9.6	36	46	54	51	37	15	13	8.0	6.8	29
12	7.8	14	33	42	155	53	35	14	13	7.6	6.4	27
13	7.8	11	32	40	235	52	33	14	14	7.3	6.2	25
14	8.1	10	30	39	149	49	33	14	12	7.2	6.0	24
15	8.0	10	29	40	118	46	33	13	12	7.1	6.5	22
16	7.8	10	27	36	100	43	33	13	11	12	6.1	21
17	7.7	10	27	34	89	43	31	16	11	15	5.5	20
18	7.7	9.9	26	36	81	41	30	21	11	10	6.3	19
19	7.6	20	25	35	75	39	29	16	12	8.4	409	18
20	7.7	22	25	32	72	38	28	15	11	7.7	474	18
21	7.4	18	24	42	65	36	27	14	10	7.4	252	17
22	7.6	17	24	35	62	35	26	14	9.7	7.1	149	16
23	7.8	16	23	33	60	41	25	14	9.6	6.9	84	17
24	9.0	16	23	28	58	73	24	16	11	6.7	61	19
25	8.9	15	22	28	56	115	24	20	11	6.6	170	17
26	8.7	15	20	27	56	94	24	19	9.7	6.7	276	18
27	8.6	14	20	25	58	80	22	17	9.4	7.3	137	450
28	8.6	14	20	26	54	72	21	15	9.2	7.9	89	588
29	9.4	20	20	26	---	65	20	16	9.8	8.0	68	308
30	9.0	20	20	25	---	60	19	16	9.8	8.5	72	189
31	8.7	---	20	26	---	56	---	15	---	7.6	220	---
TOTAL	270.6	376.1	883	1296	2714	1899	990	500	362.2	253.8	2581.9	2412
MEAN	8.73	12.5	28.5	41.8	96.9	61.3	33.0	16.1	12.1	8.19	83.3	80.4
MAX	15	22	65	114	235	115	55	21	17	15	474	588
MIN	7.4	8.0	18	23	54	35	19	13	9.2	6.6	5.5	16
CFSM	.14	.21	.47	.69	1.60	1.01	.55	.27	.20	.14	1.38	1.33
IN.	.17	.23	.54	.80	1.67	1.17	.61	.31	.22	.16	1.59	1.48

CAL YR 1984 TOTAL 34425.7 MEAN 94.1 MAX 958 MIN 6.7 CFSM 1.56 IN 21.17
WTR YR 1985 TOTAL 14538.6 MEAN 39.8 MAX 588 MIN 5.5 CFSM .66 IN 8.94

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD

LOCATION.--Lat 38°13'44", long 75°28'19", Worcester County, Hydrologic Unit 02060009, on right bank 15 ft downstream from bridge on State Highway 12, 0.5 mi upstream from Furnace Branch, 0.6 mi downstream from Millville Creek, 5.5 mi northwest of Snow Hill, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi².

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

REVISED RECORDS.--WSP 1332: 1953.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--35 years (water years 1951-85), 54.4 ft³/s, 16.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s, Feb. 26, 1979, gage height, 7.95 ft; minimum discharge, 0.80 ft³/s, Sept. 8, 9, 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 20	0400	386	6.10	Sept. 29	0100	*635	*6.71

Minimum daily discharge, 2.5 ft³/s, July 15, Aug. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	5.3	18	19	45	42	35	6.5	6.3	6.0	5.3	24
2	14	4.7	17	19	80	63	32	6.1	4.9	4.7	4.4	21
3	8.9	4.2	25	23	123	75	28	9.5	4.1	4.0	3.6	19
4	5.9	4.0	26	44	129	83	26	12	6.3	3.4	3.2	16
5	4.6	5.0	25	59	96	74	24	9.7	19	3.1	2.8	12
6	4.1	5.0	56	69	77	61	22	7.8	57	3.1	2.9	9.7
7	3.7	4.6	61	66	68	51	20	6.5	42	4.6	4.1	8.2
8	3.6	4.3	62	54	56	44	22	5.6	35	3.6	11	7.3
9	3.4	4.3	47	39	58	40	23	5.0	31	3.2	27	7.4
10	3.3	4.3	33	30	42	36	24	4.9	24	3.0	11	7.0
11	3.3	5.8	28	26	36	33	22	5.1	18	2.9	6.2	6.0
12	3.2	20	25	26	64	37	21	5.0	16	2.7	4.5	5.3
13	3.2	17	23	25	115	38	19	4.9	28	2.7	3.6	4.6
14	3.1	11	22	23	168	36	18	4.3	19	2.7	3.2	4.2
15	3.0	8.3	20	22	127	33	18	3.9	13	2.5	2.8	4.0
16	3.0	7.0	20	19	91	29	18	3.7	10	32	2.6	3.8
17	3.0	6.3	17	19	74	27	17	7.6	9.6	60	2.5	3.7
18	3.0	6.0	17	19	65	24	16	15	7.9	18	3.9	3.6
19	3.1	25	17	22	59	22	14	11	9.1	7.9	196	3.6
20	3.1	26	16	22	54	20	13	7.5	7.7	5.1	369	3.4
21	3.1	22	16	20	50	20	13	5.7	5.8	3.9	296	3.2
22	2.9	18	17	17	44	20	12	4.8	4.6	3.5	179	3.8
23	3.1	15	16	17	40	33	11	5.8	3.9	3.1	95	6.2
24	3.9	13	15	16	37	55	10	16	3.6	2.7	58	9.8
25	3.9	11	15	16	36	70	10	26	3.3	2.7	38	7.4
26	4.0	10	14	18	44	77	9.9	19	3.0	3.0	37	17
27	3.9	9.9	14	18	49	73	9.1	13	2.9	3.2	62	158
28	3.6	9.9	13	17	45	61	8.1	9.2	3.2	3.5	80	454
29	6.3	19	13	18	---	51	7.5	12	19	13	56	558
30	8.3	19	13	17	---	43	6.9	9.1	11	16	36	323
31	6.2	---	16	19	---	38	---	7.2	---	7.2	33	---
TOTAL	141.7	324.9	737	838	1972	1409	529.5	269.4	428.2	237.0	1639.6	1714.2
MEAN	4.57	10.8	23.8	27.0	70.4	45.5	17.7	8.69	14.3	7.65	52.9	57.1
MAX	14	26	62	69	168	83	35	26	57	60	369	558
MIN	2.9	4.0	13	16	36	20	6.9	3.7	2.9	2.5	2.5	3.2
CFSM	.10	.24	.53	.60	1.57	1.01	.39	.19	.32	.17	1.18	1.27
IN.	.12	.27	.61	.69	1.63	1.17	.44	.22	.35	.20	1.36	1.42

CAL YR 1984 TOTAL 26349.3 MEAN 72.0 MAX 794 MIN 2.0 CFSM 1.60 IN 21.83
WTR YR 1985 TOTAL 10240.5 MEAN 28.1 MAX 558 MIN 2.5 CFSM .63 IN 8.48

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD

LOCATION.--Lat 38°12'50", long 75°40'18", Somerset County, Hydrologic Unit 02060009, on right bank 45 ft downstream from farm bridge, 1.4 mi northeast of Princess Anne, and 1.6 mi upstream from confluence with Loretto Branch.
DRAINAGE AREA.--4.80 mi².
PERIOD OF RECORD.--April 1951 to September 1971, October 1974 to current year.
REVISED RECORDS.--WDR MD-DE-75-1: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 7.03 ft above National Geodetic Vertical Datum of 1929. Artificial control since Apr. 30, 1975. Nov. 26, 1968, to Sept. 30, 1971, water-stage recorder above and nonrecording gage below gage height 1.4 ft. Prior to Nov. 26, 1968, recording gage at datum 1.0 ft higher.
REMARKS.--No estimated daily discharges. Records good. 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.--31 years (water years 1952-71, 1975-85), 4.62 ft³/s, 13.07 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 547 ft³/s, Aug. 20, 1969, gage height, 5.44 ft, from rating curve extended above 27 ft³/s on basis of channel-conveyance study; maximum gage height, 7.08 ft, Aug. 19, 1985; no flow at times in 1954, 1963, 1964, 1966.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1345	73	3.34	Sept. 27	1000	80	3.44
Aug. 19	0430	*347	*7.08				

Minimum discharge, 0.32 ft³/s, Aug. 5, 6, 7, 8, gage height, 1.98 ft.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1983 and 1984 have been revised as shown in the following table. They supersede figures published in the reports for 1983 and 1984.

Water year	Date	Discharge (ft³/s)	Gage height (ft)	Water year	Date	Discharge (ft³/s)	Gage height (ft)
1983	Apr. 16, 1983	*127	*4.03	1984	Mar. 25, 1984	79	3.43
1984	Dec. 13, 1983	95	3.37	1984	Mar. 29, 1984	105	3.76
1984	Mar. 13, 1984	116	3.90	1984	Apr. 5, 1984	*126	*4.01

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	.83	.39	.78	1.2	8.2	4.5	3.7	.99	1.1	1.3	.46	2.4
2	.85	.40	.68	1.2	15	12	3.4	1.0	.99	1.3	.42	2.2
3	.70	.38	1.0	1.4	10	7.9	3.3	1.3	.97	1.2	.38	2.2
4	.57	.39	1.1	3.6	6.5	6.4	3.3	1.1	.94	1.1	.36	2.0
5	.53	.44	1.0	4.6	5.6	5.8	2.8	1.0	6.5	1.0	.35	1.8
6	.50	.40	2.8	3.5	5.7	4.7	2.7	1.0	9.5	.98	.34	1.8
7	.49	.37	2.3	3.0	5.2	4.2	2.5	.98	3.6	.99	.33	1.7
8	.49	.36	1.7	2.6	4.2	4.2	2.8	.93	3.0	.88	3.2	1.6
9	.50	.38	1.5	2.2	3.6	4.2	2.9	.92	2.6	.84	3.8	1.6
10	.49	.40	1.4	2.0	3.4	3.9	2.7	.98	2.1	.81	1.0	1.6
11	.48	.44	1.4	2.2	3.3	3.7	2.6	1.1	1.8	.77	.69	1.4
12	.49	.45	1.4	2.0	35	4.5	2.5	1.0	3.3	.69	.54	1.4
13	.49	.39	1.4	1.9	24	4.2	2.4	.99	4.2	.67	.48	1.3
14	.48	.37	1.3	2.0	14	3.7	2.3	.97	2.6	.66	.45	1.2
15	.46	.37	1.3	1.9	10	3.3	2.4	.97	2.0	.62	.44	1.1
16	.41	.38	1.3	1.6	8.2	3.1	2.3	.98	1.8	.60	.40	1.1
17	.40	.37	1.3	1.7	7.6	3.1	2.0	2.2	1.7	.58	.40	1.1
18	.40	.39	1.3	1.9	6.7	2.9	1.7	1.6	1.6	.53	2.8	1.1
19	.40	.89	1.3	1.9	6.3	2.7	1.6	1.1	1.9	.51	168	1.0
20	.41	.59	1.2	1.9	5.7	2.7	1.6	1.0	1.5	.50	38	1.0
21	.40	.51	1.2	1.5	5.0	2.6	1.5	.99	1.3	.48	17	1.0
22	.40	.48	1.3	1.5	4.7	2.8	1.5	.99	1.2	.47	10	1.1
23	.39	.47	1.1	1.6	4.5	4.5	1.4	1.2	1.1	.44	7.3	1.2
24	.39	.47	1.1	1.6	4.3	7.7	1.4	1.4	1.1	.41	5.6	1.2
25	.40	.47	1.1	1.7	4.0	8.3	1.4	1.8	1.0	.43	4.8	1.0
26	.42	.44	.99	1.7	5.3	5.9	1.3	1.4	.96	.47	4.4	1.5
27	.41	.44	1.0	1.5	6.0	5.0	1.3	1.2	.95	.45	3.6	44
28	.41	.51	1.1	1.7	4.8	4.4	1.3	1.1	1.0	.43	2.9	20
29	.44	1.0	1.0	1.7	---	4.1	1.2	1.3	6.0	.58	2.6	9.9
30	.44	.94	.99	1.6	---	4.1	1.1	1.1	1.8	.67	2.5	7.2
31	.39	---	1.1	2.0	---	3.8	---	1.1	---	.48	2.7	---
TOTAL	14.86	14.28	39.44	62.4	226.8	144.9	64.9	35.69	70.11	21.84	286.24	118.7
MEAN	.48	.48	1.27	2.01	8.10	4.67	2.16	1.15	2.34	.70	9.23	3.96
MAX	.85	1.0	2.8	4.6	35	12	3.7	2.2	9.5	1.3	168	44
MIN	.39	.36	.68	1.2	3.3	2.6	1.1	.92	.94	.41	.33	1.0
CFSM	.10	.10	.27	.42	1.69	.97	.45	.24	.49	.15	1.92	.83
IN.	.12	.11	.31	.48	1.76	1.12	.50	.28	.54	.17	2.22	.92

CAL YR 1984 TOTAL 2310.67 MEAN 6.31 MAX 109 MIN .36 CFSM 1.32 IN 17.90
WTR YR 1985 TOTAL 1100.16 MEAN 3.01 MAX 168 MIN .33 CFSM .63 IN 8.52

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE

LOCATION.--Lat 38°43'42", long 75°33'44", Sussex County, Hydrologic Unit 02060008, on left bank at downstream side of highway bridge, 800 ft downstream from Gum Branch, 2.5 mi southeast of Bridgeville, and 50.5 mi upstream from mouth.

DRAINAGE AREA.--75.4 mi².

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as Gravelly Fork near Bridgeville.

REVISED RECORDS.--WSP 1111: 1947. WSP 1232: 1945-49.

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Prior to Apr. 19, 1947, nonrecording gage, and Apr. 19, 1947, to Dec. 18, 1969, recording gage at present site and datum. Timber control Sept. 3, 1947, to Dec. 18, 1969. Feb. 18, 1970, to Oct. 1, 1973, recording gage at site 300 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. 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, 91.6 ft³/s, 16.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s, Feb. 26, 1979, gage height, 10.31 ft; minimum discharge observed, 6.3 ft³/s, Sept. 29, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 11.0 ft in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	2100	*401	*6.44	No other peak greater than base discharge.			

Minimum daily discharge, 18 ft³/s, Aug. 4, Sept. 13, 18-21.

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	44	31	34	30	48	72	58	39	45	33	22	29
2	45	31	32	30	120	78	55	39	44	31	22	25
3	38	31	34	35	131	73	54	54	42	30	19	24
4	36	31	32	48	82	71	54	47	41	30	18	24
5	35	32	32	54	69	72	53	42	51	29	21	23
6	34	31	45	48	68	68	53	42	130	29	20	22
7	33	30	40	42	65	65	51	41	81	27	20	21
8	32	30	37	40	61	67	53	39	79	26	58	21
9	32	30	35	38	59	66	53	37	84	34	67	21
10	32	30	35	37	58	63	50	36	72	30	36	22
11	32	32	35	38	58	62	50	36	66	29	29	20
12	32	32	34	37	136	66	50	36	65	28	27	19
13	32	30	34	37	199	62	50	36	60	26	24	18
14	32	30	34	37	113	60	49	33	56	25	24	19
15	31	30	33	37	99	58	50	32	53	25	22	19
16	31	30	33	35	93	56	50	31	52	28	21	19
17	31	30	33	37	90	57	48	64	50	27	21	19
18	30	29	32	37	86	56	46	132	49	24	25	18
19	31	45	32	37	85	54	45	86	46	23	45	18
20	31	39	32	36	83	53	43	68	45	21	32	18
21	30	35	32	34	81	53	45	64	43	21	31	18
22	30	33	32	34	80	53	44	62	41	22	29	20
23	31	32	31	35	80	60	42	64	40	21	27	23
24	33	32	30	35	79	66	43	67	39	20	25	23
25	32	31	31	35	77	71	44	63	36	19	25	21
26	31	31	30	35	76	63	42	57	34	24	25	28
27	31	31	30	34	75	61	42	53	34	26	24	215
28	30	31	30	33	72	61	40	52	36	24	23	253
29	34	40	30	33	---	61	39	53	35	23	22	99
30	34	36	29	32	---	59	39	48	34	23	28	60
31	32	---	30	34	---	57	---	46	---	23	36	---
TOTAL	1022	966	1023	1144	2423	1944	1435	1599	1583	801	868	1179
MEAN	33.0	32.2	33.0	36.9	86.5	62.7	47.8	51.6	52.8	25.8	28.0	39.3
MAX	45	45	45	54	199	78	58	132	130	34	67	253
MIN	30	29	29	30	48	53	39	31	34	19	18	18
CFSM	.44	.43	.44	.49	1.15	.83	.63	.68	.70	.34	.37	.52
IN.	.50	.48	.50	.56	1.20	.96	.71	.79	.78	.40	.43	.58

CAL YR 1984 TOTAL 43559 MEAN 119 MAX 1130 MIN 29 CFSM 1.58 IN 21.49
WTR YR 1985 TOTAL 15987 MEAN 43.8 MAX 253 MIN 18 CFSM .58 IN 7.89

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50'59", long 75°40'24", Kent County, Hydrologic Unit 02060008, on left bank 45 ft upstream from highway bridge, 1.4 mi upstream from Cattail Branch, 1.6 mi northeast of Adamsville, 4.9 mi northwest of Greenwood, and 33 mi upstream from mouth.

DRAINAGE AREA.--43.9 mi².

PERIOD OF RECORD.--April 1943 to March 1969, October 1971 to current year.

REVISED RECORDS.--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1953, nonrecording gage and crest-stage gage, and Nov. 24, 1953, to March 1969, recording gage at site on old channel about 240 ft southeast of present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. 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.--39 years (water years 1944-68, 1972-85), 54.7 ft³/s, 16.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s, July 13, 1975, gage height, 13.19 ft; minimum gage height, 13.98 ft, Aug. 5, 1967, present datum; minimum discharge, 1.0 ft³/s, Sept. 9, 10, 1964, Aug. 20, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.5 ft, present datum, in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 fP³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1700	518	5.14	Sept. 27	1445	*1,470	*8.25

Minimum discharge, 8.3 ft³/s, July 22, 31, gage height, 2.13 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	13	11	12	14	41	35	28	16	18	14	41	19
2	13	10	12	14	190	38	27	16	17	14	24	15
3	12	10	12	16	112	36	26	22	17	14	15	14
4	11	10	12	26	59	35	25	22	16	14	11	13
5	11	11	12	34	46	36	24	19	25	13	10	12
6	11	11	20	34	44	34	24	18	47	14	9.8	12
7	11	10	19	27	42	32	24	18	30	13	9.8	12
8	11	10	16	25	37	34	24	17	30	13	36	12
9	11	10	15	23	37	33	24	16	35	14	69	12
10	11	10	14	22	37	30	23	16	29	14	33	11
11	11	11	14	23	34	29	23	16	25	13	20	11
12	11	10	15	22	230	32	22	16	23	12	16	11
13	11	10	14	21	143	30	22	16	22	12	13	10
14	11	10	14	21	80	29	22	16	21	12	13	10
15	10	10	14	21	65	28	23	15	20	11	11	10
16	10	10	14	20	58	27	23	15	20	12	11	9.9
17	10	10	14	24	52	27	22	19	19	10	11	9.8
18	10	10	15	21	48	26	20	39	19	9.9	12	9.8
19	10	14	14	20	46	25	21	27	18	9.5	14	9.7
20	10	12	14	18	45	24	20	21	18	9.6	13	9.6
21	10	11	14	17	43	23	20	20	17	9.7	14	9.5
22	10	11	15	18	42	23	19	20	17	9.1	12	9.8
23	11	11	14	19	42	26	19	21	17	9.2	11	10
24	11	11	14	19	41	28	18	22	16	9.4	10	10
25	11	11	14	20	40	35	19	23	16	9.9	16	10
26	10	11	13	19	39	33	19	21	15	12	23	13
27	10	10	14	18	38	31	18	20	16	11	19	732
28	10	11	14	18	36	30	18	19	16	10	15	269
29	14	15	13	18	---	29	17	20	15	12	13	90
30	12	13	14	18	---	28	16	18	15	9.5	14	60
31	11	---	14	19	---	27	---	18	---	9.3	20	---
TOTAL	339	325	439	649	1767	933	650	602	629	359.1	559.6	1446.1
MEAN	10.9	10.8	14.2	20.9	63.1	30.1	21.7	19.4	21.0	11.6	18.1	48.2
MAX	14	15	20	34	230	38	28	39	47	14	69	732
MIN	10	10	12	14	34	23	16	15	15	9.1	9.8	9.5
CFSM	.25	.25	.32	.48	1.44	.69	.49	.44	.48	.26	.41	1.10
IN.	.29	.28	.37	.55	1.50	.79	.55	.51	.53	.30	.47	1.23

CAL YR 1984 TOTAL 26939.0 MEAN 73.6 MAX 2500 MIN 10 CFSM 1.68 IN 22.83
WTR YR 1985 TOTAL 8697.8 MEAN 23.8 MAX 732 MIN 9.1 CFSM .54 IN 7.37

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, Hydrologic Unit 02060008, on right bank 25 ft downstream from bridge on Laurel Grove Road, 0.9 mi upstream from mouth, and 1.6 mi northwest of Federalsburg.

DRAINAGE AREA.--7.10 mi².

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

REVISED RECORDS.--WSP 1552: 1952. WSP 2103: 1960(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversion for irrigation of about 100 acres upstream from station during some years. 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.--35 years, 9.12 ft³/s, 17.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s, July 13, 1975, gage height, 5.98 ft, from rating curve extended above 400 ft³/s on basis of contracted-opening measurement of peak flow; no flow at times during many years (result of pumpage for irrigation).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of July 13, 1975, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1230	*735	*4.86	Sept. 27	0930	446	4.31

Minimum daily discharge, 1.1 ft³/s, June 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.2	3.8	3.3	15	11	7.1	2.3	2.4	1.7	1.6	2.4
2	3.4	2.5	3.5	3.4	39	12	6.7	3.2	2.2	1.4	1.5	2.1
3	2.9	2.4	3.4	4.5	21	11	6.5	5.4	2.2	1.4	1.5	2.0
4	2.7	2.0	3.4	9.9	15	10	6.3	3.8	1.6	1.4	1.6	2.0
5	2.5	2.5	3.3	12	14	11	6.3	3.3	1.7	1.5	1.5	1.9
6	2.4	2.3	8.3	9.3	14	9.5	6.2	3.3	2.5	1.6	1.5	1.9
7	2.4	2.2	6.2	8.8	13	9.2	5.8	3.1	2.1	1.5	1.5	1.8
8	2.4	2.2	4.9	8.1	12	9.7	6.1	2.2	3.2	1.5	5.7	1.9
9	2.3	2.2	4.3	7.1	11	9.2	6.1	2.0	2.8	1.8	2.9	1.9
10	2.2	2.2	4.2	6.8	10	8.7	5.6	2.8	2.4	1.7	2.1	1.9
11	1.7	2.5	4.2	7.2	9.9	8.7	5.5	2.7	2.4	1.6	2.0	1.9
12	1.6	2.4	4.0	6.8	178	9.3	5.4	2.9	2.5	1.6	1.9	1.8
13	2.1	2.2	3.9	6.6	42	8.2	5.4	2.9	2.3	1.6	1.7	1.7
14	2.2	2.2	3.9	6.6	27	7.9	5.5	2.7	2.2	1.6	1.6	1.7
15	2.2	2.2	3.8	6.3	23	7.2	5.5	2.5	1.9	1.4	1.7	1.5
16	2.2	2.2	3.7	5.5	20	7.0	5.4	1.8	1.3	2.0	1.6	1.5
17	2.2	2.2	3.7	6.2	18	7.2	4.9	4.6	1.3	1.7	1.6	1.4
18	2.0	2.2	3.7	6.5	17	6.9	4.2	4.1	1.9	1.6	2.0	1.4
19	2.0	4.0	3.7	6.2	16	6.5	4.4	3.1	1.7	1.4	2.8	1.4
20	1.7	3.4	3.7	5.4	15	6.3	4.0	2.9	1.3	1.3	2.1	1.4
21	2.3	3.0	3.5	4.4	14	6.2	4.3	2.9	1.3	1.2	2.2	1.4
22	1.9	2.8	3.7	4.8	14	6.3	3.8	2.9	1.5	1.2	2.1	1.8
23	1.7	2.8	3.4	5.1	14	7.8	3.6	3.2	1.5	1.2	2.1	2.0
24	2.5	2.8	3.4	5.1	13	9.7	3.7	3.4	1.2	1.3	2.0	1.7
25	2.6	2.6	3.5	5.4	13	9.6	3.7	3.1	1.2	1.4	2.2	1.7
26	2.4	2.6	3.2	4.9	12	8.3	3.3	2.9	1.1	1.7	2.2	3.9
27	2.4	2.6	3.2	4.5	12	8.2	2.5	2.7	1.2	1.7	2.0	148
28	2.3	2.8	3.4	4.7	11	8.1	2.3	2.7	1.3	1.7	1.8	22
29	3.1	5.6	3.4	4.5	---	8.0	2.4	2.9	1.4	1.9	1.8	13
30	3.0	4.4	3.3	4.3	---	7.6	2.6	2.6	1.4	1.7	2.3	10
31	2.3	---	3.3	4.9	---	7.1	---	2.4	---	1.6	4.7	---
TOTAL	72.8	80.2	120.9	189.1	632.9	263.4	145.1	93.3	55.0	47.9	65.8	241.0
MEAN	2.35	2.67	3.90	6.10	22.6	8.50	4.84	3.01	1.83	1.55	2.12	8.03
MAX	3.4	5.6	8.3	12	178	12	7.1	5.4	3.2	2.0	5.7	148
MIN	1.6	2.0	3.2	3.3	9.9	6.2	2.3	1.8	1.1	1.2	1.5	1.4
CFSM	.33	.38	.55	.86	3.18	1.20	.68	.42	.26	.22	.30	1.13
IN.	.38	.42	.63	.99	3.32	1.38	.76	.49	.29	.25	.34	1.26

CAL YR 1984 TOTAL 5275.2 MEAN 14.4 MAX 494 MIN 1.6 CFSM 2.03 IN 27.64
WTR YR 1985 TOTAL 2007.4 MEAN 5.50 MAX 178 MIN 1.1 CFSM .78 IN 10.52

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, Hydrologic Unit 02060005, on left bank at highway bridge, 0.1 mi upstream from Gravelly Branch, 2.0 mi northeast of Greensboro, and 60 mi upstream from mouth.

DRAINAGE AREA.--113 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1622: 1948. WDR MD-DE-79-1: 1961(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21, 22. Water-discharge records good except those for period of missing record, Jan. 21, 22, which are fair. Diversions for irrigation of about 500 acres upstream from station.

AVERAGE DISCHARGE.--37 years, 132 ft³/s, 15.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft³/s, Aug. 4, 1967, gage height, 14.47 ft, from rating curve extended above 3,600 ft³/s; minimum discharge, 1.2 ft³/s, Aug. 29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of Aug. 4, 1967, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0915	*1,410	*7.54	No other peak greater than base discharge.			

Minimum discharge, 6.2 ft³/s, July 20, gage height, 1.81ft.

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	36	23	39	35	63	83	102	33	51	13	18	98
2	54	21	34	35	161	83	118	34	47	12	29	45
3	39	20	32	40	322	82	108	67	41	13	31	28
4	28	19	33	59	280	77	96	89	37	9.4	20	23
5	23	30	31	78	179	78	88	75	40	11	15	21
6	21	33	54	90	134	82	81	57	50	14	10	18
7	19	25	65	83	122	74	77	51	47	15	8.6	15
8	19	22	56	72	107	72	77	46	44	11	30	14
9	19	21	47	64	98	74	76	42	47	15	69	22
10	19	21	44	55	101	72	74	38	43	19	69	22
11	18	22	43	54	86	68	69	39	37	26	40	18
12	18	26	42	56	154	72	67	36	35	22	25	16
13	17	24	41	55	441	76	65	37	34	18	20	15
14	17	21	40	53	364	72	62	37	30	15	17	14
15	16	20	39	53	224	68	62	33	26	9.7	14	13
16	16	19	38	49	177	64	64	31	26	19	14	12
17	16	19	37	48	152	62	62	39	28	24	15	9.9
18	17	19	37	50	135	62	56	57	27	21	15	11
19	17	33	37	51	124	58	53	51	26	14	27	11
20	16	38	37	46	118	56	51	41	23	7.1	23	12
21	17	29	36	37	112	56	49	37	22	12	21	12
22	16	25	39	38	106	54	49	56	19	9.1	20	12
23	18	24	38	40	103	63	45	126	19	11	17	15
24	19	24	36	42	103	78	44	102	18	16	15	18
25	22	24	36	45	102	93	46	97	18	13	17	18
26	21	23	34	47	98	97	48	77	17	15	27	39
27	20	23	33	42	93	88	46	60	16	18	22	270
28	19	23	33	44	89	83	43	51	16	18	18	1180
29	31	45	34	44	---	81	37	56	17	14	15	585
30	36	47	34	41	---	80	36	66	14	15	16	273
31	26	---	33	43	---	82	---	58	---	14	62	---
TOTAL	690	763	1212	1589	4348	2290	1951	1719	915	463.3	759.6	2859.9
MEAN	22.3	25.4	39.1	51.3	155	73.9	65.0	55.5	30.5	14.9	24.5	95.3
MAX	54	47	65	90	441	97	118	126	51	26	69	1180
MIN	16	19	31	35	63	54	36	31	14	7.1	8.6	9.9
CFSM	.20	.23	.35	.45	1.37	.65	.58	.49	.27	.13	.22	.84
IN.	.23	.25	.40	.52	1.43	.75	.64	.57	.30	.15	.25	.94

CAL YR 1984 TOTAL 59285.0 MEAN 162 MAX 2010 MIN 11 CFSM 1.43 IN 19.52
WTR YR 1985 TOTAL 19559.8 MEAN 53.6 MAX 1180 MIN 7.1 CFSM .47 IN 6.44

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981, October 1984 to September 1985.
WATER TEMPERATURE: October 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1980 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1975-81): Maximum daily, 184 micromhos, Sept. 23, 1976; minimum daily, 40 micromhos, January 31, 1980.
WATER TEMPERATURE: Maximum daily, 28.0°C, July 23, 1978, and July 22, 1980; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 77 mg/L, May 12, 1981; minimum daily maen, 1 mg/L on many days during water years 1982-84.
SEDIMENT LOAD: Maximum daily, 363 tons, Apr. 16, 1983; minimum daily, 0.02 ton, Aug. 30, Sept. 7, 1982.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 26.5°C, July 21, 22, Aug. 15; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 60 mg/L, Feb. 13; minimum daily mean, 1 mg/L on many days during the water year.
SEDIMENT LOAD: Maximum daily, 139 tons, Sept. 28; minimum daily, 0.03 ton, Aug. 6.

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)
OCT 1984										
19...	11:15	19	175	6.9	24.0	16.0	769	--	8.7	87
NOV										
26...	11:30	24	182	7.0	9.0	5.0	776	3.0	14.7	113
DEC										
05...	11:30	31	186	6.9	4.0	5.0	780	--	15.0	115
JAN 1985										
10...	11:30	56	150	7.1	<4.0	1.0	780	--	15.0	103
FEB										
11...	10:30	86	138	6.9	3.0	2.0	775	2.5	14.0	100
MAR										
07...	11:45	74	130	7.1	6.5	7.0	786	--	12.5	100
APR										
18...	11:00	58	134	7.3	22.0	16.5	773	--	9.4	95
MAY										
15...	11:00	33	148	7.2	16.0	22.0	772	4.4	6.3	71
24...	11:00	101	113	6.8	16.0	17.0	775	--	6.9	70
24...	11:15	101	116	6.8	--	--	--	--	--	--
JUN										
20...	14:05	23	155	7.1	25.5	22.0	765	--	7.0	80
JUL										
11...	09:30	29	138	6.5	24.0	23.0	--	--	6.4	--
26...	11:00	17	17	7.2	25.0	24.0	766	--	6.0	71
AUG										
15...	09:00	17	129	6.7	28.5	24.5	--	--	6.5	--
29...	11:00	18	169	7.2	24.0	23.0	771	2.5	6.7	77
SEP										
13...	10:00	17	146	6.9	14.0	17.5	--	--	8.4	--
27-28	13:15	727	104	6.8	--	--	--	--	--	--
27-27	13:35	219	116	6.0	20.0	20.5	--	--	6.9	--
28...	09:30	1400	88	6.2	17.0	19.0	--	--	6.6	--
29-30	09:45	363	87	6.9	--	--	--	--	--	--
29...	10:45	588	76	6.4	22.0	18.0	--	--	6.3	--

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										
26...	--	--	51	27	14	3.8	12	32	0.8	3.0
FEB										
11...	25	K15	36	24	9.6	3.0	8.3	32	0.6	2.1
MAY										
15...	37	270	43	17	12	3.2	10	31	0.7	3.5
AUG										
29...	120	K16	48	19	13	3.7	12	34	0.8	2.9

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

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
OCT 1984												
19...	29	7.1	--	--	--	13	--	--	--	--	--	<0.01
NOV												
26...	24	4.6	20	23	<0.1	15	97	110	0.13	6.3	--	--
DEC												
05...	23	5.6	--	--	--	16	--	--	--	--	--	<0.01
JAN 1985												
10...	18	2.8	--	--	--	19	--	--	--	--	--	<0.01
FEB												
11...	12	3.3	22	13	<0.1	19	80	85	0.11	19	1.38	0.02
MAR												
07...	16	2.5	--	--	--	17	--	--	--	--	0.90	0.01
APR												
18...	23	2.2	--	--	--	12	--	--	--	--	--	<0.01
MAY												
15...	26	3.2	16	16	<0.1	16	97	94	0.13	8.6	0.84	0.04
24...	14	4.3	--	--	--	14	--	--	--	--	0.87	0.05
24...	15	4.6	--	--	--	14	--	--	--	--	0.90	0.04
JUN												
20...	24	3.7	--	--	--	18	--	--	--	--	--	<0.01
JUL												
11...	28	17	--	--	--	15	--	--	--	--	--	<0.01
26...	26	3.2	--	--	--	14	--	--	--	--	--	<0.01
AUG												
15...	24	9.3	--	--	--	13	--	--	--	--	0.76	0.01
29...	29	3.5	20	20	0.2	8.4	101	98	0.14	4.9	--	<0.01
SEP												
13...	32	7.8	--	--	--	13	--	--	--	--	--	<0.01
SEP												
27-28	10	3.1	--	--	--	6.6	--	--	--	--	0.56	0.01
SEP												
28...	9	11	--	--	--	5.7	--	--	--	--	--	<0.01
SEP												
29-30	9	2.2	--	--	--	8.3	--	--	--	--	0.27	0.01
29...	9	6.9	--	--	--	6.6	--	--	--	--	0.28	0.01

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 1984											
19...	--	1.10	1.00	0.02	<0.01	--	0.48	--	0.5	--	0.4
NOV											
26...	--	--	1.40	--	<0.01	--	--	--	0.7	--	--
DEC											
05...	--	--	1.10	--	0.03	0.04	--	0.27	0.5	--	0.3
JAN 1985											
10...	--	--	1.30	--	0.06	0.08	--	0.64	0.4	--	0.7
FEB											
11...	0.07	--	1.40	--	0.11	0.14	--	0.39	0.6	--	0.5
MAR											
07...	0.03	--	0.91	--	<0.01	--	--	--	0.4	--	0.4
APR											
18...	--	--	0.56	--	<0.01	--	--	--	0.6	--	0.3
MAY											
15...	0.13	--	0.88	--	0.10	0.13	--	1.4	<0.1	--	1.5
24...	0.16	--	0.92	--	0.21	0.27	--	--	0.3	--	--
24...	0.13	--	0.94	--	0.21	0.27	--	--	0.6	--	--
JUN											
20...	--	--	0.83	--	<0.01	--	--	--	0.5	0.1	0.4
JUL											
11...	--	--	0.72	--	0.09	0.12	--	0.31	0.5	0.1	0.4
26...	--	--	2.00	--	0.05	0.06	--	0.15	0.6	0.4	0.2
AUG											
15...	0.03	--	0.77	--	0.05	0.06	--	0.35	0.6	0.2	0.4
29...	--	--	0.67	--	0.03	0.04	--	0.37	0.3	--	0.4
SEP											
13...	--	--	0.78	--	0.04	0.05	--	0.36	0.4	0.0	0.4
SEP											
27-28	0.03	--	0.57	--	0.14	0.18	--	0.66	1.5	0.7	0.8
SEP											
27-27	--	0.80	--	0.13	--	--	1.2	--	1.3	--	--
28...	--	--	0.18	--	0.02	0.03	--	0.38	1.1	0.7	0.4
SEP											
29-30	0.03	--	0.28	--	0.07	0.09	--	0.83	1.0	0.1	0.9
29...	0.03	--	0.29	--	0.08	0.1	--	0.72	1.4	0.6	0.8

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1984											
19...	1.6	--	7.1	0.19	--	0.08	0.09	0.06	0.18	2.8	<100
NOV											
26...	--	--	--	0.02	--	<0.01	--	<0.01	--	3.0	30
DEC											
05...	--	--	--	<0.01	--	<0.01	--	<0.01	--	3.2	<100
JAN 1985											
10...	--	--	--	0.07	--	0.06	--	0.01	0.03	3.3	<100
FEB											
11...	--	--	--	<0.01	--	<0.01	--	0.04	0.12	3.3	80
MAR											
07...	--	--	--	<0.01	--	0.01	--	<0.01	--	9.2	<100
APR											
18...	--	--	--	0.05	--	<0.01	--	<0.01	--	4.4	100
MAY											
15...	--	--	--	0.09	--	0.04	--	0.02	0.06	5.1	10
24...	--	--	--	0.07	0.21	<0.01	--	0.02	0.06	6.4	400
24...	--	--	--	0.08	0.25	<0.01	--	0.02	0.06	6.5	400
JUN											
20...	--	1.2	--	0.05	0.15	0.03	--	0.03	0.09	5.5	20
JUL											
11...	--	1.1	--	0.04	0.12	0.04	--	0.03	0.09	4.4	30
26...	--	2.2	--	0.06	0.18	0.09	<0.01	0.04	0.12	4.5	--
AUG											
15...	--	1.2	--	0.09	0.28	0.04	--	0.03	0.09	3.7	40
29...	--	--	--	0.03	0.09	0.02	--	<0.01	--	2.3	<10
SEP											
13...	--	1.2	--	0.05	0.15	0.03	--	0.02	0.06	3.5	20
SEP											
27-28	--	1.4	--	0.22	0.67	0.07	--	0.03	0.09	14	140
SEP											
27-27	2.1	--	9.3	0.21	0.64	--	0.08	--	--	--	--
28...	--	0.58	--	0.21	0.64	0.03	--	0.01	0.03	13	70
SEP											
29-30	--	1.2	--	0.12	0.37	0.06	--	0.03	0.09	17	200
29...	--	1.1	--	0.14	0.43	0.08	--	0.05	0.15	15	310

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)
NOV										
26...	<1	61	<0	<1	1	<3	<1	270	1	<4
FEB										
11...	<1	60	1	<1	<1	<3	1	130	2	<4
MAY										
15...	<1	70	<0.5	1	<1	<3	19	540	3	<4
AUG										
29...	<1	77	<0.5	1	1	<3	1	240	<1	<4

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 1984									
26...	20	<0.1	<10	1	<1	<1	120	<6	9
FEB 1985									
11...	49	<0.1	<10	1	<1	<1	86	<6	18
MAY									
15...	100	<0.1	<10	18	<1	<1	120	<6	11
AUG									
29...	27	<0.1	<10	<1	<1	<1	120	<6	16

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984					
19...	11:15	19	11	0.56	--
NOV					
26...	11:30	24	2	0.13	73
DEC					
05...	11:30	31	8	0.67	--
JAN 1985					
10...	11:30	56	9	1.4	--
MAR					
07...	11:45	74	4	0.8	--
11...	10:30	71	4	0.77	92
APR					
18...	11:00	58	5	0.78	--
MAY					
15...	11:00	33	6	0.53	84
24...	11:00	101	19	5.2	--
24...	11:15	101	23	6.3	--
JUN					
01...	12:00	53	13	1.9	--
20...	14:05	23	6	0.37	--
JUL					
11...	09:30	29	6	0.47	--
26...	11:00	17	2	0.09	--
AUG					
15...	09:00	17	5	0.23	--
29...	11:00	18	4	0.19	100
SEP					
27-27	13:35	219	45	27	--

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	192	189	162	139	134	---	146	136	160	153	133
2	---	190	190	161	---	134	---	---	140	160	152	---
3	196	194	191	164	113	123	---	140	133	155	163	142
4	198	194	187	154	102	---	---	126	148	118	161	148
5	---	180	186	152	109	135	---	141	139	---	162	150
6	189	181	172	157	123	124	109	136	142	---	155	150
7	183	---	---	159	129	136	---	131	---	138	151	150
8	185	190	180	152	132	133	131	131	146	129	---	150
9	178	190	---	152	138	102	128	143	125	159	113	---
10	199	192	180	155	137	104	125	134	141	162	131	148
11	---	185	173	158	138	---	123	142	---	172	151	154
12	---	182	170	160	134	125	112	142	130	173	148	---
13	178	192	---	157	98	133	110	---	---	176	150	161
14	180	---	173	156	96	133	135	143	145	179	---	162
15	177	198	---	156	107	---	126	148	---	174	140	165
16	177	187	---	159	115	---	---	156	---	161	140	---
17	181	196	170	157	123	---	---	143	140	158	144	166
18	---	---	172	154	127	---	140	---	144	174	---	166
19	180	179	168	152	128	---	143	157	144	172	145	165
20	181	---	---	152	---	---	131	153	152	172	---	165
21	184	181	---	---	128	---	114	---	---	---	154	---
22	184	201	175	---	125	---	153	151	---	169	155	169
23	186	203	175	---	134	---	143	129	107	167	160	---
24	---	---	170	---	100	---	134	128	150	---	161	168
25	181	188	170	---	109	---	146	128	159	175	158	169
26	189	191	170	---	104	---	149	138	159	166	154	173
27	---	186	165	---	99	---	147	---	120	168	---	112
28	185	---	165	156	106	---	148	126	151	165	167	85
29	---	174	---	154	---	---	147	138	135	168	172	84
30	189	182	168	154	---	---	149	146	155	155	170	100
31	---	---	166	150	---	---	---	109	---	---	151	---

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--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	14.5	17.0	7.5	10.0	1.5	8.0	14.0	20.5	---	21.0	23.5	20.5
2	14.0	17.0	7.0	10.0	---	10.0	11.0	---	20.5	22.0	22.0	---
3	14.5	13.0	8.0	8.0	.5	9.5	---	15.0	22.5	22.0	22.5	23.0
4	14.0	12.5	6.0	6.0	.5	---	11.5	16.0	23.5	22.0	22.0	23.0
5	---	10.0	5.5	4.5	.5	12.0	14.0	16.5	22.0	---	20.0	24.0
6	13.5	9.5	3.5	4.0	.5	6.0	15.5	17.5	22.0	---	20.5	24.5
7	13.5	---	---	4.5	1.0	6.0	---	19.0	---	24.5	22.0	25.0
8	12.5	9.5	2.5	4.0	.5	8.0	13.5	19.0	20.0	24.0	---	25.5
9	16.5	10.0	---	2.0	.5	8.5	10.0	20.0	23.0	25.5	23.5	---
10	16.0	11.0	5.0	.5	1.0	10.5	10.5	19.5	21.5	23.5	24.5	24.0
11	---	10.0	6.5	.5	1.5	---	10.5	22.5	---	24.0	25.0	25.0
12	---	9.0	6.0	.5	4.0	11.5	14.0	22.5	23.0	24.0	24.5	---
13	15.5	9.0	---	.5	2.5	11.5	14.5	---	---	22.5	22.0	16.0
14	15.0	---	8.0	1.0	3.0	11.0	16.0	23.5	20.0	25.0	---	15.0
15	15.5	7.5	---	1.5	3.0	10.0	17.5	21.5	---	25.0	26.5	16.0
16	15.5	7.5	---	.5	2.0	8.0	---	20.0	---	26.0	25.5	---
17	15.5	7.0	9.5	.5	2.0	10.0	---	18.5	20.0	25.0	24.0	14.5
18	---	---	10.5	.5	2.5	7.5	16.5	---	22.5	25.0	---	17.0
19	17.0	7.0	10.0	1.0	5.0	5.5	16.5	16.5	23.0	22.0	23.5	17.5
20	17.0	---	---	.5	4.0	7.0	21.0	18.0	21.5	24.0	---	16.5
21	19.0	4.0	---	---	3.5	8.0	21.5	---	---	26.5	23.0	18.5
22	16.0	3.5	6.5	---	9.0	8.0	19.0	21.5	---	26.5	21.5	19.5
23	16.0	3.5	8.0	---	12.0	8.0	18.0	13.0	24.0	24.5	20.5	---
24	---	---	5.0	---	14.5	9.0	18.0	17.0	25.0	---	20.0	18.5
25	16.5	4.5	7.0	---	13.0	9.0	18.0	18.0	23.5	24.0	21.5	19.0
26	17.0	5.5	3.5	---	11.5	10.0	17.5	20.0	21.5	24.5	22.5	19.5
27	---	6.0	4.5	---	11.5	8.5	18.5	---	19.0	24.5	---	20.0
28	20.0	---	6.0	1.0	8.0	14.0	18.5	23.0	20.0	24.5	23.0	19.5
29	---	9.0	---	1.0	---	---	19.0	20.0	20.5	24.5	23.0	12.0
30	20.0	7.0	10.0	1.0	---	16.0	19.5	19.5	20.0	24.0	23.5	18.0
31	---	---	9.0	.5	---	13.0	---	19.0	---	---	21.5	---

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	2	.20	2	.12	12	1.3	2	.19	7	1.2	6	1.3
2	2	.29	2	.11	4	.37	3	.28	16	6.7	3	.67
3	4	.42	3	.16	2	.17	2	.22	24	21	4	.89
4	3	.23	4	.21	1	.09	7	1.1	31	23	4	.83
5	2	.12	4	.35	1	.08	14	2.9	13	6.3	3	.63
6	2	.11	2	.18	3	.44	15	3.6	11	4.0	3	.66
7	3	.15	1	.07	4	.70	11	2.5	5	1.6	4	.80
8	3	.15	1	.06	4	.60	9	1.7	4	1.2	4	.78
9	2	.10	1	.06	4	.51	7	1.2	4	1.1	2	.40
10	5	.26	1	.06	4	.48	7	1.0	5	1.4	3	.58
11	4	.19	2	.12	4	.46	5	.73	4	.93	3	.55
12	2	.10	1	.07	2	.23	5	.76	31	16	3	.58
13	1	.05	1	.06	3	.33	4	.59	60	74	4	.82
14	3	.14	2	.11	4	.43	3	.43	29	32	4	.78
15	2	.09	3	.16	3	.32	1	.14	16	9.7	2	.37
16	2	.09	2	.10	2	.21	2	.26	9	4.3	3	.52
17	1	.04	5	.26	1	.10	4	.52	7	2.9	3	.50
18	1	.05	5	.26	2	.20	1	.14	8	2.9	5	.84
19	1	.05	3	.28	1	.10	1	.14	3	1.0	2	.31
20	2	.09	3	.31	1	.10	1	.12	2	.64	3	.45
21	1	.05	2	.16	2	.19	1	.10	3	.91	1	.15
22	2	.09	3	.20	3	.32	1	.10	4	1.1	2	.29
23	4	.19	3	.19	6	.62	1	.11	4	1.1	3	.51
24	4	.21	3	.19	7	.68	2	.23	4	1.1	3	.63
25	3	.18	2	.13	11	1.1	2	.24	4	1.1	5	1.3
26	1	.06	1	.06	12	1.1	2	.25	6	1.6	6	1.6
27	1	.05	1	.06	4	.36	3	.34	4	1.0	4	.95
28	1	.05	1	.06	3	.27	3	.36	4	.96	3	.67
29	3	.23	2	.24	3	.28	2	.24	---	---	4	.87
30	4	.39	10	1.3	3	.28	1	.11	---	---	5	1.1
31	3	.21	---	---	2	.18	3	.35	---	---	5	1.1
TOTAL	---	4.63	---	5.70	---	12.60	---	20.95	---	220.74	---	22.43

01491000 CHOPTANK RIVER NEAR GREENSBORO, 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)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8	2.2	5	.45	11	1.5	2	.07	3	.15	33	8.9
2	9	2.9	5	.46	11	1.4	3	.10	1	.08	20	2.4
3	9	2.6	10	1.8	9	1.0	4	.14	2	.17	4	.30
4	10	2.6	9	2.2	8	.80	5	.13	2	.11	5	.31
5	9	2.1	9	1.8	11	1.2	4	.13	2	.08	8	.45
6	6	1.3	8	1.2	10	1.4	3	.11	1	.03	14	.68
7	6	1.2	9	1.2	7	.89	2	.08	2	.05	7	.28
8	6	1.2	6	.75	6	.71	3	.09	9	.75	5	.19
9	4	.82	7	.79	8	1.0	3	.12	12	2.2	5	.30
10	5	1.0	6	.62	7	.81	3	.15	12	2.2	5	.30
11	4	.75	6	.63	7	.70	7	.49	8	.86	5	.24
12	5	.90	6	.58	8	.76	5	.30	5	.34	5	.22
13	2	.35	6	.60	7	.64	4	.19	3	.16	5	.20
14	2	.33	5	.50	5	.41	3	.12	3	.14	5	.19
15	5	.84	8	.71	5	.35	5	.13	4	.15	5	.18
16	6	1.0	5	.42	5	.35	3	.15	5	.19	4	.13
17	5	.84	12	1.3	6	.45	5	.32	4	.16	2	.05
18	5	.76	13	2.0	7	.51	4	.23	3	.12	3	.09
19	6	.86	10	1.4	4	.28	5	.19	3	.22	4	.12
20	5	.69	6	.66	4	.25	6	.12	3	.19	4	.13
21	5	.66	5	.50	4	.23	6	.20	4	.23	4	.13
22	5	.66	10	1.8	5	.24	5	.13	5	.27	4	.13
23	7	.85	48	16	5	.26	4	.12	4	.18	4	.16
24	6	.71	24	6.6	3	.15	4	.17	4	.16	4	.19
25	7	.87	14	3.7	3	.15	5	.18	3	.14	5	.24
26	9	1.2	12	2.5	3	.14	3	.12	4	.29	7	.94
27	6	.75	11	1.8	2	.09	3	.15	4	.24	41	37
28	5	.58	10	1.4	3	.13	4	.19	4	.19	44	139
29	4	.40	7	1.1	4	.18	4	.15	4	.16	25	40
30	7	.68	11	2.0	4	.15	2	.08	3	.13	14	10
31	---	---	7	1.1	---	---	2	.08	11	2.3	---	---
TOTAL	---	32.60	---	58.57	---	17.13	---	4.93	---	12.64	---	243.45

TOTAL LOAD FOR YEAR: 656.37 TONS.

01493000 UNICORN BRANCH NEAR MILLINGTON, MD

LOCATION.--Lat 39°14'59", long 75°51'40", Queen Annes County, Hydrologic Unit 02060002, on right bank 20 ft upstream from bridge on State Highway 313, 0.9 mi upstream from mouth, and 1.4 mi southwest of Millington.

DRAINAGE AREA.--22.3 mi².

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

REVISED RECORDS.--WSP 1382: 1952(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 12-28. Records good except those for period of no gage height, Jan. 12-28, which are fair. Occasional regulation at low and medium flow by Unicorn Lake Dam upstream from 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.--37 years, 24.9 ft³/s, 15.316in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft³/s, Sept. 12, 1960, gage height, 7.17 ft; no flow for part of each day June 13, 14, 1965, caused by regulation at Unicorn Lake Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	2130	*351	*4.33	No other peak greater than base discharge.			

Minimum discharge, 0.12 ft³/s, Dec. 9, 10, Feb. 28, Mar. 1, 2, gage height, 1.59 ft; minimum daily discharge, 0.12 ft³/s, Mar. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	11	13	12	15	.12	28	10	12	7.0	8.8	7.8
2	21	10	12	16	18	4.3	25	11	10	6.5	8.2	6.8
3	14	9.7	22	13	49	16	20	24	8.7	7.0	6.9	6.8
4	11	10	25	14	31	16	19	18	8.5	7.1	7.2	6.0
5	11	14	23	15	25	17	18	14	12	5.6	6.1	6.8
6	9.9	11	19	16	25	16	17	12	15	9.0	5.4	5.2
7	9.8	10	20	22	24	16	16	11	9.5	7.8	6.0	5.4
8	9.8	10	21	22	24	16	16	10	11	7.5	12	5.2
9	10	10	14	15	23	16	16	9.9	11	11	11	6.3
10	10	10	6.8	11	21	16	16	9.6	10	10	7.8	9.3
11	9.7	11	7.4	12	15	16	16	9.4	9.0	10	7.8	7.8
12	9.4	11	15	13	14	17	15	9.5	9.2	6.6	7.3	6.0
13	9.4	9.8	16	13	89	17	15	11	9.2	7.3	6.7	5.4
14	9.4	9.7	10	13	44	18	14	9.2	8.5	6.4	6.2	5.4
15	9.4	9.6	1.3	14	30	16	15	8.4	8.5	6.5	5.7	5.5
16	9.0	9.0	1.0	11	25	15	14	8.7	9.1	38	6.2	5.4
17	10	9.2	17	12	22	15	13	20	10	17	6.3	5.0
18	9.1	9.7	23	13	20	15	13	32	9.1	8.9	7.2	5.1
19	9.6	14	17	14	19	14	12	17	9.0	7.7	8.3	5.4
20	8.8	12	11	12	19	14	12	13	8.6	9.0	6.9	5.2
21	9.6	11	8.9	9.0	21	13	12	11	8.3	6.6	7.9	5.1
22	13	11	9.1	12	22	14	12	11	7.9	7.4	7.3	5.2
23	10	10	9.4	11	17	17	11	14	7.1	7.2	6.5	6.3
24	11	10	14	12	17	19	11	17	6.8	5.5	5.9	7.0
25	11	10	16	13	24	21	11	14	7.2	5.5	7.0	6.3
26	10	10	16	14	33	20	11	12	6.8	13	9.9	11
27	9.7	10	11	13	22	18	11	10	7.2	7.9	8.3	173
28	10	12	8.9	12	4.6	17	11	10	8.1	8.3	6.7	175
29	16	21	9.0	12	---	17	10	17	8.0	8.9	6.3	40
30	13	16	8.9	12	---	17	10	14	7.3	6.7	6.8	22
31	11	---	11	12	---	21	---	10	---	7.5	8.7	---
TOTAL	350.6	331.7	416.7	415.0	712.6	484.42	440	407.7	272.6	280.4	229.3	572.7
MEAN	11.3	11.1	13.4	13.4	25.5	15.6	14.7	13.2	9.09	9.05	7.40	19.1
MAX	26	21	25	22	89	21	28	32	15	38	12	175
MIN	8.8	9.0	1.0	9.0	4.6	.12	10	8.4	6.8	5.5	5.4	5.0
CFSM	.51	.50	.60	.60	1.14	.70	.66	.59	.41	.41	.33	.86
IN.	.58	.55	.70	.69	1.19	.81	.73	.68	.45	.47	.38	.96

CAL YR 1984 TOTAL 10872.10 MEAN 29.7 MAX 213 MIN 1.0 CFSM 1.33 IN 18.14
WTR YR 1985 TOTAL 4913.72 MEAN 13.5 MAX 175 MIN .12 CFSM .61 IN 8.20

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, Hydrologic Unit 02060002, on right bank 200 ft upstream from highway bridge, 2.0 mi southwest of Kennedyville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--12.7 mi².

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

REVISED RECORDS.--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WDR MD-DE-76-1: Drainage area. WDR MD-DE-79-1: 1961(M). WDR MD-DE-80-1: 1976(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good below 50 ft³/s and fair above. 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.--34 years, 10.7 ft³/s, 11.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s, June 22, 1972, gage height, 13.07 ft, from rating curve extended above 590 ft³/s on basis of Type IV culvert and flow-over-road measurement of peak flow; minimum discharge, 0.60 ft³/s, Aug. 28, 29, 1966.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1700	231	4.42	Sept. 27	1445	*736	*7.05

Minimum daily discharge, 3.0 ft³/s, Apr. 30, July 19, Sept. 7.

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	24	6.7	7.9	7.5	28	6.7	11	3.2	6.0	4.2	30	4.0
2	24	6.6	7.1	7.7	93	6.9	6.8	3.9	4.7	4.2	5.5	3.7
3	8.2	6.3	8.4	8.5	52	6.4	6.5	24	4.3	4.7	3.7	3.5
4	6.8	6.3	8.1	11	15	6.6	6.4	8.9	4.2	4.3	3.4	3.5
5	6.4	10	7.6	14	8.6	9.3	6.2	5.8	26	4.0	3.3	3.3
6	6.3	8.2	30	9.0	11	6.7	5.7	5.3	24	4.2	3.3	3.2
7	6.3	6.6	15	8.0	11	6.1	5.2	4.8	5.8	4.0	3.5	3.0
8	6.3	6.3	8.2	7.3	7.3	6.9	5.8	4.2	6.3	4.5	4.8	3.1
9	6.5	6.6	7.6	5.9	6.5	6.7	5.9	4.1	6.0	6.6	4.3	3.4
10	6.7	6.9	7.6	5.8	6.5	6.3	5.9	4.1	5.0	6.7	3.5	4.6
11	6.7	7.4	7.3	6.6	6.9	6.3	6.0	4.1	4.3	7.0	3.5	8.1
12	6.4	8.0	7.1	6.8	101	8.3	6.0	4.3	4.3	4.7	3.4	3.6
13	6.3	7.0	7.1	6.5	85	6.8	5.9	6.3	4.5	5.5	3.1	3.3
14	6.3	6.6	7.1	6.9	16	6.3	5.5	4.6	3.8	3.8	3.2	3.3
15	6.3	6.5	7.1	6.7	9.4	6.1	5.9	4.1	3.8	3.6	3.3	3.3
16	5.9	6.7	7.1	5.6	8.0	5.9	5.9	4.3	5.1	4.3	3.4	3.3
17	5.9	6.5	7.1	6.0	7.6	6.3	5.4	17	16	3.6	3.3	3.3
18	6.2	6.7	6.8	7.3	7.5	5.9	5.2	16	13	3.1	4.3	3.4
19	6.0	13	6.9	7.4	7.5	5.5	5.1	5.6	26	3.0	5.4	3.5
20	6.1	9.7	6.8	6.5	7.1	5.9	5.0	4.6	5.8	3.1	3.9	3.4
21	5.9	7.2	7.1	6.6	7.0	5.9	4.9	4.5	4.6	3.1	4.4	3.7
22	5.9	6.8	9.0	5.7	7.3	6.0	4.8	4.9	4.0	3.3	4.1	4.0
23	6.0	6.9	7.2	6.0	7.6	9.1	4.6	11	3.6	3.4	3.5	5.1
24	8.5	7.1	6.8	6.9	7.6	8.7	4.8	14	3.5	3.2	3.3	6.0
25	8.2	7.0	7.1	7.7	6.9	8.8	5.0	6.2	3.5	3.4	7.6	4.8
26	6.8	6.7	6.4	7.5	7.2	6.7	4.8	5.0	3.5	5.9	16	8.8
27	6.7	6.7	6.7	6.7	7.4	6.5	4.2	4.5	4.0	5.8	5.5	400
28	6.6	8.0	6.8	6.8	6.5	6.3	3.6	6.7	4.8	4.5	4.0	115
29	12	30	7.1	6.7	---	6.7	3.4	17	4.5	3.7	3.7	16
30	9.2	13	6.7	6.3	---	7.1	3.0	6.6	4.0	3.7	6.3	7.3
31	7.4	---	6.7	7.2	---	8.3	---	5.5	---	17	9.0	---
TOTAL	246.8	248.0	255.5	225.1	552.4	212.0	164.4	225.1	218.9	146.1	169.5	644.5
MEAN	7.96	8.27	8.24	7.26	19.7	6.84	5.48	7.26	7.30	4.71	5.47	21.5
MAX	24	30	30	14	101	9.3	11	24	26	17	30	400
MIN	5.9	6.3	6.4	5.6	6.5	5.5	3.0	3.2	3.5	3.0	3.1	3.0
CFSM	.63	.65	.65	.57	1.55	.54	.43	.57	.58	.37	.43	1.69
IN.	.72	.73	.75	.66	1.62	.62	.48	.66	.64	.43	.50	1.89

CAL YR 1984 TOTAL 5039.5 MEAN 13.8 MAX 126 MIN 5.0 CFSM 1.09 IN 14.76
WTR YR 1985 TOTAL 3308.3 MEAN 9.06 MAX 400 MIN 3.0 CFSM .71 IN 9.69

01495000 BIG ELK CREEK AT ELK MILLS, MD

LOCATION.--Lat 39°39'26", long 75°49'20", Cecil County, Hydrologic Unit 02060002, on right bank 100 ft downstream from highway bridge at Elk Mills, 3.5 mi north of Elkton, and 7 mi upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 mi².

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1932-33, 1934(M), 1935, 1936(M), 1938, 1939-40(M), 1942(M), 1943-51, 1952-53(P).

GAGE.--Water-stage recorder. Datum of gage is 68.5 ft above National Geodetic Vertical Datum of 1929. Apr. 10, 1932, to May 16, 1946, nonrecording gage at bridge 100 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 16, 17, 21-31, Feb. 1-11. Records good except those for periods with ice effect, Jan. 16, 17, 21-31, Feb. 1-11, which are fair. Slight diurnal fluctuation caused by mills upstream from 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, 69.4 ft³/s, 17.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s, July 5, 1937, gage height, 14.5 ft, from floodmarks, from rating curve extended above 1,700 ft³/s on basis of velocity-area and conveyance studies; minimum discharge, 4.5 ft³/s, Jan. 21, 1955, (result of freezeup); minimum daily discharge, 4.8 ft³/s, Sept. 8-10, 1966; minimum gage height observed, 2.09 ft, Sept. 19, 22-24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft from information by local residents, discharge, about 18,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1700	*5,410	*8.93	Sept. 27	1445	3,640	7.49
July 31	2230	2,770	6.72				

Minimum daily discharge, 11 ft³/s, Sept. 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	79	42	53	42	66	43	99	27	28	20	210	18
2	77	42	47	45	225	44	53	30	25	19	41	18
3	48	40	55	46	110	42	47	228	44	18	28	18
4	41	39	60	45	60	41	49	65	62	18	24	17
5	39	225	48	52	50	49	44	42	33	17	21	15
6	37	73	193	49	50	43	41	38	32	17	19	15
7	36	49	78	48	45	40	39	35	26	32	19	14
8	36	44	57	46	40	45	39	32	28	21	333	14
9	38	42	51	40	39	45	40	30	28	22	52	17
10	38	42	49	36	40	41	40	30	26	27	37	16
11	38	43	49	46	60	40	39	29	23	24	31	30
12	36	44	46	46	1840	57	39	29	22	18	30	17
13	36	40	46	42	225	50	37	43	22	17	25	14
14	36	39	44	42	97	42	36	31	21	16	22	13
15	36	39	46	39	77	40	38	27	21	16	21	13
16	36	40	44	38	68	39	38	27	38	20	20	12
17	38	39	43	39	62	39	37	46	46	18	19	12
18	38	40	43	42	58	37	34	59	28	14	19	12
19	38	57	44	39	58	36	34	35	25	13	23	12
20	45	46	47	37	58	37	33	30	22	12	20	11
21	45	40	46	28	53	37	32	29	25	12	23	11
22	43	39	72	26	53	36	31	34	22	17	23	11
23	123	39	51	27	58	44	30	36	21	15	18	15
24	75	39	45	29	61	54	30	43	20	14	18	16
25	57	39	48	35	57	63	32	32	19	15	34	15
26	46	38	43	37	52	45	31	28	18	50	59	18
27	44	38	43	39	50	41	29	26	18	45	28	1550
28	42	39	45	39	45	40	28	26	22	26	22	112
29	91	232	43	39	---	40	28	29	21	18	20	47
30	54	72	42	38	---	42	27	26	20	16	19	36
31	45	---	40	39	---	42	---	26	---	507	18	---
TOTAL	1511	1680	1661	1235	3757	1334	1154	1248	806	1114	1296	2139
MEAN	48.7	56.0	53.6	39.8	134	43.0	38.5	40.3	26.9	35.9	41.8	71.3
MAX	123	232	193	52	1840	63	99	228	62	507	333	1550
MIN	36	38	40	26	39	36	27	26	18	12	18	11
CFSM	.93	1.07	1.02	.76	2.55	.82	.73	.77	.51	.68	.80	1.36
IN.	1.07	1.19	1.17	.87	2.66	.94	.82	.88	.57	.79	.92	1.51

CAL YR 1984 TOTAL 32738 MEAN 89.4 MAX 713 MIN 34 CFSM 1.70 IN 23.15
WTR YR 1985 TOTAL 18935 MEAN 51.9 MAX 1840 MIN 11 CFSM .99 IN 13.39

01495900 ELK RIVER NEAR TOWN POINT, MD

LOCATION.--Lat 39°30'09", long 75°54'58", Cecil County, Hydrologic Unit 02060001, at site of Old Town Point wharf, at the Corps of Engineers substation, on left bank of Elk River, 0.7 mi west of Port Herman, 1.1 mi northwest of Town Point, and 1.8 mi downstream from mouth of Back Creek.

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to current year.
WATER TEMPERATURE: October 1981 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1981.

REMARKS.--Interruptions in record due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 19,900 microsiemens, Oct. 26, 1982; minimum, 117 microsiemens, July 21-23, 28, 1984.
WATER TEMPERATURE: Maximum, 32.5°C, July 20, 1983; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 18,300 microsiemens, Sept. 27; minimum, 201 microsiemens, Apr. 11.
WATER TEMPERATURE: Maximum, 31.0°C, Aug. 14; minimum, 0.0°C, Jan. 9 to Feb. 18, Feb. 20.

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	14300	10800	13000	9200	8640	8900	3800	2420	3050	2260	600	982
2	14300	11700	13700	10900	7880	8730	3420	2060	2610	880	660	725
3	12900	8600	9810	8920	8200	8440	2920	1920	2340	3100	660	1480
4	9140	7400	8150	12400	9140	10400	2540	1340	1790	8520	1700	3780
5	8620	8200	8390	11000	8800	10000	2340	1020	1280	5120	1960	2850
6	8580	8100	8380	9200	8620	8940	1640	1120	1260	4760	1800	2750
7	8720	7380	8050	10300	8340	9160	2200	800	1280	2240	1640	1860
8	7920	7300	7630	12800	9620	10900	1180	500	798	1760	1140	1420
9	7540	7000	7290	12300	9820	10700	1620	520	786	1420	960	1130
10	7240	6860	7100	10100	6300	9350	3120	700	1340	1120	980	1030
11	7440	7160	7260	8980	7960	8330	3220	1280	1770	1060	900	941
12	7200	6920	7050	8640	7560	7960	3700	1740	2190	1080	960	1010
13	12500	7040	8770	7500	5140	6000	2220	1700	1910	1040	900	971
14	16000	10900	13600	---	---	---	2220	1740	1870	1000	800	910
15	15400	11600	14100	---	---	---	3000	2000	2190	940	460	746
16	12600	8460	10400	---	---	---	2540	2040	2250	740	500	608
17	11000	9980	10400	---	---	---	2380	1600	2010	680	320	508
18	10700	9960	10300	---	---	---	1760	1520	1650	440	340	387
19	10400	9680	10000	---	---	---	1860	1460	1690	440	380	416
20	10000	9400	9770	---	---	---	1880	1560	1760	620	360	439
21	9780	9440	9580	5240	3780	4430	1720	1380	1620	740	500	590
22	9420	8960	9270	12100	4300	6030	1680	1380	1620	720	500	631
23	9240	8340	8810	8800	3800	6630	1540	1180	1450	640	460	572
24	9740	8660	8990	7460	5140	5660	1440	1180	1340	620	480	553
25	12900	9300	10100	6000	4940	5420	1500	880	1100	540	460	507
26	10300	8780	9360	6360	5380	5800	1240	660	919	540	480	513
27	10500	8000	8890	5920	5380	5590	1160	500	639	540	500	518
28	9540	8780	9080	6220	5360	5590	580	520	551	540	500	521
29	9020	7880	8300	5800	5020	5340	760	480	578	540	500	508
30	10900	7920	8540	5020	3460	4210	660	480	586	680	500	572
31	10000	8160	9030	---	---	---	980	520	601	1020	660	803
MONTH	16000	6860	9450	12800	3460	7500	3800	480	1510	8520	320	1010

01495900 ELK RIVER NEAR TOWN POINT, 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	2200	940	1280	740	380	548	2200	1650	1910	2170	1770	1960
2	6160	1340	2750	520	340	410	2100	940	1620	2170	1750	1910
3	5780	1820	3730	800	320	481	1190	461	808	6910	3850	5300
4	11700	2820	5710	800	400	487	854	439	617	8090	5950	7060
5	8080	5400	6400	520	320	386	957	466	592	6560	4180	5310
6	11400	5680	8020	866	322	487	593	346	443	4870	3470	4070
7	11600	6340	8510	3390	386	933	820	298	436	3710	3170	3500
8	5700	3560	4850	3000	920	1440	700	240	379	3670	3460	3540
9	3880	2940	3320	1380	865	1050	782	321	413	4800	3000	3980
10	4300	2940	3480	1100	954	996	763	281	406	4120	1950	3360
11	7080	3360	5010	1190	981	1100	322	201	258	3830	1820	2520
12	17100	4860	10700	1160	652	974	424	202	287	3220	1570	2150
13	9540	5600	7570	1420	656	1020	384	222	288	2130	901	1780
14	7200	4080	5290	1360	512	868	304	223	242	2200	1130	1610
15	5160	3300	3890	816	322	510	833	223	377	5990	1490	2330
16	3980	3080	3520	1020	411	690	570	326	395	5770	2110	2780
17	3280	2020	2540	566	326	452	755	367	456	2660	2290	2450
18	3320	1780	2160	438	285	345	552	348	458	2800	2430	2660
19	2400	1280	1730	2010	375	918	615	225	339	2780	1780	2450
20	1620	1220	1440	1780	888	1220	575	267	330	2300	1320	1790
21	1700	1340	1490	961	827	901	2060	309	1090	1890	1050	1510
22	1520	1100	1360	832	742	785	1260	743	916	2090	1250	1450
23	1520	880	1110	1220	747	916	2030	848	1470	1650	1170	1390
24	1160	720	976	3030	1000	2230	5880	2200	4430	1550	1240	1370
25	1040	700	808	3560	2570	3120	5360	2950	4000	1650	1290	1420
26	1140	760	850	3140	2650	2890	3640	2370	2940	1740	1460	1560
27	880	700	770	2600	2180	2400	2590	2310	2450	1620	1400	1530
28	1060	660	778	2130	1920	2020	2860	2260	2460	1490	1230	1390
29	---	---	---	1910	1670	1790	2510	2200	2350	7400	1300	2250
30	---	---	---	1660	1540	1590	2460	2160	2260	7460	3360	4380
31	---	---	---	1670	1480	1560	---	---	---	4220	3100	3500
MONTH	17100	660	3570	3560	285	1150	5880	201	1180	8090	901	2720
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3190	2140	2770	1640	1620	1630	---	---	---	8720	5360	6660
2	2700	2180	2480	1640	1540	1590	---	---	---	7780	4900	6970
3	2490	2390	2440	1540	1480	1510	6440	3700	4670	7240	5480	6580
4	2850	2500	2700	1540	1260	1420	4680	3580	4140	6960	5640	6550
5	3560	2890	3300	1700	1120	1330	3920	3240	3790	6570	4590	5980
6	3090	2780	2940	1660	1400	1580	3820	3340	3620	6040	4410	5320
7	3150	2770	2980	1620	1400	1520	3800	3040	3500	5610	4200	5320
8	3360	2980	3130	1600	1200	1460	3200	2420	2630	5680	4450	5370
9	3060	2950	3020	---	---	---	2820	2220	2710	5480	4010	5220
10	2940	2580	2770	---	---	---	2740	2320	2660	5450	4120	5230
11	2640	2340	2500	---	---	---	2800	2380	2660	8610	4750	5460
12	2460	2080	2280	---	---	---	2940	2360	2800	9580	5290	7410
13	2140	1600	1870	---	---	---	3460	2340	3100	9570	6710	7770
14	1660	1220	1380	---	---	---	3860	2960	3570	14800	7880	11400
15	1320	900	1070	---	---	---	4020	3060	3770	12900	10000	11700
16	980	860	920	---	---	---	3980	3460	3830	12900	9920	11600
17	900	760	830	---	---	---	3840	3400	3590	13200	9780	11900
18	820	720	779	---	---	---	4440	3520	3990	12900	8590	11200
19	760	700	727	---	---	---	7020	3900	5420	11600	8250	10000
20	720	560	685	---	---	---	8200	4900	6810	10900	6870	9250
21	680	580	657	---	---	---	8180	5380	7050	9550	6390	8380
22	640	540	590	---	---	---	8780	6600	7490	9440	6930	8200
23	520	440	495	---	---	---	8580	6700	7820	14000	6510	9020
24	460	420	436	---	---	---	8220	6560	7350	12900	8600	11400
25	460	400	422	---	---	---	7420	6020	6650	12900	10500	11800
26	460	440	452	---	---	---	6740	5900	6510	13000	8670	11500
27	1200	360	719	---	---	---	6660	4620	6050	18300	9740	13000
28	1920	1420	1700	---	---	---	6260	4680	6010	12300	8890	10800
29	1740	1340	1520	---	---	---	6060	4700	5650	13100	9190	11100
30	1620	1340	1450	---	---	---	6040	4500	5810	12400	10100	11000
31	---	---	---	---	---	---	6060	4760	5740	---	---	---
MONTH	3560	360	1670	1700	1120	1510	8780	2220	4810	18300	4010	8770

01495900 ELK RIVER NEAR TOWN POINT, 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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.5	16.5	17.5	19.0	18.5	18.5	8.0	6.5	7.0	6.5	6.0	6.5
2	17.0	16.0	16.5	19.0	16.0	18.0	7.5	6.0	7.0	7.0	6.0	6.5
3	16.5	15.0	16.0	16.0	11.5	14.5	7.0	6.5	7.0	6.5	4.5	5.5
4	17.5	15.5	16.5	16.5	15.0	15.5	6.0	5.5	6.0	6.0	5.0	5.5
5	17.5	16.0	16.5	17.0	16.0	16.0	6.0	5.0	5.5	5.5	4.5	4.5
6	17.0	14.5	16.0	16.0	13.5	15.0	5.0	4.5	5.0	5.0	3.5	4.0
7	16.5	15.5	16.0	13.5	12.0	12.5	4.0	1.5	3.0	5.0	4.0	4.5
8	17.0	15.0	16.0	14.0	11.0	12.5	4.0	2.0	3.0	4.0	2.5	3.5
9	17.0	16.0	16.5	14.0	12.0	13.0	4.5	2.5	3.5	2.5	.0	1.0
10	18.0	16.0	16.5	13.5	12.5	13.0	4.5	3.5	4.0	1.0	.0	.5
11	18.0	16.5	17.0	13.0	13.0	13.0	5.0	4.0	4.5	1.0	.0	.5
12	18.0	16.0	17.0	13.0	10.0	11.5	5.0	4.0	4.5	.5	.0	.0
13	17.5	16.0	17.0	11.0	8.0	9.5	5.5	4.5	5.0	.5	.0	.0
14	17.5	16.0	16.5	9.0	7.5	8.5	6.0	5.0	5.5	1.0	.0	.5
15	17.5	16.5	17.0	9.0	8.0	8.5	6.0	5.5	5.5	1.0	.0	.0
16	17.5	16.5	17.0	9.0	7.0	8.5	5.5	5.5	5.5	.0	.0	.0
17	17.5	17.0	17.0	8.0	6.5	7.5	6.0	5.5	6.0	.0	.0	.0
18	18.0	17.0	17.5	7.5	7.0	7.5	7.0	5.5	6.0	.0	.0	.0
19	19.0	17.0	18.0	7.5	6.0	7.0	6.0	5.5	6.0	.0	.0	.0
20	19.0	18.0	18.5	6.5	4.5	5.5	6.0	5.5	5.5	.0	.0	.0
21	20.0	18.0	19.0	6.0	4.0	5.0	5.5	5.0	5.5	.0	.0	.0
22	20.0	18.5	19.0	7.0	4.0	5.0	7.0	5.5	6.0	.0	.0	.0
23	19.5	18.5	19.0	6.5	5.0	5.5	6.5	4.5	5.5	.0	.0	.0
24	18.5	17.0	17.5	6.0	4.5	5.5	5.5	4.5	5.0	.0	.0	.0
25	18.5	17.5	18.0	6.5	5.0	5.5	5.5	4.0	5.0	.0	.0	.0
26	19.0	18.0	18.5	6.5	5.0	6.0	5.0	3.0	4.5	.0	.0	.0
27	19.5	18.0	18.5	6.5	5.5	6.0	5.0	4.0	5.0	.0	.0	.0
28	20.0	18.5	19.0	7.5	6.0	6.5	6.0	5.0	5.5	.0	.0	.0
29	20.5	19.0	19.5	7.0	6.0	6.5	7.0	5.5	6.0	.0	.0	.0
30	19.5	18.0	19.0	7.5	5.5	6.5	7.5	6.5	7.0	.0	.0	.0
31	20.0	18.5	19.5	---	---	---	6.5	6.0	6.0	.0	.0	.0
MONTH	20.5	14.5	17.5	19.0	4.0	10.0	8.0	1.5	5.5	7.0	.0	1.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.0	6.5	4.5	5.5	11.0	9.0	10.0	21.5	18.0	19.5
2	.0	.0	.0	7.5	5.0	6.0	10.0	8.5	9.0	19.5	16.0	18.0
3	.0	.0	.0	9.0	5.0	6.5	9.5	8.0	8.5	16.5	15.0	15.5
4	.5	.0	.0	6.5	5.5	5.5	10.5	8.5	9.5	18.0	15.0	16.5
5	.0	.0	.0	8.5	6.0	7.0	12.5	9.0	10.5	19.0	16.0	17.5
6	.0	.0	.0	6.5	4.0	5.5	12.5	11.0	11.5	18.5	17.0	18.0
7	.0	.0	.0	6.5	3.5	5.0	12.0	10.0	11.0	18.5	17.0	18.0
8	.0	.0	.0	6.5	5.5	6.0	11.5	9.0	10.0	19.5	16.0	18.0
9	.5	.0	.0	8.5	5.0	6.5	9.5	7.0	8.5	20.0	16.5	18.5
10	.0	.0	.0	8.5	6.0	7.5	10.5	5.5	8.0	21.0	18.0	19.5
11	.0	.0	.0	7.5	6.5	7.0	9.5	8.5	9.0	23.0	19.5	21.0
12	.5	.0	.0	8.0	6.5	7.5	11.5	8.5	10.0	23.5	20.5	22.0
13	.5	.0	.0	9.5	6.0	7.5	13.0	9.5	11.0	24.5	21.0	22.5
14	1.0	.0	.0	9.5	8.0	8.5	12.5	10.5	11.5	25.5	22.0	23.5
15	1.0	.0	.0	9.0	6.0	8.0	12.5	11.0	12.0	22.5	21.0	21.5
16	.5	.0	.0	10.0	5.5	7.5	14.5	12.0	13.0	21.5	20.5	21.0
17	1.0	.0	.0	9.5	7.0	8.0	15.0	11.0	13.0	20.5	20.0	20.5
18	2.5	.0	.5	7.5	4.5	6.0	15.5	12.0	13.5	22.5	18.5	20.0
19	2.5	.5	1.0	8.5	3.0	5.5	19.0	13.0	15.5	21.5	17.0	19.0
20	3.5	.0	1.5	8.0	6.5	7.5	18.5	15.0	16.5	22.5	18.5	20.5
21	3.5	1.0	2.0	8.5	5.5	7.0	18.5	14.5	16.5	22.0	20.0	21.0
22	3.5	2.0	3.0	7.0	6.0	6.5	19.5	16.0	17.5	23.0	20.5	21.5
23	5.5	3.0	4.0	6.5	6.0	6.5	19.5	17.0	18.0	21.5	19.5	20.5
24	7.5	4.5	6.0	7.0	6.5	6.5	17.0	15.5	16.0	20.5	19.0	20.0
25	7.5	6.5	7.0	8.0	6.0	7.0	17.0	15.0	16.0	22.5	19.5	21.0
26	7.0	6.5	7.0	8.5	5.5	7.0	18.0	15.5	17.0	22.5	20.5	21.5
27	7.5	5.0	6.5	9.0	6.5	8.0	19.5	17.0	18.5	24.0	21.5	22.5
28	7.0	3.5	5.5	10.5	8.0	9.5	19.0	17.0	18.0	24.5	22.5	23.5
29	---	---	---	11.5	10.0	10.5	20.5	16.0	18.0	22.0	20.5	21.5
30	---	---	---	11.0	10.5	10.5	21.0	17.5	18.5	23.0	20.5	21.5
31	---	---	---	10.5	9.0	10.0	---	---	---	22.5	21.5	22.0
MONTH	7.5	.0	1.5	11.5	3.0	7.0	21.0	5.5	13.0	25.5	15.0	20.0

01495900 ELK RIVER NEAR TOWN POINT, 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
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	21.5	23.0	24.0	22.5	23.5	---	---	---	25.5	23.5	24.5
2	25.5	22.0	23.5	26.0	23.0	24.0	---	---	---	25.5	24.0	25.0
3	25.5	23.0	24.0	26.5	23.5	25.0	28.0	25.0	26.5	26.5	24.5	25.5
4	24.5	23.0	24.0	27.0	24.0	25.5	27.5	25.5	26.5	27.0	25.0	26.0
5	24.0	22.5	23.5	26.5	25.0	25.5	27.0	25.0	26.5	28.0	25.5	26.5
6	24.5	22.0	23.5	26.0	25.0	25.5	27.0	25.5	26.0	28.0	26.0	27.0
7	24.0	21.0	23.0	27.0	24.5	26.0	27.5	25.5	26.5	28.5	26.5	27.5
8	23.5	22.0	22.5	26.5	24.5	26.0	28.0	26.0	26.5	28.0	27.0	27.0
9	24.0	22.0	23.0	---	---	---	28.5	26.5	27.5	28.5	26.5	27.5
10	26.0	23.0	24.5	---	---	---	28.5	26.5	27.5	29.0	26.5	27.5
11	25.5	23.5	24.5	---	---	---	29.5	26.5	27.5	26.5	24.0	25.5
12	25.0	23.0	24.5	---	---	---	29.5	26.0	27.5	25.5	23.0	24.5
13	23.5	19.5	22.5	---	---	---	29.5	26.0	27.5	22.5	19.5	21.5
14	23.5	19.0	21.0	---	---	---	31.0	27.0	28.0	23.0	18.5	21.5
15	23.5	20.5	22.0	---	---	---	30.5	27.5	28.5	23.0	20.0	21.5
16	24.5	21.5	22.5	---	---	---	29.5	27.5	28.0	23.0	20.5	22.0
17	25.5	21.5	23.0	---	---	---	28.0	26.0	27.0	23.0	21.0	22.0
18	24.5	23.0	23.5	---	---	---	27.0	25.5	26.0	23.0	21.0	22.0
19	25.5	22.0	23.5	---	---	---	27.0	25.0	26.0	23.0	21.5	22.0
20	24.5	22.5	23.5	---	---	---	27.0	26.0	26.5	23.5	21.5	22.5
21	25.0	22.0	23.5	---	---	---	26.5	25.0	26.0	23.0	22.0	22.5
22	25.0	23.0	24.0	---	---	---	26.0	24.5	25.5	23.5	22.0	22.5
23	25.5	23.5	24.5	---	---	---	26.5	24.5	25.5	22.5	22.0	22.0
24	26.5	24.5	25.5	---	---	---	26.0	25.0	25.5	23.5	22.0	22.5
25	27.5	23.5	25.5	---	---	---	25.0	24.5	25.0	23.0	21.0	22.0
26	25.0	22.0	23.5	---	---	---	27.5	24.5	25.5	22.0	21.0	21.5
27	24.0	22.0	23.0	---	---	---	28.0	25.0	26.0	21.5	19.5	21.0
28	24.0	22.5	23.0	---	---	---	28.5	24.5	26.0	21.0	19.0	20.0
29	26.5	22.0	24.0	---	---	---	28.0	24.5	26.0	21.5	19.0	20.0
30	25.5	23.0	24.0	---	---	---	26.5	25.5	26.0	21.5	19.5	20.5
31	---	---	---	---	---	---	25.5	24.5	25.0	---	---	---
MONTH	27.5	19.0	23.5	27.0	22.5	25.0	31.0	24.5	26.5	29.0	18.5	23.5

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD

LOCATION.--Lat 39°37'34", long 76°02'27", Cecil County, Hydrologic Unit 02060002, on left bank, 55 ft downstream from bridge on Belvedere Road, 3.5 mi north of Principio Furnace, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--9.03 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 215 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10, 12, 13, 16, 17, 20-28, Feb. 4, 5, 8-11. Records good except those for periods with ice effect, Jan. 10, 12, 13, 16, 17, 20-28, Feb. 4, 5, 8-11, which are fair. 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.--18 years, 12.9 ft³/s, 19.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,060 ft³/s, Aug. 4, 1969, gage height, 9.26 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurements at gage heights 8.89 ft and 9.26 ft; minimum discharge, 1.2 ft³/s, Aug. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1215	*1,610	*7.34	Sept. 27	0345	1,040	6.27
Aug. 8	0500	332	4.28	Sept. 27	1100	1,610	7.33

Minimum discharge, 1.1 ft³/s, Sept. 20, 21, gage height, 1.58 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	9.9	4.3	7.2	6.4	17	6.1	23	3.7	3.5	2.2	8.8	1.7
2	7.0	4.3	6.2	6.7	33	6.0	8.6	4.7	3.0	2.1	2.8	1.7
3	4.6	4.2	9.4	6.8	11	5.7	7.9	32	3.0	2.0	2.3	1.7
4	4.2	4.2	7.9	7.2	8.1	5.8	7.3	7.2	3.1	2.0	2.1	1.7
5	4.1	25	6.8	9.1	7.0	6.6	6.8	5.3	3.5	1.9	2.0	1.5
6	3.9	6.6	42	7.7	6.9	5.6	6.2	4.8	3.4	2.0	2.2	1.4
7	3.9	5.3	9.6	7.7	6.3	5.4	5.8	4.5	2.9	2.1	3.0	1.4
8	4.0	4.8	7.9	7.0	6.1	6.9	5.8	4.2	3.6	5.4	56	1.5
9	4.1	4.7	7.2	6.5	6.1	6.0	6.5	4.0	3.3	4.8	3.8	1.6
10	4.1	4.6	7.1	5.9	5.7	5.6	6.2	3.9	2.9	12	3.1	1.5
11	4.1	4.8	6.8	6.0	6.3	5.6	6.0	3.8	2.7	4.2	4.2	1.4
12	4.1	4.5	6.3	6.3	362	8.6	5.8	3.7	3.1	2.8	3.8	1.3
13	3.9	4.2	6.3	6.3	25	6.3	5.5	4.1	2.6	2.5	2.3	1.2
14	3.9	4.2	6.1	6.2	13	5.8	5.2	3.6	2.3	2.3	2.1	1.3
15	3.9	4.2	6.3	5.5	10	5.5	5.4	3.4	2.6	2.4	2.0	1.3
16	3.9	4.2	6.1	5.2	8.6	5.1	5.3	3.7	4.7	2.9	1.9	1.2
17	4.1	4.1	6.2	5.7	8.1	5.2	4.8	7.5	6.4	2.2	1.8	1.2
18	4.1	4.3	6.1	5.9	7.9	4.9	4.7	5.2	3.2	2.0	1.9	1.2
19	4.1	6.3	6.5	5.9	8.3	4.9	4.7	3.8	2.8	1.9	2.2	1.2
20	4.1	4.7	6.2	5.5	7.8	5.1	4.6	3.7	2.8	1.9	1.9	1.2
21	4.2	4.3	7.5	5.0	7.2	4.9	4.5	3.6	2.7	1.8	2.6	1.2
22	4.4	4.3	11	4.4	7.6	4.9	4.4	3.6	2.4	2.6	2.0	1.3
23	8.1	4.3	7.3	4.7	8.6	7.9	4.3	5.0	2.3	2.1	1.7	1.5
24	8.3	4.3	6.6	5.5	8.5	11	4.4	4.5	2.7	1.7	1.6	1.6
25	5.5	4.3	6.8	5.5	7.7	11	4.6	3.8	2.5	1.8	5.1	1.4
26	4.6	4.2	6.1	5.6	7.2	6.8	4.3	3.4	2.2	2.9	7.3	3.2
27	4.5	4.2	6.3	5.5	6.9	6.1	4.0	3.2	2.2	3.1	2.5	514
28	4.4	6.6	6.3	5.6	6.1	5.8	3.9	3.7	2.3	2.2	2.1	12
29	9.0	46	6.3	5.6	---	6.2	3.9	4.1	2.3	1.9	2.0	5.9
30	5.0	9.0	6.0	5.4	---	8.5	3.8	3.5	2.2	1.9	2.0	4.8
31	4.5	---	6.0	5.5	---	7.6	---	3.5	---	16	1.8	---
TOTAL	152.5	205.0	250.4	187.8	624.0	197.4	178.2	158.7	89.2	99.6	140.9	575.1
MEAN	4.92	6.83	8.08	6.06	22.3	6.37	5.94	5.12	2.97	3.21	4.55	19.2
MAX	9.9	46	42	9.1	362	11	23	32	6.4	16	56	514
MIN	3.9	4.1	6.0	4.4	5.7	4.9	3.8	3.2	2.2	1.7	1.6	1.2
CFSM	.55	.76	.90	.67	2.47	.71	.66	.57	.33	.36	.50	2.13
IN.	.63	.84	1.03	.77	2.57	.81	.73	.65	.37	.41	.58	2.37

CAL YR 1984 TOTAL 4986.7 MEAN 13.6 MAX 165 MIN 3.9 CFSM 1.51 IN 20.54
WTR YR 1985 TOTAL 2858.8 MEAN 7.83 MAX 514 MIN 1.2 CFSM .87 IN 11.78

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39'31", long 76°10'28", Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi southwest of Conowingo, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--27,100 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Water-discharge records good. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal; dead storage, 45,290,000,000 gal. Records do not include a small infrequent diversion upstream from station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore Department of Public Works. Gage-height telemeter at station.

AVERAGE DISCHARGE.--18 years, 41,950 ft³/s, 21.02 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130,000 ft³/s, June 24, 1972, gage height, 36.83 ft; minimum discharge, 144 ft³/s, Mar. 2, 1969, gage height, 6.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 158,000 ft³/s, Apr. 4, gage height, 19.94 ft; minimum discharge, 750 ft³/s, Oct. 3, gage height, 7.28 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	9100	14300	70400	65700	27200	92900	83700	18000	10400	11700	8670	5250
2	11600	17400	60400	69000	5170	76600	119000	19400	10700	17200	15900	5020
3	11700	969	68300	75800	3090	57600	136000	35100	33800	8870	5030	14900
4	8200	957	68800	71600	22400	60200	120000	34500	36100	5370	5070	13000
5	9350	10200	64200	60700	15800	53100	96200	43900	29600	10000	15400	11200
6	3120	18700	61900	46200	14200	43500	83600	48000	28900	5870	9270	7800
7	918	13100	64700	54000	17600	42900	71800	39300	25100	5920	5200	5200
8	11500	11700	53000	46300	17800	43200	70900	32000	15100	7180	10700	5540
9	7380	16300	32700	38400	931	32800	70100	32900	15600	13100	14000	6120
10	4760	13400	43900	33300	821	26800	62600	28500	24300	9170	5090	7220
11	11400	893	37900	37700	12400	42600	58900	16500	16900	14400	5400	12000
12	10400	19300	41800	18800	39700	44500	56800	11400	17300	7670	9480	14200
13	3120	14200	42800	5330	60300	52400	37800	28700	17000	7280	10200	6350
14	813	20800	45300	25000	58700	60600	27200	29900	14000	5710	9330	5310
15	7430	18900	45000	25300	52400	81100	43300	25000	4860	22100	8000	5200
16	8500	24800	39800	23000	45100	90900	41100	19500	4910	17600	8360	12300
17	9700	11800	53900	21000	32500	79200	42600	21900	26000	15200	5090	12800
18	10900	864	58500	17600	35300	69200	31000	17000	24300	12700	5660	10200
19	3380	16400	54300	12200	35000	63600	34500	13100	17800	11700	5660	7310
20	3330	21600	45700	13100	35500	52600	31100	31600	18400	4880	5610	8350
21	940	26900	51300	24200	36500	47900	12200	27600	20500	5020	6010	944
22	15000	880	50600	6940	32800	44200	29700	24500	4900	14200	6790	1060
23	12500	22900	57100	6250	29800	32400	27100	23500	4950	13200	7670	5690
24	10600	4220	70300	12500	31500	21400	29200	25000	20400	8010	5150	7670
25	7920	879	67300	17800	50000	54100	34200	13600	13200	11000	5170	7620
26	9980	10000	70000	9930	78000	56900	30000	12300	14700	9010	5910	20000
27	5100	13500	72300	7500	127000	59900	22600	7660	16300	12000	6830	30100
28	854	9680	58800	17100	107000	62700	14100	20400	10400	5230	7810	18300
29	21400	42600	47300	21000	---	60300	25800	15900	5040	15700	8720	11100
30	6390	57400	43800	19900	---	61100	21500	19500	5010	13500	8430	36900
31	10200	---	63200	21200	---	75100	---	22700	---	11300	4900	---
TOTAL	247485	455542	1705300	924350	1024512	1742300	1564600	758860	506470	331790	240510	314654
MEAN	7983	15180	55010	29820	36590	56200	52150	24480	16880	10700	7758	10490
MAX	21400	57400	72300	75800	127000	92900	136000	48000	36100	22100	15900	36900
MIN	813	864	32700	5330	821	21400	12200	7660	4860	4880	4900	944
CFSM	.30	.56	2.03	1.10	1.35	2.07	1.92	.90	.62	.40	.29	.39
IN.	.34	.63	2.34	1.27	1.41	2.39	2.15	1.04	.70	.46	.33	.43

CAL YR 1984 TOTAL 18219256 MEAN 49780 MAX 470000 MIN 798 CFSM 1.84 IN 25.01
WTR YR 1985 TOTAL 9816373 MEAN 26890 MAX 136000 MIN 813 CFSM .99 IN 13.47

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to April 1981, July 1984 to current year.
WATER TEMPERATURE: June 1979 to April 1981, July 1984 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE : Maximum daily, 475 microsiemens, Nov. 13-15, 1980; minimum daily, 115 microsiemens, Apr. 3, 1980.
WATER TEMPERATURE (water years 1979-80, 1984-85): Maximum daily, 29.5°C, Aug. 8, 1980, Aug. 15, 1984; minimum daily, 1.0°C, Feb. 5, 6, 9, 1980.
SEDIMENT CONCENTRATION: Maximum daily mean, 171 mg/L, Feb. 13, 1981; minimum daily mean, 2 mg/L, on many days during winter periods.
SEDIMENT LOAD: Maximum daily, 137,00 tons, Feb. 25, 1981; minimum daily, 7.7 tons, Feb. 2, 3, 1980.

EXTREMES FOR PERIOD JULY 1984 to SEPTEMBER 1985.--
SPECIFIC CONDUCTANCE: Maximum daily, 403 microsiemens, Nov.11, 1984; minimum daily, 145 microsiemens, Apr. 6, 1985
WATER TEMPERATURE: Maximum daily, 29.5°C, Aug. 15, 1984; minimum daily, 2.0°C, Jan. 16, Feb. 9, 15-20, 1985
SEDIMENT CONCENTRATION: Maximum daily mean, 49 mg/L, Feb. 15, 1985; minimum daily mean, 2 mg/L, Jan. 19-21, Feb. 10, 1985
SEDIMENT LOAD: Maximum daily, 12,900 tons, Apr. 3, 1985; minimum daily, 4.4 tons, Feb. 10, 1985

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 2, JULY TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	202	272	225
2									---	190	280	228
3									---	205	280	235
4									---	212	285	235
5									---	204	290	223
6									---	194	290	226
7									---	185	290	242
8									---	180	290	245
9									---	180	290	210
10									---	190	290	240
11									---	194	290	223
12									---	198	290	251
13									---	194	288	258
14									---	189	290	275
15									---	184	290	229
16									---	188	290	210
17									---	210	280	250
18									---	210	245	255
19									---	210	235	261
20									---	215	215	274
21									---	220	210	275
22									---	220	205	273
23									---	220	210	282
24									---	227	210	280
25									---	235	215	193
26									---	240	215	287
27									194	254	210	296
28									200	253	213	295
29									200	258	215	---
30									202	257	217	---
31									---	260	225	---

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

TEMPERATURE, WATER (DEG. C), JULY TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	24.0	26.0	26.5
2									---	24.0	26.0	25.5
3									---	24.5	---	27.5
4									---	25.0	27.0	27.0
5									---	25.5	26.0	27.0
6									---	25.0	28.0	26.0
7									---	25.5	28.0	24.0
8									---	25.0	28.0	24.0
9									---	25.0	28.0	23.0
10									---	24.0	28.0	23.0
11									---	25.0	28.0	24.0
12									---	24.5	28.0	24.0
13									---	26.0	28.0	24.0
14									---	25.0	29.0	24.0
15									---	25.5	29.5	24.0
16									---	26.0	28.0	24.0
17									---	26.5	27.0	24.0
18									---	---	27.0	24.0
19									---	27.0	27.0	23.0
20									---	27.5	27.0	23.0
21									---	27.0	26.5	22.0
22									---	27.0	27.0	24.0
23									---	---	27.0	24.0
24									---	---	27.0	22.0
25									---	27.5	25.0	22.0
26									---	27.0	25.0	22.0
27									24.0	27.0	26.5	22.0
28									24.0	27.0	26.0	22.0
29									24.5	26.0	26.0	---
30									24.0	26.5	27.0	---
31									---	---	27.0	---

SUSPENDED-SEDIMENT, JULY TO SEPTEMBER 1984

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)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	10	1200	17	1260	5	94
2					---	---	35	5230	19	1010	6	83
3					---	---	38	6720	11	674	8	175
4					---	---	25	4310	20	272	6	293
5					---	---	25	3970	21	312	5	244
6					---	---	20	2860	6	445	15	976
7					---	---	24	4610	11	683	15	470
8					---	---	56	9890	7	386	23	467
9					---	---	69	12200	9	530	30	430
10					---	---	50	9980	13	888	18	758
11					---	---	41	7250	12	389	16	652
12					---	---	23	3580	10	516	11	333
13					---	---	36	4680	12	975	11	292
14					---	---	22	1730	11	1270	15	421
15					---	---	33	2280	9	1490	8	112
16					---	---	19	2050	20	3330	16	114
17					---	---	23	1950	18	2780	33	1320
18					---	---	21	1480	15	2160	13	279
19					---	---	21	1500	15	1580	16	527
20					---	---	10	726	18	2010	21	856
21					---	---	10	427	11	953	17	597
22					---	---	13	439	15	1370	30	82
23					---	---	9	656	11	1160	24	52
24					---	---	17	1020	9	712	8	216
25					---	---	10	545	10	421	16	480
26					---	---	10	467	21	703	26	737
27					12	1460	21	1030	9	663	20	364
28					13	1500	13	390	18	1060	18	465
29					16	1450	19	490	9	583	19	47
30					17	996	17	1140	11	609	20	49
31					---	---	26	1880	4	235	---	---
TOTAL					---	5406	---	96680	---	31429	---	11985

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	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)
OCT 1984										
25...	11:30	35000	367	7.8	14.0	19.0	778	--	7.0	74
NOV										
19...	10:30	60300	390	7.6	7.0	9.0	766	3.5	11.7	101
DEC										
27...	10:30	57500	155	7.4	4.0	5.0	781	--	15.4	118
JAN 1985										
28...	11:00	68500	247	7.8	4.0	2.0	763	1.5	14.5	105
FEB										
21...	12:00	60100	232	7.5	8.0	3.0	780	--	15.2	110
27...	09:30	137000	230	7.7	13.0	6.5	767	--	13.5	109
28...	12:00	109000	197	7.6	3.0	5.0	--	--	14.8	--
MAR										
01...	13:30	90200	175	7.5	10.0	6.0	768	--	14.5	116
06...	12:30	72100	160	7.5	2.0	7.0	780	7.0	13.5	109
APR										
02...	10:30	126000	168	7.2	11.0	11.0	--	--	--	--
03...	12:00	140000	168	7.7	10.0	19.0	758	--	13.2	--
04...	12:00	140000	158	7.8	19.0	12.0	765	--	13.2	122
05...	12:00	101000	172	7.4	23.0	9.0	759	--	13.4	116
22...	10:30	74500	184	8.1	26.0	17.0	768	--	10.1	104
MAY										
13...	10:30	48500	205	7.8	22.5	19.5	765	3.5	7.5	81
JUN										
27...	12:30	38100	255	7.7	23.0	25.0	766	--	6.4	77
JUL										
10...	09:30	5240	275	7.4	29.0	26.0	761	4.5	4.0	49
AUG										
07...	14:45	5100	285	7.5	29.0	27.0	766	--	4.3	54
22...	11:45	11500	305	7.5	25.5	28.0	768	--	4.4	56
22...	12:00	11500	305	7.5	25.5	28.0	768	--	4.4	56
SEP										
09...	11:00	5240	338	7.2	26.5	27.0	764	4.0	2.2	28

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										
19...	K6	K4	160	80	41	13	14	16	0.5	2.6
JAN 1985										
28...	K2	<1	92	46	25	7.2	7.9	15	0.4	1.6
MAR										
06...	65	K14	58	31	16	4.4	5.5	17	0.3	1.2
MAY										
13...	K2	K2	80	38	22	6.1	6.5	15	0.3	1.5
JUL										
10...	K1	K11	100	53	28	8.5	8.9	15	0.4	2.0
SEP										
09...	K3	K15	130	74	35	11	14	18	0.5	2.7

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

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
OCT 1984												
25...	75	2.3	--	--	--	0.8	--	--	--	--	1.34	0.06
NOV												
19...	76	3.7	79	22	0.1	1.3	250	220	0.34	40700	1.26	0.04
DEC												
27...	32	2.5	--	--	--	5.2	--	--	--	--	1.28	0.02
JAN 1985												
28...	46	1.6	43	13	<0.1	4.8	154	130	0.21	28500	1.76	0.04
FEB												
21...	41	2.5	--	--	--	4.9	--	--	--	--	2.27	0.03
27...	45	1.7	--	--	--	4.0	--	--	--	--	--	<0.01
28...	33	1.6	--	--	--	3.7	--	--	--	--	1.38	0.02
MAR												
01...	27	1.7	--	--	--	3.9	--	--	--	--	--	<0.01
06...	27	1.7	29	10	0.1	4.4	109	87	0.15	21200	--	--
APR												
02...	46	5.6	--	--	--	4.4	--	--	--	--	1.35	0.05
03...	37	1.4	--	--	--	4.9	--	--	--	--	1.55	0.05
04...	34	1.0	--	--	--	4.9	--	--	--	--	2.98	0.02
05...	30	2.3	--	--	--	4.3	--	--	--	--	1.46	0.04
22...	38	0.6	--	--	--	2.7	--	--	--	--	--	<0.01
MAY												
13...	42	1.0	37	9.4	<0.1	2.8	135	110	0.18	17700	1.18	0.02
JUN												
27...	46	1.8	--	--	--	1.3	--	--	--	--	0.92	0.04
JUL												
10...	52	4.0	54	18	0.2	1.5	164	150	0.22	2320	1.05	0.15
AUG												
07...	55	3.4	--	--	--	1.9	--	--	--	--	0.48	0.07
22...	58	3.5	--	--	--	1.0	--	--	--	--	0.54	0.04
22...	58	3.5	--	--	--	1.0	--	--	--	--	0.53	0.04
SEP												
09...	59	7.2	66	19	0.2	1.5	195	190	0.27	2760	0.68	0.07

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 1984											
25...	0.2	1.40	1.40	0.14	0.11	0.14	0.56	0.59	0.7	--	0.7
NOV											
19...	0.13	--	1.30	--	0.16	0.21	--	--	0.8	--	--
DEC											
27...	0.07	--	1.30	--	0.08	0.1	--	0.12	0.8	--	0.2
JAN 1985											
28...	0.13	--	1.80	--	0.14	0.18	--	0.06	0.3	--	0.2
FEB											
21...	0.1	--	2.30	--	<0.01	--	--	--	1.1	--	--
27...	--	--	1.80	--	<0.01	--	--	--	0.4	--	--
28...	0.07	--	1.40	--	0.04	0.05	--	--	1.3	--	--
MAR											
01...	--	--	0.16	--	<0.01	--	--	--	0.8	--	--
06...	--	--	--	--	--	--	--	--	0.5	--	--
APR											
02...	0.16	--	1.40	--	0.21	0.27	--	0.09	0.6	--	0.3
03...	0.16	--	1.60	--	0.26	0.33	--	0.24	0.6	--	0.5
04...	0.07	--	3.00	--	0.12	0.15	--	0.88	1.1	--	1.0
05...	0.13	--	1.50	--	0.23	0.3	--	0.37	0.6	--	0.6
22...	--	--	0.99	--	0.03	0.04	--	1.2	1.3	--	1.2
MAY											
13...	0.07	--	1.20	--	0.10	0.13	--	0.9	0.7	--	1.0
JUN											
27...	0.13	--	0.96	--	0.10	0.13	--	0.5	1.1	0.5	0.6
JUL											
10...	0.49	--	1.20	--	0.05	0.06	--	0.25	0.4	--	0.3
AUG											
07...	0.23	--	0.55	--	0.10	0.13	--	0.4	0.7	0.2	0.5
22...	0.13	--	0.58	--	0.14	0.18	--	0.36	0.7	0.2	0.5
22...	0.13	--	0.57	--	0.13	0.17	--	0.37	0.7	0.2	0.5
SEP											
09...	0.23	--	0.75	--	0.07	0.09	--	0.23	0.6	--	0.3

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1984											
25...	2.1	--	9.3	0.03	--	<0.01	0.02	0.01	0.03	1.9	<100
NOV											
19...	--	--	--	<0.01	--	<0.01	--	0.02	0.06	2.4	20
DEC											
27...	--	--	--	0.04	--	<0.01	--	<0.01	--	2.2	200
JAN 1985											
28...	--	--	--	<0.01	--	<0.01	--	0.01	0.03	1.9	<100
FEB											
21...	--	--	--	0.11	--	0.07	--	0.06	0.18	2.7	100
27...	--	--	--	0.07	--	0.10	--	0.02	0.06	2.4	<100
28...	--	--	--	0.07	--	0.03	--	0.02	0.06	2.4	200
MAR											
01...	--	--	--	0.04	--	<0.01	--	0.03	0.09	2.2	100
06...	--	--	--	0.05	--	0.04	--	--	--	2.4	30
APR											
02...	--	--	--	0.05	--	0.02	--	0.03	0.09	2.9	300
03...	--	--	--	0.05	--	0.02	--	<0.01	--	2.7	--
04...	--	--	--	0.16	--	0.10	--	0.05	0.15	--	<100
05...	--	--	--	0.03	--	<0.01	--	<0.01	--	--	<100
22...	--	--	--	0.04	--	<0.01	--	<0.01	--	2.5	300
MAY											
13...	--	--	--	0.04	--	0.04	--	0.01	0.03	3.1	20
JUN											
27...	--	1.6	--	0.05	0.15	0.01	--	<0.01	--	2.6	30
JUL											
10...	--	--	--	0.01	0.03	<0.01	--	0.02	0.06	1.9	80
AUG											
07...	--	1.1	--	0.07	0.21	0.01	--	0.01	0.03	3.5	20
22...	--	1.1	--	0.05	0.15	0.01	--	<0.01	--	3.4	30
22...	--	1.1	--	0.05	0.15	0.01	--	<0.01	--	2.7	<10
SEP											
09...	--	--	--	0.03	0.09	<0.01	--	<0.01	--	4.8	<10

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)
NOV 1984										
19...	<1	40	1	<1	<1	<3	<1	8	<1	8
MAR 1985										
06...	<1	31	<0.5	<1	<1	<3	<1	54	1	<4
MAY										
13...	<1	33	<0.5	<1	8	<3	3	7	1	<4
SEP										
09...	1	38	<0.5	<1	1	<3	5	8	1	10

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 1984									
19...	2	0.1	<10	<1	<1	<1	240	<6	6
MAR 1985									
06...	130	<0.1	<10	2	<1	<1	77	<6	5
MAY									
13...	31	<0.1	<10	11	<1	<1	120	<6	6
SEP									
09...	140	<0.1	<10	2	<1	<1	210	<6	21

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
MAR 1985							
06...	<1.6	0.5	1.3	0.7	1.2	0.02	0.06
SEP							
09...	<0.4	<0.7	3.4	0.4	2.7	0.09	--

PARTICAL-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1984			
25...	7	661	--
NOV			
19...	7	1140	82
DEC			
27...	11	1710	--
JAN 1985			
28...	2	370	71
FEB			
21...	11	1780	--
27...	24	8880	--
28...	22	6470	--
MAR			
01...	25	6090	--
06...	22	4280	81
APR 1985			
03...	30	11300	--
04...	29	11000	--
05...	22	6000	--
22...	9	1810	--
MAY			
13...	11	1440	95
JUN			
27...	8	823	--
JUL			
10...	11	156	93
AUG			
07...	10	138	--
22...	6	186	--
SEP			
09...	10	141	100

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	395	297	167	---	164	187	219	236	264	---	311
2	---	396	247	170	---	152	179	228	233	262	320	312
3	---	395	221	171	---	149	166	233	216	269	313	322
4	---	402	179	172	---	151	157	233	190	---	312	323
5	---	397	202	163	---	155	154	234	253	266	312	---
6	---	398	185	158	---	160	145	---	243	265	308	331
7	---	400	191	157	---	163	170	---	216	267	307	332
8	358	401	179	158	---	170	148	---	190	269	308	336
9	363	402	180	166	---	175	155	212	---	269	301	336
10	360	402	181	167	---	200	158	210	188	303	300	334
11	361	403	179	172	---	186	166	199	245	281	300	340
12	357	397	175	167	---	192	169	197	232	279	302	346
13	370	402	180	173	---	201	173	199	180	283	306	347
14	373	272	182	176	---	201	178	203	229	283	302	352
15	303	396	186	177	---	211	165	207	233	293	307	356
16	380	388	185	180	---	207	178	213	233	297	306	356
17	372	399	194	---	200	175	186	218	232	299	306	---
18	383	382	192	---	206	162	192	216	235	309	---	355
19	357	390	190	---	214	159	194	220	235	315	---	351
20	402	385	189	---	217	149	165	226	237	313	306	351
21	---	360	184	---	---	151	173	231	243	320	---	349
22	384	363	171	---	232	156	153	240	252	---	305	351
23	382	342	173	---	235	162	200	232	255	319	308	---
24	373	353	171	---	240	165	177	226	256	321	307	351
25	383	348	173	---	243	170	211	234	257	319	307	348
26	383	345	178	---	248	180	212	232	257	321	307	349
27	392	341	180	---	245	188	212	231	258	322	304	344
28	394	344	170	---	243	198	222	205	258	322	307	320
29	385	338	163	---	---	196	217	242	261	---	308	326
30	395	284	163	---	---	193	226	242	262	326	308	319
31	184	---	159	---	---	193	---	233	---	322	310	---

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--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	21.0	18.0	9.0	9.0	4.0	4.0	8.0	20.0	23.0	24.0	---	27.0
2	21.0	19.0	9.0	10.0	4.0	5.0	9.0	20.0	23.0	24.0	29.0	26.0
3	21.0	18.0	9.0	8.0	4.0	5.0	7.0	20.0	24.0	25.0	28.0	26.0
4	20.0	19.0	8.0	7.0	4.0	5.0	7.0	19.0	23.0	---	28.0	27.0
5	20.0	19.0	8.0	7.0	---	6.0	7.0	20.0	24.0	25.0	28.0	---
6	19.0	19.0	8.0	7.0	---	6.0	7.0	---	---	25.0	27.0	26.0
7	---	17.0	7.0	7.0	3.0	6.0	7.0	---	24.0	25.0	28.0	27.0
8	18.0	15.0	7.0	6.0	3.0	6.0	7.0	---	24.0	25.0	27.0	27.0
9	18.0	16.0	6.0	5.0	2.0	6.0	7.0	19.0	---	25.5	27.0	27.0
10	18.0	16.0	6.0	5.0	3.0	6.0	7.0	20.0	25.0	26.0	27.0	27.0
11	18.0	16.0	6.0	5.0	3.0	6.0	7.0	19.0	24.0	26.0	27.0	27.0
12	18.0	16.0	6.0	4.0	3.0	6.0	10.0	19.0	25.0	26.0	28.0	27.0
13	20.0	15.0	5.0	4.0	3.0	6.0	11.0	20.0	24.0	26.0	28.0	27.0
14	20.0	14.0	7.0	4.0	3.0	7.0	11.0	22.0	24.0	27.0	28.0	25.0
15	19.0	13.0	7.0	3.0	2.0	7.0	12.0	21.0	24.0	27.0	29.0	25.0
16	18.0	13.0	8.0	2.0	2.0	6.0	12.0	22.0	23.0	27.0	29.0	23.0
17	19.0	12.0	8.0	4.0	2.0	6.0	13.0	22.0	24.0	27.0	28.0	---
18	18.0	12.0	8.0	5.0	2.0	6.0	13.0	22.0	24.0	28.0	---	23.0
19	18.0	11.0	8.0	6.0	2.0	6.0	15.0	21.0	24.0	27.0	---	24.0
20	18.0	10.0	9.0	4.0	2.0	6.0	15.0	23.0	24.0	27.0	28.0	24.0
21	---	9.0	8.0	---	4.0	---	15.0	22.0	24.0	28.0	---	24.0
22	18.0	9.0	9.0	3.0	3.0	6.0	16.0	22.0	24.0	---	28.0	24.0
23	19.0	9.0	9.0	4.0	5.0	6.0	16.0	21.0	24.0	28.0	28.0	---
24	20.0	9.0	8.0	4.0	4.0	6.0	16.0	21.0	25.0	28.0	27.0	24.0
25	19.0	9.0	7.0	4.0	---	6.0	17.0	21.0	25.0	28.0	27.0	23.5
26	19.0	9.0	6.0	4.0	4.0	6.0	17.0	21.0	25.0	28.0	27.0	23.5
27	20.0	9.0	6.0	4.0	6.0	6.0	19.0	21.0	25.0	28.0	26.0	23.5
28	20.0	9.0	6.0	4.0	4.0	10.0	---	22.0	24.0	---	26.5	22.5
29	19.0	9.0	7.0	4.0	---	8.0	20.0	23.0	24.0	---	26.0	21.0
30	19.0	8.0	8.0	4.0	---	8.0	20.0	22.0	24.0	29.0	27.0	21.0
31	19.0	---	7.0	3.0	---	8.0	---	23.0	---	29.0	27.0	---

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	21	516	8	309	11	2090	9	1600	3	220	30	7520
2	25	783	11	517	37	6030	16	2980	17	237	30	6200
3	28	885	20	52	32	5900	15	3070	10	83	39	6070
4	33	731	21	54	37	6870	16	3090	4	242	27	4390
5	20	505	14	386	18	3120	11	1800	6	256	16	2290
6	16	135	5	252	19	3180	11	1370	9	345	18	2110
7	12	30	12	424	12	2100	11	1600	14	665	12	1390
8	9	279	22	695	11	1570	14	1750	5	240	15	1750
9	8	159	14	616	10	883	12	1240	7	18	29	2570
10	13	167	19	687	9	1070	7	629	2	4.4	20	1450
11	4	123	17	41	7	716	23	2340	7	234	13	1500
12	6	168	9	469	6	677	21	1070	12	1290	12	1440
13	12	101	18	690	7	809	6	86	17	2770	16	2260
14	8	18	9	505	3	367	7	472	22	3490	15	2450
15	4	80	7	357	5	607	6	410	49	6930	24	5260
16	13	298	11	737	4	430	5	310	40	4870	19	4660
17	9	236	5	159	9	1310	11	624	33	2900	26	5560
18	22	647	3	7.0	11	1740	4	190	30	2860	24	4480
19	10	91	8	354	6	880	2	66	31	2930	26	4460
20	20	180	11	642	11	1360	2	71	21	2010	20	2840
21	30	76	7	508	13	1800	2	131	12	1180	17	2200
22	40	1620	9	21	20	2730	3	56	11	974	19	2270
23	6	202	6	371	10	1540	4	67	10	805	15	1310
24	24	687	12	137	9	1710	17	574	7	595	12	693
25	17	364	7	17	15	2730	9	433	5	675	10	1460
26	8	216	3	81	14	2650	10	268	8	1680	14	2150
27	22	303	5	182	12	2340	5	101	23	7890	14	2260
28	31	71	6	157	16	2540	6	277	24	6930	17	2880
29	4	231	4	460	8	1020	8	454	---	---	17	2770
30	15	259	6	930	8	946	5	269	---	---	18	2970
31	4	110	---	---	8	1370	3	172	---	---	24	4870
TOTAL	---	10271	---	10817.0	---	63085	---	27570	---	53323.4	---	96483

01578310 SUSQUEHANNA RIVER AT CONOWINGO, 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)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	26	5880	15	729	32	899	12	379	12	281	4	57
2	30	9640	5	262	27	780	10	464	10	429	8	108
3	35	12900	10	948	11	1000	14	335	5	68	11	443
4	37	12000	18	1680	11	1070	14	203	12	164	12	421
5	27	7010	13	1540	15	1200	15	405	11	457	13	393
6	20	4510	10	1300	15	1170	13	206	7	175	10	211
7	24	4650	15	1590	16	1080	13	208	8	112	7	98
8	30	5740	18	1560	10	408	14	271	9	260	12	179
9	37	7000	16	1420	7	295	7	248	7	265	7	116
10	19	3210	15	1150	4	262	6	149	8	110	6	117
11	15	2390	15	668	8	365	8	311	7	102	7	227
12	28	4290	5	154	12	561	9	186	2	51	11	422
13	14	1430	2	155	8	367	10	197	6	165	10	171
14	11	808	8	646	14	529	8	123	12	302	14	201
15	14	1640	13	877	23	302	11	656	10	216	23	323
16	11	1220	13	684	26	345	8	380	12	271	17	565
17	14	1610	18	1060	16	1120	6	246	6	82	16	553
18	9	753	11	505	12	787	10	343	3	46	15	413
19	14	1300	17	601	15	721	7	221	5	76	9	178
20	24	2020	10	853	11	546	10	132	7	106	8	180
21	18	593	15	1120	20	1110	8	108	8	130	14	36
22	14	1120	10	661	15	198	6	230	7	128	19	54
23	10	732	14	888	15	200	7	249	7	145	15	230
24	17	1340	14	945	11	606	10	216	11	153	10	207
25	11	1020	18	661	9	321	9	267	9	126	6	123
26	16	1300	24	797	6	238	5	122	6	96	10	540
27	15	915	20	414	10	440	5	162	13	240	9	731
28	9	343	13	716	10	281	5	71	8	169	23	1140
29	11	766	3	129	8	109	5	212	10	235	13	390
30	13	755	10	526	11	149	5	182	11	250	12	1200
31	---	---	24	1470	---	---	9	275	1	13	---	---
TOTAL	---	98885	---	26709	---	17459	---	7757	---	5423	---	10027

TOTAL LOAD FOR YEAR: 427809.4 TONS.

01580000 DEER CREEK AT ROCKS, MD

LOCATION.--Lat 39°37'49", long 76°24'13", Harford County, Hydrologic Unit 02050306, on right bank 0.3 mi upstream from bridge on Cherry Hill Road, 0.8 mi southeast of Rocks, 1.2 mi upstream from Stirrup Run, and 23.5 mi up stream from mouth.

DRAINAGE AREA.--94.4 mi².

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for November and December 1926, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above National Geodetic Vertical Datum of 1929 (Baltimore City bench mark).

REMARKS.--Estimated daily discharges: Jan. 9-18, Jan. 20 to Feb. 1, and Feb. 5-7, 9-11. Records good except for periods with ice effect, Jan. 9-18, Jan. 20 to Feb. 1, and Feb. 5-7, 9-11, which are fair. Some regulation at low flow by mills upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

AVERAGE DISCHARGE.--59 years, 125 ft³/s, 17.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, Aug. 23, 1933, gage height, 17.7 ft, from flood-marks, from rating curve extended above 3,000 ft³/s, on basis of slope-area measurements at gage heights 13.3 ft and 17.7 ft; minimum discharge, 8 ft³/s, Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily discharge, 8.6 ft³/s, Sept. 11, 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1888, that of Aug. 23, 1933.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1530	*8,080	*13.73	Sept. 27	1130	3,440	8.16

Minimum discharge, 24 ft³/s, Sept. 21, gage height, 1.87 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	85	76	125	79	120	98	200	66	84	53	71	37
2	126	76	105	87	250	97	139	74	75	55	52	38
3	80	73	109	90	126	93	125	312	78	56	48	37
4	72	71	105	83	93	93	120	131	81	71	47	36
5	68	112	94	89	90	98	112	100	75	55	44	34
6	66	88	217	83	85	88	107	90	72	57	44	33
7	65	78	140	83	80	83	105	87	64	99	46	33
8	66	73	113	84	76	91	99	81	70	86	84	40
9	68	72	103	80	75	89	95	78	70	125	62	50
10	67	73	98	75	75	83	93	75	69	163	49	41
11	65	75	96	80	90	82	93	74	62	95	47	38
12	64	76	91	75	2890	98	90	73	61	68	44	34
13	62	69	90	75	557	87	86	124	59	80	41	33
14	61	67	87	75	250	83	85	83	58	65	41	32
15	61	65	86	75	190	82	86	76	59	70	40	32
16	61	66	84	75	149	80	87	79	88	107	39	32
17	63	65	85	75	127	81	95	130	85	68	39	32
18	64	66	82	75	120	79	84	121	68	60	40	31
19	62	85	83	73	118	77	82	88	63	56	45	32
20	70	78	84	70	115	79	81	80	61	54	41	31
21	67	71	87	75	107	78	79	77	62	53	47	30
22	83	69	116	75	110	77	77	84	57	52	46	30
23	349	69	91	75	124	96	77	101	55	62	40	31
24	140	67	85	75	126	116	76	110	55	50	38	35
25	104	66	86	75	122	117	80	85	58	50	56	34
26	88	65	80	75	116	94	77	78	51	72	67	34
27	81	65	80	70	111	87	72	72	52	107	51	1310
28	78	118	80	70	101	84	70	85	56	64	44	199
29	134	632	79	70	---	109	69	104	54	53	40	96
30	90	175	78	70	---	194	67	81	52	51	39	71
31	80	---	76	70	---	144	---	83	---	52	38	---
TOTAL	2690	2901	3015	2381	6593	2937	2808	2982	1954	2209	1470	2576
MEAN	86.8	96.7	97.3	76.8	235	94.7	93.6	96.2	65.1	71.3	47.4	85.9
MAX	349	632	217	90	2890	194	200	312	88	163	84	1310
MIN	61	65	76	70	75	77	67	66	51	50	38	30
CFSM	.92	1.02	1.03	.81	2.49	1.00	.99	1.02	.69	.76	.50	.91
IN.	1.06	1.14	1.19	.94	2.60	1.16	1.11	1.18	.77	.87	.58	1.02

CAL YR 1984 TOTAL 67007 MEAN 183 MAX 1480 MIN 60 CFSM 1.94 IN 26.41
WTR YR 1985 TOTAL 34516 MEAN 94.6 MAX 2890 MIN 30 CFSM 1.00 IN 13.60

01581700 WINTERS RUN NEAR BENSON, MD

LOCATION.--Lat 39°31'12", long 76°22'24", Harford County, Hydrologic Unit 02060003, on left bank 30 ft downstream from bridge on U.S. Highway 1, 0.1 mi upstream from Heavenly Waters, 1.2 mi northeast of Benson, 1.8 mi southwest of Bel Air, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 5, 28, 29, Jan. 10, 13, 14, 17-19, Jan. 21 to Feb. 1, Feb. 5-7, 12-14, Mar. 30, Apr. 1, May 3, June 17, July 10, 12, 31, Aug. 25, and Sept. 27. Records good below 100 ft³/s and fair above, except for periods with ice effect, Jan. 10, 13, 14, 17-19, Jan. 21 to Feb. 1 and Feb. 5-7, and period of no gage-height record, Feb. 12-14, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 53.3 ft³/s, 20.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,600 ft³/s, June 22, 1972, gage height, 11.60 ft; minimum discharge, 3.0 ft³/s, Jan. 10, 1982, result of freezeup; minimum daily discharge 6.7 ft³/s, Aug. 28, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	Unknown	*5,230	*a9.60	Sept. 27	0915	3,370	7.73

a From floodmarks.

Minimum discharge, 10 ft³/s, Sept. 15, 16, 19, 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	35	27	43	31	80	30	110	22	27	17	32	14
2	50	29	36	33	141	29	51	27	23	17	19	14
3	28	26	46	34	59	28	42	140	23	16	17	14
4	26	25	39	37	43	29	38	42	22	16	16	14
5	22	120	37	40	38	32	36	33	43	14	15	12
6	21	40	120	38	36	27	35	28	27	14	15	12
7	22	34	52	34	36	26	33	27	23	14	15	12
8	22	28	40	32	36	30	32	25	31	16	69	21
9	23	27	37	28	37	29	31	23	25	25	23	20
10	24	25	36	28	36	27	30	23	24	220	20	17
11	24	28	34	30	39	27	31	23	20	38	17	14
12	24	27	32	29	1800	34	30	24	19	42	16	12
13	23	24	32	28	300	30	29	38	18	56	15	11
14	23	24	31	28	100	28	28	27	18	24	15	11
15	23	24	31	27	48	27	29	23	17	36	14	11
16	24	24	30	27	42	26	29	24	39	45	14	11
17	24	23	29	26	36	26	31	45	95	23	14	11
18	24	24	30	26	37	25	28	41	28	18	14	11
19	24	35	30	26	37	25	28	29	22	16	17	11
20	25	29	32	22	36	26	27	24	19	16	15	10
21	25	28	36	26	33	24	25	26	19	15	20	10
22	26	25	47	26	36	25	24	38	18	23	16	10
23	53	25	35	26	38	43	24	72	17	15	15	11
24	48	25	33	26	38	48	23	50	17	13	13	13
25	34	25	32	26	37	48	25	34	16	13	65	12
26	31	24	30	26	34	37	23	28	15	21	42	17
27	28	25	31	24	33	31	23	25	15	20	21	1200
28	27	100	30	24	31	29	23	33	19	17	17	73
29	60	280	30	24	---	47	22	42	17	14	15	42
30	32	58	29	24	---	95	22	30	17	15	15	33
31	30	---	28	28	---	61	---	30	---	70	15	---
TOTAL	905	1258	1158	884	3297	1049	962	1096	733	919	646	1684
MEAN	29.2	41.9	37.4	28.5	118	33.8	32.1	35.4	24.4	29.6	20.8	56.1
MAX	60	280	120	40	1800	95	110	140	95	220	69	1200
MIN	21	23	28	22	31	24	22	22	15	13	13	10
CFSM	.84	1.20	1.08	.82	3.39	.97	.92	1.02	.70	.85	.60	1.61
IN.	.97	1.34	1.24	.94	3.52	1.12	1.03	1.17	.78	.98	.69	1.80

CAL YR 1984 TOTAL 25365 MEAN 69.3 MAX 1120 MIN 18 CFSM 1.99 IN 27.11
WTR YR 1985 TOTAL 14591 MEAN 40.0 MAX 1800 MIN 10 CFSM 1.15 IN 15.60

01582000 LITTLE FALLS AT BLUE MOUNT, MD

LOCATION.--Lat 39°36'16", long 76°37'16", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of Pennsylvania Railroad bridge, 0.2 mi north of Blue Mount, 0.6 mi upstream from mouth, 0.9 mi downstream from First Mine Branch, and 1.2 mi south of White Hall.

DRAINAGE AREA.--52.9 mi².

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

REVISED RECORDS.--WSP 111: 1944(M), 1945-47(P).

GAGE.--Water-stage recorder. Elevation of gage is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10-14, 16-18, Jan. 20 to Feb. 1, and Feb. 4 to Mar.6. Records good except for periods with ice effect, Jan. 20 to Feb. 1 and Feb. 4-11, which are fair. Slight diurnal fluctuation at low flow caused by mill upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 68.7 ft³/s, 17.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft³/s, June 22, 1972, gage height, 18.54 ft, from rating curve extended above 1,300 ft³/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.9 ft³/s, Aug. 29, 1966; minimum daily discharge, 4.5 ft³/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1645	*3,330	*8.57	Sept. 27	1100	1,900	5.91

Minimum discharge, 14 ft³/s, Sept. 19.

REVISIONS.--The peak discharges for the water year 1984 have been revised to 1,400 ft³/s Dec. 28, 1983, gage height, 4.91 ft, and 2,750 ft³/s July 7, 1984, gage height, 7.55 ft, superseding figures published in the report for 1984.

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	56	43	65	42	80	56	117	37	42	28	32	21
2	66	42	56	50	147	55	80	45	38	29	26	21
3	42	40	60	47	74	51	73	161	37	28	25	20
4	39	39	54	45	50	51	67	65	37	33	24	19
5	37	57	51	49	44	54	63	53	42	27	23	18
6	36	46	111	45	42	49	60	50	39	42	23	17
7	36	42	69	45	40	47	57	47	36	55	23	18
8	37	40	60	45	40	52	55	43	39	30	53	33
9	38	39	54	39	42	49	55	41	38	33	29	29
10	36	40	52	38	38	46	52	40	35	70	26	28
11	35	43	51	40	38	46	53	39	33	35	24	22
12	35	41	48	38	1120	56	51	40	33	33	23	20
13	34	38	49	38	205	48	49	94	31	67	22	19
14	34	37	46	38	125	46	48	46	31	33	22	18
15	34	36	46	38	92	45	49	42	33	37	21	18
16	34	36	44	38	77	44	49	45	47	60	21	18
17	35	35	44	39	68	44	48	77	41	33	21	18
18	35	37	43	39	63	43	45	68	35	29	22	17
19	35	50	45	39	62	42	44	50	32	27	24	17
20	44	42	44	36	59	43	43	45	31	26	21	16
21	38	38	50	38	56	42	42	44	31	26	29	16
22	98	38	61	38	57	42	41	51	29	25	23	17
23	177	37	49	38	63	58	41	74	29	29	21	17
24	75	37	46	38	65	66	41	63	28	24	21	19
25	55	36	47	38	63	64	44	50	27	27	34	18
26	48	36	43	38	62	52	41	44	26	55	31	18
27	45	35	43	36	61	49	39	41	26	75	32	526
28	43	90	43	36	57	47	38	51	29	34	23	71
29	74	290	42	36	---	73	38	52	28	29	22	42
30	50	85	42	36	---	134	38	43	27	27	21	36
31	45	---	41	36	---	88	---	46	---	36	21	---
TOTAL	1526	1545	1599	1236	2990	1682	1561	1687	1010	1142	783	1187
MEAN	49.2	51.5	51.6	39.9	107	54.3	52.0	54.4	33.7	36.8	25.3	39.6
MAX	177	290	111	50	1120	134	117	161	47	75	53	526
MIN	34	35	41	36	38	42	38	37	26	24	21	16
CFSM	.93	.97	.98	.75	2.02	1.03	.98	1.03	.64	.70	.48	.75
IN.	1.07	1.09	1.12	.87	2.10	1.18	1.10	1.19	.71	.80	.55	.83

AL YR 1984 TOTAL 33413 MEAN 91.3 MAX 597 MIN 28 CFSM 1.73 IN 23.50
TR YR 1985 TOTAL 17948 MEAN 49.2 MAX 1120 MIN 16 CFSM .93 IN 12.62

01582500 GUNPOWDER FALLS AT GLENCOE, MD

LOCATION.--Lat 39°32'59", long 76°38'11", Baltimore County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on Glencoe Road at intersection of Upper Glencoe Road and Lower Glencoe Road in Glencoe, and 0.7 mi upstream from Piney Creek.

DRAINAGE AREA.--160 mi².

PERIOD OF RECORD.--December 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 18-23, 1983, Feb. 11-19, 1983, Apr. 15, 1983, Dec. 17-19, 1983, Dec. 25-28, 1983, Jan. 20-26, 1984, Feb. 3-7, 1984, Mar. 29, 1984 to Apr. 11, 1984, Jan. 12, 13, 15-17, 1985, and Jan. 19, 1985 to Feb. 13, 1985. Records for period December 1982 to September 1983 good except for periods with ice effect, Jan. 18-23 and Feb. 11-19, which are fair. Records for water year 1984 good except for periods of no gage-height record, Dec. 17-19, Feb. 3-7, and Mar. 29 to Apr. 11, and periods with ice effect, Dec. 25-28 and Jan. 20-26, which are fair. Records for water year 1985 good except for period of no gage-height record, Feb. 12-13, and periods with ice effect, Jan. 12-13, 15-17, and Jan. 19 to Feb. 12, which are fair. Flow regulated by Prettyboy Reservoir 12 mi upstream for water supply of Baltimore City. Several measurements of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,310 ft³/s, Feb. 12, 1985, gage height, 13.16 ft, from floodmarks; minimum discharge, 35 ft³/s, Jan. 4, 1983, result of freezeup; minimum daily discharge, 43 ft³/s, Sept. 11, 12, 1983.

EXTREMES FOR CURRENT PERIOD.--December 1982 to September 1983: Maximum discharge during period, 2,630 ft³/s, Apr. 15, gage height, 9.07 ft; minimum daily discharge, 43 ft³/s, Sept. 11, 12.

Water year 1984: Maximum discharge, 3,150 ft³/s, July 7, gage height, 10.38 ft; minimum daily discharge, 53 ft³/s, Oct. 17, 18.

Water year 1985: Maximum discharge, 4,310 ft³/s, Feb. 12, gage height, 13.16 ft, from floodmarks; minimum daily discharge, 59 ft³/s, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	47	56	99	131	205	286	205	85	74
2			---	46	95	117	126	266	268	187	88	66
3			---	45	156	105	233	301	251	171	97	62
4			---	44	91	99	154	345	262	187	121	59
5			---	46	75	95	139	326	279	175	115	59
6			---	52	71	93	133	299	253	178	146	59
7			---	47	72	106	119	283	246	162	124	57
8			---	45	68	166	133	286	232	148	110	54
9			---	44	64	183	149	310	215	141	98	49
10			47	55	63	201	597	275	203	137	88	45
11			51	121	50	160	272	262	197	128	97	43
12			55	71	60	139	207	253	195	124	199	43
13			85	59	70	128	178	246	189	124	135	66
14			134	55	75	120	163	240	185	119	112	62
15			230	58	80	115	870	262	181	115	100	56
16			293	61	80	108	752	470	179	115	92	52
17			246	55	80	104	376	511	179	112	85	49
18			228	50	80	150	310	359	197	110	87	49
19			223	50	80	294	272	308	286	107	88	46
20			223	50	83	147	262	357	417	105	82	45
21			220	50	84	235	232	394	354	103	77	52
22			217	50	95	177	211	504	259	117	69	97
23			218	160	118	140	199	572	221	102	68	68
24			218	131	127	124	418	416	201	117	69	60
25			217	89	120	114	326	347	189	107	66	56
26			217	72	110	105	253	317	173	100	63	54
27			215	67	101	166	225	322	163	93	59	54
28			174	63	98	264	211	292	165	88	60	102
29			57	60	---	163	201	301	419	85	69	227
30			50	58	---	146	191	429	248	87	64	223
31			48	60	---	138	---	315	---	87	60	---
TOTAL			---	1961	2402	4501	8043	10373	7092	3936	2873	2088
MEAN			---	63.3	85.8	145	268	335	236	127	92.7	69.6
MAX			---	160	156	294	870	572	419	205	199	227
MIN			---	44	50	93	119	205	163	85	59	43
CFSM			---	.40	.54	.91	1.68	2.09	1.48	.79	.58	.44
IN.			---	.46	.56	1.05	1.87	2.41	1.65	.92	.67	.49

01582500 GUNPOWDER FALLS AT GLENCOE, MD-Continued

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	69	59	190	209	169	321	460	338	302	445	141	98
2	62	57	159	193	166	286	420	309	279	252	139	94
3	59	59	150	187	300	268	400	318	253	216	146	100
4	85	60	334	183	700	250	550	688	243	194	160	151
5	225	59	290	180	440	276	1400	487	230	193	161	136
6	225	59	253	179	240	331	800	400	225	373	160	117
7	227	59	287	183	200	294	600	383	223	1400	147	105
8	229	57	206	172	177	266	500	458	216	570	139	99
9	229	56	181	165	167	270	460	575	211	340	132	96
10	229	82	173	188	240	239	440	442	205	268	180	95
11	230	166	157	249	390	240	420	388	201	242	155	96
12	274	115	333	190	404	231	420	378	197	219	156	95
13	253	83	998	193	342	254	406	360	190	195	158	91
14	210	74	839	170	647	298	411	347	218	181	189	92
15	60	74	494	163	876	310	584	327	201	173	209	96
16	54	114	359	165	678	293	560	314	185	169	176	93
17	53	83	280	169	468	281	512	300	187	163	151	88
18	53	74	250	158	398	254	462	292	215	183	135	85
19	63	71	230	172	337	247	419	310	373	177	129	84
20	63	71	208	170	305	239	388	303	289	163	149	83
21	56	239	190	170	275	294	368	293	235	236	123	81
22	54	150	550	170	248	316	348	282	208	191	115	78
23	110	133	449	180	252	286	403	291	194	189	123	78
24	283	130	318	200	736	252	400	324	207	177	131	78
25	98	398	240	400	499	246	398	288	258	163	118	78
26	83	319	220	600	389	273	356	270	232	152	110	79
27	71	222	200	476	323	254	336	262	201	205	106	79
28	66	241	700	402	383	346	324	253	187	175	104	96
29	63	370	595	261	396	1300	321	427	182	159	104	100
30	60	244	322	209	---	900	320	444	183	154	104	93
31	59	---	235	196	---	550	---	355	---	146	103	---
TOTAL	3955	3978	10390	6902	11145	10465	14186	11206	6730	8063	4353	2834
MEAN	128	133	335	223	384	338	473	361	224	260	140	94.5
MAX	283	398	998	600	876	1300	1400	688	373	1400	209	151
MIN	53	56	150	158	166	231	320	253	182	146	103	78
CFSM	.80	.83	2.09	1.39	2.40	2.11	2.96	2.26	1.40	1.63	.88	.59
IN.	.92	.92	2.42	1.60	2.59	2.43	3.30	2.61	1.56	1.87	1.01	.66

WTR YR 1984 TOTAL 94207 MEAN 257 MAX 1400 MIN 53 CFSM 1.61 IN 21.90

01582500 GUNPOWDER FALLS AT GLENCOE, MD-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	117	127	258	121	200	157	323	102	131	73	93	63
2	171	123	194	135	320	158	259	107	116	75	76	63
3	118	112	182	146	220	148	221	325	109	72	69	63
4	105	104	177	138	160	143	205	218	105	83	66	62
5	97	144	153	152	150	155	190	172	118	75	65	60
6	92	148	279	136	140	147	183	149	122	79	64	73
7	88	125	243	132	140	130	166	141	107	155	65	224
8	88	111	188	136	130	137	159	126	111	104	109	240
9	92	106	168	122	140	139	156	115	110	96	87	241
10	94	105	157	115	130	133	142	110	106	137	76	283
11	92	110	152	115	150	129	146	108	98	99	72	445
12	91	121	143	110	2000	156	144	106	95	84	69	441
13	86	109	143	110	1000	149	141	209	94	119	64	393
14	79	103	157	107	585	130	138	165	85	85	62	214
15	80	89	145	110	347	130	138	136	82	87	62	213
16	77	92	138	110	261	121	140	131	115	141	62	213
17	79	92	134	110	224	120	139	185	125	106	63	212
18	81	89	131	104	204	123	129	262	103	87	65	211
19	83	118	130	100	193	110	129	209	97	78	69	211
20	103	116	134	100	184	111	126	168	90	72	65	192
21	103	105	137	110	175	113	122	148	87	71	73	61
22	106	98	182	110	174	110	121	158	82	68	68	59
23	558	95	160	110	186	136	118	183	79	71	63	107
24	299	95	144	110	190	174	114	203	78	65	63	214
25	208	94	147	110	190	186	123	168	76	67	80	212
26	161	93	130	110	183	161	121	145	73	92	82	186
27	139	93	126	110	185	147	115	131	72	183	79	703
28	125	126	124	100	166	140	110	136	74	132	69	127
29	206	775	124	100	---	175	109	160	74	102	66	82
30	173	397	122	100	---	299	104	136	72	89	65	71
31	144	---	119	100	---	280	---	132	---	93	65	---
TOTAL	4135	4215	4921	3579	8327	4647	4531	4944	2886	2940	2196	5939
MEAN	133	141	159	115	297	150	151	159	96.2	94.8	70.8	198
MAX	558	775	279	152	2000	299	323	325	131	183	109	703
MIN	77	89	119	100	130	110	104	102	72	65	62	59
CFSM	.83	.88	.99	.72	1.86	.94	.94	.99	.60	.59	.44	1.24
IN.	.96	.98	1.14	.83	1.94	1.08	1.05	1.15	.67	.68	.51	1.38

CAL YR 1984 TOTAL 89155 MEAN 244 MAX 1400 MIN 77 CFSM 1.53 IN 20.73
WTR YR 1985 TOTAL 53260 MEAN 146 MAX 2000 MIN 59 CFSM .91 IN 12.38

01583100 PINEY RUN AT DOVER, MD

LOCATION.--Lat 39°31'15" long 76°46'02", Baltimore County, Hydrologic Unit 02060003, on right bank 400 ft downstream from bridge on Maryland Route 128, 0.7 mi upstream from mouth, and 2.4 mi southwest of Butler.

DRAINAGE AREA.--12.3 mi².

PERIOD OF RECORD.--May 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 12-14, 16, 18-23, 26, 27, 29, 30, Feb. 2, 4, 5. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft³/s, Feb. 12, 1985, gage height, 6.17 ft; minimum discharge, 3.4 ft³/s, Feb. 11, 1983, result of freezeup.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 22	2315	1,120	4.92	Sept. 27	1000	394	3.32
Feb. 12	1045	*2,270	*6.17				

Minimum discharge, 3.9 ft³/s, Sept. 6, 16, 17, 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	16	12	18	12	23	12	25	8.8	9.7	6.7	6.3	4.8
2	16	12	15	15	34	12	17	9.8	8.9	6.9	5.6	4.8
3	11	12	17	13	17	12	16	31	8.8	6.4	5.3	4.8
4	9.8	12	15	13	14	12	15	13	8.5	6.2	5.3	4.6
5	9.4	19	14	15	13	12	14	11	13	6.0	5.1	4.3
6	9.2	14	35	13	12	11	13	10	9.5	24	5.1	4.2
7	8.9	12	20	13	12	10	12	9.9	8.7	13	5.3	4.2
8	8.9	12	17	13	17	12	12	9.5	9.9	8.0	14	4.6
9	9.4	12	15	12	25	12	12	9.3	9.9	8.6	6.5	5.4
10	9.3	12	15	11	18	11	12	9.3	8.6	22	5.8	5.7
11	9.2	12	15	12	11	10	12	8.5	8.2	9.5	5.6	4.6
12	8.9	12	14	11	599	13	12	11	8.0	7.8	5.2	4.3
13	8.9	12	15	11	43	12	11	16	7.8	7.6	4.9	4.1
14	8.9	10	13	11	24	11	11	9.6	7.8	6.9	4.9	4.2
15	8.9	10	13	11	19	11	11	8.9	8.2	6.9	4.7	4.2
16	8.9	10	13	11	16	10	11	9.3	11	9.6	4.6	4.1
17	8.9	10	13	11	15	10	10	36	8.8	6.7	4.6	4.1
18	8.9	10	12	11	14	10	10	27	8.0	6.2	5.0	4.2
19	8.9	14	13	11	14	10	9.9	15	7.6	6.0	5.4	4.2
20	9.4	12	13	10	13	10	9.8	12	7.5	6.0	4.8	4.1
21	9.5	11	15	11	12	10	9.8	11	7.2	5.9	5.8	4.0
22	78	10	18	12	13	11	9.6	12	6.9	5.9	4.8	4.0
23	72	10	14	12	14	15	9.6	17	7.0	5.8	4.7	4.5
24	22	10	13	12	14	17	9.6	14	6.8	5.4	4.7	4.9
25	16	10	13	12	14	16	11	11	6.5	8.2	6.9	4.6
26	14	10	12	11	14	14	9.8	9.9	6.4	9.7	6.5	4.4
27	13	10	12	11	14	12	9.5	9.5	6.4	8.4	6.6	93
28	12	35	12	10	13	12	9.4	12	6.7	6.3	5.2	11
29	22	84	12	10	---	16	9.2	11	6.7	6.0	4.8	7.6
30	15	22	12	10	---	25	9.0	9.8	6.5	5.9	4.9	6.7
31	13	---	12	10	---	18	---	10	---	6.2	4.8	---
TOTAL	484.2	453	460	361	1061	389	352.2	402.1	245.5	254.7	173.7	234.2
MEAN	15.6	15.1	14.8	11.6	37.9	12.5	11.7	13.0	8.18	8.22	5.60	7.81
MAX	78	84	35	15	599	25	25	36	13	24	14	93
MIN	8.9	10	12	10	11	10	9.0	8.5	6.4	5.4	4.6	4.0
CFSM	1.27	1.23	1.20	.94	3.08	1.02	.95	1.06	.67	.67	.46	.64
IN.	1.46	1.37	1.39	1.09	3.21	1.18	1.07	1.22	.74	.77	.53	.71

CAL YR 1984 TOTAL 7444.4 MEAN 20.3 MAX 270 MIN 8.2 CFSM 1.65 IN 22.51
WTR YR 1985 TOTAL 4870.6 MEAN 13.3 MAX 599 MIN 4.0 CFSM 1.08 IN 14.73

01583500 WESTERN RUN AT WESTERN RUN, MD

LOCATION.--Lat 39°30'38", long 76°40'37", Baltimore County, Hydrologic Unit 02060003, on right bank 100 ft downstream from bridge on Western Run Road, 0.3 mi southeast of Western Run, 2.5 mi northwest of Cockeysville, 3.2 mi upstream from Beaverdam Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--59.8 mi².

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

REVISED RECORDS.--WSP 1502: 1945-46, 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark).

REMARKS.--Estimated daily discharges: Oct. 3-5, Jan. 10-14, 16-18, 20-31, Feb. 1, 2, 5, 6, 9-11. Records good except for periods with ice effect, Jan. 10-14, 16-18, Jan. 20 to Feb. 2, Feb. 5, 6, 9-11, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 69.4 ft³/s, 15.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft³/s, June 22, 1972, gage height, 26.0 ft, from floodmarks, from rating curve extended above 3,200 ft³/s, on basis of slope-area measurement and contracted-opening measurement at gage height 26.0 ft; minimum discharge, 2.4 ft³/s, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 23	0200	1,480	5.04	Feb. 12	1415	*5,510	*9.86

Minimum daily discharge, 13 ft³/s, Sept. 7, 18, 19, 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	66	52	76	52	90	60	110	38	43	30	25	17
2	79	49	66	59	140	59	75	41	37	31	21	17
3	50	46	72	59	71	58	69	129	37	28	20	17
4	46	46	66	58	60	57	65	58	36	27	19	16
5	43	66	63	65	58	58	61	49	66	26	19	16
6	42	54	134	60	56	54	58	46	48	29	19	14
7	42	49	85	60	54	53	56	45	40	53	20	13
8	42	46	73	60	52	57	55	42	47	28	42	16
9	44	46	66	54	56	54	55	40	44	32	24	21
10	43	47	64	50	50	52	54	39	38	55	20	21
11	42	51	62	52	56	52	55	38	36	38	20	16
12	42	48	60	50	1920	57	53	38	35	30	18	15
13	42	45	61	50	207	52	52	65	33	29	17	14
14	42	44	59	50	129	51	50	42	33	27	17	14
15	41	43	58	48	102	50	50	39	34	26	17	15
16	42	44	56	50	86	49	50	43	50	32	16	14
17	42	42	56	50	78	49	48	109	44	25	17	14
18	42	43	54	50	74	48	47	104	36	23	18	13
19	42	57	56	50	72	47	47	56	33	23	22	13
20	43	48	56	46	69	48	46	48	33	23	18	13
21	43	45	60	48	65	47	45	45	32	23	21	13
22	47	44	74	50	67	48	44	46	31	23	19	13
23	288	44	60	50	71	64	44	66	31	22	17	14
24	81	43	58	50	71	75	44	59	29	20	16	17
25	62	43	58	50	68	73	50	48	29	23	24	15
26	55	42	53	50	66	59	45	44	27	37	25	15
27	52	42	54	48	63	55	43	41	27	33	22	303
28	50	93	53	48	60	54	41	44	29	24	19	49
29	77	365	53	46	---	66	40	51	30	22	17	30
30	58	94	52	46	---	88	39	43	28	22	17	25
31	53	---	51	50	---	73	---	45	---	23	17	---
TOTAL	1783	1821	1969	1609	4011	1767	1591	1641	1096	887	623	803
MEAN	57.5	60.7	63.5	51.9	143	57.0	53.0	52.9	36.5	28.6	20.1	26.8
MAX	288	365	134	65	1920	88	110	129	66	55	42	303
MIN	41	42	51	46	50	47	39	38	27	20	16	13
CFSM	.96	1.02	1.06	.87	2.39	.95	.89	.89	.61	.48	.34	.45
IN.	1.11	1.13	1.22	1.00	2.50	1.10	.99	1.02	.68	.55	.39	.50

CAL YR 1984 TOTAL 33933 MEAN 92.7 MAX 522 MIN 37 CFSM 1.55 IN 21.11
WTR YR 1985 TOTAL 19601 MEAN 53.7 MAX 1920 MIN 13 CFSM .90 IN 12.19

01583570 POND BRANCH AT OREGON RIDGE, MD

LOCATION.--Lat 39°28'49", long 76°41'16", Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft upstream from pond, 600 ft above mouth, 1.0 miles southwest of Beaver Dam Road and Ivy Hill Road interchange, and 2.3 miles west of Cockeysville.

DRAINAGE AREA.--0.16 mi².

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

GAGE.--Water-stage recorder, crest-stage gage, and triple V-notch sharp-crested weir plate. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 1. Records fair except those for period with ice effect, Jan. 20 to Feb. 1, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft³/s, July 1, 1984, gage height, 2.19 ft; minimum discharge, no flow for part of Aug. 14, Sept. 6, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.9 ft³/s, Nov. 28, gage height, 1.62 ft; no flow for part of Aug. 14, Sept. 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	.29	.10	.17	.10	.20	.13	.19	.08	.11	.07	.06	.04
2	.23	.10	.16	.13	.19	.13	.15	.13	.09	.07	.05	.04
3	.18	.14	.20	.13	.14	.13	.14	.29	.07	.06	.04	.04
4	.17	.13	.16	.13	.12	.13	.12	.11	.07	.06	.04	.03
5	.14	.12	.16	.14	.12	.15	.11	.10	.25	.06	.03	.02
6	.09	.12	.29	.12	.12	.13	.12	.09	.09	.06	.04	.02
7	.09	.12	.18	.12	.12	.12	.12	.09	.08	.05	.05	.02
8	.09	.12	.15	.12	.11	.14	.12	.09	.11	.05	.13	.03
9	.11	.11	.14	.10	.11	.13	.13	.08	.09	.06	.05	.08
10	.11	.11	.14	.10	.09	.12	.11	.08	.08	.15	.04	.05
11	.10	.15	.14	.10	.09	.13	.12	.08	.07	.07	.04	.03
12	.10	.13	.12	.10	.78	.16	.11	.09	.07	.07	.02	.03
13	.10	.13	.12	.10	.35	.11	.10	.10	.05	.06	.02	.03
14	.09	.12	.12	.11	.26	.09	.10	.08	.06	.06	.02	.02
15	.09	.11	.10	.11	.21	.08	.10	.08	.08	.06	.02	.02
16	.09	.10	.10	.10	.18	.08	.09	.12	.10	.07	.02	.02
17	.10	.10	.10	.10	.18	.08	.08	.26	.07	.05	.03	.02
18	.09	.11	.10	.10	.18	.08	.07	.14	.07	.05	.05	.02
19	.14	.16	.10	.10	.18	.08	.07	.11	.06	.04	.04	.02
20	.10	.13	.09	.09	.16	.09	.07	.10	.06	.05	.04	.02
21	.10	.12	.13	.10	.16	.09	.07	.11	.06	.05	.06	.02
22	.10	.12	.13	.10	.16	.09	.06	.12	.06	.06	.04	.02
23	.41	.11	.11	.10	.15	.17	.05	.30	.06	.05	.03	.03
24	.29	.10	.10	.10	.14	.13	.07	.16	.06	.05	.03	.04
25	.13	.10	.11	.10	.14	.13	.09	.13	.06	.08	.08	.03
26	.12	.10	.10	.09	.14	.10	.09	.11	.06	.08	.05	.04
27	.12	.10	.10	.09	.14	.10	.08	.10	.06	.09	.05	.61
28	.10	.49	.10	.09	.13	.10	.08	.12	.07	.06	.04	.10
29	.10	.52	.10	.09	---	.12	.08	.12	.07	.05	.04	.07
30	.10	.20	.10	.09	---	.16	.08	.10	.07	.04	.05	.06
31	.10	---	.10	.10	---	.16	---	.13	---	.06	.04	---
TOTAL	4.17	4.37	4.02	3.25	5.05	3.64	2.97	3.80	2.36	1.94	1.34	1.62
MEAN	.13	.15	.13	.10	.18	.12	.099	.12	.079	.063	.043	.054
MAX	.41	.52	.29	.14	.78	.17	.19	.30	.25	.15	.13	.61
MIN	.09	.10	.09	.09	.09	.08	.05	.08	.05	.04	.02	.02
CFSM	.81	.94	.81	.63	1.13	.75	.62	.75	.49	.39	.27	.34
IN.	.96	1.01	.93	.75	1.17	.84	.69	.88	.55	.45	.31	.37

CAL YR 1984 TOTAL 78.54 MEAN .21 MAX 1.8 MIN .09 CFSM 1.31 IN 18.15
WTR YR 1985 TOTAL 38.53 MEAN .11 MAX .78 MIN .02 CFSM .69 IN 8.90

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

LOCATION.--Lat 39°29'13", long 76°38'42", Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Beaverdam Run Lane, 600 ft downstream from bridge on Maryland Route 45 at Cockeysville, and 0.45 mi upstream from mouth.

DRAINAGE AREA.--20.9 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 239.04 ft above National Geodetic Vertical Datum of 1929. Previously operated as a low-flow site during water years 1955-59 and 1962-64 at site 600 ft upstream.

REMARKS.--Estimated daily discharges: Jan. 10, 11, 17-19, 21, 22, 28, 29, Feb. 7, and Feb. 12-18. Records good except for period of no gage-height record, Feb. 12-13, and period of backwater from Loch Raven Reservoir, Feb. 13-18, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft³/s, July 1, 1984, gage height 12.10 ft, from floodmarks; minimum discharge, 4.9 ft³/s, Sept. 6, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	Unknown	*1,950	*a9.34	Sept. 27	0800	1,100	7.17

a From floodmarks.

Minimum discharge, 4.9 ft³/s, Sept. 6, gage height, 0.81 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	48	18	33	17	57	21	45	15	16	13	11	9.4
2	33	18	26	23	46	21	30	28	13	11	8.3	8.4
3	18	17	35	24	25	19	25	69	12	9.4	8.3	8.3
4	17	17	24	23	22	19	24	21	13	10	8.9	7.8
5	16	39	31	28	20	22	23	19	53	10	7.8	7.4
6	16	19	61	20	25	17	20	16	18	8.4	12	7.1
7	16	17	28	19	18	18	20	16	16	11	9.5	8.0
8	15	17	25	19	17	20	20	15	21	11	23	14
9	16	18	23	18	20	17	19	14	16	9.7	8.9	25
10	15	17	20	16	17	18	19	13	15	29	11	11
11	14	20	21	17	18	18	21	13	13	11	9.9	8.2
12	15	17	19	17	P 600	24	19	26	14	11	8.0	7.9
13	15	17	19	17	P 60	19	18	19	12	10	8.1	7.3
14	15	16	19	17	40	17	17	14	13	9.2	8.2	7.2
15	14	16	19	16	32	16	19	13	17	10	8.0	7.9
16	15	17	18	15	28	17	18	22	21	11	7.6	7.0
17	15	16	17	16	26	15	17	59	12	8.6	8.8	7.5
18	14	17	17	17	24	15	17	28	13	7.9	12	7.5
19	14	25	21	17	23	16	17	18	14	8.3	9.2	7.1
20	15	17	18	15	24	16	16	16	11	8.4	8.9	7.3
21	14	16	28	16	23	14	16	26	12	9.8	16	7.0
22	23	16	23	16	24	16	15	20	12	12	7.7	6.5
23	45	15	19	16	24	51	16	51	11	8.4	7.0	7.6
24	35	15	18	16	25	36	16	23	10	7.2	8.6	10
25	23	15	18	16	23	30	16	18	11	18	28	7.4
26	19	16	17	16	23	22	16	17	9.4	12	13	18
27	18	16	17	16	21	21	15	14	13	15	9.7	336
28	23	122	17	15	21	20	15	22	15	9.8	8.9	24
29	33	131	17	15	---	29	12	17	11	7.7	8.4	19
30	20	44	16	15	---	40	14	14	11	7.9	8.8	17
31	18	---	16	16	---	43	---	20	---	14	8.1	---
TOTAL	627	781	700	544	1326	687	575	696	448.4	339.7	321.6	633.8
MEAN	20.2	26.0	22.6	17.5	47.4	22.2	19.2	22.5	14.9	11.0	10.4	21.1
MAX	48	131	61	28	600	51	45	69	53	29	28	336
MIN	14	15	16	15	17	14	12	13	9.4	7.2	7.0	6.5
CFSM	.97	1.24	1.08	.84	2.27	1.06	.92	1.08	.71	.53	.50	1.01
IN.	1.12	1.39	1.25	.97	2.36	1.22	1.02	1.24	.80	.60	.57	1.13

CAL YR 1984 TOTAL 12908.0 MEAN 35.3 MAX 500 MIN 13 CFSM 1.69 IN 22.97
WTR YR 1985 TOTAL 7679.5 MEAN 21.0 MAX 600 MIN 6.5 CFSM 1.01 IN 13.67

Record for 1985 revised and republished in 1988 Annual Report

01584050 LONG GREEN CREEK AT GLEN ARM, MD

LOCATION.--Lat 39°27'17", long 76°28'45", Baltimore County, Hydrologic Unit 02060003, on right bank 0.5 mi downstream from bridge on Glen Arm Road, 0.6 mi upstream from State Highway 147 (Harford Road), 0.8 mi east of Glen Arm, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--9.40 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 12, 14, 16, 21-23, 26, 27, Feb. 12, and June 17. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 11.9 ft³/s, 17.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft³/s, July 1, 1984, gage height, 6.70 ft; minimum discharge, 1.0 ft³/s, Jan. 29, 1977, gage height, 0.79 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1130	564	4.14	Sept. 27	0845	*603	*4.20

Minimum discharge, 2.4 ft³/s, Sept. 19, 20, 21, 22, 23, gage height, 0.94 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	5.6	9.1	6.7	14	7.4	20	5.2	5.5	4.2	3.5	2.6
2	11	5.6	8.0	6.8	21	7.3	11	6.8	4.9	4.2	3.1	2.6
3	6.5	5.3	9.9	7.4	9.9	7.1	9.9	18	4.8	4.0	2.9	2.6
4	6.0	5.3	8.5	8.0	8.3	7.3	9.5	7.3	4.7	3.8	2.9	2.7
5	5.6	30	8.7	10	7.4	7.6	9.2	6.3	28	3.7	2.9	2.6
6	5.5	8.0	25	8.1	8.2	6.6	8.6	6.1	7.8	3.7	3.2	2.5
7	5.3	6.6	10	7.7	7.4	6.6	8.0	5.8	6.3	3.5	3.3	2.5
8	5.3	6.1	9.0	7.2	6.8	7.4	7.9	5.4	7.0	4.3	5.2	4.3
9	5.7	5.9	8.1	6.4	7.1	6.9	7.7	5.3	6.0	4.8	3.3	3.3
10	5.8	5.9	8.0	6.1	6.5	6.7	7.4	5.2	5.6	14	3.0	2.9
11	5.6	6.4	7.7	6.3	7.3	6.5	7.6	5.1	5.0	5.1	2.9	2.7
12	5.5	5.8	7.3	6.0	160	8.1	7.3	6.3	4.9	4.4	2.8	2.6
13	5.3	5.5	7.2	6.0	18	6.6	7.3	7.3	4.7	4.1	2.7	2.5
14	5.0	5.3	7.0	6.0	12	6.6	7.3	5.4	4.6	3.7	2.7	2.5
15	5.0	5.3	7.0	6.0	11	6.3	7.3	5.1	4.5	4.9	2.7	2.5
16	5.0	5.3	6.7	5.5	10	6.2	7.4	5.8	6.3	5.3	2.6	2.5
17	5.0	5.3	6.7	6.1	9.6	6.3	7.3	10	17	3.8	2.6	2.5
18	5.0	5.4	6.7	6.1	9.3	6.1	7.4	7.6	5.7	3.4	2.8	2.5
19	5.0	7.3	7.1	6.1	9.4	6.0	6.7	5.9	5.1	3.4	3.0	2.5
20	5.0	5.7	6.7	5.5	9.0	6.1	6.6	5.4	4.7	3.2	2.7	2.4
21	5.0	5.4	7.9	6.0	8.7	6.0	6.1	5.7	4.6	3.2	3.6	2.4
22	5.2	5.3	8.7	6.0	9.0	6.0	6.1	6.2	4.5	5.1	2.8	2.4
23	7.2	5.3	7.2	6.0	9.3	12	6.0	15	4.2	3.3	2.6	2.4
24	8.5	5.3	7.0	6.0	9.3	11	5.9	8.7	4.1	3.0	2.6	2.8
25	6.3	5.3	7.0	6.0	8.9	10	6.2	6.8	3.9	4.0	9.8	2.6
26	5.9	5.3	6.5	6.0	8.5	8.4	5.9	6.0	3.8	4.9	6.7	3.9
27	5.6	5.3	6.7	5.6	7.9	7.9	5.5	5.6	4.2	4.4	3.5	175
28	5.5	29	6.7	5.6	7.5	7.8	5.4	6.4	5.0	3.4	3.1	9.6
29	12	38	6.7	5.6	---	9.0	5.2	6.0	4.4	3.2	2.9	6.5
30	6.3	11	6.3	5.4	---	12	5.2	5.5	4.2	3.2	2.9	5.5
31	5.9	---	6.2	5.7	---	12	---	6.2	---	3.3	2.8	---
TOTAL	190.4	256.8	251.3	197.9	421.3	237.8	228.9	213.4	186.0	132.5	104.1	266.9
MEAN	6.14	8.56	8.11	6.38	15.0	7.67	7.63	6.88	6.20	4.27	3.36	8.90
MAX	12	38	25	10	160	12	20	18	28	14	9.8	175
MIN	5.0	5.3	6.2	5.4	6.5	6.0	5.2	5.1	3.8	3.0	2.6	2.4
CFSM	.65	.91	.86	.68	1.60	.82	.81	.73	.66	.45	.36	.95
IN.	.75	1.02	.99	.78	1.67	.94	.91	.84	.74	.52	.41	1.06

CAL YR 1984 TOTAL 5639.8 MEAN 15.4 MAX 240 MIN 5.0 CFSM 1.64 IN 22.32
WTR YR 1985 TOTAL 2687.3 MEAN 7.36 MAX 175 MIN 2.4 CFSM .78 IN 10.63

01585100 WHITEMARSH RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, Hydrologic Unit 02060003, on left bank at upstream side of bridge on State Highway 7, 1.0 mi southwest of White Marsh, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--7.61 mi².

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

REVISED RECORDS.--WDR MD-DE-73-1: 1960(M), 1967-68, 1969(M). WDR MD-DE-79-1: 1965-66(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 18-22, Nov. 2-4, Nov. 8-18, Jan. 11 to Feb. 4, and Feb. 6, 7, 9, 15-18. Records good except for periods with ice effect, Jan. 11 to Feb. 4, Feb. 6, 7, 9, 15-18 which are fair. Low flow affected by operations of sand and gravel plant in vicinity of 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.--26 years, 11.5 ft³/s, 20.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, Aug. 1, 1971, gage height, 14.05 ft, from rating curve extended above 1,300 ft³/s on basis of computation of flow through culvert at gage height 10.04 ft and computation of flow through culvert and over road at gage height 14.05 ft; no flow for part of Mar. 20, 1965, caused by construction work above station; minimum daily discharge, 0.10 ft³/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1230	793	4.50	Sept. 27	0030	761	4.38
Aug. 25	2015	1,440	7.51	Sept. 27	0945	*3,120	*11.09

Minimum discharge, 0.38 ft³/s, Sept. 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	28	2.3	4.7	4.3	50	3.5	32	2.2	3.4	1.3	1.7	1.5
2	19	2.2	3.9	4.4	40	3.5	6.9	18	1.9	1.4	.78	1.5
3	3.0	2.0	12	10	10	3.2	5.9	55	1.8	1.3	.93	1.5
4	2.0	2.0	4.7	10	7.5	4.1	4.9	4.7	1.7	.91	.94	1.5
5	1.9	75	17	19	5.9	4.4	4.3	3.3	17	1.1	.64	1.6
6	2.0	5.6	63	5.8	9.0	3.1	4.1	3.0	3.2	1.3	5.0	1.1
7	2.0	3.6	7.1	4.5	6.0	3.1	3.6	2.7	2.1	.91	2.4	.99
8	1.8	3.0	4.9	3.7	4.3	4.8	3.5	2.5	4.7	3.5	16	13
9	2.1	2.8	4.3	3.3	3.6	3.2	3.4	2.5	2.2	4.8	1.4	18
10	2.0	24	3.8	3.1	3.8	2.9	3.2	2.4	1.9	51	.84	4.8
11	1.8	5.6	3.6	3.0	4.3	3.1	3.5	2.4	1.7	3.6	10	2.3
12	2.0	3.7	3.5	2.8	195	9.2	3.3	13	2.2	2.0	2.7	1.3
13	2.2	3.0	3.5	2.6	18	3.5	3.2	8.5	1.5	1.7	1.1	.95
14	1.9	2.6	3.2	2.4	9.0	3.2	3.2	2.3	1.4	1.2	1.0	.92
15	1.9	2.4	3.2	2.2	7.0	3.1	3.2	2.1	2.6	2.0	.91	.96
16	1.9	2.4	3.1	2.2	5.8	2.9	3.2	6.1	5.1	3.1	.67	.86
17	2.3	2.4	3.2	2.6	5.0	3.1	2.8	37	1.9	1.1	.61	.85
18	2.0	3.4	3.1	2.4	4.8	2.9	2.9	8.2	2.3	.85	4.9	.88
19	2.0	14	5.1	2.4	4.6	2.9	3.0	3.0	1.4	.82	2.9	.85
20	2.2	3.7	3.4	2.4	4.3	3.1	2.7	2.5	1.6	.81	.97	.76
21	2.0	3.4	10	1.8	4.1	2.9	2.9	3.1	1.4	.97	4.4	.73
22	2.4	3.1	7.6	2.0	4.3	3.5	2.8	4.2	1.1	1.5	1.1	.86
23	7.9	2.7	3.8	2.2	4.4	33	2.5	47	1.1	1.3	.69	1.6
24	13	2.7	3.5	2.4	4.4	18	2.5	6.9	1.2	.64	.76	2.5
25	2.9	2.6	3.8	2.4	4.0	13	4.9	3.6	.97	9.6	139	1.1
26	2.9	2.6	3.0	2.4	3.9	5.1	2.8	3.0	.82	18	14	40
27	2.3	2.6	3.0	2.4	3.9	4.3	2.4	2.7	2.1	24	3.9	812
28	2.7	73	3.0	2.4	3.7	4.0	2.3	21	2.7	2.0	2.5	25
29	15	58	3.2	2.4	---	12	2.2	5.1	2.0	1.2	2.0	6.8
30	2.7	6.8	3.0	2.4	---	13	2.3	2.6	1.3	1.1	2.1	4.4
31	2.3	---	3.4	3.0	---	28	---	5.2	---	1.6	1.7	---
TOTAL	140.1	323.2	207.6	118.9	430.6	209.6	130.4	285.8	76.29	146.61	228.54	951.11
MEAN	4.52	10.8	6.70	3.84	15.4	6.76	4.35	9.22	2.54	4.73	7.37	31.7
MAX	28	75	63	19	195	33	32	55	17	51	139	812
MIN	1.8	2.0	3.0	1.8	3.6	2.9	2.2	2.1	.82	.64	.61	.73
CFSM	.59	1.42	.88	.51	2.02	.89	.57	1.21	.33	.62	.97	4.17
IN.	.68	1.58	1.01	.58	2.10	1.02	.64	1.40	.37	.72	1.12	4.65

CAL YR 1984 TOTAL 4598.10 MEAN 12.6 MAX 341 MIN 1.2 CFSM 1.66 IN 22.47
WTR YR 1985 TOTAL 3248.75 MEAN 8.90 MAX 812 MIN .61 CFSM 1.17 IN 15.88

01585200 WEST BRANCH HERRING RUN AT IDLEWYLDE, MD

LOCATION.--Lat 39°22'25", long 76°35'05", Baltimore County, Hydrologic Unit 02060003, on left bank 40 ft downstream from bridge on Regester Avenue, at Idlewylde, 0.1 mi north of Baltimore city limits, 1 mi upstream from mouth, and 1.3 mi east of State Highway 45.

DRAINAGE AREA.--2.13 mi².

PERIOD OF RECORD.--July 1957 to May 1965, January 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 285 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 31, 1965, at site 40 ft upstream at datum 3.24 ft higher.

REMARKS.--Estimated daily discharges: Jan. 11-29 and Feb. 15-23. Records good except for period with ice effect, Jan. 11-29, and period of backwater from unknown sources, Feb. 15-23, which are fair. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years (water years 1958-64, 1967-85), 2.63 ft³/s, 16.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s, Sept. 11, 1971, gage height, 6.80 ft, from rating curve extended above 90 ft³/s on basis of slope-area measurement at gage height 6.37 ft; no flow Aug. 14-24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 290 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	0245	355	3.70	Sept. 27	0415	309	3.52
Nov. 28	1900	302	3.49	Sept. 27	0530	320	3.56
Aug. 25	1900	292	3.45	Sept. 27	0700	*553	*4.37

Minimum discharge, 0.06 ft³/s, Aug. 23, 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	13	.60	2.9	1.0	16	.77	3.1	.56	1.6	.46	.53	.39
2	3.3	.56	1.0	2.0	6.8	.75	1.2	11	1.7	.35	.26	.64
3	.60	.52	4.6	3.9	1.7	1.1	1.3	13	.54	.38	.25	.56
4	.50	.54	1.4	3.3	1.1	2.3	.98	.93	.52	.37	.25	.28
5	.50	23	6.6	3.9	1.1	1.5	.92	.80	8.5	.33	.21	.38
6	.44	.79	8.9	.95	2.6	.92	.91	.63	.65	.48	4.4	.22
7	.46	.67	2.2	.86	.91	1.1	.83	.58	.93	.73	.38	.20
8	.47	.59	1.6	.74	.73	1.4	.79	.56	1.7	8.0	4.4	3.9
9	.67	.59	.98	.71	.70	.78	.92	.55	.89	1.0	.27	4.7
10	.47	.58	.89	.69	.88	.75	.77	.54	.44	7.2	.27	.32
11	.45	2.4	.83	.70	1.2	1.7	.92	.53	.62	.46	.26	.21
12	.44	.82	.81	.65	47	4.4	1.2	7.7	1.3	1.2	.22	.26
13	.44	.49	.83	.60	2.8	.71	4.9	1.2	.47	.35	.22	.22
14	.39	.52	.72	.60	2.0	.72	3.1	.53	.45	.32	.26	.18
15	.38	.50	.76	.54	1.6	.66	.87	.59	1.1	1.4	.25	.19
16	.44	.49	.84	.54	1.4	.70	.94	2.1	2.0	.61	.25	.19
17	.47	.47	.79	.60	1.3	.67	.84	11	.90	.33	.24	.27
18	.39	1.3	.67	.54	1.2	.65	.73	1.6	.89	.26	2.7	.28
19	.42	3.3	1.7	.50	1.1	.74	.67	.67	.51	.29	.39	.21
20	.39	.80	.68	.50	1.0	.66	.67	.60	.80	.29	.28	.20
21	.38	.72	3.8	.20	1.0	.60	.66	3.3	.66	.30	1.9	.21
22	1.7	.53	1.4	.40	1.0	1.7	.62	.87	.49	.62	.40	.20
23	4.7	.55	.76	.45	1.0	22	.80	14	.36	.32	.14	.34
24	4.1	.52	.96	.50	.99	4.1	.69	1.0	.44	.24	.52	1.3
25	.84	.50	.81	.52	.89	2.5	1.3	.75	.36	2.1	17	.19
26	.59	.48	.68	.52	.90	1.0	.63	.69	.54	5.5	.81	8.2
27	.56	.48	.67	.52	.86	.93	.62	.63	1.6	5.0	.43	74
28	5.5	25	.69	.52	.84	.87	.60	5.1	.58	.32	.29	1.1
29	3.0	7.3	.68	.52	---	4.4	.52	.78	.66	.27	.27	.71
30	.63	3.5	.63	.52	---	3.9	.59	.63	.36	.30	.37	.64
31	.58	---	.92	.74	---	8.0	---	2.2	---	.28	.30	---
TOTAL	47.20	79.11	51.70	29.23	100.60	72.98	33.59	85.62	32.56	40.06	38.72	100.69
MEAN	1.52	2.64	1.67	.94	3.59	2.35	1.12	2.76	1.09	1.29	1.25	3.36
MAX	13	25	8.9	3.9	47	22	4.9	14	8.5	8.0	17	74
MIN	.38	.47	.63	.20	.70	.60	.52	.53	.36	.24	.14	.18
CFSM	.71	1.24	.78	.44	1.69	1.10	.53	1.30	.51	.61	.59	1.58
IN.	.82	1.38	.90	.51	1.76	1.27	.59	1.49	.57	.70	.68	1.76

CAL YR 1984 TOTAL 1105.32 MEAN 3.02 MAX 43 MIN .37 CFSM 1.42 IN 19.30
WTR YR 1985 TOTAL 712.06 MEAN 1.95 MAX 74 MIN .14 CFSM .92 IN 12.43

01585300 STEMMERS RUN AT ROSSVILLE, MD

LOCATION.--Lat 39°20'28", long 76°29'17", Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft upstream from bridge on State Highway 7, at Rossville, 0.9 mi upstream from Brien Run, and 2.1 mi upstresm from mouth.

DRAINAGE AREA.--4.46 mi².

PERIOD OF RECORD.--December 1958 to September 1972, October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 21.64 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark). Prior to Sept. 30, 1972, at site on old channel about 550 ft southeast of present site at datum 2.40 ft lower.

REMARKS.--Estimated daily discharges: Nov. 15-18, Jan. 11-30, and Feb. 3, 4. Records good except periods with ice effect, Jan. 11-30, and Feb. 3, 4, which are fair. Slight diurnal fluctuation at times from unknown source. 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.--25 years (water years 1960-72, 1974-85), 6.69 ft³/s, 20.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft³/s, Aug. 1, 1971, gage height, 11.34 ft, from high-water mark in well, site and datum then in use, from rating curve extended above 1,100 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily discharge, 0.10 ft³/s many days in 1962, 1964, and 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 25	1930	1,140	4.09	Sept. 27	0830	*2,280	*5.37
Sept. 27	0515	1,310	4.30				

Minimum discharge, 0.11 ft³/s, Sept. 18, gage height, 1.19 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	.65	1.6	1.9	32	1.1	14	.71	2.3	.39	.65	.29
2	7.2	.61	1.2	1.9	25	1.1	2.9	8.3	.79	.41	.31	.31
3	.88	.53	5.9	5.3	7.5	1.1	2.5	24	.72	.37	.21	.30
4	.73	.56	1.8	5.2	3.0	1.5	2.0	1.7	.68	.30	.21	.26
5	.70	34	8.7	10	2.3	1.6	1.8	1.0	10	.28	.17	.24
6	.64	1.5	28	2.6	6.3	1.0	1.8	.97	1.9	.33	2.4	.21
7	.66	.95	2.6	1.9	2.4	.97	1.5	.82	.73	.30	1.0	.19
8	.71	.77	1.9	1.5	1.6	1.8	1.4	.73	2.2	6.7	8.4	6.9
9	.78	.73	1.6	1.1	1.4	1.3	1.4	.71	.84	4.9	.58	5.2
10	.73	.75	1.5	1.0	1.5	1.2	1.2	.70	.67	23	.30	1.0
11	.62	1.9	1.3	1.1	1.8	1.2	1.4	.70	.59	1.2	2.6	.35
12	.56	1.0	1.2	1.0	85	4.8	1.2	6.9	.68	.59	.85	.22
13	.53	.72	1.2	.90	7.9	1.3	1.2	3.9	.55	.56	.25	.19
14	.52	.59	1.1	.90	3.7	1.2	1.2	.80	.47	.42	.20	.17
15	.49	.58	1.1	.80	2.6	1.2	1.3	.70	.60	.86	.19	.18
16	.48	.55	1.1	.80	2.1	1.0	1.2	3.3	2.1	2.0	.17	.17
17	.55	.55	1.1	.90	1.9	.96	1.1	18	.59	.40	.16	.19
18	.52	.60	1.1	.80	1.8	.90	.97	3.3	1.2	.28	3.0	.18
19	.51	6.4	2.2	.80	1.7	.94	.97	1.1	.51	.26	1.4	.17
20	.58	1.0	1.2	.80	1.6	.93	.98	.82	.60	.27	.34	.17
21	.53	.76	4.9	.41	1.5	.86	.95	2.0	.47	.38	1.8	.17
22	.77	.72	3.5	.62	1.5	1.1	.94	2.3	.43	.82	.39	.29
23	3.8	.72	1.4	.80	1.7	16	.97	21	.40	.41	.19	.47
24	6.3	.73	1.2	.90	1.7	8.6	.92	2.7	.39	.22	.17	.62
25	1.2	.73	1.5	.90	1.4	6.4	2.6	1.3	.34	2.6	70	.28
26	.73	.70	1.0	.95	1.5	2.2	.92	.94	.30	8.0	3.6	17
27	.66	.70	1.0	.90	1.3	1.7	.82	.79	1.2	9.6	.92	393
28	.68	39	1.1	.90	1.1	1.6	.81	11	1.4	.68	.49	3.8
29	7.9	20	1.1	.90	---	6.1	.72	2.2	.77	.40	.36	1.8
30	.90	2.3	1.0	.90	---	4.8	.71	.94	.43	.34	.65	1.4
31	.73	---	1.1	1.2	---	14	---	3.2	---	.60	.52	---
TOTAL	55.59	121.30	86.2	50.58	204.8	90.46	52.38	127.53	34.85	67.87	102.48	435.72
MEAN	1.79	4.04	2.78	1.63	7.31	2.92	1.75	4.11	1.16	2.19	3.31	14.5
MAX	13	39	28	10	85	16	14	24	10	23	70	393
MIN	.48	.53	1.0	.41	1.1	.86	.71	.70	.30	.22	.16	.17
CFSM	.40	.91	.62	.37	1.64	.66	.39	.92	.26	.49	.74	3.25
IN.	.46	1.01	.72	.42	1.71	.75	.44	1.06	.29	.57	.85	3.63

CAL YR 1984 TOTAL 2186.12 MEAN 5.97 MAX 197 MIN .36 CFSM 1.34 IN 18.23
WTR YR 1985 TOTAL 1429.76 MEAN 3.92 MAX 393 MIN .16 CFSM .88 IN 11.92

01585400 BRIEN RUN AT STEMMERS RUN, MD

LOCATION.--Lat 39°20'01", long 76°28'23", Baltimore County, Hydrologic Unit 02060003, on right bank 0.2 mi upstream from mouth and 0.3 mi north of Stemmers Run.

DRAINAGE AREA.--1.97 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.80 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark).

REMARKS.--Estimated daily discharges: Oct. 7-22, Nov. 2-4, 14-18, 26, 27, Jan. 11 to Feb. 5, Mar. 13-20, and July 21-29. Records good except for periods of backwater from unknown sources, Oct. 12-22, Nov. 2-4, 14-18, 26, 27, and Mar. 13-20, period when the stilling well was frozen, Jan. 11 to Feb. 5, and period of no gage-height record, July 21-29, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 2.58 ft³/s, 17.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft³/s, Aug. 1, 1971, gage height, 10.75 ft from high-water mark in well, from rating curve extended above 180 ft³/s on basis of computation of peak flow throgh culvert and over road at site 0.8 mile upstream, adjusted for flow from intervening area; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 25	1930	232	3.33	Sept. 27	0915	*1,000	*6.75
Sept. 27	0045	219	3.23				

Minimum daily discharge, 0.30 ft³/s, July 18, 20, 23, 24, Sept. 15, 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	5.8	.60	1.3	.90	10	.60	6.0	.36	1.1	.36	.58	.36
2	2.4	.60	.79	.90	7.0	.51	1.8	3.5	.41	.36	.43	.36
3	.88	.60	1.9	2.9	2.4	.47	1.5	8.5	.37	.36	.43	.36
4	.78	.60	.92	2.3	1.6	.84	.66	.95	.51	.36	.42	.36
5	.50	7.3	4.7	5.3	1.3	.82	.67	.51	3.2	.36	.37	.36
6	.51	1.3	11	1.3	2.5	.48	.57	.47	.56	.37	1.9	.36
7	.51	1.1	1.8	1.2	1.1	.47	.47	.44	.41	.36	.65	.36
8	.53	.47	1.3	1.2	.87	.70	.49	.52	.77	2.0	2.5	3.3
9	.58	.63	.90	.90	.87	.47	.50	.38	.44	.88	.48	4.2
10	.53	.53	.74	.61	.87	.47	.56	.53	.36	6.2	.47	1.1
11	.47	.78	.78	.60	.87	.55	.49	.38	.41	1.3	1.7	.46
12	.45	.65	1.1	.55	28	1.9	.60	1.8	.61	1.0	.55	.52
13	.45	.60	.82	.55	3.8	.60	.47	1.1	.61	.51	.47	.47
14	.45	.50	.62	.50	2.0	.50	.47	.42	.67	.34	.47	.33
15	.45	.50	.60	.50	1.6	.45	.50	.36	.76	1.8	.47	.30
16	.45	.50	.60	.50	.89	.45	.48	1.6	.97	.67	.47	.50
17	.50	.50	.60	.55	.81	.45	.44	10	.40	.33	.47	.51
18	.45	.60	.60	.50	.74	.40	.48	2.2	.47	.30	2.1	.34
19	.45	2.9	.84	.50	.73	.40	.49	1.2	.36	.31	.85	.33
20	.60	.67	.60	.50	.65	.40	.43	.82	.58	.30	.62	.30
21	.50	.60	2.2	.40	.60	.36	.43	.88	.38	.40	1.2	.32
22	.60	.60	1.5	.45	.63	.56	.42	.66	.36	.50	.68	.38
23	2.8	.61	.74	.50	.67	5.3	.40	8.0	.37	.30	.60	.45
24	3.4	.60	.66	.50	.70	2.8	.44	1.2	.36	.30	.42	.56
25	.74	.60	.75	.50	.89	2.8	1.3	.53	.36	1.0	24	.36
26	.62	.60	.63	.50	.64	1.2	.70	.43	.36	2.6	4.3	15
27	.60	.60	.61	.50	.55	.81	.38	.36	.42	3.0	.54	227
28	.77	13	.60	.50	.58	.74	.51	4.7	.38	1.5	.41	3.7
29	2.6	8.8	.61	.50	---	2.1	.62	1.7	.43	1.2	.36	1.5
30	.66	1.6	.64	.50	---	2.1	.40	1.2	.36	.53	2.1	1.3
31	.62	---	.80	.70	---	5.6	---	1.7	---	.89	.43	---
TOTAL	31.65	49.54	42.25	28.31	73.86	36.30	23.67	57.40	17.75	30.69	51.44	265.75
MEAN	1.02	1.65	1.36	.91	2.64	1.17	.79	1.85	.59	.99	1.66	8.86
MAX	5.8	13	11	5.3	28	5.6	6.0	10	3.2	6.2	24	227
MIN	.45	.47	.60	.40	.55	.36	.38	.36	.36	.30	.36	.30
CFSM	.52	.84	.69	.46	1.34	.59	.40	.94	.30	.50	.84	4.50
IN.	.60	.94	.80	.53	1.39	.69	.45	1.08	.34	.58	.97	5.02

CAL YR 1984 TOTAL 936.28 MEAN 2.56 MAX 74 MIN .45 CFSM 1.30 IN 17.67
WTR YR 1985 TOTAL 708.61 MEAN 1.94 MAX 227 MIN .30 CFSM .99 IN 13.37

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD

LOCATION.--Lat 39°35'35", long 76°58'05", Carroll County, Hydrologic Unit 02060003, on left bank 80 ft upstream from culvert, 0.7 mi upstream from mouth, and 1.8 mi northeast of Westminster.

DRAINAGE AREA.--3.29 mi²

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

REVISED RECORDS.--WSP 1432: Drainage area, 1954-55. WDR MD-DE-75-1: 1972(M). WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 670 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20-23, Jan. 30 to Feb. 10, Mar. 20 to Apr. 15, and Apr. 26 to May 23. Records good except for periods of no gage-height record, Jan. 30 to Feb. 10, Mar. 20 to Apr. 15, and Apr. 26 to May 23, which are poor. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mi upstream from station since August 1957, capacity, 113,700,000 gal. Beginning October 1972 occasional large diversions past the gaging station from the reservoir through a 30-inch pipe. 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.--36 years, 3.51 ft³/s, 14.49 in/yr, unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft³/s, Sept. 26, 1975, gage height, 7.47 ft, from rating curve extended above 200 ft³/s on the basis of computations of flows through culvert at gage heights 5.54 ft and 7.47; minimum daily discharge, 0.22 ft³/s, Jan. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 22	2145	106	2.92	Feb. 12	1030	*784	*4.95

Minimum daily discharge, 0.30 ft³/s, July 24, Sept. 5, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	1.7	3.6	2.1	4.0	2.5	6.0	1.8	1.8	.44	.42	.31
2	2.4	2.1	1.8	3.9	5.0	2.0	4.0	2.0	1.9	.39	.37	.33
3	2.3	1.6	3.1	1.9	2.6	2.0	3.6	8.5	2.1	.37	.37	.39
4	2.3	1.7	2.6	2.0	2.4	1.6	3.4	3.0	2.0	.49	.35	.33
5	2.2	5.7	2.3	2.5	2.2	2.2	3.2	2.8	5.6	.61	.33	.30
6	2.1	2.6	10	1.8	2.4	2.4	3.0	2.2	2.7	2.7	.34	.42
7	2.1	1.6	3.7	2.0	2.2	2.4	2.8	2.2	2.3	2.4	.37	.40
8	2.2	2.0	3.2	2.1	2.0	2.0	2.8	1.8	2.7	1.6	3.7	.34
9	2.2	1.6	2.9	1.4	2.1	2.0	2.7	1.9	2.6	.99	1.3	.30
10	2.2	1.7	2.7	2.1	2.2	1.8	2.6	1.9	2.2	.70	.38	.42
11	2.2	2.5	3.1	2.1	2.3	2.3	2.6	1.9	1.5	.45	.37	.44
12	2.0	2.1	2.5	2.3	178	2.2	2.5	1.9	1.4	.59	.36	.35
13	2.0	2.2	2.7	1.6	8.8	2.1	2.4	2.4	1.1	.38	.33	.33
14	2.1	1.8	2.9	2.3	4.8	1.7	2.4	2.0	.53	.44	.33	.34
15	2.1	1.2	2.8	2.1	2.8	2.3	2.2	1.8	.52	4.0	.33	.34
16	1.9	1.4	1.6	1.8	3.0	2.3	2.2	2.0	1.8	2.1	.33	.40
17	1.6	1.7	2.4	2.1	2.8	1.5	2.1	8.0	1.3	.64	.33	.52
18	1.3	2.3	2.1	2.1	2.6	2.1	2.3	7.0	1.1	.87	.38	.37
19	1.3	2.2	2.4	2.0	1.7	2.2	2.1	3.0	.62	.53	.36	.42
20	1.6	2.0	2.4	2.0	2.6	2.2	2.0	2.4	.57	.81	.33	.54
21	1.4	2.2	4.2	2.1	2.6	2.0	1.7	2.0	.61	.40	.39	.55
22	12	1.7	3.4	1.9	3.3	2.0	2.3	2.0	.44	.33	.32	.52
23	7.5	1.4	1.4	1.7	3.0	4.0	2.1	4.0	.80	.32	.31	.39
24	5.4	2.2	1.9	1.8	2.8	5.0	2.1	3.2	.43	.30	.44	.49
25	3.2	1.4	1.2	1.9	3.2	4.0	2.3	2.5	.43	2.0	.56	.39
26	2.5	2.1	1.4	1.9	2.3	3.0	2.0	2.6	.43	9.4	.43	.50
27	2.2	1.8	1.2	1.8	2.4	2.6	1.6	2.4	.44	3.9	.37	17
28	2.8	14	2.1	1.4	2.3	2.6	2.0	2.1	.46	.48	.32	1.4
29	4.0	20	1.8	2.0	---	4.0	1.6	2.0	.82	.90	.34	.37
30	2.6	4.5	1.4	2.0	---	6.0	1.8	2.3	.84	.65	.33	.32
31	2.2	---	2.1	2.0	---	4.6	---	2.1	---	.48	.45	---
TOTAL	88.7	93.0	82.9	62.7	258.4	81.6	76.4	87.7	42.04	40.66	15.64	29.52
MEAN	2.86	3.10	2.67	2.02	9.23	2.63	2.55	2.83	1.40	1.31	.50	.98
MAX	12	20	10	3.9	178	6.0	6.0	8.5	5.6	9.4	3.7	17
MIN	1.3	1.2	1.2	1.4	1.7	1.5	1.6	1.8	.43	.30	.31	.30
CFSM	.87	.94	.81	.61	2.81	.80	.78	.86	.43	.40	.15	.30
IN.	1.00	1.05	.94	.71	2.92	.92	.86	.99	.48	.46	.18	.33

CAL YR 1984 TOTAL 1637.20 MEAN 4.47 MAX 37 MIN .70 CFSM 1.36 IN 18.51
WTR YR 1985 TOTAL 959.26 MEAN 2.63 MAX 178 MIN .30 CFSM .80 IN 10.84

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD

LOCATION.--Lat 39°30'00", long 76°53'00", Carroll County, Hydrologic Unit 02060003, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mi downstream from Roaring Run, 8 mi southeast of Westminster, and 16.5 mi upstream from confluence with South Branch.

DRAINAGE AREA.--56.6 mi².

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 1903: 1959-60.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 425 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 15, 16, 20, 22, Feb. 3, 4, 8, 9. Records good. Slight diurnal fluctuation at low and medium flow caused by mill upstream from station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal. Records do not include a mean discharge of 2.93 ft³/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 64.5 ft³/s, 15.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 ft³/s, June 22, 1972, gage height, 20.75 ft, from high-water markin well, from rating curve extended above 4,100 ft³/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.3 ft³/s, Sept. 17, 1983 and Aug. 10, 1985, result of regulation; minimum daily discharge, 3.1 ft³/s, Sept. 10, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 23	0045	2,610	6.92	Feb. 12	1415	*6,240	*10.75
Nov. 29	0145	1,410	4.90	Sept. 27	1045	1,180	4.76

Minimum discharge, 1.3 ft³/s, Aug. 10, result of regulation, gage height, 1.08 ft; minimum daily discharge, 11 ft³/s, Sept. 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	69	42	77	48	76	52	102	30	38	22	21	16
2	67	41	63	64	123	54	69	34	33	22	19	15
3	37	38	70	56	55	52	65	123	31	21	19	14
4	34	38	61	52	50	48	60	52	31	21	17	13
5	32	88	56	56	47	51	57	43	67	21	17	12
6	31	53	153	52	50	44	54	39	44	69	15	11
7	32	44	83	50	44	42	50	37	34	59	16	12
8	31	40	70	48	40	46	49	34	39	28	69	17
9	33	39	61	41	42	45	49	32	39	30	28	17
10	32	40	60	42	41	43	47	31	32	62	21	21
11	32	49	56	44	41	42	46	31	29	32	20	14
12	31	45	53	43	1950	49	44	31	30	27	18	13
13	31	39	60	44	176	43	43	54	28	26	16	13
14	33	37	54	43	105	41	43	34	27	24	15	13
15	32	37	52	40	84	40	42	29	28	23	15	14
16	31	37	51	40	73	39	42	32	40	67	14	13
17	32	36	50	41	67	40	39	129	31	26	15	13
18	31	37	49	43	64	37	38	127	27	22	17	13
19	31	52	51	42	62	36	38	59	24	22	20	13
20	34	45	52	40	60	37	36	50	23	21	16	12
21	34	40	66	42	57	36	36	44	23	22	24	12
22	185	39	84	42	59	37	36	47	23	20	17	13
23	381	38	57	42	64	65	34	69	25	21	15	13
24	96	38	53	40	65	78	35	59	24	17	15	14
25	60	37	55	41	63	68	40	44	23	38	31	13
26	50	37	48	40	61	52	36	40	20	72	28	15
27	46	37	49	39	58	47	34	38	20	69	25	315
28	43	130	49	38	54	47	33	42	21	29	17	48
29	87	491	49	37	---	66	31	43	22	24	16	26
30	52	100	48	36	---	107	30	37	22	22	16	21
31	44	---	47	38	---	76	---	41	---	21	16	---
TOTAL	1794	1864	1887	1364	3731	1560	1358	1535	898	1000	628	769
MEAN	57.9	62.1	60.9	44.0	133	50.3	45.3	49.5	29.9	32.3	20.3	25.6
MAX	381	491	153	64	1950	107	102	129	67	72	69	315
MIN	31	36	47	36	40	36	30	29	20	17	14	11
CFSM	1.02	1.10	1.08	.78	2.35	.89	.80	.88	.53	.57	.36	.45
IN.	1.18	1.23	1.24	.90	2.45	1.03	.89	1.01	.59	.66	.41	.51

CAL YR 1984 TOTAL 31721 MEAN 86.7 MAX 617 MIN 31 CFSM 1.53 IN 20.85
WTR YR 1985 TOTAL 18388 MEAN 50.4 MAX 1950 MIN 11 CFSM .89 IN 12.09

01586210 BEAVER RUN NEAR FINKSBURG, MD

LOCATION.--Lat 39°29'22", long 76°54'12", Carroll County, Hydrologic Unit 02060003, on downstream center line of bridge pier on Hughes Road, 0.25 mi northwest of intersection of Hughes Road and Maryland Route 91, and 0.75 mi southwest of Finksburg.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 439.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9, 10, 16, 17, Jan. 20 to Feb. 1, Feb. 4, 5, 8-10, and June 18 to July 24. Records good except for period with ice effect, Jan. 20 to Feb. 1, and period of no gage-height record, June 18 to July 24, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,920 ft³/s, Feb. 12, 1985, gage height, 5.45 ft; minimum discharge observed, 2.0 ft³/s, Sept. 12, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 23	0030	780	3.85	Feb. 12	1215	*1,920	*5.45

Minimum discharge, 2.5 ft³/s Sept. 21, 22, 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	19	15	20	13	24	16	29	7.3	12	6.5	5.3	4.0
2	15	15	18	17	32	16	18	8.7	10	6.5	4.9	4.0
3	11	13	18	15	15	16	17	38	9.8	6.5	4.7	4.0
4	9.5	13	17	15	14	15	16	13	9.0	6.0	4.5	3.8
5	9.1	25	16	16	13	16	16	10	31	6.0	4.3	3.6
6	8.7	16	39	15	13	14	15	9.4	14	6.5	4.3	3.3
7	8.7	14	21	15	12	13	14	8.9	11	10	4.8	3.1
8	8.7	13	18	14	12	14	13	7.9	12	6.0	17	5.2
9	8.9	13	17	12	13	14	13	7.7	12	6.5	6.5	4.4
10	9.1	13	17	12	12	13	12	7.4	10	9.0	5.6	3.8
11	8.7	15	17	13	11	13	12	7.2	9.0	6.5	5.3	3.5
12	8.7	14	16	13	504	15	12	7.2	8.9	6.5	5.0	3.1
13	8.4	13	17	13	61	13	11	10	8.3	6.0	4.7	3.0
14	8.3	13	16	13	39	13	11	7.3	8.0	5.5	4.5	3.0
15	8.2	13	15	12	30	13	11	6.7	8.5	5.5	4.2	3.0
16	8.3	13	15	12	25	12	11	7.5	11	15	4.0	2.9
17	8.3	12	15	12	22	12	10	42	8.9	6.0	4.0	2.9
18	8.3	12	15	13	21	12	9.6	39	8.0	5.5	4.7	2.9
19	8.3	16	14	13	20	11	9.6	17	7.5	5.0	5.3	2.7
20	9.0	13	15	11	18	12	9.4	14	7.5	5.0	4.3	2.7
21	8.8	13	18	12	18	11	9.4	13	7.0	4.8	5.6	2.5
22	50	13	20	12	19	11	8.9	13	7.0	5.0	4.5	2.5
23	85	12	16	12	20	24	8.3	21	7.5	7.0	4.1	2.8
24	23	12	15	12	20	22	8.2	15	7.0	4.8	4.0	3.3
25	17	12	15	12	19	20	11	13	7.5	13	7.4	3.0
26	16	12	13	12	18	16	9.2	11	6.5	12	8.1	3.0
27	15	11	13	11	18	14	8.2	10	6.5	8.5	5.6	63
28	15	45	13	11	16	14	7.9	13	6.5	6.4	4.7	9.2
29	27	79	13	11	---	19	7.6	12	7.0	5.7	4.3	5.8
30	17	25	13	11	---	21	7.4	11	6.5	5.4	4.3	5.1
31	15	---	13	11	---	19	---	12	---	5.4	4.2	---
TOTAL	481.0	518	518	396	1059	464	355.7	420.2	285.4	214.0	164.7	169.1
MEAN	15.5	17.3	16.7	12.8	37.8	15.0	11.9	13.6	9.51	6.90	5.31	5.64
MAX	85	79	39	17	504	24	29	42	31	15	17	63
MIN	8.2	11	13	11	11	11	7.4	6.7	6.5	4.8	4.0	2.5
CFSM	1.11	1.24	1.19	.91	2.70	1.07	.85	.97	.68	.49	.38	.40
IN.	1.28	1.38	1.38	1.05	2.81	1.23	.95	1.12	.76	.57	.44	.45

CAL YR 1984 TOTAL 8746.0 MEAN 23.9 MAX 116 MIN 8.2 CFSM 1.71 IN 23.24
WTR YR 1985 TOTAL 5045.1 MEAN 13.8 MAX 504 MIN 2.5 CFSM .99 IN 13.40

01586610 MORGAN RUN NEAR LOUISVILLE, MD

LOCATION.--Lat 39°27'07", long 76°57'20", Carroll County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on London Bridge Road, 1.4 mi southwest of Gamber, and 1.65 mi south of the intersection of Maryland Route 32, and 1.7 mi west of Louisville.

DRAINAGE AREA.--28.0 mi².

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WRD MD-DE-84: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10, 12-14, 16, 17, 20-29, Feb. 3, 5, 12, and Feb. 28 to Mar. 11. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,350 ft³/s, Feb. 12, 1985, gage height, 8.26 ft, from floodmarks; minimum discharge, 4.6 ft³/s, Sept. 21, 22, 23, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 23	0145	953	5.05	Feb. 12	Unknown	*3,350	*8.26

Minimum discharge, 4.6 ft³/s, Sept. 21, 22, 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	34	24	41	25	49	29	52	18	24	14	10	7.6
2	27	24	34	33	67	29	41	21	20	14	9.6	7.8
3	19	22	38	30	30	28	38	54	19	14	9.3	7.6
4	18	21	33	30	28	27	36	27	19	13	9.2	7.0
5	18	48	31	33	26	29	34	23	37	12	9.1	6.1
6	17	29	69	30	28	26	32	22	25	13	8.8	5.7
7	17	25	45	29	24	25	30	21	21	16	9.7	5.6
8	17	22	39	28	23	27	29	20	24	12	21	6.0
9	18	22	37	25	27	26	29	19	26	13	11	6.7
10	18	22	36	24	22	25	28	18	20	15	9.9	6.0
11	17	27	34	26	22	26	28	18	19	13	9.6	5.7
12	17	24	32	24	650	30	27	18	18	13	9.2	5.3
13	17	22	33	24	98	27	26	23	18	12	8.7	5.3
14	16	21	31	24	64	26	26	18	17	11	8.6	5.3
15	16	21	30	23	52	25	26	18	18	11	8.1	5.3
16	16	21	29	24	46	24	26	19	21	19	7.7	5.3
17	17	21	29	24	42	24	25	59	18	11	7.7	5.3
18	17	21	28	25	40	24	24	83	17	10	8.9	5.1
19	17	30	28	24	39	23	24	36	16	10	9.9	5.0
20	17	24	28	22	37	23	22	29	16	9.8	8.7	5.0
21	17	22	34	24	35	22	22	26	15	9.9	11	4.7
22	74	21	39	24	36	23	21	26	15	11	8.9	4.6
23	158	21	30	24	38	39	21	41	16	12	8.1	5.1
24	42	21	29	23	38	43	21	32	15	9.6	8.0	5.8
25	31	21	29	23	37	39	25	27	16	19	13	5.0
26	27	21	26	23	35	32	21	24	14	20	13	5.0
27	25	21	26	22	33	30	20	22	14	18	9.8	72
28	25	86	26	22	31	29	20	25	14	12	8.8	14
29	50	159	26	20	---	41	19	25	15	11	8.2	9.7
30	30	51	26	19	---	42	18	22	14	10	8.1	8.7
31	26	---	25	21	---	39	---	25	---	10	8.0	---
TOTAL	875	935	1021	772	1697	902	811	859	561	398.3	299.6	253.3
MEAN	28.2	31.2	32.9	24.9	60.6	29.1	27.0	27.7	18.7	12.8	9.66	8.44
MAX	158	159	69	33	650	43	52	83	37	20	21	72
MIN	16	21	25	19	22	22	18	18	14	9.6	7.7	4.6
CFSM	1.01	1.11	1.18	.89	2.16	1.04	.96	.99	.67	.46	.35	.30
IN.	1.16	1.24	1.36	1.03	2.25	1.20	1.08	1.14	.75	.53	.40	.34

CAL YR 1984 TOTAL 18461.0 MEAN 50.4 MAX 283 MIN 15 CFSM 1.80 IN 24.53
WTR YR 1985 TOTAL 9384.2 MEAN 25.7 MAX 650 MIN 4.6 CFSM .92 IN 12.47

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD

LOCATION.--Lat 39°18'36", long 76°47'34", Baltimore County, Hydrologic Unit 0206003, on left bank at downstream side of highway bridge at Hollofield, 0.3 mi downstream from Dogwood Run, 3.0 mi north of Ellicott City and 28 mi upstream from mouth.

DRAINAGE AREA.--285 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 187.7 ft above National Geodetic Vertical Datum of 1929. June 26 to Dec. 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

REMARKS.--Estimated daily discharges: Oct. 17-22, Dec. 8-11, Jan. 1-31, and Feb. 3 to Mar. 5. Records good except for periods of doubtful gage-height record, Oct. 17-22, Dec. 8-11, Jan. 1-31, and Feb. 3 to Mar. 5, which are fair. Flow regulated by Liberty Reservoir 11 mi upstream beginning July 22, 1954, usable capacity, 42,070,000,000 gal; dead storage, 1,260,000,000 gal. Diversions upstream from station for municipal supply of Westminster (sewage effluent discharged into Little Pipe Creek), and from Liberty Reservoir beginning Feb. 26, 1953, for municipal supply of Baltimore, and beginning February 1970 for a small municipal supply for part of Carroll County. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,600 ft³/s, June 22, 1972, gage height, 31.3 ft, from flood-marks, from rating curve extended above 27,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 6 ft³/s, Sept. 6, 1944; minimum daily discharge, 9.6 ft³/s, Aug. 12, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,950 ft³/s, Feb. 12, gage height, 8.19 ft; minimum daily discharge, 14 ft³/s, Sept. 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	133	90	118	85	190	114	249	67	93	42	38	22
2	169	105	99	95	395	114	156	68	75	45	36	22
3	111	218	114	112	189	111	137	222	72	42	31	23
4	81	216	105	125	108	107	129	115	73	40	30	21
5	66	265	97	146	103	111	120	88	149	38	28	20
6	62	99	268	124	110	100	113	80	115	38	28	18
7	61	78	163	111	98	97	107	76	79	39	34	16
8	48	75	132	99	85	102	104	72	77	36	42	17
9	43	70	111	88	88	102	104	69	93	45	39	20
10	65	71	105	81	93	97	101	67	74	52	32	21
11	64	76	101	87	91	95	98	65	65	41	30	20
12	64	80	94	80	3190	113	98	64	63	39	29	17
13	63	70	93	80	645	102	95	96	57	40	26	15
14	64	67	90	80	275	97	94	71	53	34	25	14
15	65	66	88	75	210	94	95	63	54	40	25	15
16	64	67	87	75	275	91	94	73	73	47	26	15
17	64	66	86	75	165	91	88	268	62	38	23	16
18	62	67	85	80	155	88	84	287	56	31	31	15
19	62	97	88	78	149	85	84	131	54	29	43	15
20	62	84	90	75	145	86	84	102	52	27	31	16
21	64	73	96	74	134	87	82	127	55	27	34	16
22	64	70	127	80	135	86	82	136	49	28	30	15
23	149	69	104	79	142	132	78	202	46	32	24	16
24	133	69	94	77	145	204	80	171	46	28	20	20
25	107	69	92	79	140	174	88	113	52	33	34	20
26	92	69	87	75	134	130	82	96	44	90	46	18
27	87	68	86	75	126	117	75	84	41	111	36	543
28	87	183	86	72	117	113	72	86	40	53	29	92
29	166	726	86	72	---	125	69	95	43	38	24	31
30	113	165	86	72	---	134	68	81	43	36	24	23
31	95	---	86	75	---	151	---	95	---	36	24	---
TOTAL	2630	3588	3244	2681	7832	3450	3010	3430	1948	1295	952	1152
MEAN	84.8	120	105	86.5	280	111	100	111	64.9	41.8	30.7	38.4
MAX	169	726	268	146	3190	204	249	287	149	111	46	543
MIN	43	66	85	72	85	85	68	63	40	27	20	14
(†)	40590	39280	38470	37930	40300	40060	39430	38470	38380	36690	34210	31780
(‡)	227	229	211	200	210	212	211	162	182	199	172	156

CAL YR 1984 TOTAL 92660 MEAN 253 MAX 2440 MIN 43 ‡ 227
WTR YR 1985 TOTAL 35212 MEAN 96.5 MAX 3190 MIN 14 ‡ 198

† Month-end contents, in millions of gallons in Liberty Reservoir, contents on Sept. 30, 1984: 42,700,000,000 gal; records furnished by Baltimore Department of Public Works.
‡ Diversions, in cubic feet per second, above station for municipal supply of city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records furnished by cities of Westminster and Baltimore, respectively.

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Tom Day Boulevard at U.S. Route 1 in Arbutus, 0.5 mi upstream from mouth, and 2 mi south of Baltimore city limits.

DRAINAGE AREA.--2.47 mi².

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

REVISED RECORDS.--WDR MD-DE-81: 1979.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 1981 at site 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 9-22, Nov. 1-4, Jan. 11-30, Feb. 9-11, Mar. 14-21, Apr. 12-24, and Sept. 4-23. Records good except for periods of backwater from unknown sources, Oct. 9-22 and Nov. 1-4, periods with ice effect, Jan. 11-20 and Feb. 9-11, and periods of doubtful or no gage-height record, Jan. 21-30, Mar. 14-21, Apr. 12-24, and Sept. 4-23, which are poor. Slight regulation at low flow from unknown source upstream from 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.--28 years, 3.31 ft³/s, 18.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft³/s, Sept. 6, 1979, gage height, 13.7 ft, present site, from floodmarks, from rating curve extended above 280 ft³/s on basis of culvert measurement at gage height 5.0 ft, present site, discharge, 580 ft³/s and culvert and flow-over-road measurement of peak flow at gage height 13.7 ft present site, from floodmarks; minimum daily discharge, 0.30 ft³/s, July 24, Sept. 4, 11, 1966.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 17	0745	*554	*5.02	Sept. 27	0515	443	4.44
May 28	1445	461	4.54	Sept. 27	0745	507	4.78
June 5	0900	446	4.46				

Minimum daily discharge, 0.35 ft³/s, Sept. 7, 13, 14, 15, 16, 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	12	.80	1.5	1.1	22	.84	5.0	.72	1.5	.95	.83	.38
2	3.1	.80	1.2	1.5	12	.84	1.9	7.8	1.1	.83	.61	.38
3	.83	.80	4.5	5.0	2.5	.84	1.7	12	1.1	.74	.58	.46
4	.72	.80	1.4	4.4	1.6	1.1	1.5	.96	1.1	.67	.51	.50
5	.63	31	10	5.7	2.2	.92	1.2	.78	24	.61	.51	.45
6	.61	1.2	12	1.4	3.5	.72	1.1	.72	2.2	.61	2.1	.40
7	.61	.98	1.8	1.3	1.5	.72	1.1	.72	1.5	.58	.69	.35
8	.61	.98	1.5	.98	1.0	1.2	1.0	.72	2.1	1.4	3.3	.55
9	1.0	.98	1.3	1.1	1.0	.84	1.3	.70	1.2	1.4	.59	.40
10	.70	.98	1.3	1.1	1.0	.77	1.1	.61	1.1	9.4	.51	.40
11	.60	2.2	1.3	1.0	1.1	.93	1.4	.61	.98	.81	.51	.44
12	.60	.91	1.5	.95	52	2.2	1.0	8.3	1.5	1.1	.50	.40
13	.60	.98	1.2	.95	3.8	1.3	.90	1.4	.98	.69	.44	.35
14	.60	.98	1.1	.95	2.1	1.0	.80	.69	.84	.61	.44	.35
15	.60	.98	1.1	.90	1.7	.90	.80	.61	1.4	4.1	.44	.35
16	.70	.98	1.1	.85	1.3	.80	.90	1.2	1.4	1.0	.44	.35
17	.80	.98	1.2	.95	1.2	.85	1.1	31	.89	.64	.44	.40
18	.70	1.8	1.1	.90	1.0	.70	.80	3.0	1.0	.56	4.9	.40
19	.80	4.9	1.3	.90	1.1	.70	.75	1.1	.72	.44	.90	.50
20	.70	.99	1.1	.90	.98	.70	.70	.94	2.6	.44	.59	.40
21	.70	.98	3.6	.90	.98	.70	.70	9.0	.92	1.2	1.1	.35
22	1.0	.98	2.2	.90	.98	2.0	.70	2.3	.79	4.9	.51	.40
23	2.7	.98	1.1	.75	.98	9.9	.70	15	.81	1.3	.44	.50
24	5.4	.98	1.1	.80	.98	4.8	.80	2.2	.72	.51	.54	.81
25	.98	.98	1.1	.80	.98	2.8	3.3	1.3	.72	3.6	13	.51
26	.84	1.0	.98	.90	1.0	1.0	.82	1.1	.72	5.9	1.1	6.9
27	.84	1.0	.98	.90	.85	.98	.72	1.1	1.2	15	.63	92
28	2.0	30	.98	.90	.84	.98	.72	31	.75	.73	.50	1.3
29	2.9	9.3	.98	.90	---	1.9	.72	3.1	.70	.66	.44	.78
30	.86	1.8	.98	.85	---	10	.72	1.7	.72	.61	1.6	.61
31	.84	---	1.2	1.1	---	11	---	4.7	---	5.5	.53	---
TOTAL	46.57	103.02	63.70	42.53	122.17	64.93	35.95	147.08	57.26	67.49	40.22	112.37
MEAN	1.50	3.43	2.05	1.37	4.36	2.09	1.20	4.74	1.91	2.18	1.30	3.75
MAX	12	31	12	5.7	52	11	5.0	31	24	15	13	92
MIN	.60	.80	.98	.75	.84	.70	.70	.61	.70	.44	.44	.35
CFSM	.61	1.39	.83	.56	1.77	.85	.49	1.92	.77	.88	.53	1.52
IN.	.70	1.55	.96	.64	1.84	.98	.54	2.21	.86	1.02	.61	1.69

CAL YR 1984 TOTAL 1349.80 MEAN 3.69 MAX 109 MIN .60 CFSM 1.49 IN 20.32
WTR YR 1985 TOTAL 903.29 MEAN 2.47 MAX 92 MIN .35 CFSM 1.00 IN 13.60

01589300 GWYNNS FALLS AT VILLA NOVA, MD

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, Hydrologic Unit 02060003, on right bank 300 ft downstream from bridge on Essex Road, 300 ft north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 mi west of Baltimore city limits, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--32.5 mi².

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

REVISED RECORDS.--WDR MD-DE-83: 1981-82(P). WDR MD-DE-84: 1981(P).

GAGE.--Water-stage recorder. Datum of gage is 361.32 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark). Prior to Aug. 27, 1963, and Oct. 25, 1972, to Sept. 20, 1973, water-stage recorder, and June 26, 1972, to Oct. 24, 1972, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 10, 12-16, Jan. 20 to Feb. 6, and Feb. 8-11. Records good except for period with ice effect, Jan. 20 to Feb. 6, which is fair. Slight diurnal fluctuation at times from unknown source upstream from station. Small diversion for irrigation upstream from 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.--28 years, 39.3 ft³/s, 16.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s, June 22, 1972, gage height, 21.5 ft, from floodmarks, from rating curve extended above 4,200 ft³/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.7 ft³/s, Sept. 7, 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 21, 1956, reached a stage of 12.6 ft, discharge, 5,270 ft³/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2315	1,210	5.68	Sept. 27	0830	1,390	6.13
Feb. 12	1530	*2,040	*7.61				

Minimum discharge, 3.3 ft³/s Sept. 13, 22, 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	93	21	32	23	150	23	104	14	23	13	15	5.8
2	84	21	27	33	150	23	36	23	19	13	8.7	6.2
3	25	19	45	37	38	22	32	133	18	12	7.4	6.0
4	21	20	31	40	30	22	28	25	17	11	7.3	5.4
5	20	53	34	56	26	24	26	19	59	11	7.1	4.9
6	19	23	144	34	30	20	24	17	26	10	10	4.8
7	19	20	40	29	26	19	23	16	18	11	11	4.3
8	19	19	31	26	22	24	23	15	27	22	30	5.7
9	21	19	28	23	24	22	25	14	21	24	9.6	7.8
10	20	20	27	22	22	20	23	14	17	40	7.8	5.0
11	19	27	26	23	22	20	23	14	16	15	7.4	5.3
12	18	21	24	21	927	35	22	18	16	17	6.6	5.1
13	18	19	25	21	86	22	22	32	14	12	5.8	4.0
14	19	19	23	21	44	21	21	15	14	10	6.4	3.8
15	19	19	23	20	34	20	21	14	15	18	6.3	4.0
16	18	19	22	21	30	19	22	28	29	15	5.7	4.1
17	19	18	23	21	27	19	20	156	15	9.5	7.1	4.3
18	19	20	22	21	26	19	19	89	15	9.4	15	4.4
19	19	42	27	21	27	19	19	28	14	8.4	13	4.1
20	20	22	23	20	26	19	19	23	16	9.3	7.6	4.1
21	19	19	37	21	25	19	19	50	16	8.1	18	4.0
22	23	19	39	21	26	20	18	46	13	13	7.9	3.9
23	51	19	25	21	28	67	17	136	12	11	6.0	4.3
24	52	19	24	21	28	68	18	45	15	7.8	5.7	7.5
25	26	18	25	21	27	56	23	28	17	24	27	5.4
26	22	18	22	21	26	31	17	28	15	30	16	7.6
27	21	18	22	20	25	26	16	20	13	48	9.3	537
28	25	209	24	20	23	24	15	31	13	11	7.0	30
29	56	335	22	20	---	55	15	29	14	9.4	6.0	15
30	24	42	22	20	---	45	14	21	13	9.1	6.3	12
31	22	---	21	21	---	58	---	31	---	10	6.3	---
TOTAL	870	1177	960	760	1975	901	724	1172	550	472.0	310.3	725.8
MEAN	28.1	39.2	31.0	24.5	70.5	29.1	24.1	37.8	18.3	15.2	10.0	24.2
MAX	93	335	144	56	927	68	104	156	59	48	30	537
MIN	18	18	21	20	22	19	14	14	12	7.8	5.7	3.8
CFSM	.87	1.21	.95	.75	2.17	.90	.74	1.16	.56	.47	.31	.75
IN.	1.00	1.35	1.10	.87	2.26	1.03	.83	1.34	.63	.54	.36	.83

CAL YR 1984 TOTAL 22487.0 MEAN 61.4 MAX 3760 MIN 16 CFSM 1.89 IN 25.74
WTR YR 1985 TOTAL 10597.1 MEAN 29.0 MAX 927 MIN 3.8 CFSM .89 IN 12.13

01589330 DEAD RUN AT FRANKLINTOWN, MD

LOCATION.--Lat 39°18'40", long 76°43'02", Baltimore County, Hydrologic Unit 02060003, on right bank at downstream side of bridge on Colonial Road at Security Boulevard at Franklintown, 0.3 mi west of Baltimore ciy limits, 1.2 mi southwest of Woodlawn, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--5.52 mi².

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

REVISED RECORDS.--WDR MD-DE-80-1: 1979(m).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 7-22, Nov. 2-6, 21-27, Jan. 11-30, and Feb. 4-6. Records good except for period of backwater from unknown sources, Oct. 7-22, period of no gage-height record, Nov. 2-6, and periods when the stilling well was frozen, Jan. 11-30 and Feb. 4-6, which are poor. Occasional regulation at low flow from unknown source upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 7.99 ft³/s, 19.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft³/s, June 22, 1972, gage height, 12.5 ft, from flood-marks, from rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement of peak flow at bridge 0.6 mi downstream, adjusted for flow from intervening area; minimum discharge, 0.10 ft³/s, Sept. 11-12, 1966, gage height, 0.57 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	1915	736	4.40	Sept. 27	0600	*1,200	*5.70
Feb. 12	0845	803	4.61	Sept. 27	0800	1,040	5.28
May 17	0800	655	4.14				

Minimum discharge, 0.35 ft³/s, Sept. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	1.6	2.2	2.6	60	1.7	16	1.1	1.9	1.4	2.1	.59
2	9.9	1.6	1.9	8.1	32	1.7	3.5	19	1.6	.94	.79	.56
3	1.8	1.6	14	15	8.5	1.9	3.1	36	1.8	.82	.68	.64
4	1.6	1.6	2.4	13	3.0	3.0	2.5	1.8	1.6	.71	.66	.66
5	1.5	80	16	18	3.0	2.2	2.3	1.4	42	.77	.60	.62
6	1.5	1.9	35	3.5	7.0	1.5	2.1	1.4	3.5	.86	7.7	.59
7	1.5	1.7	3.4	2.8	2.5	1.4	1.9	1.4	2.1	.74	1.6	.48
8	1.5	1.5	2.4	2.4	1.6	3.6	1.9	1.3	3.4	9.1	13	.89
9	3.0	1.4	2.2	2.2	1.6	1.5	3.0	1.4	2.4	5.2	1.1	.57
10	1.5	1.4	2.2	1.9	1.6	1.4	2.0	1.4	1.6	32	.70	.61
11	1.5	6.2	2.2	1.8	2.2	1.9	2.7	1.5	1.5	1.7	.69	.61
12	1.5	1.5	1.9	1.6	180	9.8	2.0	21	3.2	5.2	.60	.60
13	1.5	1.5	1.9	1.5	11	1.9	1.7	5.6	1.1	.98	.95	.54
14	1.5	1.6	1.7	1.5	4.5	1.9	1.5	1.3	.99	.77	.84	.43
15	1.5	1.6	1.6	1.5	3.2	1.6	1.5	1.2	3.7	16	1.1	.41
16	1.7	1.6	1.6	1.5	2.5	1.5	1.6	7.4	4.2	4.3	.71	.48
17	2.0	1.5	1.8	1.5	2.3	1.5	1.9	61	1.1	.83	.57	.58
18	1.9	3.4	2.1	1.7	2.1	1.5	1.4	15	1.4	.90	15	.57
19	2.1	15	5.1	1.4	2.3	1.6	1.4	2.2	.94	.81	2.1	.66
20	1.8	1.6	2.0	1.3	2.2	1.5	1.4	2.0	3.6	.73	.80	.49
21	1.8	1.5	13	1.1	1.9	1.5	1.2	30	1.5	.74	6.1	.44
22	3.0	1.3	6.8	1.3	2.1	4.7	1.3	7.9	.96	4.7	.70	.54
23	11	1.4	2.1	1.4	2.2	33	1.3	38	.85	1.3	.64	1.4
24	15	1.4	2.2	1.4	2.2	22	1.5	5.0	.84	.59	.67	3.3
25	1.9	1.4	2.5	1.4	2.0	12	6.6	2.7	.89	9.1	25	.51
26	1.7	1.4	1.7	1.4	2.4	2.9	1.3	2.3	.76	24	2.9	14
27	1.9	1.4	1.6	1.4	2.3	2.4	1.1	1.9	1.4	26	2.1	230
28	11	94	1.7	1.4	1.9	2.2	1.0	18	1.2	1.1	.75	2.2
29	13	29	1.7	1.4	---	8.0	1.0	3.0	1.4	.80	.72	1.3
30	1.7	2.9	1.7	1.4	---	10	1.1	1.9	.76	.82	5.1	1.3
31	1.6	---	1.8	2.2	---	24	---	11	---	7.4	.89	---
TOTAL	148.4	265.5	140.4	100.6	350.1	167.3	72.8	306.1	94.19	161.31	97.86	266.57
MEAN	4.79	8.85	4.53	3.25	12.5	5.40	2.43	9.87	3.14	5.20	3.16	8.89
MAX	44	94	35	18	180	33	16	61	42	32	25	230
MIN	1.5	1.3	1.6	1.1	1.6	1.4	1.0	1.1	.76	.59	.57	.41
CFSM	.87	1.60	.82	.59	2.26	.98	.44	1.79	.57	.94	.57	1.61
IN.	1.00	1.79	.95	.68	2.36	1.13	.49	2.06	.63	1.09	.66	1.80

CAL YR 1984 TOTAL 4083.30 MEAN 11.2 MAX 800 MIN 1.0 CFSM 2.03 IN 27.51
WTR YR 1985 TOTAL 2171.13 MEAN 5.95 MAX 230 MIN .41 CFSM 1.08 IN 14.63

01589440 JONES FALLS AT SORRENTO, MD

LOCATION.--Lat 39°23'30", long 76°39'42", Baltimore County, Hydrologic Unit 02060003, on right bank 0.3 mi downstream from bridge on State Highway 25 (Falls Road), 0.4 mi downstream from Slaughterhouse Branch and Sorrento, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--25.2 mi².

PERIOD OF RECORD.--Annual maximum, water years 1958-66. April 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1958 to April 1966, non-recording gage at site 450 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 17-22, Jan. 12, 15-30, Feb. 4, 5, 8-10, and Mar. 13-22. Records good except for period when stilling well was frozen, Jan. 17-29, which is fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 33.7 ft³/s, 18.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft³/s, June 22, 1972, gage height, 18.11 ft, from flood-marks, from rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 1.8 ft³/s, Sept. 7, 8, 1966, gage height, 1.16 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1415	*1,110	*7.75	Sept. 27	0830	1,040	7.60

Minimum daily discharge, 5.7 ft³/s, Sept. 7.

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	23	32	23	48	26	58	16	19	12	9.4	7.3
2	46	23	28	26	54	26	33	21	16	12	7.9	7.3
3	25	23	37	28	31	25	30	58	16	11	7.8	7.1
4	22	23	30	29	28	25	28	23	15	10	7.6	6.5
5	21	38	31	35	24	26	27	20	38	9.9	7.2	6.1
6	20	23	71	28	27	24	26	19	21	11	8.5	5.8
7	21	21	36	26	23	23	24	18	17	9.8	8.5	5.7
8	21	21	31	24	22	26	24	16	20	13	13	14
9	22	21	28	22	24	25	24	16	17	14	8.5	7.8
10	21	21	27	21	22	23	23	16	15	22	7.9	7.2
11	21	24	27	22	25	24	23	15	14	12	7.6	6.7
12	21	22	25	21	447	32	23	22	15	12	7.0	6.3
13	21	21	25	20	69	26	23	22	13	11	6.5	6.1
14	22	21	24	21	46	24	23	16	13	9.9	6.5	6.1
15	22	21	24	20	38	22	23	16	14	14	6.1	6.5
16	21	21	23	20	34	21	22	21	21	12	6.1	6.2
17	20	21	23	20	32	21	21	59	14	9.1	6.4	6.0
18	20	23	23	20	31	21	20	40	13	8.4	9.3	6.0
19	20	33	25	20	31	21	20	23	12	8.1	8.9	6.1
20	22	24	23	19	29	21	20	20	12	8.2	7.2	6.0
21	20	23	29	20	28	21	19	29	12	8.2	10	5.9
22	24	22	31	20	29	21	19	33	12	9.1	7.3	6.3
23	32	22	25	20	31	49	19	61	11	7.8	6.8	6.8
24	35	22	24	20	30	46	19	35	12	7.4	6.8	7.6
25	26	22	24	20	28	39	21	25	11	10	14	7.4
26	24	22	22	19	28	29	18	21	10	12	11	9.0
27	25	22	22	19	27	27	18	19	11	16	8.5	280
28	25	85	22	19	27	25	17	23	12	9.1	7.3	22
29	41	135	22	19	---	35	17	22	12	8.5	7.1	15
30	25	40	22	19	---	35	16	19	11	8.3	7.1	13
31	24	---	21	20	---	38	---	22	---	8.5	7.3	---
TOTAL	772	883	857	680	1313	847	698	786	449	334.3	251.1	509.8
MEAN	24.9	29.4	27.6	21.9	46.9	27.3	23.3	25.4	15.0	10.8	8.10	17.0
MAX	46	135	71	35	447	49	58	61	38	22	14	280
MIN	20	21	21	19	22	21	16	15	10	7.4	6.1	5.7
CFSM	.99	1.17	1.10	.87	1.86	1.08	.93	1.01	.60	.43	.32	.68
IN.	1.14	1.30	1.27	1.00	1.94	1.25	1.03	1.16	.66	.49	.37	.75

CAL YR 1984 TOTAL 16217.0 MEAN 44.3 MAX 1320 MIN 17 CFSM 1.76 IN 23.94
WTR YR 1985 TOTAL 8380.2 MEAN 23.0 MAX 447 MIN 5.7 CFSM .91 IN 12.37

01589500 SAWMILL CREEK AT GLEN BURNIE, MD

LOCATION.--Lat 39°10'12", long 76°37'51", Anne Arundel County, Hydrologic Unit 02060003, on left bank 300 ft upstream from bridge on State Highway 648, 0.25 mile southeast of State Highway 3, and 0.50 mile northwest of Glen Burnie.

DRAINAGE AREA.--4.97 mi².

PERIOD OF RECORD.--May 1944 to September 1952. Annual maximum, water years 1965-70. October 1983 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 26.07 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 11-15, 17-21, 24-26, 28, 29, and Feb. 6, 7. Records good. Low flow affected by ground-water diversions from Anne Arundel County municipal well fields upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (water years 1945-52, 1984-85), 7.04 ft³/s, 19.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436 ft³/s, Sept. 27, 1985, gage height, 4.03 ft, from rating curve extended above 16.0 ft³/s; maximum gage height, 4.77 ft, Sept. 1, 1952; no flow for part of each day Sept. 6, 7, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1933 reached a stage of about 14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1230	38	2.53	Sept.27	0830	*436	*4.03

No flow for part of each day Sept. 6, 7.

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	3.9	1.1	1.5	1.0	3.0	1.0	2.7	.32	.63	.07	.47	.02
2	3.1	1.1	1.1	.96	5.3	1.0	1.4	.66	.33	.11	.08	.02
3	1.7	1.0	1.7	1.4	3.0	.92	1.1	4.4	.24	.09	.03	.02
4	1.3	1.0	1.4	2.0	1.5	.89	1.0	1.4	.19	.04	.02	.02
5	1.2	3.8	1.5	2.5	1.1	1.2	.82	.65	4.2	.03	.03	.01
6	1.1	1.9	4.9	1.8	1.2	.87	.77	.50	1.8	.03	.03	.01
7	1.1	1.2	2.2	1.2	1.2	.77	.67	.41	.57	.03	.02	.01
8	1.1	1.0	1.4	1.0	.95	.96	.69	.32	.65	.03	.04	.02
9	1.1	1.0	1.2	.77	.76	.97	.70	.30	.51	.03	.02	.09
10	1.1	1.0	1.2	.69	.80	.79	.70	.26	.32	.20	.02	.02
11	1.0	1.1	1.1	.65	.85	.76	.76	.22	.22	.19	.02	.03
12	1.0	1.1	1.0	.60	16	1.1	.72	.73	.25	.09	.02	.02
13	1.0	.91	1.0	.60	7.4	.91	.67	1.8	.21	.08	.02	.02
14	1.0	.87	1.0	.60	2.9	.82	.65	.43	.19	.03	.02	.02
15	1.0	.84	1.0	.55	1.9	.73	.75	.26	.21	.08	.03	.03
16	1.0	.91	.96	.52	1.5	.65	.67	.61	.32	.08	.03	.03
17	1.0	.84	1.0	.60	1.4	.69	.60	4.3	.21	.03	.03	.03
18	1.0	.89	.95	.55	1.3	.65	.54	2.0	.60	.02	.09	.02
19	1.1	2.1	.93	.55	1.3	.61	.56	.68	.48	.02	.06	.03
20	1.1	1.4	.91	.55	1.3	.66	.51	.41	.47	.04	.03	.03
21	1.1	.99	1.1	.55	1.2	.61	.48	.42	.53	.10	.03	.03
22	1.1	.86	1.4	.54	1.2	.65	.47	.62	.18	.21	.02	.04
23	1.2	.87	1.0	.46	1.2	2.5	.42	2.5	.12	.17	.02	.02
24	1.8	.88	.90	.50	1.3	2.7	.90	1.4	.10	.05	.02	.04
25	1.4	.87	.90	.50	1.2	2.1	1.0	.66	.11	.10	1.6	.04
26	1.2	.83	.79	.55	1.2	1.4	.62	.42	.05	.15	3.4	.21
27	1.1	.83	.83	.53	1.2	1.0	.46	.28	.04	.52	.30	103
28	1.1	2.9	.83	.50	1.1	.94	.39	1.7	.08	.14	.05	4.8
29	2.2	7.4	.83	.50	---	1.1	.36	1.9	.07	.03	.03	1.3
30	1.5	2.3	.82	.54	---	1.3	.33	.61	.05	.03	.03	.71
31	1.1	---	.81	.64	---	2.5	---	1.0	---	.35	.02	---
TOTAL	41.7	43.79	38.16	24.90	64.26	33.75	22.41	32.17	13.93	3.17	6.63	110.69
MEAN	1.35	1.46	1.23	.80	2.30	1.09	.75	1.04	.46	.10	.21	3.69
MAX	3.9	7.4	4.9	2.5	16	2.7	2.7	4.4	4.2	.52	3.4	103
MIN	1.0	.83	.79	.46	.76	.61	.33	.22	.04	.02	.02	.01
CFSM	.27	.29	.25	.16	.46	.22	.15	.21	.09	.02	.04	.74
IN.	.31	.33	.29	.19	.48	.25	.17	.24	.10	.02	.05	.83

CAL YR 1984 TOTAL 1029.02 MEAN 2.81 MAX 56 MIN .79 CFSM .57 IN 7.70
WTR YR 1985 TOTAL 435.56 MEAN 1.19 MAX 103 MIN .01 CFSM .24 IN 3.26

01589500 SAWMILL CREEK AT GLEN BURNIE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1984-85.

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)	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)
NOV 1984										
27...	10:15	0.92	142	6.8	--	2.5	36	25	10	2.6
MAR 1985										
20...	09:15	0.67	164	6.6	--	--	--	--	--	--
AUG										
14...	09:10	0.04	430	6.9	32.0	22.0	--	--	--	--
SEP										
18...	09:15	0.01	420	6.6	12.0	15.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	12	39	0.9	3.7	11	3.4	27	17	<0.1	5.3

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	89	85	0.12	0.22	0.97	<0.01	<100	30	260	46

01589512 SAWMILL CREEK AT CRAIN HIGHWAY AT GLEN BURNIE, MD

LOCATION.--Lat 39°10'59", long 76°36'51", Anne Arundel County, Hydrologic Unit 02060003, on right bank 150 ft downstream from bridge on Crain Highway (Maryland Route 3 Business), 250 ft upstream from bridge on Maryland Route 2 at Glen Burnie, and 650 ft upstream from mouth.

DRAINAGE AREA.--8.24 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 18-21, May 2-4. Records good. Low flow affected by ground-water diversions from Anne Arundel County municipal well fields upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 465 ft³/s, Sept. 27, 1985, gage height, 7.67 ft; minimum daily discharge, 1.3 ft³/s, Oct. 8, 1983; minimum daily discharge observed, 1.4 ft³/s, Aug. 15-17, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1230	211	6.06	Sept.27	0745	*465	*7.67

Minimum daily discharge, 1.4 ft³/s, Aug. 15-18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	3.4	4.1	3.5	21	2.8	10	2.0	2.9	1.8	2.5	1.7
2	10	3.4	3.5	3.4	25	2.8	3.8	2.2	2.1	2.0	1.6	1.7
3	4.9	3.3	6.3	7.2	8.0	2.8	3.6	8.2	1.9	1.9	1.5	1.6
4	4.1	3.3	4.0	8.7	4.4	2.8	3.1	4.0	1.8	1.7	1.5	1.5
5	3.8	16	6.9	12	4.0	3.4	3.0	3.0	30	1.7	1.5	1.5
6	3.7	4.8	23	4.8	6.5	2.8	2.8	3.3	6.0	1.7	1.8	1.5
7	3.7	3.6	5.3	3.8	4.7	2.8	2.8	3.1	2.8	1.7	1.6	1.5
8	3.7	3.4	3.9	3.3	3.5	3.0	2.7	3.0	3.3	1.7	2.2	1.7
9	3.8	3.4	3.5	2.9	2.9	2.8	2.5	3.0	2.5	1.8	1.6	1.6
10	3.9	3.8	3.4	2.8	2.9	2.7	2.5	2.8	2.1	3.2	1.5	1.5
11	3.7	4.3	3.4	2.8	3.0	2.5	2.8	2.8	1.9	1.8	1.5	1.5
12	3.7	3.6	3.3	2.8	86	4.0	2.8	7.0	2.1	2.0	1.5	1.5
13	3.7	3.1	3.1	2.8	17	2.8	2.7	8.1	1.9	1.8	1.5	1.5
14	4.7	2.8	3.1	2.8	5.8	2.5	2.5	2.3	1.9	1.7	1.5	1.5
15	8.7	2.8	3.1	2.6	4.5	2.3	2.7	1.9	2.1	2.0	1.4	1.5
16	6.7	2.9	3.1	2.5	3.8	2.2	2.8	4.7	2.7	1.9	1.4	1.5
17	3.3	3.0	3.1	2.6	3.7	2.2	2.5	32	2.1	1.7	1.4	1.5
18	3.5	3.0	3.1	2.4	3.6	2.2	2.5	6.7	3.2	1.6	3.3	1.5
19	3.1	10	3.1	2.4	3.7	2.2	2.4	3.0	2.7	1.5	2.4	1.5
20	3.2	4.3	3.1	2.4	3.5	2.2	2.2	2.3	3.2	1.5	1.6	1.5
21	3.1	3.4	4.9	2.2	3.4	2.2	2.2	3.2	3.7	1.5	1.7	1.5
22	3.3	3.2	4.5	2.2	3.4	2.4	2.2	3.9	2.0	3.2	1.5	1.5
23	4.1	3.1	3.3	2.2	3.4	12	2.2	18	1.9	3.4	1.5	1.5
24	6.6	3.1	3.1	2.3	3.1	7.9	3.5	4.9	2.0	1.7	1.5	1.6
25	4.1	3.1	3.0	2.6	3.1	6.5	4.2	2.9	1.9	3.4	25	1.5
26	3.6	3.1	2.8	2.8	3.3	3.6	2.9	2.4	1.9	7.8	17	4.4
27	3.4	3.0	2.8	2.6	3.1	3.2	2.4	2.1	1.9	8.1	2.8	184
28	3.6	19	2.8	2.5	2.9	3.0	2.2	16	1.9	2.2	1.8	15
29	8.3	31	2.8	2.5	---	3.9	2.2	7.3	2.1	1.7	1.7	3.9
30	4.1	5.8	2.8	2.5	---	4.6	2.1	2.9	1.7	1.8	4.1	3.0
31	3.6	---	3.1	2.7	---	9.4	---	6.0	---	3.3	1.8	---
TOTAL	154.7	166.0	131.3	105.6	243.2	112.5	88.8	175.0	100.2	74.8	95.2	248.7
MEAN	4.99	5.53	4.24	3.41	8.69	3.63	2.96	5.65	3.34	2.41	3.07	8.29
MAX	21	31	23	12	86	12	10	32	30	8.1	25	184
MIN	3.1	2.8	2.8	2.2	2.9	2.2	2.1	1.9	1.7	1.5	1.4	1.5
CFSM	.61	.67	.52	.41	1.06	.44	.36	.69	.41	.29	.37	1.01
IN.	.70	.75	.59	.48	1.10	.51	.40	.79	.45	.34	.43	1.12

CAL YR 1984 TOTAL 2930.3 MEAN 8.01 MAX 141 MIN 2.8 CFSM .97 IN 13.23
WTR YR 1985 TOTAL 1696.0 MEAN 4.65 MAX 184 MIN 1.4 CFSM .56 IN 7.66

01589512 SAWMILL CREEK AT CRAIN HIGHWAY AT GLEN BURNIE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1984-85.

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)	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)
NOV 1984										
27...	14:45	3.1	193	6.5	--	10.0	53	30	15	3.7
MAR 1985										
20...	11:30	2.2	205	6.5	21.0	10.0	--	--	--	--
AUG										
14...	10:00	1.7	200	6.7	32.0	20.0	--	--	--	--
SEP										
18...	10:20	1.5	195	6.4	24.0	15.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	14	35	0.9	2.8	23	14	21	23	<0.1	6.8

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	128	100	0.17	1.1	2.10	<0.01	<100	20	190	58

01589522 MARLEY CREEK AT HARUNDALE, MD

LOCATION.--Lat 39°08'37", long 76°36'25", Anne Arundel County, Hydrologic Unit 02060003, on right bank 250 ft upstream from bridge on Maryland Route 2 at Harundale, 0.8 mile northwest of intersection of Maryland Route 2 and Maryland 100 and 3.25 miles upstream from mouth.

DRAINAGE AREA.--4.79 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11-15, 20-29, July 27 to Aug. 14, Sept. 26-30. Records fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 411 ft³/s, Sept. 27, 1985, from rating curve extended above 300 ft³/s, gage height, 11.58 ft, from floodmarks; minimum daily discharge, 0.7 ft³/s, Oct. 8, 1983; minimum daily discharge observed, 1.0 ft³/s, Sept. 18-22, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2330	126	7.06	June 5	1000	115	6.88
Feb. 12	1145	177	7.95	Aug. 25	1830	112	6.83
May 17	0815	135	7.20	Sept.27	unknown	*411	*a11.58

a From floodmarks.

Minimum daily discharge, 1.0 ft³/s, Sept. 19-22.

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	28	2.3	3.7	3.2	35	2.6	11	1.6	2.6	1.6	1.8	1.3
2	7.9	2.3	3.3	3.7	37	3.0	3.1	4.9	2.1	1.8	1.4	1.3
3	2.9	2.2	7.9	9.9	7.4	2.5	2.8	24	2.1	2.2	1.3	1.3
4	2.6	2.2	4.1	12	3.8	2.5	2.7	2.4	2.0	1.6	1.3	1.3
5	2.4	22	9.5	16	3.6	4.4	2.5	1.9	22	1.5	1.3	1.2
6	2.4	3.4	32	4.1	7.3	2.7	2.5	1.8	4.3	1.4	1.4	1.2
7	2.4	2.6	5.4	3.1	4.0	2.5	2.3	1.7	2.8	1.4	1.4	1.1
8	2.3	2.4	4.2	2.7	3.4	2.7	2.5	1.6	3.5	1.5	1.5	1.1
9	2.6	2.5	3.7	2.3	3.8	2.6	2.5	1.5	2.7	1.8	1.3	1.1
10	2.5	2.5	2.9	2.2	2.8	2.4	2.5	1.6	2.4	4.0	1.3	1.1
11	2.3	4.4	2.8	2.1	2.6	2.3	2.5	1.5	2.2	1.7	1.2	1.1
12	2.3	3.0	2.7	2.1	70	3.6	2.4	6.3	2.2	1.6	1.2	1.1
13	2.3	2.3	2.6	2.0	11	2.6	2.3	9.0	2.1	1.6	1.1	1.1
14	2.3	2.5	2.5	2.0	4.7	2.5	2.3	1.8	2.0	1.4	1.1	1.1
15	2.3	2.3	2.5	2.0	4.0	2.4	2.3	1.6	2.0	2.5	1.1	1.1
16	2.2	2.3	2.5	2.2	3.6	2.3	2.3	5.3	2.0	1.6	1.1	1.1
17	2.3	2.3	2.5	2.5	3.3	2.3	2.2	47	2.0	1.4	1.1	1.1
18	2.3	2.6	2.5	2.8	3.1	2.4	2.1	8.6	1.9	1.3	4.0	1.1
19	2.3	19	2.5	2.9	3.3	2.3	2.1	3.5	2.0	1.3	4.5	1.0
20	2.3	4.3	2.5	2.4	2.9	2.3	2.2	2.9	2.3	1.3	1.4	1.0
21	2.4	2.6	4.6	2.2	2.8	2.3	2.0	2.9	2.4	1.4	1.7	1.0
22	2.2	2.5	4.7	2.0	2.8	2.4	1.9	3.0	1.7	2.1	1.4	1.0
23	5.6	2.5	2.9	2.0	2.8	16	1.9	14	1.6	6.2	1.3	1.1
24	15	2.4	2.8	1.8	2.9	11	2.4	4.4	1.6	1.6	1.2	1.2
25	2.9	2.4	2.9	1.8	2.8	8.2	2.2	2.9	1.5	2.8	20	1.1
26	2.5	2.4	2.3	1.7	3.3	3.4	2.0	2.4	1.4	3.1	11	3.8
27	2.3	2.4	2.3	1.7	3.0	2.9	1.8	2.2	1.4	4.0	1.6	200
28	2.4	23	2.3	1.8	2.6	2.6	1.8	21	1.8	1.8	1.4	20
29	26	40	2.4	1.8	---	3.7	1.7	9.3	1.6	1.5	1.3	3.5
30	3.0	4.5	2.3	2.0	---	5.6	1.7	2.9	1.6	1.6	1.4	2.5
31	2.4	---	2.5	2.3	---	9.8	---	5.4	---	3.0	1.4	---
TOTAL	145.6	174.1	134.3	103.3	239.6	120.8	76.5	200.9	83.8	63.6	75.5	258.0
MEAN	4.70	5.80	4.33	3.33	8.56	3.90	2.55	6.48	2.79	2.05	2.44	8.60
MAX	28	40	32	16	70	16	11	47	22	6.2	20	200
MIN	2.2	2.2	2.3	1.7	2.6	2.3	1.7	1.5	1.4	1.3	1.1	1.0
CFSM	.98	1.21	.90	.70	1.79	.81	.53	1.35	.58	.43	.51	1.80
IN.	1.13	1.35	1.04	.80	1.86	.94	.59	1.56	.65	.49	.59	2.00

CAL YR 1984 TOTAL 2775.6 MEAN 7.58 MAX 120 MIN 2.0 CFSM 1.58 IN 21.55
WTR YR 1985 TOTAL 1676.0 MEAN 4.59 MAX 200 MIN 1.0 CFSM .96 IN 13.01

01589522 MARLEY CREEK AT HARUNDALE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1984-85.

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)	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)
NOV 1984										
27...	11:00	2.4	172	6.7	--	5.0	37	19	11	2.4
MAR 1985										
20...	12:00	2.3	176	6.9	20.0	10.0	--	--	--	--
AUG										
14...	11:20	1.2	189	7.2	32.0	24.0	--	--	--	--
SEP										
18...	11:15	0.99	--	--	27.0	15.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	15	45	1	2.1	18	7.0	16	25	<0.1	7.0

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	120	90	0.16	0.78	1.20	<0.01	<100	20	270	30

01590500 BACON RIDGE BRANCH AT CHESTERFIELD, MD

LOCATION.--Lat 39°00'07", long 76°36'53", Anne Arundel County, Hydrologic Unit 02060004, on left bank 50 ft downstream from highway bridge, 0.5 mi east of Chesterfield, 1.4 mi upstream from confluence with North River, and 6.8 mi northwest of Annapolis.

DRAINAGE AREA.--6.92 mi².

PERIOD OF RECORD.--October 1942 to September 1952. Annual maximum, water years 1965-74. October 1974 to current year. Monthly discharge only October and November 1942, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10-15, 17-30, and Feb. 6-8. Records good except those for periods with ice effect, Jan. 10-15, 17-30, and Feb. 6-8, which are fair. Records include sewage from Crownsville State Hospital, which obtains its water supply from wells. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years (water years 1943-52, 1975-85), 9.36 ft³/s, 18.37 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, Aug. 2, 1944, gage height, 5.49 ft, from rating curve extended above 200 ft³/s on basis of contracted-opening measurement at gage height 4.43 ft; minimum discharge, 1.1 ft³/s, Feb. 11, 1983, July 19, 1985; minimum gage height, 1.71 ft, Feb. 11, 1983, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 185 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1200	*230	*3.74	No other peak greater than base discharge.			

Minimum discharge, 1.1 ft³/s, July 19, gage height, 1.74 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	18	5.6	8.1	6.0	16	5.9	11	2.8	4.0	1.9	2.5	1.9
2	13	5.5	6.7	6.2	30	5.9	7.1	3.6	2.9	1.8	1.6	1.8
3	5.7	4.9	8.5	8.0	20	5.6	6.7	14	2.8	2.0	1.5	1.8
4	4.2	4.9	7.0	13	16	5.6	6.4	5.2	2.7	1.8	1.5	1.7
5	3.8	14	7.1	13	11	7.8	6.1	3.9	6.8	1.7	1.4	1.6
6	3.5	7.7	22	9.1	9.0	5.6	5.6	3.4	5.3	1.6	1.6	1.6
7	3.5	5.6	11	7.5	7.0	5.3	5.3	2.9	3.4	1.6	1.5	1.5
8	3.5	5.1	8.0	6.5	6.0	6.1	5.6	2.6	5.1	1.5	5.8	1.5
9	3.8	5.1	7.3	5.2	5.2	5.6	5.6	2.5	3.8	1.8	2.5	1.7
10	3.2	5.2	7.2	5.0	5.5	5.2	5.3	2.5	2.9	2.4	1.9	1.9
11	3.5	6.2	6.9	4.8	6.1	5.3	5.2	2.4	2.7	1.9	1.7	1.6
12	3.2	5.7	6.5	4.8	49	7.0	5.0	4.0	2.9	1.8	1.6	1.4
13	3.4	5.1	6.4	4.6	32	5.2	5.0	9.8	2.3	2.1	1.5	1.4
14	3.2	4.7	6.0	4.4	14	5.1	5.2	3.6	2.2	1.7	1.5	1.4
15	3.4	4.7	6.0	4.2	9.7	5.0	5.6	2.8	2.1	1.8	1.5	1.4
16	3.2	4.8	5.9	4.3	8.6	4.9	5.4	4.1	2.5	2.1	1.4	1.5
17	3.4	4.7	6.0	5.0	7.7	5.1	4.8	26	2.3	1.6	1.4	1.5
18	3.8	5.1	6.0	5.0	7.3	4.8	4.7	20	2.8	1.5	3.1	1.5
19	3.9	13	5.8	4.8	7.8	4.8	4.6	5.9	2.3	1.4	4.2	1.5
20	3.9	8.1	5.7	4.8	7.0	5.1	4.2	4.3	2.2	1.4	2.2	1.5
21	3.9	5.7	6.6	4.6	6.4	4.7	4.1	4.0	2.3	1.4	2.9	1.5
22	3.9	5.3	7.4	4.4	6.9	5.5	4.0	7.0	2.0	1.5	2.0	1.6
23	4.2	5.2	5.7	4.0	7.3	15	3.8	11	2.8	1.4	1.7	1.9
24	16	5.4	5.8	4.0	7.0	15	3.8	8.5	2.5	1.3	1.7	2.0
25	8.4	5.2	5.6	4.0	6.5	11	3.9	5.3	1.8	1.9	3.9	1.7
26	5.7	5.1	5.1	4.0	8.6	7.6	3.6	3.9	1.8	2.6	6.7	2.2
27	5.2	5.1	5.6	4.8	7.1	6.8	3.3	3.3	1.8	2.8	2.3	101
28	5.1	8.5	5.6	4.4	5.9	6.5	3.0	7.0	2.0	1.9	1.9	23
29	18	35	5.6	4.4	---	6.8	3.0	14	2.0	1.8	1.8	11
30	9.3	12	5.4	5.5	---	8.0	2.8	5.1	1.7	1.8	2.1	3.7
31	6.3	---	5.4	6.6	---	10	---	4.8	---	2.4	2.5	---
TOTAL	183.1	218.2	217.9	176.9	330.6	207.8	149.7	200.2	84.7	56.2	71.4	181.3
MEAN	5.91	7.27	7.03	5.71	11.8	6.70	4.99	6.46	2.82	1.81	2.30	6.04
MAX	18	35	22	13	49	15	11	26	6.8	2.8	6.7	101
MIN	3.2	4.7	5.1	4.0	5.2	4.7	2.8	2.4	1.7	1.3	1.4	1.4
CFSM	.85	1.05	1.02	.83	1.71	.97	.72	.93	.41	.26	.33	.87
IN.	.98	1.17	1.17	.95	1.78	1.12	.80	1.08	.46	.30	.38	.97

CAL YR 1984 TOTAL 3587.4 MEAN 9.80 MAX 126 MIN 2.6 CFSM 1.42 IN 19.28
WTR YR 1985 TOTAL 2078.0 MEAN 5.69 MAX 101 MIN 1.3 CFSM .82 IN 11.17

01591000 PATUXENT RIVER NEAR UNITY, MD

LOCATION.--Lat 39°14'18", long 77°03'23", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 0.6 mi upstream from Cattail Creek, 0.8 mi upstream from Triadelphia Reservoir, 1.1 mi northeast of Unity, and 97 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi².

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

REVISED RECORDS.--WSP 1111: 1947. WSP 1432: 1948.

GAGE.--Water stage recorder and concrete control. Datum of gage is 364.76 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 10-17, 20-26, and Feb. 10. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 39.5 ft³/s, 15.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft³/s, Sept. 11, 1981, gage height, 18.60 ft, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement at gage height 13.00 ft; minimum discharge, 0.20 ft³/s, Sept 10, 11, 12, 1966, gage height, 1.66 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 770 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1500	*2,370	*8.24	No other peak greater than base discharge.			

Minimum discharge, 3.2 ft³/s, Sept. 21, 22.

DISCHARGE, IN CUBUC 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	17	31	20	54	27	68	15	25	11	10	7.3
2	25	17	26	23	101	27	41	16	19	11	8.8	7.0
3	17	15	31	25	37	25	36	49	17	10	7.9	6.8
4	15	15	26	29	29	25	33	24	16	10	7.4	6.3
5	14	35	25	34	26	26	31	20	74	9.5	7.1	5.7
6	13	23	65	31	27	24	28	18	38	9.2	7.1	5.1
7	13	19	41	29	25	23	26	17	25	9.1	8.0	4.5
8	13	18	31	28	23	24	25	15	26	8.1	9.8	4.4
9	14	17	28	24	21	24	24	15	24	8.2	9.0	4.4
10	14	17	27	23	19	23	24	14	20	10	7.9	5.3
11	14	19	26	23	22	22	24	14	18	10	7.5	5.7
12	14	19	24	23	905	26	24	15	18	9.2	7.0	4.3
13	13	17	24	22	131	23	23	25	16	10	6.2	3.7
14	13	15	23	21	72	22	23	16	15	8.8	6.1	3.5
15	13	15	22	20	54	21	23	14	15	9.0	9.3	3.5
16	13	15	21	19	45	20	23	17	19	14	6.6	3.5
17	14	15	21	19	40	21	21	47	16	8.6	6.4	3.5
18	14	15	21	22	37	19	20	43	15	6.5	7.9	3.4
19	14	23	22	21	37	19	20	25	14	6.0	11	3.4
20	14	19	22	21	35	19	19	20	13	5.7	7.8	3.4
21	14	17	24	17	33	19	19	18	14	5.6	9.0	3.3
22	14	16	30	23	33	19	18	20	13	7.0	7.8	3.3
23	30	16	24	23	34	32	18	38	13	17	6.8	3.8
24	26	16	23	22	34	50	17	31	12	7.4	6.5	4.7
25	20	16	23	21	33	39	22	23	12	14	11	4.0
26	17	15	20	20	31	29	19	19	11	18	13	3.6
27	17	15	21	20	30	27	18	17	11	53	11	97
28	16	36	20	20	27	26	17	50	10	14	9.1	16
29	31	168	20	19	---	30	16	28	11	11	7.6	9.6
30	20	40	20	19	---	31	15	21	10	9.9	9.1	8.2
31	18	---	19	21	---	41	---	31	---	9.8	8.6	---
TOTAL	526	720	801	702	1995	803	735	735	560	350.6	258.3	248.2
MEAN	17.0	24.0	25.8	22.6	71.3	25.9	24.5	23.7	18.7	11.3	8.33	8.27
MAX	31	168	65	34	905	50	68	50	74	53	13	97
MIN	13	15	19	17	19	19	15	14	10	5.6	6.1	3.3
CFSM	.49	.69	.74	.65	2.05	.74	.70	.68	.54	.33	.24	.24
IN.	.56	.77	.86	.75	2.13	.86	.79	.79	.60	.37	.28	.27

CAL YR 1984 TOTAL 18349.0 MEAN 50.1 MAX 468 MIN 11 CFSM 1.44 IN 19.61
WTR YR 1985 TOTAL 8434.1 MEAN 23.1 MAX 905 MIN 3.3 CFSM .66 IN 9.02

01591400 CATTAIL CREEK NEAR GLENWOOD, MD
(Formerly published as Cattail Creek at Roxbury Mills Road at Roxbury Mills, MD)

LOCATION.--Lat 39°15'27", long 77°03'13", Howard County, Hydrologic Unit 02060006, on right bank at upstream side of bridge on Roxbury Mill Road, 1.3 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 10-17, 21-26, Feb. 7-9. Records good except those for periods with ice effect, Jan. 10-17, 21-26, Feb. 7-9, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 27.1 ft³/s, 16.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,040 ft³/s, Feb. 12, 1985, gage height, 8.12 ft, from rating curve extended above 1,800 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge , 2.5 ft³/s, Sept. 21, 22, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1315	*4,040	*8.12	June 5	1215	693	4.30

Minimum discharge, 2.5 ft³/s, 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	23	13	21	15	43	18	39	9.8	14	8.2	7.3	4.8
2	21	13	18	17	58	18	22	11	12	8.4	6.5	4.8
3	14	13	23	18	26	17	19	31	11	8.2	5.6	4.6
4	13	13	20	21	24	17	18	15	13	7.7	5.2	4.4
5	12	25	19	26	22	18	18	13	105	7.4	4.9	3.9
6	12	16	48	21	18	16	16	12	26	7.5	5.1	3.6
7	12	14	26	20	17	16	15	11	17	7.4	5.3	3.4
8	12	13	21	19	17	17	15	10	17	6.6	6.3	3.4
9	13	13	19	17	16	16	15	9.9	19	6.7	5.4	3.7
10	13	13	18	16	15	15	15	9.6	14	7.4	4.9	3.9
11	12	14	18	16	16	15	15	9.4	13	7.2	4.6	3.6
12	12	14	17	16	1400	18	15	10	13	7.0	4.6	3.3
13	12	13	17	16	58	16	15	15	12	7.2	4.3	3.0
14	13	13	16	15	34	16	15	10	12	5.8	4.2	3.0
15	13	12	16	15	29	15	15	9.6	12	6.3	6.6	3.0
16	13	13	16	15	25	15	15	12	15	9.2	4.4	2.8
17	13	12	16	15	23	15	13	42	12	6.6	4.4	2.7
18	13	12	15	16	21	15	13	39	12	5.4	5.4	2.6
19	13	18	16	16	21	14	13	17	11	5.1	6.6	2.6
20	13	15	16	15	20	14	12	14	10	4.8	5.0	2.6
21	13	13	18	13	20	14	12	12	11	5.0	6.3	2.6
22	13	13	21	15	20	14	12	13	9.9	5.1	5.4	2.5
23	22	13	17	16	21	23	11	24	9.7	6.0	4.8	2.8
24	21	13	16	16	21	30	11	18	14	4.3	4.5	3.2
25	16	13	16	15	20	23	14	14	12	8.7	7.1	2.9
26	15	13	15	15	19	18	12	12	9.3	10	7.7	2.8
27	14	12	15	15	19	17	11	11	8.5	23	6.6	84
28	14	45	15	15	18	16	10	17	8.5	7.9	5.4	12
29	22	115	15	15	---	18	9.9	15	8.2	6.9	5.0	7.7
30	15	26	15	14	---	18	9.8	13	7.7	6.7	5.8	6.5
31	14	---	15	16	---	23	---	18	---	6.7	5.5	---
TOTAL	451	558	574	510	2061	535	445.7	477.3	468.8	230.4	170.7	196.7
MEAN	14.5	18.6	18.5	16.5	73.6	17.3	14.9	15.4	15.6	7.43	5.51	6.56
MAX	23	115	48	26	1400	30	39	42	105	23	7.7	84
MIN	12	12	15	13	15	14	9.8	9.4	7.7	4.3	4.2	2.5
CFSM	.63	.81	.81	.72	3.21	.76	.65	.67	.68	.32	.24	.29
IN.	.73	.91	.93	.83	3.35	.87	.72	.78	.76	.37	.28	.32

CAL YR 1984 TOTAL 12141.5 MEAN 33.2 MAX 447 MIN 9.7 CFSM 1.45 IN 19.72
WTR YR 1985 TOTAL 6678.6 MEAN 18.3 MAX 1400 MIN 2.5 CFSM .80 IN 10.85

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'31", long 77°00'16", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,280 ft³/s, Dec. 1, 1983, gage height, 6.02 ft; minimum discharge, 1.3 ft³/s, Nov. 22, 23, 1982, gage height, 0.80 ft; minimum daily discharge, 2.1 ft³/s, Jan. 27, 28, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft³/s. Data furnished by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 783 ft³/s, Jan. 2, gage height, 4.18 ft; minimum discharge, 5.6 ft³/s, Oct. 30, gage height, 1.07 ft; minimum daily discharge, 6.5 ft³/s, Oct. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	8.9	7.6	663	9.3	128	8.4	13	41	69	8.9	28
2	7.5	8.9	7.5	704	9.5	193	8.4	6.9	41	70	17	28
3	8.0	8.2	7.8	516	9.5	192	8.2	7.6	58	69	30	37
4	7.8	8.1	7.8	342	328	278	7.8	7.5	86	70	30	45
5	7.1	8.4	7.9	341	240	186	7.8	7.5	87	70	32	45
6	6.6	8.6	8.0	339	8.5	81	7.7	7.5	87	70	33	45
7	6.8	9.1	8.2	368	9.0	35	7.3	7.6	86	70	33	45
8	6.9	9.1	8.1	408	9.4	9.9	42	7.7	86	70	46	47
9	6.9	9.1	8.1	200	9.4	9.7	66	26	86	70	53	46
10	6.6	9.1	8.1	88	9.5	9.5	67	41	86	70	53	52
11	6.6	9.4	8.1	56	9.5	9.3	67	51	86	60	53	62
12	6.5	9.7	7.9	8.9	12	9.2	67	51	88	56	53	63
13	6.8	9.7	8.1	8.8	11	8.8	66	51	88	57	60	63
14	7.1	35	8.2	8.8	11	8.8	65	53	88	57	70	63
15	7.2	49	8.1	9.4	11	25	65	47	88	57	70	64
16	7.1	48	8.4	8.6	11	46	65	45	88	57	70	82
17	7.2	55	8.4	191	11	45	65	46	88	57	70	91
18	42	54	8.4	188	11	61	65	45	57	62	72	87
19	108	54	8.4	95	11	92	65	45	9.2	64	72	87
20	108	55	8.3	96	11	103	65	45	10	65	72	72
21	108	55	8.4	97	11	40	65	45	11	65	83	46
22	107	55	8.3	47	11	7.2	64	46	13	66	90	46
23	106	55	7.9	8.4	11	8.1	64	46	14	66	93	40
24	106	55	7.7	8.4	11	8.4	64	46	14	67	94	37
25	103	55	7.5	8.5	11	8.4	27	45	14	67	95	35
26	86	55	7.4	9.0	11	49	9.0	45	14	65	86	20
27	53	55	7.3	8.8	11	79	9.1	45	14	66	80	18
28	54	56	203	8.8	10	44	9.1	45	34	65	49	16
29	26	58	607	8.8	---	8.3	19	45	69	29	27	16
30	7.6	27	558	8.8	---	8.5	25	45	68	7.5	27	16
31	8.7	---	648	9.1	---	8.5	---	43	---	7.5	28	---
TOTAL	1156.0	992.3	2231.9	4862.1	838.6	1799.6	1240.8	1107.3	1699.2	1861.0	1749.9	1442
MEAN	37.3	33.1	72.0	157	30.0	58.1	41.4	35.7	56.6	60.0	56.4	48.1
MAX	108	58	648	704	328	278	67	53	88	70	95	91
MIN	6.5	8.1	7.3	8.4	8.5	7.2	7.3	6.9	9.2	7.5	8.9	16
(†)	5030	5450	5420	3310	5630	5700	5950	6330	6150	5610	4920	4480

CAL YR 1984 TOTAL 39079.2 MEAN 107 MAX 916 MIN 6.5 CFSM 1.36 IN 18.45
WTR YR 1985 TOTAL 20980.7 MEAN 57.5 MAX 704 MIN 6.5 CFSM .73 IN 9.90

† Month-end contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1984, 4,920,000,000 gal). Records furnished by Washington Suburban Sanitary Commission.

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD

LOCATION.--Lat 39°10'29", long 77°01'22", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 650, 1.0 mi upstream from mouth, and 1.7 mi north of Sandy Spring.

DRAINAGE AREA.--27.0 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 13-23, Jan. 11, 12, 14-17, 26, 27, Feb. 8, 9. Records good except those for periods with ice effect, Jan. 11, 12, 14-17, 26, 27, Feb. 8, 9, which are fair and those for period of backwater from leaves, Oct. 13-23, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 32.0 ft³/s, 16.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft³/s, Sept. 6, 1979, gage height, 8.80 ft, from rating curve extended above 1,200 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 0.75 ft³/s, Jan. 30, 1981, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1230	*1,730	*6.81	No other peak greater than base discharge.			

Minimum daily discharge, 3.1 ft³/s, Sept. 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	30	11	21	16	57	18	60	12	17	6.8	6.1	3.8
2	29	11	18	18	97	19	32	13	13	7.3	5.6	3.8
3	13	11	22	21	42	18	26	43	12	7.6	5.0	4.0
4	11	11	20	32	28	18	24	18	12	6.5	4.7	3.8
5	9.4	24	18	42	22	19	23	15	120	6.3	4.4	3.5
6	9.1	15	69	33	24	18	22	14	48	6.2	4.2	3.2
7	8.9	12	32	25	22	17	20	12	20	6.2	4.3	3.2
8	8.3	11	22	22	20	18	19	12	21	5.9	5.2	3.2
9	8.8	11	20	19	17	17	19	11	19	6.3	4.8	3.2
10	8.9	11	19	16	17	17	18	11	15	17	4.2	3.9
11	8.6	12	18	16	19	16	18	9.9	13	8.7	4.0	5.1
12	8.4	12	17	16	878	19	18	10	14	7.8	3.9	3.5
13	8.2	11	17	16	98	18	18	15	12	8.0	3.5	3.2
14	8.1	11	16	15	45	17	18	10	11	6.2	3.5	3.1
15	7.8	11	16	15	34	16	17	9.0	11	9.1	3.4	3.2
16	7.8	12	16	14	28	16	18	13	14	11	3.3	3.2
17	8.0	12	16	14	25	16	17	40	12	5.9	3.4	3.2
18	8.2	12	16	17	24	16	16	35	11	4.9	5.6	3.2
19	9.0	21	15	16	23	15	16	17	11	4.5	7.2	3.2
20	9.5	18	16	14	23	16	15	13	10	4.2	4.6	3.2
21	8.5	15	17	12	21	16	15	13	12	4.2	5.0	3.2
22	8.0	14	23	15	21	16	14	20	9.8	5.1	4.5	3.2
23	15	13	19	15	23	31	14	34	9.5	9.2	3.8	3.3
24	29	13	17	15	23	47	14	24	9.0	4.6	3.5	4.2
25	17	13	16	15	22	34	18	16	8.3	10	6.8	4.2
26	15	13	15	15	21	24	16	13	7.3	14	7.0	3.9
27	16	13	15	13	20	21	14	12	7.0	46	5.9	143
28	17	47	15	14	19	20	13	29	7.0	11	4.6	16
29	30	140	15	14	---	27	12	29	7.0	7.0	4.2	6.8
30	14	29	15	13	---	29	12	16	6.7	6.5	3.9	5.0
31	12	---	15	14	---	51	---	20	---	5.9	4.0	---
TOTAL	401.5	570	606	552	1713	660	576	558.9	499.6	269.9	144.1	262.5
MEAN	13.0	19.0	19.5	17.8	61.2	21.3	19.2	18.0	16.7	8.71	4.65	8.75
MAX	30	140	69	42	878	51	60	43	120	46	7.2	143
MIN	7.8	11	15	12	17	15	12	9.0	6.7	4.2	3.3	3.1
CFSM	.48	.70	.72	.66	2.27	.79	.71	.67	.62	.32	.17	.32
IN.	.55	.79	.83	.76	2.36	.91	.79	.77	.69	.37	.20	.36

CAL.YR 1984 TOTAL 12828.4 MEAN 35.1 MAX 591 MIN 6.7 CFSM 1.30 IN 17.67
WTR YR 1985 TOTAL 6813.5 MEAN 18.7 MAX 878 MIN 3.1 CFSM .69 IN 9.39

01592500 PATUXENT RIVER NEAR LAUREL, MD

LOCATION.--Lat 39°06'56", long 76°52'27", Prince Georges County, Hydrologic Unit 02060006, on right bank at Rocky Gorge pumping station, 600 ft downstream from T. Howard Duckett Reservoir, 0.7 mi upstream from Walker Branch, 1.3 mi northwest of Laurel, and 81 mi upstream from mouth.

DRAINAGE AREA.--132 mi².

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

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 153.5 ft above National Geodetic Vertical Datum of 1929 (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi downstream at different datum. Oct. 1, 1955, to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft lower. Oct. 1, 1956, to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957, to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972, to Sept. 4, 1973, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Records do not include diversion at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Flow regulated by Triadelphia Reservoir, and since March 1954 by T. Howard Duckett Reservoir, combined usable capacity, 11,800,000,000 gal; dead storage, 80,000,000 gal. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 26,000 ft³/s, June 22, 1972, gage height, about 25 ft, from floodmarks, from rating curve extended above 6,600 ft³/s on basis of contracted-opening measurement of peak flow; minimum discharge, 0.05 ft³/s, July 18, 1985 (valve closed for repair); minimum daily discharge, 1.1 ft³/s, June 26, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s, Dec. 20, gage height, 8.00 ft; minimum discharge, 0.05 ft³/s, July 18 (valve closed for repair); minimum daily discharge, 5.7 ft³/s, Jan. 15.

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	7.0	7.0	7.6	11	11	11	8.7	9.5	19	18	19
2	24	6.8	7.0	16	11	10	11	8.8	9.4	19	18	19
3	24	6.9	7.1	123	11	11	12	8.8	29	19	18	19
4	18	7.0	7.0	193	11	11	12	8.5	59	19	18	19
5	7.5	7.2	7.1	135	11	11	12	8.3	59	19	18	19
6	7.3	7.0	6.9	8.1	41	95	11	8.3	62	19	18	19
7	7.3	7.0	6.8	129	70	150	12	8.3	64	19	18	19
8	7.3	7.1	7.0	209	70	97	12	8.3	59	20	18	19
9	7.5	7.0	7.1	196	69	11	11	8.3	59	18	18	10
10	7.6	7.0	7.0	192	69	11	12	8.3	62	18	18	12
11	7.6	7.0	6.7	187	69	11	12	8.3	63	18	19	19
12	7.7	6.8	6.7	179	71	11	11	8.4	62	18	19	19
13	8.0	7.0	6.7	80	279	11	11	8.4	62	18	19	19
14	8.0	7.0	6.7	5.8	616	11	12	8.3	63	18	18	19
15	8.0	6.9	6.7	5.7	281	11	12	8.3	63	18	18	19
16	7.5	7.2	6.7	6.9	76	11	12	8.5	63	18	18	18
17	7.1	7.6	6.7	8.6	76	11	12	9.6	63	18	18	18
18	7.1	7.6	64	8.4	76	11	12	9.4	45	11	18	18
19	7.2	7.6	177	8.3	40	11	12	9.1	30	17	18	18
20	7.0	7.6	862	8.5	11	11	12	9.3	23	17	18	18
21	7.0	7.6	829	8.9	11	11	12	9.9	19	17	18	18
22	7.0	7.6	495	8.7	11	12	12	9.7	19	17	20	18
23	7.1	7.6	374	8.7	11	11	10	9.8	19	17	18	18
24	7.1	7.6	253	45	11	11	8.5	10	19	17	18	18
25	7.0	7.6	128	69	11	11	8.2	10	21	18	18	19
26	7.2	7.5	32	70	11	11	8.0	9.6	20	18	18	19
27	7.0	7.1	10	72	10	11	8.0	9.6	19	18	19	19
28	6.8	7.3	7.6	72	11	11	8.0	10	19	18	19	19
29	7.1	7.0	7.7	34	---	11	8.1	9.8	19	18	19	18
30	7.2	7.0	7.6	11	---	11	8.4	9.8	19	18	19	18
31	7.2	---	7.6	11	---	12	---	9.8	---	18	19	---
TOTAL	288.4	216.2	3371.4	2117.2	2056	651	325.2	280.2	1201.9	554	568	543
MEAN	9.30	7.21	109	68.3	73.4	21.0	10.8	9.04	40.1	17.9	18.3	18.1
MAX	25	7.6	862	209	616	150	12	10	64	20	20	19
MIN	6.8	6.8	6.7	5.7	10	10	8.0	8.3	9.4	11	18	10
(†)	10340	10740	9550	8620	10770	11040	11390	11920	11480	10970	9920	9330
(ǂ)	61.8	62.5	62.3	67.2	67.9	68.8	61.2	58.5	57.4	60.2	61.2	50.4

CAL YR 1984 TOTAL 47123.0 MEAN 129 MAX 1780 MIN 6.7 ǂ 54.8
WTR YR 1985 TOTAL 12172.5 MEAN 33.3 MAX 862 MIN 5.7 ǂ 61.6

† Combined month-end total contents, millions of gallons, in Triadelphia and T. Howard Duckett Reservoirs, contents on Sept. 30, 1984: 10,400,000,000 gal; furnished by Washington Suburban Sanitary Commission.
ǂ Diversions, in cubic feet per second, above station at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Records furnished by Washington Suburban Sanitary Commission.

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

LOCATION.--Lat 39°10'04", long 76°51'07", Howard County, Hydrologic Unit 02060006, on left bank 25 ft downstream from bridge on State Highway 32, 1 mi west of Guilford, 3 mi upstream from Middle Patuxent River, 4 mi north of Laurel, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--38.0 mi².

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for April 1932, published in WSP 1302.

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 10, 14-16, 18-20, and Feb. 8. Records good. Low flow affected by regulation from unknown source. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 43.0 ft³/s, 15.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s June 22, 1972, gage height, 18.38 ft, from high-water mark in well, from rating curve extended above 1,800 ft³/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft; no flow Sept. 8, and parts of Sept. 6, 7, 9-12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1900	*1,430	*8.53	Sept. 27	1200	1,340	8.26

Minimum discharge, 4.5 ft³/s Sept. 13, 15, 18, 19, 22, gage height, 2.42 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	77	18	36	24	192	25	114	15	29	14	25	10
2	100	18	29	31	214	26	42	21	22	15	14	8.8
3	25	16	45	45	57	26	34	150	23	12	11	8.0
4	19	16	34	64	41	26	30	32	20	11	10	7.3
5	16	129	43	79	45	28	28	22	238	11	9.7	6.6
6	16	32	215	44	45	24	26	34	64	11	14	5.9
7	16	23	55	34	36	22	24	24	32	11	15	5.8
8	16	20	37	29	30	27	24	16	35	19	25	7.1
9	18	19	32	26	27	25	24	15	29	18	17	7.7
10	17	19	31	24	25	23	24	14	22	73	12	7.4
11	17	24	29	26	28	23	24	14	20	29	10	6.1
12	16	22	26	33	860	32	23	17	22	21	9.9	5.5
13	16	19	26	24	196	26	23	34	19	17	8.2	4.8
14	16	18	24	22	57	23	22	17	17	13	7.8	5.0
15	16	18	24	20	44	22	23	14	18	13	7.3	4.9
16	16	18	23	20	37	22	22	19	24	20	6.8	4.9
17	16	17	23	19	34	22	21	270	19	12	6.9	5.0
18	16	18	23	18	33	21	20	158	18	9.9	23	4.7
19	16	45	24	18	32	20	20	35	16	8.8	26	4.8
20	16	27	25	18	42	21	18	25	16	8.5	13	5.0
21	16	21	34	19	40	20	18	33	19	8.2	16	5.1
22	16	20	44	21	28	21	18	130	15	14	11	4.9
23	21	19	29	22	29	65	18	148	15	53	9.0	6.1
24	48	18	26	20	29	83	21	66	29	14	8.1	7.3
25	30	18	26	18	28	57	30	34	28	44	25	6.6
26	21	18	22	18	27	33	21	26	17	55	19	7.0
27	19	18	23	17	27	29	19	22	14	220	19	704
28	18	104	22	17	25	27	17	104	13	34	15	60
29	56	345	22	17	---	32	17	68	13	18	8.6	21
30	24	50	22	16	---	36	16	30	13	14	17	15
31	20	---	21	17	---	122	---	42	---	20	17	---
TOTAL	770	1167	1095	820	2308	1009	781	1649	879	841.4	436.3	962.3
MEAN	24.8	38.9	35.3	26.5	82.4	32.5	26.0	53.2	29.3	27.1	14.1	32.1
MAX	100	345	215	79	860	122	114	270	238	220	26	704
MIN	16	16	21	16	25	20	16	14	13	8.2	6.8	4.7
CFSM	.65	1.02	.93	.70	2.17	.86	.68	1.40	.77	.71	.37	.85
IN.	.75	1.14	1.07	.80	2.26	.99	.76	1.61	.86	.82	.43	.94

CAL YR 1984 TOTAL 21598.0 MEAN 59.0 MAX 896 MIN 12 CFSM 1.55 IN 21.14
WTR YR 1985 TOTAL 12718.0 MEAN 34.8 MAX 860 MIN 4.7 CFSM .92 IN 12.45

01594440 PATUXENT RIVER NEAR BOWIE, MD

LOCATION.--Lat 38°57'21", long 76°41'36", Anne Arundel County, Hydrologic Unit 02060006, on left bank 45 ft upstream from bridge on U.S. Highway 50 (John Hanson Highway), 3.0 mi west of Bowie City Hall, 3.1 mi downstream from mouth of Little Patuxent River, 4.2 mi northwest of Davidsonville, and 60 mi upstream from mouth.

DRAINAGE AREA.--348 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), August 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.10 ft above National Geodetic Vertical Datum of 1929. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 13, Jan. 4 to Feb. 1, and June 13 to Sept. 30. Water-discharge records fair except those for periods of missing record, Jan. 4-8 and Jan. 26 to Feb. 1, which are poor. Flow regulated by T. Howard Duckett Reservoir, usable capacity 5,600,000,000 gal, 21 mi upstream from station.

AVERAGE DISCHARGE.--8 years, 396 ft³/s, 15.45 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,100 ft³/s, June 22, 1972, gage height, 27.9 ft, from flood-marks, on basis of contracted-opening measurement of peak flow; minimum discharge observed, 32 ft³/s, Aug. 9, 1966; minimum daily discharge, 61 ft³/s Sept. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft³/s, Feb. 13, gage height, 13.07 ft; minimum daily discharge, 77 ft³/s, Aug. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	134	296	157	300	175	410	122	207	112	113	102
2	517	129	223	164	1100	175	308	122	161	115	101	93
3	247	123	231	196	959	172	222	362	144	138	87	90
4	158	121	263	600	363	167	203	339	162	121	84	91
5	136	422	201	500	249	186	193	176	260	111	80	88
6	119	455	675	300	273	177	179	150	792	108	77	87
7	112	185	593	240	335	236	168	149	284	107	95	84
8	113	146	266	200	263	288	164	135	243	104	112	83
9	115	137	220	180	239	244	161	126	255	130	118	88
10	119	133	203	160	236	169	158	130	224	130	92	91
11	116	137	196	150	236	160	157	128	197	213	84	84
12	116	152	183	150	800	176	158	128	190	134	81	83
13	112	135	178	160	3750	184	156	248	189	129	81	82
14	109	123	172	150	1440	161	154	172	177	115	79	80
15	109	123	168	150	963	157	153	133	174	105	78	81
16	109	122	164	135	639	151	157	133	184	117	78	82
17	110	122	164	130	349	151	152	294	186	121	79	79
18	111	122	164	130	312	149	143	870	174	95	87	80
19	112	192	203	130	298	143	143	359	176	86	156	81
20	112	228	334	130	255	143	140	192	141	83	120	80
21	117	156	574	122	226	145	136	163	147	82	105	81
22	119	140	965	130	215	144	134	354	134	82	105	81
23	120	134	804	130	205	225	131	344	129	125	96	85
24	216	131	570	130	209	472	130	521	132	116	90	94
25	198	132	412	120	205	389	141	251	147	99	108	92
26	148	132	262	120	204	266	157	190	137	319	297	90
27	131	129	185	110	204	211	135	161	118	294	136	1280
28	126	149	163	110	185	195	129	154	115	369	112	2330
29	243	1260	157	100	---	190	127	390	115	122	101	337
30	237	962	152	100	---	213	123	212	113	98	96	163
31	153	---	148	100	---	308	---	181	---	98	113	---
TOTAL	4827	6766	9489	5384	15012	6322	5022	7389	5807	4168	3241	6342
MEAN	156	226	306	174	536	204	167	238	194	134	105	211
MAX	517	1260	965	600	3750	472	410	870	792	369	297	2330
MIN	109	121	148	100	185	143	123	122	113	82	77	79
CFSM	.45	.65	.88	.50	1.54	.59	.48	.68	.56	.39	.30	.61
IN.	.52	.72	1.01	.58	1.60	.68	.54	.79	.62	.45	.35	.68

CAL YR 1984 TOTAL 160117 MEAN 437 MAX 3620 MIN 109 CFSM 1.26 IN 17.12
WTR YR 1985 TOTAL 79769 MEAN 219 MAX 3750 MIN 77 CFSM .63 IN 8.53

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-80, 1985.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Water years 1978-80, 1985.
WATER TEMPERATURE: Water years 1978-80, 1985.
SUSPENDED-SEDIMENT DISCHARGE: October 1984 to September 1985.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1985): Maximum daily, 761 microsiemens, Feb. 7, 1985; minimum daily, 135 microsiemens, Dec. 21, 1984.
WATER TEMPERATURE (water year 1985): Maximum daily, 26.5°C, Aug. 14-15, 1985; minimum daily, 0.0°C, Jan. 20-23, Feb. 8-9, 1985.
SEDIMENT CONCENTRATION: Maximun daily mean, 700 mg/L, June 3, 1985; minimum daily mean, 4 mg/L, Apr. 4, 1985.
SEDIMENT LOAD: Maximum daily, 3,720 tons, Feb. 13, 1985; minimum daily, 1.8 tons, Jan. 16, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 761 microsiemens, Feb. 7; minimum daily, 135 microsiemens, Dec.21.
WATER TEMPERATURE: Maximum daily, 26.5°C, Aug. 14, 15; minimum daily, 0.0°C, Jan. 20-23, Feb. 8, 9.
SEDIMENT CONCENTRATION: Maximum daily mean, 700 mg/L, June 3; minimum daily mean, 4 mg/L, Apr. 4.
SEDIMENT LOAD: Maximum daily, 3,720 tons, Feb. 13; minimum daily, 1.8 tons, Jan. 16.

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)
OCT 1984										
24...	10:30	235	265	7.1	15.0	17.0	775	--	6.0	61
NOV										
28...	11:30	126	295	7.1	15.0	9.0	766	7.5	12.0	103
DEC										
13...	12:00	176	265	7.4	18.0	9.0	767	--	11.9	102
JAN 1985										
16...	10:45	139	300	7.4	-3.0	2.0	778	3.0	12.8	91
FEB										
22...	12:30	213	277	7.3	20.0	8.0	775	--	13.2	110
MAR										
13...	11:30	183	280	7.4	14.5	12.0	766	--	10.6	98
APR										
12...	10:30	156	267	7.3	17.0	12.5	779	--	10.0	92
MAY										
07...	09:30	148	290	7.3	18.0	18.0	763	5.1	6.0	63
JUN										
13...	09:30	186	245	7.2	16.0	21.5	762	--	5.5	62
JUL										
09...	10:00	123	315	7.3	27.0	24.0	760	5.1	4.3	51
11...	11:15	310	320	7.5	28.0	22.0	--	--	6.5	--
26...	15:00	497	205	7.4	31.0	25.0	763	--	5.9	71
AUG										
07...	10:00	114	300	7.5	25.0	22.5	769	--	5.0	57
21...	11:30	119	276	7.3	22.0	23.0	768	--	4.7	54
21...	11:45	119	276	7.3	22.0	23.0	768	--	4.7	54
SEP										
10...	09:30	104	332	7.2	25.0	24.5	763	5.0	3.6	43
27-27	05:00	460	280	7.5	--	--	--	--	--	--
27...	13:20	1180	137	6.9	19.5	18.0	756	--	6.7	71
27...	13:25	1180	138	7.0	19.5	--	756	--	--	--
27-28	17:00	2620	127	6.9	--	--	--	--	--	--
28...	09:15	3120	122	7.0	16.0	18.0	773	--	6.8	71
28-29	12:00	960	155	7.1	--	--	--	--	--	--

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										
28...	58	280	70	17	21	4.2	24	41	1	4.4
JAN 1985										
16...	25	4900	65	10	19	4.2	25	44	1	3.4
MAR										
13...	25	240	69	24	21	4.1	21	38	1	3.6
MAY										
07...	93	2000	70	15	21	4.2	26	43	1	4.0
JUL										
09...	K50	76	74	23	23	4.1	26	41	1	5.7
SEP										
10...	330	880	87	27	28	4.1	27	38	1	6.4

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

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
OCT 1984												
24...	52	8.0	--	--	--	9.9	--	--	--	--	2.79	0.11
NOV												
28...	53	8.1	22	28	0.2	10	175	150	0.24	60	--	--
DEC												
13...	47	3.6	--	--	--	12	--	--	--	--	2.94	0.06
JAN 1985												
16...	55	4.2	20	39	0.3	10	155	160	0.21	58	2.14	0.06
FEB												
22...	44	4.3	--	--	--	11	--	--	--	--	--	<0.01
MAR												
13...	45	3.5	21	33	0.3	7.1	166	140	0.23	82	3.05	0.05
APR												
12...	44	4.3	--	--	--	7.0	--	--	--	--	2.91	0.09
MAY												
07...	55	5.3	20	31	0.3	9.6	165	150	0.22	66	3.32	0.18
JUN												
13...	47	5.7	--	--	--	8.7	--	--	--	--	--	--
JUL												
09...	51	4.9	21	30	0.4	6.1	199	150	0.27	66	4.52	0.38
11...	60	3.7	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	4.48	0.12
26...	43	3.3	--	--	--	7.0	--	--	--	--	1.94	0.06
AUG												
07...	64	3.9	--	--	--	6.6	--	--	--	--	4.94	0.36
21...	57	5.5	--	--	--	7.7	--	--	--	--	3.36	0.24
21...	57	5.5	--	--	--	7.7	--	--	--	--	3.36	0.24
SEP												
10...	60	7.3	27	34	0.4	8.2	193	180	0.26	54	0.49	0.39
SEP												
27-27	--	2.5	--	--	--	7.6	--	--	--	--	--	--
27...	17	4.1	--	--	--	3.5	--	--	--	--	1.78	0.02
27...	20	3.9	--	--	--	3.6	--	--	--	--	1.97	0.03
SEP												
27-28	19	4.6	--	--	--	4.0	--	--	--	--	1.18	0.02
28...	21	4.1	--	--	--	4.4	--	--	--	--	0.91	0.02
SEP												
28-29	--	3.1	--	--	--	5.7	--	--	--	--	1.28	0.02

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 1984											
24...	0.36	2.90	2.90	0.33	0.31	0.4	1.1	0.49	1.4	--	0.8
NOV											
28...	--	--	4.10	--	1.30	1.7	--	--	3.0	--	--
DEC											
13...	0.2	--	3.00	--	0.83	1.1	--	0.37	2.2	--	1.2
JAN 1985											
16...	0.2	--	2.20	--	2.40	3.1	--	1.0	3.1	--	3.4
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	3.30	--	<0.01	--	--	--	1.8	--	--
MAR											
13...	0.16	--	3.10	--	0.83	1.1	--	0.97	1.9	--	1.8
APR											
12...	0.3	--	3.00	--	0.84	1.1	--	0.16	1.2	--	1.0
MAY											
07...	0.59	--	3.50	--	1.10	1.4	--	0.5	1.7	--	1.6
JUN											
13...	--	--	--	--	--	--	--	--	1.2	--	--
JUL											
09...	1.2	--	4.90	--	0.68	0.88	--	0.62	1.3	--	1.3
11...	--	--	--	--	--	--	--	--	--	--	--
11...	0.39	--	4.60	--	0.19	0.24	--	1.1	1.2	0.0	1.3
26...	0.2	--	2.00	--	0.20	0.26	--	0.3	1.2	0.7	0.5
AUG											
07...	1.2	--	5.30	--	0.80	1.0	--	0.8	1.6	0.0	1.6
21...	0.79	--	3.60	--	0.81	1.0	--	0.89	1.4	0.0	1.7
21...	0.79	--	3.60	--	0.80	1.0	--	0.6	1.7	0.3	1.4
SEP											
10...	1.3	--	0.88	--	1.10	1.4	--	0.9	2.0	--	2.0
SEP											
27-27	--	--	--	0.36	--	--	0.94	--	1.3	--	--
27...	0.07	--	1.80	--	0.22	0.28	--	0.88	1.5	0.4	1.1
27...	0.1	--	2.00	--	0.13	0.17	--	0.57	1.8	1.1	0.7
SEP											
27-28	0.07	--	1.20	--	0.11	0.14	--	0.39	--	--	0.5
28...	0.07	--	0.93	--	0.17	0.22	--	0.43	1.5	0.9	0.6
SEP											
28-29	0.07	--	1.30	--	0.17	0.22	--	0.43	--	--	0.6

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1984											
24...	4.3	--	19	0.55	--	0.36	0.49	0.30	0.92	4.0	100
NOV											
28...	--	--	--	0.74	--	0.54	--	0.55	1.7	3.3	<10
DEC											
13...	--	--	--	0.67	--	0.28	--	0.27	0.83	3.0	<100
JAN 1985											
16...	--	--	--	0.52	--	0.36	--	0.33	1.0	3.6	100
FEB											
22...	--	--	--	0.43	--	0.17	--	0.19	0.58	3.5	100
MAR											
13...	--	--	--	0.43	--	0.31	--	0.31	0.95	4.2	<10
APR											
12...	--	--	--	0.39	--	0.25	--	0.18	0.55	3.9	<100
MAY											
07...	--	--	--	0.64	--	0.47	--	0.47	1.4	4.9	30
JUN											
13...	--	--	--	0.39	1.2	0.30	--	--	--	11	40
JUL											
09...	--	--	--	0.74	2.3	0.59	--	0.62	1.9	--	<10
11...	--	--	--	--	--	--	--	--	--	7.4	--
11...	--	5.9	--	0.34	1.0	0.26	--	0.24	0.74	--	--
26...	--	2.5	--	0.35	1.1	0.21	--	0.21	0.64	--	50
AUG											
07...	--	6.9	--	1.10	3.4	0.90	--	0.88	2.7	4.4	10
21...	--	5.3	--	0.93	2.9	0.75	--	0.32	0.98	4.9	<10
21...	--	5.0	--	0.93	2.9	0.75	--	0.28	0.86	5.2	<10
SEP											
10...	--	--	--	1.00	3.1	1.00	--	0.86	2.6	5.6	<10
SEP											
27-27	--	--	--	0.93	2.9	--	0.62	--	--	6.6	--
27...	--	2.9	--	0.74	2.3	0.10	--	0.07	0.21	12	30
27...	--	2.7	--	0.72	2.2	0.11	--	0.08	0.25	10	80
SEP											
27-28	--	1.7	--	--	--	0.12	--	0.09	0.28	--	280
28...	--	1.5	--	0.90	2.8	0.05	--	0.03	0.09	7.0	190
SEP											
28-29	--	1.9	--	--	--	0.10	--	0.07	0.21	--	220

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)
NOV 1984										
28...	<1	20	<0.5	<1	<1	<3	<1	79	2	9
MAR 1985										
13...	<1	28	<0.5	<1	<1	<3	3	43	1	<4
MAY										
07...	<1	29	<0.5	<1	<1	<3	3	37	5	16
SEP										
10...	<1	22	<0.5	1	<1	<3	5	21	1	8

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 1984									
28...	150	<0.1	<10	<1	<1	<1	77	<6	14
MAR 1985									
13...	130	0.1	<10	2	<1	<1	79	<6	12
MAY									
07...	200	<0.1	<10	3	<1	<1	84	<6	14
SEP									
10...	120	<0.1	<10	2	<1	<1	80	<6	19

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
28...	11:30	126	9	3.1	79
JAN					
16...	10:45	139	6	2.3	86
FEB					
13...	17:34	4670	253	3190	--
22...	12:30	213	24	14	--
MAR					
13...	11:30	183	17	8.4	58
APR					
12...	10:30	156	20	8.4	--
MAY					
07...	09:30	148	18	7.2	95
JUN					
13...	09:30	186	40	20	--
13...	13:30	196	42	22	--
13...	14:25	196	42	22	--
JUL					
09...	10:00	123	10	3.3	91
11...	11:15	310	69	58	--
26...	15:00	497	219	294	--
AUG					
07...	10:00	114	29	8.9	--
21...	11:30	119	19	6.1	--
SEP					
10...	09:30	104	16	4.5	94

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
SEP 1985											
27-27	17:45	401	37	40	52	57	63	68	74	85	100
SEP											
28-28	17:52	128	39	44	46	53	58	59	69	91	100

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	264	---	243	---	287	209	210	264	310	281	246
2	---	172	226	241	---	277	253	260	275	300	283	297
3	---	257	---	179	---	265	266	259	272	286	282	313
4	---	280	---	187	404	269	284	207	283	290	294	305
5	---	179	---	209	392	273	266	248	240	301	309	327
6	---	171	---	243	415	277	266	274	170	310	314	340
7	---	225	184	257	761	270	254	270	212	314	313	336
8	---	251	221	214	602	217	261	286	223	324	279	329
9	---	244	223	180	432	238	269	283	236	321	286	304
10	---	265	---	175	346	255	269	283	222	---	277	330
11	---	255	187	195	303	266	236	222	235	240	292	325
12	---	257	---	349	230	259	208	306	242	240	320	334
13	---	212	253	270	171	267	281	251	252	279	317	349
14	---	---	263	---	175	272	269	289	255	---	330	347
15	---	278	---	---	170	275	266	228	252	284	333	346
16	---	270	---	---	211	276	265	224	256	278	318	339
17	---	238	---	---	224	273	282	266	248	307	327	321
18	---	236	257	---	226	260	266	205	248	292	328	329
19	---	259	251	---	235	263	276	230	277	320	313	328
20	---	---	184	---	250	267	284	240	269	324	265	322
21	---	---	135	---	258	278	277	242	283	333	260	328
22	---	273	---	---	250	273	186	251	287	329	301	316
23	---	---	148	---	262	254	192	191	294	321	267	339
24	---	---	153	---	260	279	283	201	284	267	300	311
25	---	---	174	---	255	252	241	195	304	285	250	335
26	---	---	161	---	259	264	235	172	284	196	213	349
27	277	---	208	---	263	268	250	258	280	222	241	135
28	264	---	219	---	273	260	244	262	295	190	264	147
29	184	148	220	---	---	271	260	211	302	231	295	206
30	221	179	250	---	---	266	286	237	313	268	309	240
31	248	---	222	---	---	---	---	260	---	271	300	---

01594440 PATUXENT RIVER NEAR BOWIE, MD--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	---	19.0	7.0	10.5	3.0	8.5	12.0	20.0	22.0	21.5	24.0	22.0
2	---	18.0	6.5	9.5	.5	10.0	11.0	17.5	22.0	22.0	23.5	23.0
3	---	15.0	8.0	6.5	.5	9.0	10.5	15.5	22.5	22.5	23.0	24.0
4	---	14.0	6.0	5.0	1.0	9.0	11.5	16.0	22.0	23.0	22.5	25.0
5	---	16.0	6.0	5.5	.5	13.0	17.0	18.0	21.5	24.5	23.0	25.5
6	---	14.0	4.0	4.5	2.0	9.5	16.5	20.0	21.5	24.5	23.0	26.0
7	---	12.0	3.5	7.0	1.0	9.5	13.5	19.0	20.0	25.0	25.0	26.0
8	---	10.0	3.0	5.0	.0	9.0	12.0	19.5	21.0	25.0	24.5	25.5
9	---	10.0	3.0	2.0	.0	10.0	10.0	19.0	23.0	25.0	25.0	25.0
10	---	12.0	6.0	2.0	1.5	10.5	10.5	20.5	23.5	---	25.0	25.0
11	---	13.0	8.0	1.5	2.0	9.5	12.5	22.0	23.0	24.0	25.0	23.5
12	---	12.0	6.5	1.5	2.0	10.5	14.0	22.5	23.0	24.0	25.5	20.5
13	---	10.0	8.0	2.0	1.0	11.5	16.0	22.0	20.0	25.0	25.0	18.5
14	---	---	9.5	3.0	2.0	12.0	16.5	22.0	19.0	---	26.5	17.5
15	---	8.0	10.0	1.5	3.0	11.0	17.0	20.0	19.0	26.0	26.5	17.5
16	---	9.5	9.0	.5	3.5	10.0	18.0	18.5	21.0	26.0	26.0	17.5
17	---	8.0	11.0	1.5	3.0	10.0	17.5	17.0	22.0	25.5	25.0	18.0
18	---	7.0	12.5	2.5	4.0	9.0	19.0	17.0	22.5	24.5	23.0	18.0
19	---	7.5	10.5	3.0	5.5	8.5	21.5	18.5	22.0	25.0	24.0	19.0
20	---	5.5	8.0	.0	5.5	10.5	21.5	21.5	22.0	25.5	24.5	20.0
21	---	4.5	6.5	.0	5.5	9.5	21.5	21.0	21.5	25.5	23.5	20.0
22	---	4.0	9.0	.0	8.0	8.0	22.5	20.5	22.0	26.0	23.0	20.0
23	---	4.5	7.0	.0	11.0	7.0	21.5	17.5	23.0	25.0	22.0	20.5
24	---	6.0	7.0	---	14.5	7.5	18.5	16.5	24.0	24.0	22.0	21.5
25	---	6.0	6.0	4.0	13.5	9.0	18.5	19.5	24.0	24.0	22.0	20.0
26	---	6.0	4.0	1.0	11.0	11.0	20.0	21.0	21.5	25.0	23.5	19.5
27	21.0	7.0	5.5	1.0	8.5	13.0	20.5	22.0	20.0	25.0	24.5	19.0
28	21.0	8.0	10.0	2.0	10.0	16.5	20.0	21.0	20.0	24.5	24.0	18.5
29	22.0	8.5	10.0	1.5	---	18.0	18.5	19.0	22.0	23.5	24.0	18.0
30	20.0	8.0	10.5	1.5	---	14.5	19.5	19.0	22.5	25.0	24.0	18.5
31	20.0	---	9.5	1.0	---	---	---	20.0	---	25.5	23.0	---

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	---	---	38	14	32	26	29	12	38	31	73	34
2	---	---	52	18	17	10	25	11	184	573	20	9.5
3	---	---	72	24	35	22	32	18	42	127	65	30
4	---	---	37	12	33	23	220	356	14	12	16	7.2
5	---	---	140	241	22	12	68	92	20	13	67	34
6	---	---	185	265	160	357	30	24	20	15	11	5.3
7	---	---	54	27	194	325	27	17	35	32	60	38
8	---	---	36	14	57	42	27	15	70	45	20	16
9	---	---	32	12	6	3.6	26	13	44	28	66	41
10	---	---	50	18	21	12	10	4.3	64	41	136	62
11	---	---	20	7.4	38	20	8	3.2	26	17	28	12
12	---	---	29	12	32	16	16	6.5	208	729	31	15
13	---	---	18	6.6	14	6.7	14	6.0	384	3720	15	7.5
14	---	---	12	4.0	15	7.0	9	3.6	100	428	12	5.2
15	---	---	10	3.3	25	11	13	5.3	52	135	12	5.1
16	---	---	20	6.6	25	11	5	1.8	46	84	17	6.9
17	---	---	18	5.9	27	12	21	7.4	30	28	27	11
18	---	---	15	4.9	53	23	9	3.2	61	51	11	4.4
19	---	---	30	16	40	22	32	11	40	32	13	5.0
20	---	---	30	18	30	27	203	80	12	8.3	24	9.3
21	---	---	22	9.3	60	98	58	17	24	15	14	5.5
22	---	---	15	5.7	167	435	174	61	50	29	16	6.2
23	---	---	14	5.1	68	157	850	298	26	14	34	23
24	---	---	13	4.6	13	20	184	65	22	12	135	172
25	---	---	12	4.3	25	28	17	5.5	66	37	42	44
26	---	---	11	3.9	24	17	46	15	26	14	19	14
27	10	3.5	10	3.5	22	11	20	5.9	52	29	12	6.8
28	30	10	13	6.4	31	14	25	7.4	34	17	10	5.3
29	60	42	181	743	40	17	69	19	---	---	11	5.6
30	51	34	174	538	32	13	33	8.9	---	---	73	42
31	30	12	---	---	23	9.2	12	3.2	---	---	136	120
TOTAL	---	101.5	---	2053.5	---	1807.5	---	1196.2	---	6316.3	---	802.8

01594440 PATUXENT RIVER NEAR BOWIE, 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)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	275	325	14	4.6	225	126	38	11	120	37	28	7.7
2	54	51	46	15	430	187	62	19	218	59	86	22
3	8	4.8	142	161	700	272	220	82	232	54	38	9.2
4	4	2.2	92	100	290	127	262	86	98	22	18	4.4
5	17	8.9	23	11	68	63	72	22	128	28	38	9.0
6	23	11	28	11	365	807	58	17	108	22	145	34
7	7	3.2	26	10	230	176	58	17	56	14	192	44
8	14	6.2	13	4.7	171	112	35	9.8	128	39	106	24
9	14	6.1	175	60	141	97	52	21	123	39	20	4.8
10	7	3.0	312	110	77	47	23	8.1	347	86	18	4.4
11	87	37	37	13	130	69	106	63	688	156	17	3.9
12	65	28	20	6.9	98	50	38	14	330	72	30	6.7
13	85	36	117	78	64	33	174	62	310	68	18	4.0
14	13	5.4	38	18	110	53	40	12	186	40	18	3.9
15	10	4.1	77	28	122	57	130	37	200	42	35	7.7
16	7	3.0	36	13	77	38	50	16	227	48	45	10
17	8	3.3	181	200	125	63	60	20	180	38	55	12
18	14	5.4	247	580	90	42	38	9.7	196	46	33	7.1
19	14	5.4	172	167	135	64	32	7.4	195	81	20	4.4
20	6	2.3	107	55	360	137	52	12	55	18	125	27
21	9	3.3	127	56	535	212	42	9.3	48	14	78	17
22	12	4.3	187	174	235	85	95	21	51	14	25	5.5
23	18	6.4	127	126	113	39	116	39	105	27	22	5.0
24	22	7.7	236	338	57	20	98	31	110	27	20	5.1
25	26	9.9	131	89	112	47	85	20	63	18	48	12
26	82	35	64	33	105	39	252	274	155	142	42	10
27	125	46	132	57	142	45	141	168	71	26	264	1280
28	244	85	50	21	143	44	385	409	82	25	248	1750
29	135	46	237	262	208	65	168	55	52	14	72	68
30	30	10	340	195	68	21	82	22	26	6.7	38	17
31	---	---	460	225	---	---	135	36	35	11	---	---
TOTAL	---	804.9	---	3222.2	---	3237	---	1630.3	---	1333.7	---	3419.8

TOTAL LOAD FOR YEAR: 25925.7 TONS.

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

LOCATION.--Lat 39°14'37", long 79°25'43", Garrett County, Hydrologic Unit 02070002, on left bank at downstream side of bridge (abandoned) on Dobbin Road, 0.6 mi south of intersection of Kempton Road, 1.2 mi from mouth, and 3.0 mi southwest of Wilson.

DRAINAGE AREA.--8.23 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 21 and May 13 to June 3. Water-discharge records good except those for period with ice effect, Jan. 9 to Feb. 21, and period of no gage-height record, May 13 to June 3, which are fair. Natural flow of stream affected by inflow from deep coal mine dewatering process.

AVERAGE DISCHARGE.--5 years, 25.1 ft³/s, 41.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 520 ft³/s, May 31, 1985, gage height, 6.51 ft; minimum discharge, 3.2 ft³/s, Sept. 26, 1982.

EXTREMES FOR CURRENT YEAR--Peak discharges above base of 170 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	1830	298	4.53	Mar. 30	0315	218	3.85
Dec. 19	1415	292	4.48	May 3	0230	224	3.91
Dec. 21	1530	173	3.44	May 31	unknown	*520	*6.51
Dec. 25	0245	213	3.81	July 10	1345	418	5.58
Feb. 24	1915	385	5.29				

Minimum discharge, 3.3 ft³/s, Sept. 20, 21, 22, 23, 24, gage height, 1.38 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	19	80	27	8.4	71	91	8.8	90	6.9	72	5.2
2	9.9	22	54	31	8.2	62	64	27	118	15	37	4.7
3	6.6	16	50	26	8.2	56	51	117	28	15	24	4.6
4	5.9	18	37	26	8.0	56	40	49	22	8.5	18	4.4
5	5.3	43	32	28	8.0	82	31	35	41	7.1	15	4.4
6	4.9	31	30	23	7.8	50	29	27	30	6.7	13	4.2
7	4.8	25	35	22	7.8	39	25	21	32	6.2	12	4.2
8	4.8	20	27	21	8.0	48	25	16	45	7.6	15	4.1
9	5.0	17	17	19	7.8	44	24	14	28	84	11	4.5
10	4.8	16	20	17	7.8	35	22	13	22	206	9.2	4.7
11	4.8	21	40	15	9.0	44	32	12	18	103	8.3	4.1
12	4.9	17	39	14	20	132	37	11	37	43	7.7	3.9
13	4.9	15	39	13	40	81	32	10	49	28	7.2	3.7
14	4.9	14	33	12	30	62	29	9.0	32	24	8.4	3.7
15	4.8	17	28	11	26	46	25	8.2	25	67	10	3.7
16	5.1	23	24	10	23	37	45	8.6	22	27	7.5	3.6
17	6.0	16	21	9.6	22	31	34	10	17	20	7.0	3.6
18	5.7	17	20	9.2	21	26	28	12	18	16	6.6	3.5
19	5.0	24	153	8.8	20	22	24	11	19	14	6.4	3.5
20	6.1	17	119	8.8	19	19	21	9.5	21	12	6.7	3.5
21	5.7	15	110	8.4	18	16	18	8.0	15	12	6.5	3.4
22	12	15	88	8.2	24	17	16	10	13	12	5.9	3.4
23	21	13	60	7.8	75	40	15	15	12	31	5.5	3.5
24	32	12	58	7.6	226	63	15	13	10	13	6.5	3.7
25	21	12	127	7.6	264	52	15	11	8.9	11	6.8	3.5
26	15	13	69	7.8	175	40	12	9.0	7.9	14	5.7	3.6
27	12	15	54	7.8	152	32	11	7.7	7.3	24	5.4	3.9
28	15	135	44	8.2	98	28	12	7.6	6.9	14	5.1	3.8
29	56	115	35	8.4	---	44	10	9.2	6.5	12	4.8	3.9
30	38	71	36	8.8	---	134	9.3	8.0	6.1	10	6.2	4.1
31	25	---	29	8.6	---	95	---	400	---	48	7.2	---
TOTAL	373.9	824	1608	440.6	1342.0	1604	842.3	927.6	807.6	918.0	367.6	118.6
MEAN	12.1	27.5	51.9	14.2	47.9	51.7	28.1	29.9	26.9	29.6	11.9	3.95
MAX	56	135	153	31	264	134	91	400	118	206	72	5.2
MIN	4.8	12	17	7.6	7.8	16	9.3	7.6	6.1	6.2	4.8	3.4
CFSM	1.47	3.34	6.31	1.73	5.82	6.28	3.41	3.63	3.27	3.60	1.45	.48
IN.	1.69	3.72	7.27	1.99	6.07	7.25	3.81	4.19	3.65	4.15	1.66	.54

CAL YR 1984 TOTAL 11316.3 MEAN 30.9 MAX 196 MIN 4.3 CFSM 3.75 IN 51.15
WTR YR 1985 TOTAL 10174.2 MEAN 27.9 MAX 400 MIN 3.4 CFSM 3.39 IN 45.98

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: May 1984 to current year.
WATER TEMPERATURE: October 1980 to current year.

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

REMARKS.--Period of missing record, May 13 to June 5, due to vandals. All other periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1984-85): Maximum, 1,590 microsiemens, Sept. 14, 1984; minimum, 106 microsiemens, Nov.29, 1984.
WATER TEMPERATURE (water years 1984-85): Maximum, 22.5°C, Aug. 9, 10, 1984; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,380 microsiemens, Sept. 24; minimum, 106 microsiemens, Nov.29.
WATER TEMPERATURE: Maximum, 22.0°C, July 30, 31, Aug. 14, 15, Sept. 7, 8; minimum, 0.0°C on many days during winter periods.

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	1100	651	763	348	284	307	168	154	158	346	320	334
2	706	642	660	350	308	328	197	163	178	344	324	332
3	843	713	783	389	315	342	210	198	203	344	326	334
4	943	847	901	403	355	395	259	207	228	356	346	351
5	1050	948	1010	333	221	253	308	260	280	356	342	348
6	1110	1030	1080	255	225	239	309	293	300	366	344	352
7	1130	1060	1100	317	257	282	376	286	326	376	366	372
8	1130	1080	1110	374	320	339	388	360	378	386	374	379
9	1100	1070	1090	414	378	392	425	387	405	402	386	396
10	1080	1060	1070	446	404	418	432	416	426	432	404	417
11	1120	1060	1100	446	378	403	407	283	335	450	432	442
12	1110	1070	1100	423	381	399	282	270	273	472	452	459
13	1140	1090	1120	473	425	448	271	259	266	500	474	483
14	1130	1090	1110	517	477	494	292	270	282	510	500	503
15	1130	1090	1110	531	511	525	323	293	306	518	494	506
16	1090	1070	1080	492	400	422	352	322	333	526	518	521
17	1070	925	1030	442	404	419	375	347	358	532	526	530
18	930	880	908	472	448	462	394	376	381	530	526	527
19	987	921	961	468	422	441	398	190	299	528	526	526
20	976	892	951	452	422	432	180	142	154	530	502	516
21	902	868	884	501	455	476	146	122	134	562	532	547
22	891	567	799	557	503	525	136	120	126	566	562	565
23	540	332	415	567	553	557	168	136	150	566	562	564
24	330	240	280	577	567	572	198	168	182	566	562	564
25	326	244	281	584	574	578	154	120	128	568	564	565
26	393	329	358	590	584	587	156	126	139	564	558	561
27	471	393	426	592	566	582	190	156	173	570	562	566
28	493	351	470	561	135	429	230	192	212	572	568	570
29	335	147	205	130	106	114	270	232	250	568	566	567
30	202	152	173	179	131	157	282	270	276	575	568	570
31	280	204	236	---	---	---	318	282	299	579	574	577
MONTH	1140	147	792	592	106	411	432	120	256	579	320	479

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, 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	573	496	534	232	206	216	192	172	180	785	719	754
2	493	472	481	255	234	247	224	196	209	769	289	624
3	472	466	469	276	256	264	253	228	239	268	218	233
4	475	463	470	293	280	287	301	259	274	284	238	254
5	484	474	480	290	261	269	331	299	313	335	284	304
6	484	479	482	289	264	273	363	329	341	388	337	358
7	478	475	477	326	292	307	395	365	382	438	391	408
8	484	474	478	338	327	334	392	374	385	490	440	456
9	506	485	493	330	309	320	405	392	399	541	491	504
10	515	504	509	356	327	337	452	399	421	581	538	553
11	516	514	514	367	313	354	422	343	387	611	581	590
12	514	504	511	---	---	---	345	330	336	622	604	611
13	500	488	497	---	---	---	356	334	345	---	---	---
14	487	473	482	---	---	---	386	357	369	---	---	---
15	473	464	469	---	---	---	425	386	400	---	---	---
16	465	461	463	---	---	---	432	321	361	---	---	---
17	461	461	461	---	---	---	371	318	341	---	---	---
18	460	452	458	---	---	---	401	364	382	---	---	---
19	459	456	457	---	---	---	404	385	392	---	---	---
20	458	457	458	---	---	---	455	403	428	---	---	---
21	459	456	458	533	486	508	497	437	462	---	---	---
22	462	437	455	550	495	531	531	475	499	---	---	---
23	439	346	393	494	305	381	558	517	533	---	---	---
24	354	227	305	315	238	278	584	535	550	---	---	---
25	236	219	229	289	240	258	576	518	538	---	---	---
26	240	186	210	340	289	311	658	566	597	---	---	---
27	186	173	177	370	334	349	682	612	646	---	---	---
28	202	178	189	393	369	377	677	630	649	---	---	---
29	---	---	---	400	256	336	726	657	674	---	---	---
30	---	---	---	211	167	177	762	694	727	---	---	---
31	---	---	---	185	170	179	---	---	---	---	---	---
MONTH	573	173	431	550	167	313	762	172	425	785	218	471
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	1030	960	1000	295	250	268	1010	879	960
2	---	---	---	988	605	903	320	259	281	>1050	>1050	>1050
3	---	---	---	606	492	534	413	322	360	>1050	>1050	>1050
4	---	---	---	789	620	713	504	417	449	>1050	>1050	>1050
5	---	---	---	904	801	851	585	509	538	>1050	>1050	>1050
6	394	293	331	941	917	927	658	588	612	1290	>1050	>1050
7	431	316	391	987	950	968	736	664	688	1260	1250	1260
8	333	295	311	1040	852	1000	737	629	661	1280	1250	1270
9	398	332	364	702	283	352	788	668	714	1290	1240	1270
10	470	402	428	347	162	231	862	783	813	1230	1190	1210
11	519	469	490	244	169	202	906	851	876	1250	1190	1210
12	520	295	403	325	251	287	943	896	917	1270	1240	1250
13	299	282	289	428	328	375	990	934	963	1320	1270	1300
14	344	296	316	526	434	478	1020	863	989	1340	1300	1320
15	397	345	370	477	363	391	951	730	800	1350	1310	1330
16	457	392	415	462	395	423	915	820	893	1360	1320	1340
17	539	460	490	530	464	490	962	913	929	1360	1330	1340
18	545	495	523	582	535	548	994	954	977	1360	1340	1350
19	557	434	528	637	582	599	997	956	984	1370	1340	1350
20	515	411	453	686	643	659	1040	954	997	1370	1350	1360
21	601	523	556	703	692	697	970	943	953	1380	1350	1370
22	659	602	621	716	707	710	1020	974	1000	1380	1350	1360
23	686	632	656	685	485	537	1050	1010	1040	1370	1340	1350
24	746	692	715	683	533	585	>1050	953	---	1380	1340	1360
25	802	749	771	677	637	653	954	918	933	---	---	---
26	857	811	838	674	547	598	945	917	927	---	---	---
27	896	864	884	571	399	444	>1050	945	---	---	---	---
28	933	902	924	606	482	530	>1050	1030	---	---	---	---
29	966	938	957	678	609	629	>1050	>1050	>1050	---	---	---
30	1000	974	988	741	681	699	>1050	873	---	---	---	---
31	---	---	---	765	300	550	871	713	792	---	---	---
MONTH	1000	282	560	1040	162	599	>1050	250	793	1380	879	1240

> Greater than.

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, 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	3.0	2.8	3.0	3.1	3.1	3.1	3.3	3.3	3.3	3.4	3.4	3.4
2	3.0	3.0	3.0	3.1	3.1	3.1	3.3	3.3	3.3	3.4	3.4	3.4
3	3.0	2.9	2.9	3.1	2.9	3.0	3.3	3.3	3.3	3.4	3.3	3.4
4	2.9	2.9	2.9	3.1	3.0	3.0	3.3	3.2	3.2	3.4	3.3	3.3
5	2.9	2.8	2.9	3.2	3.1	3.2	3.2	3.2	3.2	3.4	3.3	3.3
6	2.9	2.8	2.8	3.2	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3
7	2.8	2.8	2.8	3.1	3.1	3.1	3.2	3.1	3.2	3.3	3.3	3.3
8	2.9	2.8	2.8	3.1	3.0	3.0	3.1	3.1	3.1	3.3	3.3	3.3
9	2.9	2.8	2.9	3.0	3.0	3.0	3.2	3.1	3.2	3.3	3.3	3.3
10	2.9	2.8	2.9	3.0	3.0	3.0	3.2	3.2	3.2	3.3	3.3	3.3
11	2.9	2.8	2.8	3.1	3.0	3.1	3.3	3.2	3.3	3.3	3.3	3.3
12	2.9	2.8	2.8	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.2	3.3
13	2.8	2.8	2.8	3.0	3.0	3.0	3.4	3.3	3.3	3.3	3.3	3.3
14	2.8	2.8	2.8	3.0	3.0	3.0	3.4	3.3	3.3	3.3	3.3	3.3
15	2.8	2.8	2.8	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3
16	2.9	2.8	2.8	3.1	3.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3
17	2.9	2.8	2.9	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3
18	2.9	2.9	2.9	3.0	3.0	3.0	3.4	3.3	3.4	3.3	3.3	3.3
19	2.9	2.9	2.9	3.0	3.0	3.0	3.7	3.3	3.5	3.3	3.3	3.3
20	2.9	2.9	2.9	3.0	3.0	3.0	3.7	3.7	3.7	3.3	3.3	3.3
21	2.9	2.9	2.9	3.0	3.0	3.0	3.8	3.6	3.7	3.3	3.2	3.3
22	3.0	2.9	2.9	3.0	2.9	2.9	3.7	3.6	3.7	3.3	3.3	3.3
23	3.1	3.0	3.1	2.9	2.9	2.9	3.6	3.5	3.6	3.3	3.3	3.3
24	3.2	3.1	3.1	3.0	2.9	2.9	3.6	3.5	3.5	3.3	3.3	3.3
25	3.2	3.1	3.1	3.0	2.9	2.9	3.7	3.6	3.7	3.3	3.3	3.3
26	3.1	3.1	3.1	3.0	2.9	2.9	3.6	3.6	3.6	3.3	3.3	3.3
27	3.1	3.0	3.0	3.0	2.9	3.0	3.6	3.5	3.5	3.3	3.3	3.3
28	3.1	3.0	3.0	3.4	3.0	3.2	3.5	3.5	3.5	3.3	3.3	3.3
29	3.3	3.1	3.2	3.4	3.4	3.4	3.5	3.5	3.5	3.3	3.3	3.3
30	3.3	3.2	3.2	3.4	3.3	3.3	3.5	3.4	3.5	3.3	3.2	3.3
31	3.2	3.1	3.2	---	---	---	3.4	3.4	3.4	3.3	3.3	3.3
MONTH	3.3	2.8	2.9	3.4	2.9	3.0	3.8	3.1	3.4	3.4	3.2	3.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.4	3.3	3.3	3.7	3.7	3.7	3.7	3.6	3.7	3.3	3.3	3.3
2	3.4	3.3	3.3	3.7	3.7	3.7	3.6	3.6	3.6	3.7	3.3	3.4
3	3.4	3.3	3.4	3.7	3.6	3.7	3.6	3.5	3.5	3.8	3.7	3.7
4	3.4	3.3	3.3	3.6	3.6	3.6	3.5	3.5	3.5	3.7	3.6	3.7
5	3.3	3.3	3.3	3.7	3.6	3.7	3.5	3.4	3.5	3.6	3.6	3.6
6	3.4	3.3	3.3	3.6	3.6	3.6	3.5	3.4	3.4	3.6	3.5	3.6
7	3.4	3.3	3.3	3.6	3.5	3.6	3.4	3.4	3.4	3.5	3.5	3.5
8	3.4	3.3	3.4	3.6	3.5	3.5	3.4	3.4	3.4	3.5	3.4	3.5
9	3.3	3.3	3.3	3.6	3.5	3.6	3.4	3.3	3.3	3.5	3.4	3.4
10	3.3	3.3	3.3	3.5	3.5	3.5	3.4	3.3	3.3	3.5	3.4	3.4
11	3.4	3.3	3.3	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4
12	3.4	3.3	3.3	---	---	---	3.5	3.4	3.5	3.4	3.4	3.4
13	3.5	3.4	3.4	---	---	---	3.5	3.5	3.5	---	---	---
14	3.5	3.4	3.4	---	---	---	3.5	3.4	3.5	---	---	---
15	3.4	3.4	3.4	---	---	---	3.5	3.4	3.4	---	---	---
16	3.4	3.4	3.4	---	---	---	3.5	3.4	3.5	---	---	---
17	3.4	3.4	3.4	---	---	---	3.5	3.5	3.5	---	---	---
18	3.4	3.4	3.4	---	---	---	3.5	3.5	3.5	---	---	---
19	3.4	3.4	3.4	---	---	---	3.5	3.5	3.5	---	---	---
20	3.4	3.4	3.4	---	---	---	3.5	3.4	3.5	---	---	---
21	3.4	3.4	3.4	3.3	3.2	3.3	3.5	3.4	3.4	---	---	---
22	3.5	3.5	3.5	3.3	3.2	3.2	3.4	3.4	3.4	---	---	---
23	3.6	3.5	3.6	3.4	3.3	3.3	3.4	3.4	3.4	---	---	---
24	3.8	3.6	3.7	3.5	3.4	3.5	3.4	3.4	3.4	---	---	---
25	3.9	3.8	3.8	3.5	3.3	3.5	3.4	3.4	3.4	---	---	---
26	3.8	3.8	3.8	3.5	3.1	3.4	3.4	3.3	3.4	---	---	---
27	3.8	3.8	3.8	3.5	3.3	3.4	3.4	3.3	3.3	---	---	---
28	3.8	3.8	3.8	3.4	3.4	3.4	3.4	3.3	3.4	---	---	---
29	---	---	---	4.0	3.4	3.5	3.4	3.3	3.3	---	---	---
30	---	---	---	4.3	3.6	3.7	3.4	3.3	3.3	---	---	---
31	---	---	---	3.7	3.7	3.7	---	---	---	---	---	---
MONTH	3.9	3.3	3.4	4.3	3.1	3.5	3.7	3.3	3.4	3.8	3.3	3.5

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, 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												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
MONTH												

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

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, 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	.0	.0	.0	6.0	1.5	3.5	7.5	4.5	6.0	16.0	13.0	15.0
2	.0	.0	.0	7.5	4.0	5.0	5.5	3.0	4.0	16.0	9.5	13.0
3	.0	.0	.0	7.5	2.5	4.5	5.5	2.5	4.0	13.5	8.5	10.5
4	.0	.0	.0	9.5	4.0	6.5	9.5	3.0	5.5	15.5	7.0	11.0
5	.0	.0	.0	8.0	5.0	6.5	13.5	7.0	10.0	15.5	8.0	12.0
6	.0	.0	.0	6.0	1.5	3.5	12.0	6.5	8.5	15.5	11.5	13.5
7	.0	.0	.0	7.5	1.5	4.0	6.5	4.5	5.5	15.0	11.5	13.5
8	.0	.0	.0	6.5	5.5	6.0	5.0	3.0	4.0	15.5	9.5	12.5
9	.0	.0	.0	8.0	3.5	5.5	3.5	.5	2.0	17.0	10.0	13.5
10	.0	.0	.0	8.5	3.0	5.5	7.0	.0	3.0	17.0	12.5	15.0
11	.0	.0	.0	7.5	4.0	5.0	7.0	4.0	5.5	18.0	14.0	16.0
12	.0	.0	.0	---	---	---	12.5	4.0	8.0	18.0	15.5	16.5
13	.0	.0	.0	---	---	---	11.0	7.5	9.5	---	---	---
14	.0	.0	.0	---	---	---	12.0	8.5	10.0	---	---	---
15	.0	.0	.0	---	---	---	13.5	9.5	11.5	---	---	---
16	.0	.0	.0	---	---	---	13.0	10.0	11.5	---	---	---
17	.0	.0	.0	---	---	---	12.5	7.0	10.0	---	---	---
18	.0	.0	.0	---	---	---	16.0	6.5	11.5	---	---	---
19	.0	.0	.0	---	---	---	18.0	11.5	14.5	---	---	---
20	.5	.0	.0	---	---	---	18.0	11.0	14.5	---	---	---
21	1.5	.0	.5	6.0	3.0	4.5	17.5	12.0	15.0	---	---	---
22	2.0	1.5	2.0	5.0	2.5	3.0	16.0	3.0	14.0	---	---	---
23	2.5	1.0	1.5	4.5	2.5	3.5	16.5	13.0	15.0	---	---	---
24	2.0	1.0	1.5	6.0	4.0	4.5	17.5	13.5	16.0	---	---	---
25	4.5	1.5	3.0	6.5	3.0	4.5	16.5	13.0	15.0	---	---	---
26	5.0	3.0	4.0	9.0	2.0	5.0	16.5	11.0	14.0	---	---	---
27	5.5	3.0	4.0	11.0	3.5	7.0	16.0	13.0	14.0	---	---	---
28	6.0	1.5	3.0	12.5	8.0	10.5	15.0	13.5	14.0	---	---	---
29	---	---	---	14.0	11.0	12.5	15.0	10.0	12.5	---	---	---
30	---	---	---	11.0	7.5	9.0	16.5	11.0	14.0	---	---	---
31	---	---	---	9.0	7.0	8.0	---	---	---	---	---	---
MONTH	6.0	.0	.5	14.0	1.5	6.0	18.0	.0	10.0	18.0	7.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	18.5	17.0	18.0	18.0	16.0	17.0	18.0	15.0	16.5
2	---	---	---	17.5	16.5	16.5	20.0	13.5	16.5	19.0	17.0	18.0
3	---	---	---	18.5	15.5	16.5	20.0	12.5	16.0	19.5	17.5	18.5
4	---	---	---	19.0	17.0	18.0	19.0	14.0	16.5	20.5	18.0	19.0
5	---	---	---	19.0	17.5	18.0	18.5	14.0	16.0	21.0	19.0	20.0
6	19.5	14.0	16.5	19.5	18.0	18.5	17.5	14.0	15.5	21.0	19.5	20.0
7	17.5	12.5	14.0	19.5	18.0	19.0	19.5	15.0	16.5	22.0	20.0	21.0
8	19.0	13.0	15.0	20.5	19.0	19.5	19.5	16.5	18.0	22.0	20.0	21.0
9	19.0	14.5	16.5	20.5	15.5	17.5	20.5	16.5	18.5	21.5	20.0	20.5
10	19.5	16.0	18.0	19.0	15.0	16.5	20.5	17.5	19.0	21.0	19.5	20.0
11	19.5	15.0	17.0	20.5	14.5	17.0	20.5	18.0	19.0	20.0	17.5	19.5
12	19.0	13.0	15.5	19.5	15.0	17.0	20.0	18.5	19.5	17.0	13.5	15.0
13	13.0	10.5	11.0	20.5	14.5	17.5	21.5	18.5	20.0	13.5	12.0	12.5
14	15.0	9.0	11.5	20.5	15.0	17.5	22.0	21.0	21.5	13.0	10.5	11.5
15	14.5	10.5	12.5	22.0	17.0	19.0	22.0	18.5	20.0	13.0	10.5	11.5
16	18.5	12.0	15.0	21.0	17.0	19.0	21.5	19.0	20.5	14.0	11.0	12.5
17	18.5	14.5	16.5	21.0	14.0	17.5	19.0	18.5	18.5	15.0	12.0	13.0
18	18.0	15.5	17.0	20.5	14.5	17.5	18.5	17.0	17.5	15.5	13.0	14.0
19	17.5	14.5	15.5	21.5	15.5	18.5	18.5	16.5	17.5	15.5	13.5	14.5
20	16.5	12.5	14.0	21.0	17.0	18.5	18.5	17.0	18.0	16.5	14.5	15.5
21	17.5	12.0	14.5	20.0	17.0	18.5	17.5	16.5	17.0	17.0	15.0	16.0
22	18.0	13.5	16.0	20.0	18.0	19.0	16.5	14.5	15.5	17.0	15.5	16.0
23	20.5	16.0	18.0	21.0	15.5	18.0	15.0	13.0	14.5	17.5	15.5	16.0
24	20.5	17.0	19.0	21.0	14.5	17.5	16.5	15.0	15.5	---	---	---
25	20.5	16.5	18.5	21.0	16.5	18.0	17.0	16.0	16.5	---	---	---
26	18.5	15.5	17.0	21.0	17.0	18.5	17.5	16.5	17.0	---	---	---
27	17.5	15.0	16.0	21.5	17.0	19.0	18.5	17.0	17.5	---	---	---
28	16.5	15.5	16.0	21.0	15.0	18.0	17.5	16.0	17.0	---	---	---
29	17.0	15.5	16.5	21.0	17.0	19.0	18.0	16.0	17.0	---	---	---
30	18.0	16.0	17.0	22.0	18.0	20.0	17.5	16.5	17.0	---	---	---
31	---	---	---	22.0	17.5	19.5	16.5	16.0	16.0	---	---	---
MONTH	20.5	9.0	16.0	22.0	14.0	18.0	22.0	12.5	17.5	22.0	10.5	16.5

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'29 " long 79°25'07", Garrett County, Hydrologic Unit 02070002, on right bank 0.1 mi downstream from a retention pond, just off Old Wilson Road, 0.4 mi upstream from mouth, and 1.4 mi west of Wilson.

DRAINAGE AREA.--1.55 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to August 1980, October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records fair. Natural flow of stream affected by inflow from deep coal mine dewatering process and operation of a retention pond located 0.1 mi upstream since September 1980.

AVERAGE DISCHARGE.--5 years, 4.50 ft³/s, 39.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft³/s, May 31, 1985, gage height, 5.85 ft; minimum discharge recorded, 0.01 ft³/s, Aug. 20, 1981, gage height, 0.74 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 24	1930	93	2.84	July 10	1000	192	3.60
May 31	0845	*1,000	*5.85				

Minimum discharge, 0.04 ft³/s, Sept. 3, gage height, 0.80 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	6.7	14	4.5	7.3	14	13	4.0	14	2.3	7.9	.19
2	3.5	6.2	7.3	8.8	7.7	9.3	7.8	8.1	4.8	8.2	6.5	.18
3	3.2	4.7	8.8	13	3.5	7.7	7.6	19	5.1	6.8	2.2	.84
4	4.5	2.0	8.0	8.9	3.0	7.7	5.7	4.4	5.0	3.1	1.1	2.2
5	2.4	9.2	6.4	6.8	4.9	13	6.2	2.9	11	.57	3.2	2.6
6	3.1	6.6	6.6	4.7	4.9	8.4	4.4	4.0	8.0	.67	2.9	2.2
7	.46	5.8	6.5	4.7	5.9	6.7	2.6	3.8	8.5	.45	5.0	.71
8	1.4	6.1	4.9	7.0	8.4	9.0	4.4	4.9	9.2	2.6	4.2	.15
9	2.7	5.2	3.0	5.0	5.7	4.6	4.1	5.6	4.0	23	2.7	1.3
10	2.9	3.6	3.9	8.8	3.3	3.2	6.0	3.8	3.8	63	2.0	2.6
11	2.8	2.9	10	8.3	2.8	6.1	7.9	1.2	4.0	14	.51	4.7
12	3.3	3.1	11	4.5	6.5	21	6.9	.71	9.0	7.5	1.6	4.6
13	.95	4.3	13	2.3	12	8.9	5.3	1.6	10	3.6	2.1	2.8
14	.17	4.9	12	3.2	9.9	7.6	2.9	2.1	6.1	2.7	2.3	.54
15	1.1	4.8	8.8	4.9	8.8	4.6	4.0	2.2	3.3	12	3.3	.13
16	2.9	7.5	3.9	4.2	6.3	3.7	7.8	4.4	2.9	6.5	3.1	1.2
17	3.0	4.7	5.2	5.3	2.7	2.7	5.6	4.3	3.0	5.5	1.0	2.0
18	3.3	2.6	5.9	6.6	3.2	5.5	6.3	1.8	3.8	4.6	.28	2.0
19	2.7	4.4	36	4.2	5.7	3.8	4.8	.68	4.9	2.4	1.3	4.3
20	1.4	5.6	26	2.0	6.8	4.9	4.8	1.7	6.9	.81	2.2	3.1
21	.44	5.3	22	2.1	8.3	3.2	1.7	2.1	3.6	1.3	2.0	.66
22	2.5	3.2	15	3.1	14	3.2	2.7	2.1	1.9	3.8	3.4	.13
23	5.8	2.9	10	4.6	30	5.7	3.2	5.5	1.1	7.4	3.3	1.3
24	7.3	3.6	8.2	4.2	50	6.9	4.3	3.3	3.9	4.0	.90	1.9
25	6.9	2.8	26	4.5	52	8.5	6.0	.79	2.6	3.0	.59	1.6
26	5.5	3.7	12	2.6	43	5.6	3.2	.24	3.0	4.9	1.6	4.8
27	4.2	6.1	11	1.5	27	6.0	1.4	.19	5.9	3.5	1.7	2.2
28	1.6	33	12	2.5	17	6.0	.87	1.4	3.6	1.1	5.5	.67
29	15	18	8.0	4.0	---	10	2.1	4.0	1.7	2.2	5.0	.12
30	8.6	11	5.7	4.8	---	15	2.4	2.2	.52	3.6	3.7	1.1
31	7.2	---	4.9	6.2	---	9.4	---	150	---	5.7	.98	---
TOTAL	115.52	190.5	336.0	157.8	360.6	231.9	145.97	253.01	155.12	210.80	84.06	52.82
MEAN	3.73	6.35	10.8	5.09	12.9	7.48	4.87	8.16	5.17	6.80	2.71	1.76
MAX	15	33	36	13	52	21	13	150	14	63	7.9	4.8
MIN	.17	2.0	3.0	1.5	2.7	2.7	.87	.19	.52	.45	.28	.12
CFSM	2.41	4.10	6.97	3.28	8.32	4.83	3.14	5.27	3.34	4.39	1.75	1.14
IN.	2.77	4.57	8.06	3.78	8.65	5.56	3.50	6.07	3.72	5.06	2.02	1.27

CAL YR 1984 TOTAL 2071.22 MEAN 5.66 MAX 47 MIN .12 CFSM 3.65 IN 49.71
WTR YR 1985 TOTAL 2294.10 MEAN 6.29 MAX 150 MIN .12 CFSM 4.06 IN 55.02

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: December 1984 to September 1985.
WATER TEMPERATURE: October 1980 to current year.

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

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1983-85): Maximum, 2,300 microsiemens, Sept. 12-14, 17, 27-30, 1985; minimum, 180 microsiemens, Dec. 28, 1982.
WATER TEMPERATURE (water years 1982-85): Maximum, 29.5°C, July 25, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,300 microsiemens, Sept. 12-14, 17, 27-30; minimum, 209 microsiemens, Feb. 25.
WATER TEMPERATURE: Maximum, 25.0°C, Aug. 12, Sept. 3; minimum, 0.0°C on many days during January and February.

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	1720	1200	1490				---	---	---	357	307	331
2	1860	1650	1720				---	---	---	657	306	403
3	2020	1930	1980				---	---	---	981	685	860
4	---	---	---				---	---	---	1010	979	996
5	---	---	---				---	---	---	1000	884	957
6	---	---	---				---	---	---	869	637	757
7	---	---	---				---	---	---	630	537	571
8	---	---	---				---	---	---	813	623	724
9	---	---	---				---	---	---	882	798	834
10	---	---	---				---	---	---	1110	898	1000
11	---	---	---				---	---	---	1180	1070	1130
12	---	---	---				---	---	---	1180	960	1080
13	---	---	---				1600	1490	1540	952	698	814
14	---	---	---				1650	1510	1580	945	594	734
15	---	---	---				1650	1350	1550	1080	949	996
16	---	---	---				1350	632	973	1160	1060	1100
17	---	---	---				1420	588	821	1230	1120	1170
18	---	---	---				1590	1400	1440	1280	1180	1240
19	---	---	---				1620	585	1100	1280	1030	1180
20	---	---	---				621	587	603	1010	799	897
21	---	---	---				665	557	617	833	719	767
22	---	---	---				550	397	474	1030	805	882
23	---	---	---				392	326	361	1160	1050	1090
24	---	---	---				373	305	345	1220	1150	1170
25	---	---	---				351	272	315	1250	1170	1210
26	---	---	---				343	223	269	1240	1050	1160
27	---	---	---				512	355	433	1020	795	908
28	---	---	---				746	526	652	1050	697	840
29	---	---	---				793	754	777	1170	1040	1100
30	---	---	---				765	513	648	1250	1150	1180
31	---	---	---				506	356	429	1270	1200	1240
MONTH	2020	1200	1730				1650	223	786	1280	306	946

01594934 SOUTH FORK SAND RUN NEAR WILSON, 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	1260	1170	1210	863	712	762	881	469	734	1990	1790	1890
2	1200	1170	1190	894	717	839	1050	863	904	2100	1570	1990
3	1150	900	1050	704	472	579	1100	853	952	1430	501	828
4	989	736	847	476	391	424	1110	896	1010	1090	480	746
5	1090	986	1040	759	505	653	1260	961	1110	474	279	343
6	1150	1080	1120	863	767	806	1250	1120	1170	771	241	363
7	1250	1140	1190	1010	885	932	1080	727	904	1120	789	982
8	1310	1260	1290	1160	1030	1080	1010	611	731	1370	1100	1210
9	1330	1290	1310	1170	944	1080	1060	1040	1050	1700	1310	1500
10	1320	1090	1230	937	681	802	1180	962	1070	1830	1540	1700
11	1140	964	1060	858	576	662	1220	1050	1140	1790	1260	1650
12	1210	1150	1190	927	734	801	1200	805	1020	1240	889	1110
13	1190	1080	1130	819	735	778	1200	874	1110	---	---	---
14	1230	1110	1160	855	791	819	879	538	700	---	---	---
15	1390	1250	1300	919	868	897	1000	462	677	---	---	---
16	1420	1240	1360	891	795	865	1030	894	935	1980	1860	1930
17	1250	950	1090	790	645	711	1020	849	920	>2050	1760	1970
18	1140	841	975	882	556	667	1200	975	1040	>2050	1630	1880
19	1260	1160	1200	1240	909	1070	1490	1170	1310	1710	1550	1640
20	1280	1210	1250	1600	1260	1370	1580	1350	1490	1850	1510	1620
21	1260	1190	1220	1610	1430	1550	1340	629	938	1980	1840	1920
22	1260	1140	1210	1650	1560	1610	1220	458	682	>2050	1960	2040
23	1240	798	1030	1640	884	1320	1370	1120	1260	>2050	1940	>2050
24	777	294	540	830	380	568	1480	1280	1380	>2050	>2050	>2050
25	487	209	304	1520	312	771	1710	1440	1530	>2050	>2050	>2050
26	630	506	562	1480	1170	1280	1790	1640	1700	>2050	1870	>2050
27	634	522	563	1550	1190	1360	1740	1370	1630	>2050	1800	1970
28	697	551	604	1680	1250	1490	1410	997	1140	>2050	1860	2000
29	---	---	---	1660	1310	1460	1690	942	1190	>2050	>2050	>2050
30	---	---	---	1270	696	874	1910	1660	1790	>2050	>2050	>2050
31	---	---	---	651	392	479	---	---	---	>2050	547	994
MONTH	1420	209	1040	1680	312	947	1910	458	1110	>2050	241	1590
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	715	567	633	>2050	1760	1950	1700	1200	1500	2100	2000	2100
2	722	634	699	>2050	1920	2010	1700	1300	1600	2000	1900	1900
3	768	648	688	1940	1910	1930	1800	1100	1700	2100	1900	2000
4	858	754	799	>2050	1910	---	1100	860	960	2200	2100	2100
5	1040	866	937	2020	1790	1920	1800	850	1300	2200	2200	2200
6	1130	992	1060	1840	1770	1810	1800	1700	1800	2200	2200	2200
7	1220	1110	1190	1760	1720	1740	2000	1800	1900	2200	2200	2200
8	1190	1140	1160	1790	1630	1700	2100	1400	1900	2200	2200	2200
9	1220	1040	1130	1450	802	947	2100	2000	2100	2200	2100	2200
10	1040	881	997	816	596	700	2100	2100	2100	2200	2200	2200
11	1220	1020	1160	875	656	743	2100	1900	2000	2200	2200	2200
12	1280	1230	1250	963	713	840	2100	1700	1900	2300	2200	2200
13	1580	1270	1380	978	653	826	2200	2100	2100	2300	2200	2300
14	1600	1300	1470	644	509	580	2200	2200	2200	2300	2200	2200
15	1590	959	1300	879	687	763	2200	2100	2200	2200	2200	2200
16	949	734	820	1140	857	1020	2200	2200	2200	2200	2200	2200
17	1160	654	819	1190	1130	1150	2200	2200	2200	2300	2200	2200
18	1580	1240	1380	1220	1160	1190	2200	1900	2100	2200	2200	2200
19	1600	1420	1520	1210	1170	1180	2200	1500	1800	2200	2200	2200
20	1700	1350	1510	1190	1070	1140	2200	2100	2200	2200	2200	2200
21	1710	1530	1640	1080	924	1010	2200	2100	2200	2200	2200	2200
22	1710	1400	1550	1170	892	952	2200	2100	2200	2200	2200	2200
23	1380	1160	1220	1290	1100	1190	2200	2100	2200	2200	2100	2200
24	1840	1120	1370	1560	1290	1490	2200	1800	2100	2200	2200	2200
25	1920	1830	1870	1570	1510	1540	1700	1300	1400	2200	2200	2200
26	1920	1850	1880	1700	1500	1600	2100	1300	1500	2300	2200	2300
27	>2050	1880	1930	1700	770	1100	2100	2000	2100	2300	2300	2300
28	>2050	>2050	>2050	920	750	840	2200	2100	2100	2300	2300	2300
29	>2050	>2050	>2050	1600	760	980	2200	2200	2200	2300	2300	2300
30	>2050	1890	>2050	1900	1700	1800	2200	2100	2200	2300	2300	2300
31	---	---	---	1800	1600	1700	2100	2100	2100	---	---	---
MONTH	>2050	567	1290	>2050	509	1270	2200	850	1940	2300	1900	2200

> Greater than.

01594934 SOUTH FORK SAND RUN NEAR WILSON, 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							---	---	---	7.2	6.9	7.0
2							---	---	---	6.9	4.3	5.7
3							---	---	---	7.1	6.6	6.9
4							---	---	---	7.3	7.1	7.2
5							---	---	---	7.3	7.1	7.3
6							---	---	---	7.3	7.0	7.2
7							---	---	---	7.3	7.0	7.1
8							---	---	---	7.3	7.2	7.3
9							---	---	---	7.3	7.0	7.2
10							---	---	---	7.4	7.2	7.3
11							---	---	---	7.5	7.1	7.4
12							---	---	---	7.4	7.1	7.2
13							7.3	7.2	7.2	7.0	6.7	6.8
14							7.6	7.2	7.4	7.5	6.8	7.1
15							7.7	7.1	7.5	7.5	7.2	7.4
16							7.4	7.0	7.2	7.4	7.1	7.4
17							7.8	7.1	7.4	7.4	7.1	7.3
18							7.8	7.5	7.6	7.5	6.9	7.3
19							8.2	6.4	7.5	7.4	6.3	6.8
20							6.9	6.4	6.5	6.3	6.1	6.1
21							7.7	6.1	7.0	6.6	5.9	6.1
22							6.0	4.6	4.9	7.2	6.4	6.7
23							5.7	4.7	5.1	7.3	6.8	7.1
24							6.5	5.8	6.2	7.2	4.7	6.5
25							6.0	4.2	4.5	6.9	6.3	6.7
26							5.0	4.4	4.6	6.8	6.6	6.7
27							6.1	5.1	5.6	6.5	5.2	5.7
28							7.0	6.2	6.6	6.9	5.1	5.9
29							7.3	7.0	7.2	6.9	6.6	6.9
30							7.5	7.2	7.3	7.2	6.8	7.0
31							7.3	7.2	7.2	7.5	6.8	7.2
MONTH							8.2	4.2	6.6	7.5	4.3	6.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.6	7.2	7.3	7.3	7.0	7.2	7.0	6.5	6.8	8.2	7.8	7.9
2	7.1	6.9	7.0	7.3	6.8	7.1	7.1	7.0	7.1	8.3	7.9	8.2
3	6.9	6.2	6.6	6.7	6.4	6.5	7.3	7.1	7.2	7.6	7.2	7.4
4	7.0	6.1	6.5	7.0	6.5	6.6	7.5	7.2	7.4	7.7	7.5	7.6
5	7.2	6.9	7.1	7.4	7.1	7.3	7.6	7.2	7.4	7.9	7.7	7.8
6	7.3	7.0	7.2	7.2	6.9	7.0	7.5	7.4	7.5	8.0	7.8	7.9
7	7.3	7.0	7.2	7.1	7.0	7.1	7.5	7.2	7.4	8.0	7.5	7.9
8	7.4	7.2	7.3	7.5	7.1	7.3	7.5	7.4	7.4	7.8	7.6	7.7
9	7.4	7.2	7.3	7.5	7.4	7.5	7.5	7.3	7.4	8.1	7.8	7.9
10	7.2	6.1	6.7	7.4	7.0	7.3	7.5	7.2	7.4	8.4	8.0	8.2
11	6.7	4.6	5.6	7.3	6.6	6.9	7.6	7.4	7.5	8.4	8.1	8.2
12	6.8	6.4	6.7	7.4	7.0	7.1	7.9	7.3	7.6	8.3	8.2	8.2
13	6.6	6.2	6.4	7.0	6.7	6.8	7.8	7.4	7.6	---	---	---
14	6.6	6.0	6.5	7.0	6.8	7.0	7.4	7.2	7.3	---	---	---
15	6.8	6.3	6.6	7.1	7.0	7.1	7.7	7.2	7.4	---	---	---
16	6.8	5.5	6.2	7.1	7.0	7.1	7.9	7.3	7.5	7.7	7.5	7.6
17	5.5	4.8	5.3	7.1	7.1	7.1	7.4	7.1	7.3	7.8	7.5	7.7
18	6.5	4.6	5.4	7.2	7.1	7.1	7.5	7.3	7.4	7.8	7.7	7.7
19	7.1	6.5	6.8	7.2	7.0	7.1	7.6	7.4	7.5	7.7	7.7	7.7
20	7.3	7.0	7.1	7.3	7.1	7.1	7.6	7.4	7.6	7.7	7.5	7.6
21	7.2	6.8	7.1	7.3	7.1	7.2	7.6	7.5	7.5	7.6	7.5	7.6
22	7.4	7.1	7.2	7.3	7.1	7.2	7.7	7.5	7.6	7.6	7.5	7.6
23	7.4	7.1	7.3	7.8	7.3	7.6	7.7	7.5	7.7	7.7	7.5	7.6
24	7.3	6.9	7.1	7.7	7.1	7.4	7.9	7.7	7.8	7.6	7.4	7.5
25	7.0	6.7	6.8	7.2	6.8	7.0	8.2	7.8	8.0	7.4	7.2	7.3
26	7.2	7.0	7.1	7.1	6.2	6.6	8.2	8.0	8.0	7.3	7.2	7.2
27	7.0	6.8	6.9	7.0	6.2	6.6	8.1	7.8	7.9	7.3	7.2	7.2
28	7.1	6.8	6.9	7.3	6.8	7.1	7.8	7.6	7.7	7.4	7.1	7.3
29	---	---	---	8.0	7.3	7.6	8.0	7.7	7.8	7.4	7.3	7.4
30	---	---	---	7.4	6.7	6.9	8.0	7.9	7.9	7.4	7.2	7.3
31	---	---	---	7.0	6.5	6.8	---	---	---	8.7	6.0	7.3
MONTH	7.6	4.6	6.8	8.0	6.2	7.1	8.2	6.5	7.5	8.7	6.0	7.7

01594934 SOUTH FORK SAND RUN NEAR WILSON, 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	8.5	7.6	7.9	7.1	6.9	7.0	3.6	3.4	3.5	6.8	6.7	6.8
2	7.9	7.8	7.9	7.2	6.3	6.9	4.6	3.6	4.0	6.9	6.7	6.8
3	7.8	7.6	7.7	6.9	6.4	6.6	6.4	4.8	5.5	6.8	3.7	5.7
4	7.6	7.3	7.5	6.9	3.3	4.4	6.8	6.5	6.7	4.1	3.7	3.8
5	7.6	7.3	7.5	3.5	3.3	3.4	6.8	5.7	6.5	5.4	4.2	4.6
6	7.2	7.0	7.1	3.4	3.4	3.4	6.3	6.0	6.1	6.1	5.5	5.8
7	7.2	7.1	7.1	3.5	3.4	3.5	6.9	6.3	6.5	6.1	6.1	6.1
8	7.2	6.0	6.9	4.1	3.5	3.6	7.7	6.9	7.2	6.3	6.0	6.2
9	5.2	3.8	4.3	5.0	4.1	4.7	7.6	7.2	7.4	6.6	6.1	6.3
10	4.5	3.9	4.2	5.8	4.1	4.8	7.3	7.1	7.2	6.5	6.3	6.4
11	6.1	4.7	5.5	6.5	5.3	6.0	7.1	6.9	6.9	6.7	6.3	6.5
12	7.0	6.1	6.5	6.7	6.5	6.6	7.1	6.8	7.0	7.1	6.5	6.7
13	7.2	6.9	7.1	7.0	6.6	6.8	7.1	6.8	7.0	7.1	6.8	7.0
14	7.1	7.0	7.1	7.2	6.9	7.0	7.0	6.9	6.9	7.0	6.5	6.7
15	7.1	6.9	6.9	5.3	3.4	3.8	7.0	6.8	6.9	6.5	6.4	6.5
16	7.1	6.9	7.0	3.8	3.5	3.6	7.0	6.9	7.0	6.9	6.3	6.6
17	7.1	7.0	7.1	4.6	3.6	4.0	7.0	6.7	6.8	7.0	6.6	6.8
18	7.1	7.0	7.0	5.9	4.1	4.9	6.8	6.7	6.7	6.9	6.5	6.7
19	7.3	7.0	7.1	6.4	5.7	6.0	7.1	6.7	6.9	7.0	6.5	6.8
20	7.3	7.2	7.3	6.5	4.8	6.1	7.0	6.8	6.9	6.9	6.6	6.8
21	7.3	7.2	7.3	5.0	3.8	4.2	6.9	6.7	6.8	6.9	6.3	6.5
22	7.3	7.0	7.1	5.2	3.8	4.1	7.1	6.8	7.0	6.3	6.2	6.3
23	7.1	7.0	7.0	5.5	3.9	4.7	7.2	6.9	7.1	6.8	6.1	6.4
24	7.2	7.0	7.1	6.1	5.5	5.8	7.1	6.8	6.9	6.7	6.4	6.6
25	7.2	7.1	7.1	6.2	6.1	6.1	7.1	7.0	7.1	6.6	6.3	6.4
26	7.1	7.0	7.1	6.4	6.2	6.3	7.3	6.9	7.1	6.6	6.3	6.5
27	7.1	7.1	7.1	6.2	3.8	4.1	7.1	6.8	7.0	6.6	6.2	6.4
28	7.2	7.1	7.1	4.4	3.8	4.0	7.2	7.0	7.1	6.5	6.1	6.3
29	7.2	7.0	7.1	5.9	4.4	4.9	7.3	7.0	7.2	6.1	6.0	6.1
30	7.0	6.9	6.9	6.2	6.0	6.1	7.3	7.2	7.2	6.4	5.9	6.1
31	---	---	---	6.6	3.5	4.8	7.3	6.8	7.0	---	---	---
MONTH	8.5	3.8	6.9	7.2	3.3	5.1	7.7	3.4	6.7	7.1	3.7	6.3

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

01594934 SOUTH FORK SAND RUN NEAR WILSON, 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	5.5	3.0	4.5	5.5	3.5	4.5	8.5	7.0	8.0	17.5	14.0	15.5
2	5.0	3.0	4.5	7.0	5.0	5.5	6.5	5.5	6.0	15.0	12.5	14.5
3	3.0	.0	1.5	6.0	3.5	5.0	6.0	4.5	5.5	12.5	10.5	11.5
4	4.0	.0	1.5	8.0	4.5	6.0	8.5	4.5	6.5	15.5	10.5	13.0
5	4.5	2.5	3.5	7.5	6.0	7.0	11.5	8.0	10.0	15.0	10.5	12.5
6	4.5	3.0	4.0	6.5	4.5	5.5	10.5	7.5	9.0	15.5	12.5	14.0
7	5.0	1.5	3.5	6.5	4.5	6.0	7.5	5.0	6.5	15.5	13.0	14.0
8	4.5	2.0	3.5	7.0	6.0	6.5	7.5	4.0	5.5	16.0	12.5	14.0
9	3.5	1.0	2.5	8.0	5.5	6.5	6.5	4.5	5.5	16.5	12.5	14.5
10	2.0	.5	1.0	7.5	4.0	5.5	7.5	3.5	6.0	18.0	13.5	15.5
11	3.5	.5	2.0	6.5	5.0	5.5	7.5	5.5	6.5	18.0	15.0	16.5
12	4.0	2.5	3.5	7.0	5.0	6.0	11.5	5.0	9.0	19.5	15.5	17.5
13	3.5	3.0	3.0	6.5	4.0	5.0	11.5	9.5	10.5	---	---	---
14	3.5	2.0	2.5	6.0	5.0	5.5	13.0	9.5	11.5	---	---	---
15	4.0	2.0	3.0	6.5	4.5	5.5	14.0	11.0	12.5	---	---	---
16	4.0	.5	2.0	6.5	4.0	5.0	13.5	11.5	12.5	19.5	16.5	18.0
17	1.0	.0	.5	5.5	3.5	4.5	13.0	10.0	11.5	16.5	15.5	16.0
18	3.5	.0	1.5	5.0	1.5	3.5	14.5	10.5	12.5	16.0	13.0	14.5
19	4.0	2.5	3.5	7.0	4.5	5.5	17.0	12.0	14.5	18.5	12.5	15.0
20	4.5	2.0	3.5	7.5	6.0	7.0	18.0	13.5	15.5	19.0	13.5	16.5
21	4.5	2.0	3.5	8.0	6.0	7.0	19.0	14.0	16.5	19.5	16.0	17.5
22	4.5	3.0	4.0	7.0	6.0	6.5	18.5	14.0	16.5	18.5	16.0	17.0
23	4.0	2.0	3.0	6.0	4.5	5.5	17.0	15.5	16.5	16.5	14.5	15.5
24	3.0	1.5	2.5	5.0	4.0	4.5	18.0	15.0	16.5	17.0	14.0	15.5
25	4.0	2.5	3.0	7.0	3.5	5.5	16.5	14.5	15.5	22.0	14.5	17.5
26	5.0	4.0	4.0	8.5	4.5	7.0	17.5	13.5	15.5	22.0	15.0	18.5
27	5.0	4.0	4.5	9.5	6.0	8.0	16.5	14.5	15.5	22.5	16.0	19.0
28	5.0	3.0	4.0	12.0	9.0	10.5	16.5	14.0	15.0	19.0	18.0	18.5
29	---	---	---	13.5	11.5	12.5	18.0	12.0	15.0	17.5	16.5	17.0
30	---	---	---	12.5	9.5	11.0	19.0	13.5	16.5	20.0	15.5	17.5
31	---	---	---	9.0	8.0	8.5	---	---	---	17.5	13.5	15.0
MONTH	5.5	.0	3.0	13.5	1.5	6.5	19.0	3.5	11.5	22.5	10.5	16.0

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

01594936 NORTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'36", long 79°24'36", Garrett County, Hydrologic Unit 02070002, on right bank, 0.1 mi northwest of Wilson-Corunna Road, 0.1 mi upstream from mouth and 0.8 mi northwest of Wilson.

DRAINAGE AREA.--1.91 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and steel weir plate. Elevation of gage is 2,515 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 12. Water-discharge records good above 0.5 ft³/s and fair below, except those for period with ice effect, Jan.11 to Feb. 12, which are fair.

AVERAGE DISCHARGE.--5 years, 4.69 ft³/s, 33.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 895 ft³/s, May 31, 1985, gage height, 10.47 ft; minimum discharge, 0.09 ft³/s, Aug. 22, 1983, gage height, 1.54 ft.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	1815	46	3.28	May 31	0800	*895	*10.47
Dec. 19	1515	51	3.37	July 9	0030	148	4.53
Feb. 24	1730	98	3.99	July 10	1215	149	4.54
May 3	0215	45	3.27				

Minimum discharge, 0.22 ft³/s, Sept. 8, gage height, 1.74 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	2.4	3.5	14	4.6	1.3	12	15	2.0	11	3.1	4.3	.70
2	1.8	3.4	8.7	4.9	1.3	10	11	6.2	6.3	4.1	3.0	.66
3	1.3	2.9	8.0	4.2	1.3	9.3	9.1	23	5.8	4.1	2.5	.62
4	.98	2.9	6.4	4.2	1.3	8.3	7.5	8.1	5.0	3.2	2.2	.71
5	.66	6.8	5.2	4.4	1.3	13	5.5	5.7	11	2.9	2.0	.58
6	.53	5.1	4.9	3.9	1.4	8.1	5.0	4.6	8.4	3.0	1.8	.58
7	.51	4.0	4.2	3.8	1.4	6.0	4.5	3.9	9.3	2.6	1.6	.30
8	.52	3.5	3.8	3.6	1.4	8.1	4.9	3.5	11	4.4	2.5	1.0
9	.52	3.3	3.7	3.3	1.4	7.6	4.8	3.0	6.5	44	2.0	1.4
10	.51	3.2	3.7	3.1	1.4	5.7	4.6	2.7	4.9	61	1.6	1.2
11	.49	3.6	6.4	2.9	1.4	7.4	6.4	2.5	4.0	20	1.5	1.1
12	.50	3.4	6.1	2.6	3.9	24	6.5	2.4	6.0	9.2	2.1	.85
13	.63	3.0	6.0	2.4	4.0	13	5.8	2.2	7.5	5.8	1.9	.75
14	.50	2.8	5.7	2.2	3.3	10	5.6	1.9	5.1	4.4	1.4	.65
15	.48	3.0	5.4	2.0	2.9	7.5	5.2	1.7	4.1	12	1.6	.57
16	1.1	3.6	4.6	1.9	2.7	5.9	9.1	1.6	4.4	4.9	1.0	.51
17	1.3	3.1	3.9	1.8	2.6	5.2	7.1	2.1	3.4	3.6	.95	.47
18	1.2	2.9	3.7	1.7	2.6	4.5	5.2	2.4	3.2	2.9	.87	.41
19	.79	3.5	26	1.6	2.7	3.9	4.6	2.0	4.4	2.5	.88	.38
20	.99	3.1	18	1.5	2.8	3.7	4.1	1.6	4.8	2.2	.79	.37
21	1.1	2.7	18	1.4	3.1	3.4	3.8	1.4	4.0	2.2	.92	.38
22	1.4	2.5	15	1.3	4.8	3.2	3.8	1.3	3.8	3.2	.74	.38
23	2.9	2.4	9.9	1.2	14	5.6	3.8	2.5	3.7	3.2	.69	.38
24	4.2	2.4	9.9	1.2	53	9.9	3.8	2.2	3.4	2.1	.65	.35
25	3.2	2.4	21	1.1	50	8.8	3.8	1.7	3.2	2.0	1.3	.38
26	2.4	2.5	11	1.1	29	6.6	3.8	1.4	2.9	2.9	1.1	.42
27	2.0	3.1	8.6	1.2	24	5.7	3.1	1.2	2.9	3.5	.91	.44
28	2.0	20	7.0	1.2	17	5.1	2.5	1.4	2.7	2.1	.84	.44
29	9.9	18	5.8	1.2	---	9.8	2.3	1.6	2.7	1.8	.79	.44
30	7.1	10	5.9	1.2	---	19	2.1	1.3	2.7	1.8	.76	.44
31	4.4	---	5.1	1.2	---	13	---	139	---	2.2	.99	---
TOTAL	58.31	136.6	265.6	73.9	237.3	263.3	164.3	238.1	158.1	226.9	46.18	17.86
MEAN	1.88	4.55	8.57	2.38	8.48	8.49	5.48	7.68	5.27	7.32	1.49	.60
MAX	9.9	20	26	4.9	53	24	15	139	11	61	4.3	1.4
MIN	.48	2.4	3.7	1.1	1.3	3.2	2.1	1.2	2.7	1.8	.65	.30
CFSM	.98	2.38	4.49	1.25	4.44	4.45	2.87	4.02	2.76	3.83	.78	.31
IN.	1.14	2.66	5.17	1.44	4.62	5.13	3.20	4.63	3.08	4.42	.90	.35

CAL YR 1984 TOTAL 2043.98 MEAN 5.58 MAX 52 MIN .31 CFSM 2.92 IN 39.79
WTR YR 1985 TOTAL 1886.45 MEAN 5.17 MAX 139 MIN .30 CFSM 2.71 IN 36.72

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: June to September 1985.
WATER TEMPERATURE: October 1980 to current year.

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

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1982-85): Maximum, >1000 microsiemens, Sept. 7-30, 1985; minimum, 67 microsiemens, July 10, 1985.
WATER TEMPERATURE (water years 1982-85): Maximum, 25.5°C, July 20, 1983; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, >1000 microsiemens, Sept. 7-30; minimum, 67 microsiemens, July 10.
WATER TEMPERATURE: Maximum, 25.0°C, Sept. 7-9; minimum, 0.0°C on many days during winter periods.

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	425	255	332	183	161	172	102	98	100	194	186	190
2	269	233	248	190	181	186	108	102	106	194	155	187
3	343	261	300	201	188	194	114	109	112	201	192	197
4	450	334	390	209	199	205	122	114	118	216	203	211
5	508	447	480	---	---	---	134	123	130	216	210	213
6	546	519	531	---	---	---	143	136	140	223	212	209
7	600	554	577	---	---	---	158	146	152	252	225	229
8	625	610	618	---	---	---	171	160	166	261	231	239
9	632	613	621	---	---	---	185	172	179	255	240	247
10	650	642	648	---	---	---	194	187	191	269	256	263
11	667	658	660	---	---	---	194	162	177	278	270	274
12	705	678	687	---	---	---	163	159	161	289	279	284
13	776	635	706	---	---	---	165	162	163	299	291	296
14	643	615	626	---	---	---	175	167	171	305	300	303
15	704	655	682	---	---	---	185	177	180	308	301	304
16	704	440	571	---	---	---	198	187	193	321	310	316
17	627	304	510	---	---	---	209	200	205	326	321	325
18	542	432	481	---	---	---	217	211	215	329	326	327
19	575	554	562	---	---	---	219	109	155	334	330	332
20	588	504	553	---	---	---	111	106	108	347	335	341
21	572	499	530	---	---	---	---	---	---	362	349	357
22	503	318	438	---	---	---	---	---	---	370	363	367
23	389	265	340	---	---	---	118	109	114	379	372	375
24	264	217	238	---	---	---	128	108	123	390	382	387
25	232	210	217	---	---	---	106	98	100	398	393	396
26	267	231	247	---	---	---	108	101	104	405	401	403
27	302	266	283	---	---	---	141	110	120	413	409	412
28	308	257	296	190	88	138	150	123	137	418	396	414
29	259	124	185	95	88	92	190	131	150	420	419	419
30	143	122	131	103	96	100	162	143	156	432	423	427
31	162	142	152	---	---	---	186	164	175	437	418	433
MONTH	776	122	446	209	88	155	219	98	148	437	155	312

01594936 NORTH FORK SAND RUN NEAR WILSON, 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	---	---	---	137	123	131	126	111	117	399	368	385
2	---	---	---	162	137	144	142	127	134	377	146	309
3	---	---	---	157	145	150	157	142	151	123	94	108
4	---	---	---	174	157	161	174	158	166	155	126	141
5	---	---	---	173	140	148	198	176	186	178	156	167
6	---	---	---	163	144	154	209	198	205	198	178	188
7	---	---	---	181	163	173	225	208	217	221	199	211
8	---	---	---	186	165	180	228	223	226	244	222	235
9	---	---	---	170	160	164	234	225	229	275	249	263
10	---	---	---	184	170	177	244	231	239	306	275	293
11	---	---	---	190	178	186	234	191	219	332	307	322
12	---	---	---	174	112	130	189	180	184	344	332	338
13	---	---	---	129	116	121	200	189	193	368	344	357
14	---	---	---	143	129	136	206	201	204	398	367	384
15	---	---	---	169	145	154	215	207	211	424	394	411
16	---	---	---	172	157	165	217	155	186	461	425	443
17	---	---	---	187	129	178	182	155	167	433	380	422
18	---	---	---	199	186	192	197	184	190	409	370	391
19	---	---	---	217	199	207	210	198	205	408	380	392
20	---	---	---	234	217	225	227	212	221	450	406	426
21	---	---	---	249	235	241	243	226	235	491	448	468
22	---	---	---	265	250	259	262	244	254	525	486	506
23	231	161	203	265	179	227	280	262	273	519	390	424
24	166	85	131	176	129	153	294	262	278	398	378	386
25	97	85	90	149	129	139	282	269	276	457	398	425
26	101	96	99	166	150	159	309	282	298	510	457	482
27	107	100	103	183	165	176	335	309	324	544	507	523
28	122	107	115	199	183	191	343	330	337	539	490	523
29	---	---	---	202	128	163	352	341	348	523	499	513
30	---	---	---	121	109	115	375	349	365	533	507	517
31	---	---	---	126	115	123	---	---	---	510	69	138
MONTH	231	85	124	265	109	168	375	111	228	544	69	358

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	139	100	120	699	662	681	---	---	---	871	840	860
2	165	140	152	680	472	617	---	---	---	881	855	871
3	176	165	169	509	468	484	---	---	---	893	866	884
4	192	170	180	571	478	513	---	---	---	980	818	906
5	192	129	155	592	549	575	---	---	---	955	902	936
6	172	131	150	614	566	586	---	---	---	986	933	971
7	185	124	167	693	626	660	---	---	---	>1000	984	---
8	153	124	137	694	196	610	---	---	---	>1000	>1000	>1000
9	178	155	166	125	95	108	---	---	---	>1000	>1000	>1000
10	205	179	191	136	67	93	495	437	463	>1000	>1000	>1000
11	235	207	222	127	86	105	536	492	508	>1000	>1000	>1000
12	236	184	208	165	128	145	561	537	546	>1000	>1000	>1000
13	193	171	179	210	167	189	596	556	569	>1000	>1000	>1000
14	215	188	201	252	202	232	---	---	---	>1000	>1000	>1000
15	239	217	229	187	136	160	---	---	---	>1000	>1000	>1000
16	249	222	232	236	189	212	662	633	643	>1000	>1000	>1000
17	268	236	253	276	238	258	696	664	678	>1000	>1000	>1000
18	294	269	282	320	279	301	717	681	703	>1000	>1000	>1000
19	304	265	294	361	321	341	723	673	698	>1000	>1000	>1000
20	289	264	271	---	---	---	728	667	706	>1000	>1000	>1000
21	330	290	310	---	---	---	713	694	701	>1000	>1000	>1000
22	357	333	349	---	---	---	782	714	730	>1000	>1000	>1000
23	390	354	374	---	---	---	797	740	760	>1000	>1000	>1000
24	423	390	407	---	---	---	795	652	757	>1000	>1000	>1000
25	459	420	437	---	---	---	722	652	690	>1000	>1000	>1000
26	520	462	484	---	---	---	734	711	726	>1000	>1000	>1000
27	566	527	547	---	---	---	755	731	742	>1000	>1000	>1000
28	611	561	582	---	---	---	778	759	773	>1000	>1000	>1000
29	653	615	636	---	---	---	798	778	792	>1000	>1000	>1000
30	698	657	676	---	---	---	833	773	807	>1000	>1000	>1000
31	---	---	---	---	---	---	842	775	828	>1000	>1000	>1000
MONTH	698	100	292	699	67	362	842	437	691	>1000	818	>1000

> Greater than.

01594936 NORTH FORK SAND RUN NEAR WILSON, 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	---	---	---	5.6	5.4	5.5	---	---	---	6.9	6.8	6.9
2	---	---	---	5.6	5.4	5.5	---	---	---	6.9	6.8	6.8
3	---	---	---	5.6	5.4	5.5	---	---	---	7.6	6.8	7.1
4	---	---	---	5.6	5.5	5.5	---	---	---	6.8	6.8	6.8
5	---	---	---	5.6	5.4	5.5	---	---	---	6.9	6.8	6.8
6	---	---	---	5.5	5.4	5.5	---	---	---	6.9	6.7	6.8
7	---	---	---	5.6	5.4	5.5	---	---	---	6.9	6.7	6.8
8	---	---	---	5.5	5.2	5.4	---	---	---	6.8	6.7	6.8
9	---	---	---	5.4	5.2	5.3	---	---	---	6.8	6.6	6.8
10	---	---	---	5.7	5.5	5.6	6.9	6.8	6.8	6.9	6.8	6.8
11	---	---	---	5.7	5.7	5.7	6.9	6.8	6.9	6.9	6.8	6.8
12	---	---	---	5.8	5.7	5.8	6.9	6.8	6.9	6.9	6.8	6.8
13	---	---	---	6.0	5.8	5.9	6.9	6.8	6.9	6.9	6.8	6.9
14	---	---	---	6.1	6.0	6.0	---	---	---	6.9	6.8	6.9
15	---	---	---	6.3	6.1	6.2	---	---	---	6.9	6.8	6.9
16	---	---	---	6.4	6.3	6.3	6.9	6.8	6.9	6.9	6.7	6.9
17	---	---	---	6.5	6.4	6.4	6.9	6.9	6.9	6.9	6.6	6.8
18	5.2	5.0	5.1	6.5	6.4	6.4	6.9	6.9	6.9	6.8	6.7	6.8
19	5.2	5.2	5.2	6.4	6.4	6.4	7.0	6.9	6.9	6.8	6.7	6.8
20	5.2	5.1	5.1	---	---	---	6.9	6.9	6.9	6.8	6.7	6.7
21	5.2	5.2	5.2	---	---	---	6.9	6.8	6.9	6.8	6.7	6.7
22	5.3	5.2	5.2	---	---	---	6.9	6.8	6.9	6.8	6.6	6.7
23	5.3	5.2	5.3	---	---	---	6.9	6.9	6.9	6.8	6.7	6.7
24	5.3	5.3	5.3	---	---	---	6.9	6.7	6.9	6.8	6.6	6.7
25	5.3	5.1	5.2	---	---	---	6.9	6.7	6.8	6.8	6.7	6.7
26	5.2	5.0	5.1	---	---	---	6.9	6.8	6.9	6.8	6.6	6.7
27	5.3	5.1	5.2	---	---	---	7.0	6.8	6.9	6.7	6.6	6.7
28	5.4	5.2	5.3	---	---	---	6.9	6.9	6.9	6.7	6.6	6.7
29	5.5	5.3	5.4	---	---	---	6.9	6.8	6.9	6.7	6.6	6.7
30	5.5	5.4	5.4	---	---	---	6.9	6.8	6.8	6.7	6.6	6.7
31	---	---	---	---	---	---	6.9	6.8	6.8	---	---	---
MONTH	5.5	5.0	5.2	6.5	5.2	5.8	7.0	6.7	6.9	7.6	6.6	6.8

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

01594936 NORTH FORK SAND RUN NEAR WILSON, 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	2.0	3.5	7.0	4.5	6.0	16.0	10.5	13.5
2	---	---	---	6.5	3.5	4.5	5.5	3.5	4.5	13.0	9.0	11.5
3	---	---	---	6.0	3.0	4.5	5.5	3.5	4.0	12.5	9.0	10.5
4	---	---	---	9.0	4.0	5.5	8.0	3.5	5.5	14.0	7.5	10.5
5	---	---	---	7.0	4.5	6.0	12.0	6.5	9.0	14.0	8.0	11.0
6	---	---	---	5.0	2.5	3.5	9.5	6.0	8.0	14.0	11.0	12.5
7	---	---	---	6.0	2.0	3.5	6.5	4.5	5.5	14.5	11.0	12.5
8	---	---	---	6.0	4.5	5.0	5.5	3.0	4.5	14.0	9.0	11.5
9	---	---	---	8.0	3.5	5.5	3.5	1.0	2.0	16.0	9.0	12.5
10	---	---	---	7.5	3.5	5.0	5.5	.5	3.0	17.5	10.5	14.0
11	---	---	---	5.5	3.0	4.5	6.0	3.5	4.5	16.0	12.5	14.5
12	---	---	---	6.5	4.0	5.0	11.0	3.5	7.0	17.5	13.0	15.0
13	---	---	---	6.5	3.0	4.5	10.0	7.0	8.5	19.0	13.0	16.0
14	---	---	---	6.0	4.5	5.0	11.5	8.0	9.5	20.0	13.0	16.5
15	---	---	---	6.0	3.0	4.0	12.5	9.0	10.5	17.5	15.0	16.0
16	---	---	---	6.5	2.0	4.0	12.0	9.5	10.5	18.0	14.0	16.0
17	---	---	---	5.5	3.5	4.5	11.5	7.0	9.5	14.5	12.5	13.5
18	---	---	---	4.0	1.0	2.5	14.5	6.5	10.5	14.0	10.5	12.0
19	---	---	---	5.0	.5	2.5	16.5	10.5	13.5	16.0	10.0	12.5
20	---	---	---	7.0	3.5	5.0	16.5	10.5	13.5	17.5	9.5	13.5
21	---	---	---	5.0	2.5	4.0	16.5	11.0	14.0	17.5	12.5	15.0
22	---	---	---	3.5	1.5	2.5	15.5	11.5	13.5	17.0	13.5	15.0
23	2.5	1.0	1.5	3.5	1.5	2.5	15.0	12.0	13.5	14.0	12.0	13.0
24	3.5	1.5	2.0	4.5	3.0	3.5	17.5	12.5	14.5	16.0	11.5	13.5
25	4.0	3.0	3.5	6.0	3.0	4.0	15.5	12.5	13.5	17.5	11.5	14.5
26	4.5	3.5	4.0	7.5	2.0	5.0	16.5	10.0	13.5	18.0	11.5	15.0
27	5.0	3.0	4.0	10.0	3.5	6.5	15.0	11.5	13.5	18.5	12.0	15.5
28	4.5	2.0	3.0	12.0	7.5	9.5	14.5	12.0	13.5	15.5	14.5	15.0
29	---	---	---	12.0	10.0	11.0	15.5	9.5	12.5	16.5	13.5	14.5
30	---	---	---	10.0	7.5	9.0	16.5	9.0	13.0	18.0	12.5	15.0
31	---	---	---	8.0	7.0	7.5	---	---	---	15.5	12.5	13.5
MONTH	5.0	1.0	3.0	12.0	.5	5.0	17.5	.5	9.5	20.0	7.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	12.5	14.0	18.0	16.5	17.0	---	---	---	18.0	14.5	16.0
2	15.0	12.0	13.5	17.5	15.0	16.0	---	---	---	19.0	15.5	17.5
3	15.5	12.5	13.5	18.5	14.5	16.0	---	---	---	20.0	16.5	18.5
4	16.0	13.5	14.5	20.0	15.5	17.5	---	---	---	20.0	17.0	19.0
5	16.0	14.0	15.0	19.5	15.5	17.5	---	---	---	21.0	17.5	19.5
6	18.0	13.5	15.5	18.5	16.5	17.5	---	---	---	24.5	20.0	22.5
7	14.5	12.5	13.0	20.5	17.0	18.5	---	---	---	25.0	19.5	22.5
8	16.5	12.5	14.0	21.0	15.5	19.0	---	---	---	25.0	19.5	21.5
9	17.5	14.0	15.5	17.0	14.5	15.5	---	---	---	25.0	19.5	22.0
10	18.5	15.0	16.5	16.0	14.0	15.0	20.0	16.5	18.0	24.0	19.0	21.0
11	18.0	14.5	16.0	17.5	13.5	15.5	19.5	13.5	16.5	24.5	16.5	19.5
12	16.0	13.0	14.5	17.5	14.0	15.5	19.5	13.0	16.0	16.5	13.5	15.0
13	12.5	10.5	11.0	18.0	14.0	16.0	20.5	14.5	17.5	14.0	10.0	12.0
14	13.5	9.0	11.5	19.0	14.5	16.5	---	---	---	12.5	8.5	11.0
15	13.0	10.5	11.5	20.0	16.5	17.5	---	---	---	12.5	8.5	11.0
16	17.0	11.5	14.0	20.0	16.5	18.0	21.5	19.0	20.0	13.0	9.0	11.0
17	21.0	14.0	15.5	19.5	13.5	16.5	20.0	18.0	19.0	13.5	9.5	12.0
18	18.0	15.0	16.5	19.5	13.5	16.0	19.0	17.0	17.5	14.5	11.0	13.0
19	15.5	13.0	14.5	20.5	14.5	17.5	20.5	16.0	18.0	15.0	11.5	13.5
20	16.0	12.5	14.0	---	---	---	20.0	17.0	18.0	16.0	12.5	14.5
21	17.0	11.5	14.0	---	---	---	20.0	16.5	18.0	16.0	13.5	15.0
22	17.5	12.5	15.0	---	---	---	19.5	14.5	16.0	16.0	14.5	15.0
23	20.5	15.0	17.5	---	---	---	16.5	12.0	14.5	18.0	14.0	16.0
24	21.0	15.5	18.5	---	---	---	19.0	13.5	15.5	16.0	10.5	15.0
25	20.0	15.0	18.0	---	---	---	20.0	15.0	16.0	14.0	10.5	12.5
26	18.0	14.5	16.5	---	---	---	20.0	15.5	17.5	15.0	11.0	13.0
27	17.0	13.0	15.5	---	---	---	19.5	16.5	17.5	14.5	12.0	13.5
28	18.5	13.5	16.0	---	---	---	18.5	15.0	17.0	14.0	11.0	12.0
29	18.0	13.5	16.0	---	---	---	19.5	14.5	17.0	12.5	9.0	11.0
30	18.5	14.5	16.5	---	---	---	19.0	15.5	17.0	12.5	9.0	11.0
31	---	---	---	---	---	---	17.0	15.5	16.5	---	---	---
MONTH	21.0	9.0	15.0	21.0	13.5	17.0	21.5	12.0	17.0	25.0	8.5	15.5

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 MT. 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 Mt. Storm, and at mile 6.4.

DRAINAGE AREA.--48.8 mi².

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. Water-discharge records good except those periods with ice effect, Jan. 17-31, Feb. 1, 3, 4, 8-10, 14-18, and period of no gage-height record, Sept. 3-30, 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. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--24 years, 99.8 ft³/s, 27.77 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s, May 31, 1985, gage height, 11.85 ft, from rating curve extended above 6,200 ft³/s; minimum discharge, 1.8 ft³/s, July 13, 1968; minimum gage height, 1.73 ft, Sept. 25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,300 ft³/s, May. 31, gage height, 11.85 ft; minimum discharge, 1.8 ft³/s, Sept. 25, gage height, 1.73 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	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 Co. 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 TEMPERATURE: December 1961 to March 1974, September 1974 to current year.

INSTRUMENTATION.--Temperature recorder (contonuous 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 TEMPERATURE: Maximum, 27.5°C, Aug. 14, 1984; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: 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

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

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	716	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	1[illegible].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

01596500 SAVAGE RIVER NEAR BARTON, MD

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, Hydrologic Unit 02070002, on right bank 0.9 mi upstream from Bear Pen Run, 1.5 mi downstream from Popular Lick Run, 5.4 mi northwest of Barton, and 10 mi upstream from mouth.

DRAINAGE AREA.--49.1 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1603.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 20. Records good except those for period with ice effect, Jan. 9 to Feb. 20, which are fair. 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.--37 years, 74.9 ft³/s, 20.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft³/s, Oct. 15, 1954, gage height, 8.45 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.40 ft³/s, Sept. 3, 4, 1966, gage height, 0.96 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 24	1845	(a)	*3.96	Feb. 24	2000	*1,160	3.78

(a) Ice jam

Minimum discharge, 1.0 ft³/s, Sept. 26, 29, gage height, 1.02 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	16	17	177	64	28	193	474	20	63	10	16	4.6
2	14	15	150	60	28	148	335	75	44	15	12	3.8
3	10	14	135	53	28	130	230	512	36	36	8.3	3.4
4	7.5	14	111	51	28	110	159	301	30	19	7.2	2.8
5	5.9	43	93	52	27	109	128	168	45	15	6.6	2.5
6	5.3	34	87	45	27	98	111	116	41	13	6.6	2.3
7	4.7	29	66	43	26	78	95	89	31	12	6.7	2.6
8	4.4	24	68	40	26	76	85	70	28	10	8.2	2.2
9	4.7	21	48	38	26	79	78	57	25	59	6.9	2.2
10	4.7	24	46	36	26	67	68	49	23	218	5.5	4.6
11	4.6	35	70	35	26	66	68	43	19	172	5.0	4.2
12	3.8	35	108	34	55	156	66	39	23	83	4.6	2.6
13	3.5	31	130	35	80	166	65	37	23	54	4.1	1.8
14	3.5	29	141	35	70	144	63	31	20	39	4.2	1.6
15	3.5	28	123	32	60	118	60	27	19	58	17	1.4
16	6.5	26	103	29	52	96	57	26	29	43	8.5	1.4
17	10	24	89	28	48	84	50	28	28	31	7.9	1.2
18	23	26	75	26	46	71	44	31	27	25	6.7	1.2
19	14	23	101	25	46	61	40	27	25	22	6.9	1.2
20	13	21	156	28	46	54	37	23	22	19	6.6	1.2
21	13	26	187	31	59	49	35	20	19	18	6.2	1.2
22	11	45	321	30	89	45	32	18	16	17	5.5	1.2
23	16	68	251	29	355	126	30	22	16	22	5.0	1.2
24	22	66	168	28	781	264	29	24	14	15	6.0	1.2
25	22	56	191	27	760	341	29	19	12	12	17	1.3
26	17	35	157	27	414	230	27	16	9.6	14	10	1.2
27	15	36	136	26	354	159	25	15	8.5	15	7.2	1.4
28	14	336	113	25	292	128	24	17	8.2	11	5.8	1.3
29	25	384	94	24	---	113	23	32	7.5	8.5	4.8	1.2
30	24	227	82	24	---	217	21	22	7.2	8.3	4.8	2.1
31	19	---	69	26	---	429	---	68	---	9.1	5.4	---
TOTAL	360.6	1792	3846	1086	3903	4205	2588	2042	719.0	1102.9	233.2	62.1
MEAN	11.6	59.7	124	35.0	139	136	86.3	65.9	24.0	35.6	7.52	2.07
MAX	25	384	321	64	781	429	474	512	63	218	17	4.6
MIN	3.5	14	46	24	26	45	21	15	7.2	8.3	4.1	1.2
CFSM	.24	1.22	2.53	.71	2.83	2.77	1.76	1.34	.49	.73	.15	.04
IN.	.27	1.36	2.91	.82	2.96	3.19	1.96	1.55	.54	.84	.18	.05

CAL YR 1984 TOTAL 30109.1 MEAN 82.3 MAX 1250 MIN 3.5 CFSM 1.68 IN 22.81
WTR YR 1985 TOTAL 21939.8 MEAN 60.1 MAX 781 MIN 1.2 CFSM 1.22 IN 16.62

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTN, MD

LOCATION.--Lat 39°30'05", long 79°07'25", Garrett County, Hydrologic Unit 02070002, on left bank 0.7 mi downstream from Savage River Dam, 1.1 mi downstream from Crabtree Creek, 3.2 mi northwest of Bloomington, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--106 mi².

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

REVISED RECORDS.--WSP 1432: 1955.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan.12-30. Records good except those for period of no gage-height record, Jan.12-30, which are fair. Diversions upstream from station by Baltimore and Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity 20,000 acre-ft. 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.--37 years, 165 ft³/s, 21.14 in/yr, adjusted for storage since December 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,530 ft³/s, Oct. 16, 1954, gage height, 7.70 ft; minimum discharge, 0.35 ft³/s, Oct. 27, 1966, gage height, 0.57 ft; minimum daily discharge, 0.6 ft³/s, July 27-31, Aug. 5, 6, 9, 10, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,210 ft³/s, Apr 1, gage height, 4.71 ft; minimum discharge, 3.1 ft³/s, Oct. 1, gage height, 0.66 ft; minimum daily discharge, 48 ft³/s, Aug. 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	91	67	68	215	87	420	1580	80	308	62	65	59
2	97	67	68	213	87	237	930	83	210	62	64	59
3	98	67	70	212	87	237	609	835	116	62	64	59
4	98	67	95	186	87	237	360	873	115	62	64	59
5	96	67	145	159	87	236	271	392	191	61	64	59
6	96	67	163	158	87	236	271	266	201	61	64	59
7	215	67	162	158	86	234	268	264	116	61	64	59
8	285	67	158	124	85	234	218	218	116	61	64	59
9	167	67	158	104	85	234	188	146	116	64	64	59
10	94	67	128	104	85	234	186	120	116	717	64	59
11	74	67	75	104	82	161	185	118	117	886	64	59
12	74	67	76	104	83	120	185	118	118	362	64	59
13	92	67	76	104	85	120	185	91	116	218	64	59
14	92	67	110	104	86	122	185	76	112	139	64	59
15	76	67	174	104	87	122	147	76	110	118	64	59
16	78	67	174	104	87	122	122	76	110	118	64	57
17	100	67	174	104	87	122	132	76	114	118	64	57
18	100	67	174	104	87	122	135	76	116	118	63	57
19	99	67	177	104	85	121	130	76	116	120	59	57
20	99	67	332	104	82	121	129	76	116	108	57	57
21	98	67	511	104	168	120	129	76	115	110	57	57
22	71	67	552	92	227	121	123	76	114	82	57	57
23	70	67	552	87	232	124	120	76	114	65	148	57
24	75	67	547	87	257	127	120	76	81	65	320	57
25	94	67	547	87	1110	419	104	75	62	65	225	57
26	94	67	542	87	1580	451	86	75	62	65	59	57
27	93	62	539	87	1100	345	81	75	62	65	48	57
28	92	63	533	87	687	398	81	75	62	65	49	57
29	92	67	527	87	---	395	81	68	62	65	59	167
30	78	68	520	87	---	334	80	68	62	65	59	234
31	67	---	341	87	---	567	---	254	---	65	59	---
TOTAL	3145	2002	8468	3652	7075	7193	7421	5130	3546	4355	2408	2027
MEAN	101	66.7	273	118	253	232	247	165	118	140	77.7	67.6
MAX	285	68	552	215	1580	567	1580	873	308	886	320	234
MIN	67	62	68	87	82	120	80	68	62	61	48	57
(†)	7270	8280	9160	6550	14360	20480	18400	19350	18720	18010	14220	10500

CAL YR 1984 TOTAL 70377 MEAN 192 MAX 3030 MIN 43 CFSM 1.81 IN 24.70
WTR YR 1985 TOTAL 56422 MEAN 155 MAX 1580 MIN 48 CFSM 1.46 IN 19.80

† Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1984, 10,680 acre-feet). Records furnished by U.S. Army Corps of Engineers.

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

01599000 GEORGES CREEK AT FRANKLIN, MD

LOCATION.--Lat 39°29'38", long 79°02'42", Allegany County, Hydrologic Unit 02070002, on right bank at Franklin, and 1.2 mi upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi².

PERIOD OF RECORD.--May 1905 to July 1906 (published as at Westernport), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940.

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft Westvaco Corporation datum. May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 10-26, Feb. 4-6, and 8-10. Records fair except those for periods with ice effect, Jan. 10-26, Feb. 4-6, and 8-10, which are poor. Records include about 0.5 ft³/s of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted upstream from station by Frostburg Water Co. for municipal supplies of Eckhart and Welch Hill. An undetermined amount of water is diverted from the upper third of basin into the Wills Creek basin by the Hoffman drainage tunnel (see station 01601500). 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 (water years 1930-85), 81.7 ft³/s, 15.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft³/s, Mar. 17, 1936, gage height, 9.6 ft, site then in use, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 1.6 ft³/s, Sept. 29 to Oct. 13, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 10 ft, from floodmarks, at site 95 ft downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 24	2000	1,470	7.57	May 3	0230	*1,600	*7.71

Minimum discharge, 5.1 ft³/s, Sept. 22, 27, 28, 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	16	113	73	33	200	627	35	85	19	15	8.2
2	14	14	89	67	34	163	403	143	53	19	14	7.8
3	14	13	86	61	32	139	291	722	47	25	13	7.4
4	13	19	77	61	31	121	221	233	43	20	11	6.9
5	13	56	67	61	30	111	175	159	74	36	11	6.4
6	13	31	67	56	30	93	149	136	58	29	11	6.0
7	13	24	56	55	29	85	131	106	45	23	11	6.4
8	13	21	55	53	29	84	118	85	43	19	24	6.2
9	14	20	53	45	29	78	110	75	37	68	15	6.1
10	15	23	52	43	29	73	97	65	33	145	12	6.5
11	15	33	72	41	29	77	92	58	32	87	11	6.3
12	15	28	84	40	229	141	82	56	38	51	11	5.9
13	16	24	84	38	242	104	76	54	35	41	9.4	5.6
14	15	22	81	37	155	90	73	47	31	34	8.9	5.6
15	14	21	78	36	120	84	72	44	34	40	12	5.9
16	14	21	72	35	98	77	69	43	42	34	11	5.9
17	16	19	67	34	92	75	64	50	35	26	9.9	5.7
18	36	20	63	33	81	71	59	48	32	22	10	5.6
19	30	26	115	31	84	66	56	42	29	21	11	5.4
20	23	22	140	31	86	65	53	36	27	20	10	5.4
21	22	20	172	34	90	59	51	33	24	19	10	5.4
22	20	18	220	37	148	59	50	32	22	18	9.0	5.3
23	24	18	159	35	517	262	49	43	25	19	8.6	5.5
24	29	20	142	34	968	282	48	41	21	16	11	5.6
25	33	21	154	33	945	247	49	33	20	15	20	5.5
26	28	23	117	33	597	180	45	28	19	18	13	5.4
27	22	26	106	33	404	152	43	26	17	22	11	5.2
28	19	230	95	34	262	138	42	34	17	16	9.2	5.1
29	20	234	89	33	---	135	38	46	16	14	8.5	5.1
30	20	128	83	31	---	257	36	33	15	13	8.5	5.1
31	18	---	77	30	---	527	---	138	---	14	9.1	---
TOTAL	580.1	1211	2985	1298	5453	4295	3469	2724	1049	963	359.1	178.4
MEAN	18.7	40.4	96.3	41.9	195	139	116	87.9	35.0	31.1	11.6	5.95
MAX	36	234	220	73	968	527	627	722	85	145	24	8.2
MIN	9.1	13	52	30	29	59	36	26	15	13	8.5	5.1
CFSM	.26	.56	1.33	.58	2.69	1.92	1.60	1.21	.48	.43	.16	.08
IN.	.30	.62	1.53	.67	2.80	2.21	1.78	1.40	.54	.49	.18	.09

CAL YR 1984 TOTAL 42980.0 MEAN 117 MAX 2210 MIN 8.0 CFSM 1.62 IN 22.08
WTR YR 1985 TOTAL 24564.6 MEAN 67.3 MAX 968 MIN 5.1 CFSM .93 IN 12.62

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	580	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

01601500 WILLS CREEK NEAR CUMBERLAND, MD

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge, 0.15 mi downstream from Braddock Run, 2.0 mi upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi².

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above National Geodetic Vertical Datum of 1929. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 12. Records good except those for period with ice effect, Jan. 21 to Feb. 12, which are fair. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into the basin from Georges Creek basin by Hoffman drainage tunnel. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1964-65, and 1967-82, 84 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. Slight diurnal fluctuation at low flow caused by quarry upstream. 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.

DISCHARGE.--56 years (water years 1930-85), 328 ft³/s, 18.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft³/s, Mar. 17, 1936, gage height, 20.2 ft, from flood-marks at present site, from rating curve extended above 6,500 ft³/s on basis of slope-area measurements at gage heights 13.45 ft and 20.2 ft; minimum discharge, 9 ft³/s, Oct. 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 24	2115	3,710	6.42	May 3	0515	3,980	6.58
Mar. 31	2130	*4,610	*6.93				

Minimum discharge, 22 ft³/s, Sept. 21, 26, 27, 28, 30, gage height, 1.59 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	79	718	330	120	703	3500	136	263	51	128	35
2	87	73	544	307	120	605	1830	370	170	59	89	35
3	69	69	503	269	120	519	1230	3200	146	81	67	33
4	58	76	454	260	100	458	955	1620	133	64	57	32
5	52	196	382	267	110	418	809	957	178	64	51	30
6	49	156	387	236	110	364	719	699	135	105	47	29
7	46	130	321	222	110	313	644	552	112	92	46	29
8	45	120	290	218	110	300	582	446	106	73	60	29
9	47	107	274	166	110	285	538	358	98	309	58	28
10	47	116	265	159	120	260	489	302	87	515	46	29
11	47	165	339	179	120	257	465	265	80	531	41	29
12	46	176	449	164	720	497	432	264	84	291	41	28
13	44	161	481	154	1880	511	401	245	83	191	37	27
14	43	152	497	168	981	511	380	196	78	148	43	26
15	42	142	500	154	692	478	364	174	78	265	57	25
16	48	132	465	124	536	419	351	171	115	261	49	24
17	47	122	443	146	465	382	329	185	115	184	67	24
18	58	114	402	151	388	339	281	214	92	143	58	24
19	54	130	488	148	377	293	260	169	80	114	46	24
20	61	116	658	107	385	275	242	143	75	96	42	24
21	59	103	855	130	389	245	227	125	81	87	41	23
22	60	87	1280	140	548	228	212	117	75	106	38	24
23	75	85	1080	150	1880	712	203	158	70	93	36	24
24	84	96	826	140	3150	1100	195	172	71	69	45	23
25	93	101	812	140	2870	1280	205	131	71	62	80	23
26	81	101	625	125	1640	983	187	114	61	67	73	23
27	73	103	584	120	1130	779	171	103	54	70	55	23
28	70	617	533	120	852	665	163	129	49	60	43	22
29	91	1790	472	120	---	729	151	141	48	50	40	23
30	104	996	419	110	---	1470	142	112	46	49	36	22
31	86	---	359	120	---	2860	---	187	---	169	37	---
TOTAL	1961	6611	16705	5344	20133	19238	16657	12155	2934	4519	1654	794
MEAN	63.3	220	539	172	719	621	555	392	97.8	146	53.4	26.5
MAX	104	1790	1280	330	3150	2860	3500	3200	263	531	128	35
MIN	42	69	265	107	100	228	142	103	46	49	36	22
CFSM	.26	.89	2.18	.70	2.91	2.51	2.25	1.59	.40	.59	.22	.11
IN.	.30	1.00	2.52	.80	3.03	2.90	2.51	1.83	.44	.68	.25	.12

CAL YR 1984 TOTAL 174176 MEAN 476 MAX 9010 MIN 42 CFSM 1.93 IN 26.23
WTR YR 1985 TOTAL 108705 MEAN 298 MAX 3500 MIN 22 CFSM 1.21 IN 16.37

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

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 mi².

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 those for periods of ice effect, Jan. 12-24, 28-31, Feb.1, 14-21, which are poor. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--61 years (water years 1900-01, 1904-05, 1929-85), 1,309 ft³/s, 12.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft³/s, Mar. 18, 1936, gage height, 34.2 ft, from rating curve extended above 28,000 ft³/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 discharge, 29 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/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 ft³/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

01610155 SIDELING HILL CREEK NEAR BELLEGROVE, MD

WATER-QUALITY RECORDS

LOCATION.--Lat 39°38'58", long 78°20'40", Washington County, Hydrologic Unit 02070003, on left bank at bridge on Pearre Road, 1.2 mi upstream from mouth, and 4.0 mi south of Bellegrove.

DRAINAGE AREA.--102 mi².

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

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
28...	12:20	3.2	190	7.8	21.0	22.0	15	59	16	15	5.2	9.5

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
AUG 1985											
28...	25	0.6	2.9	43	1.3	17	17	<0.1	1.4	102	93

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
28...	0.14	0.88	0.20	0.04	0.12	160	130	31	20	3	17

01612500 LITTLE TONOLOWAY CREEK NEAR HANCOCK MD

WATER-QUALITY RECORDS

LOCATION.--Lat 39°42'45", long 78°13'55", Washington County, Hydrologic Unit 02070004, on right bank at downstream side of highway bridge, 100 ft downstream from unnamed tributary, and 2.8 mi northwest of Hancock.

DRAINAGE AREA.--16.9 mi².

PERIOD OF RECORD.--Water years 1964, 1985.

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
28...	14:50	0.9	353	7.6	27.5	21.0	10	120	81	28	12	18

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
AUG 1985											
28...	24	0.7	2.7	38	1.8	76	32	<0.1	7.4	246	200

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
28...	0.33	0.6	0.70	0.04	0.12	140	130	11	1400	100	1300

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

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, Hydrologic Unit 02070004, on right bank 0.7 mi upstream from highway bridge in Fairview, 2.0 mi upstream from Rockdale Run, 6.5 mi northwest of Hagerstown, and 19.1 mi upstream from mouth.

DRAINAGE AREA.--494 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi downstream at datum 2.93 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.92 ft lower than present datum.

REMARKS.--Estimated daily discharges: Jan. 10-14, 21-26, and Feb. 6-12. Water-discharge records good except those for periods with ice effect, Jan. 10-14, 21-26, and Feb. 6-12, which are fair. Low flow partly regulated by small powerplants near Mercersburg, Pa. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--57 years, 592 ft³/s, 16.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s, June 23, 1972, gage height, 24.5 ft, from flood-mark, from rating curve extended above 15,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 21 ft³/s, Aug. 8, Sept. 12, 1966; minimum daily discharge, 25 ft³/s Nov. 28, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft, present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	2030	(a)	*8.98	Feb. 13	1815	*5,850	8.81

(a) Ice jam

Minimum discharge, 83 ft³/s, Sept. 26, gage height, 1.23 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	160	952	362	264	686	2460	259	321	135	154	109
2	220	156	720	365	287	643	1880	315	288	133	147	107
3	199	149	632	365	294	585	1480	2120	257	132	136	105
4	178	144	650	339	245	538	1300	1530	266	136	126	104
5	163	164	541	340	245	516	1150	986	331	131	119	102
6	157	193	561	324	260	480	991	794	292	136	117	100
7	156	177	599	308	250	440	874	691	260	218	115	98
8	156	160	503	298	230	428	783	597	236	161	164	177
9	158	152	484	268	220	420	727	526	232	149	170	127
10	156	151	463	260	210	396	690	481	218	148	141	127
11	156	155	483	250	240	379	635	437	208	144	123	142
12	152	164	501	235	1200	425	598	413	195	153	121	127
13	146	161	475	245	4760	419	559	398	189	168	116	116
14	143	152	439	265	2360	383	542	368	182	138	113	110
15	145	147	412	248	1390	353	519	338	181	150	480	94
16	150	145	395	186	1050	329	505	336	191	165	234	96
17	144	141	379	258	877	315	485	409	228	155	173	96
18	146	139	368	261	822	306	446	618	275	134	153	96
19	149	155	363	244	834	294	423	525	210	126	144	98
20	170	170	448	189	901	285	403	393	188	120	137	92
21	165	163	465	210	828	279	384	346	186	117	135	89
22	169	153	886	240	851	269	369	348	183	116	129	88
23	224	145	812	250	1180	305	356	360	171	116	123	87
24	216	143	664	260	1240	805	342	466	166	111	121	88
25	201	143	608	260	1110	1030	338	383	170	110	144	87
26	191	140	526	260	969	813	330	326	152	131	157	86
27	172	139	476	253	871	683	311	296	145	343	151	112
28	165	195	453	255	750	620	297	286	143	407	134	201
29	185	2990	433	247	---	882	284	330	143	222	125	151
30	185	1730	410	234	---	1700	274	330	141	169	119	120
31	172	---	380	229	---	1840	---	303	---	155	115	---
TOTAL	5280	9076	16481	8308	24738	17846	20735	16308	6348	4929	4636	3332
MEAN	170	303	532	268	884	576	691	526	212	159	150	111
MAX	224	2990	952	365	4760	1840	2460	2120	331	407	480	201
MIN	143	139	363	186	210	269	274	259	141	110	113	86
CFSM	.34	.61	1.08	.54	1.79	1.17	1.40	1.07	.43	.32	.30	.23
IN.	.40	.68	1.24	.63	1.86	1.34	1.56	1.23	.48	.37	.35	.25

CAL YR 1984 TOTAL 312300 MEAN 853 MAX 19100 MIN 139 CFSM 1.73 IN 23.52
WTR YR 1985 TOTAL 138017 MEAN 378 MAX 4760 MIN 86 CFSM .77 IN 10.39

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-83, 1985.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1966 to September 1980 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: October 1966 to September 1980 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 30.0°C, July 17, 1969; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 1,050 mg/L, Oct. 25, 1971; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 73,000 tons, June 23, 1972; minimum daily, 0.17 ton, Nov. 24, 26, 27, 1966.

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
26...	16:15	153	423	8.7	24.0	23.0	15	200	27	57	13	10

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
AUG 1985											
26...	10	0.3	3.5	169	0.6	21	17	0.2	5.1	271	230

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
26...	0.37	112	3.70	0.41	1.3	260	260	5	30	30	3

01617800 MARSH RUN AT GRIMES, MD

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, Hydrologic Unit 02070004, on right bank 220 ft upstream from bridge on Sprecher Road, 0.1 mi downstream from unnamed tributary, 0.5 mi southwest of Grimes, 1.5 mi upstream from mouth, and 2.2 mi southwest of Fairplay.

DRAINAGE AREA.--18.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9, 12, 13, 16, 20-25, 27, Feb. 4, 5, and 8-10. Water-discharge records good except those for periods with ice effect, Jan. 9, 12, 13, 16, 20-25, 27, Feb. 4, 5, and 8-10, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 12.8 ft³/s, 9.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 459 ft³/s, Feb. 12, 1985, gage height, 4.45 ft; no flow Oct.1, 1977, result of regulation caused by construction work upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1100	*459	*4.45	No other peak greater than base discharge.			

Minimum discharge, 1.8 ft³/s, Feb. 8, gage height, 0.80 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.1	7.1	4.8	3.8	9.6	10	4.2	6.1	3.7	5.3	4.2
2	6.1	4.2	6.1	5.9	4.3	9.4	8.9	5.1	5.1	3.6	4.0	4.1
3	5.8	2.7	7.0	5.8	3.8	9.1	8.7	13	5.1	3.6	3.7	3.8
4	5.7	2.9	7.3	5.5	4.2	9.0	8.3	7.8	4.9	3.5	3.7	4.8
5	5.5	6.1	7.1	5.9	4.2	8.7	8.1	4.7	11	3.8	3.7	4.8
6	5.5	6.2	8.4	5.7	4.2	8.1	7.7	4.4	11	5.3	3.7	3.9
7	5.1	5.7	7.6	5.8	3.7	8.2	7.7	4.7	8.0	4.9	3.5	3.8
8	5.1	4.7	6.6	5.6	3.3	8.4	7.7	6.0	8.0	2.5	8.8	3.8
9	5.1	2.9	5.9	5.1	3.5	8.0	7.7	5.8	7.7	2.6	7.6	3.7
10	5.1	3.5	5.9	5.0	3.7	7.8	7.6	5.3	7.1	3.8	5.1	3.7
11	4.7	4.3	5.9	5.4	3.4	7.9	7.6	3.4	4.6	3.5	3.1	3.5
12	4.8	4.4	5.8	5.5	216	8.0	7.4	3.9	5.5	5.5	2.9	3.4
13	4.8	4.2	5.9	5.8	43	6.6	7.2	6.0	5.8	13	2.9	3.3
14	4.8	4.2	5.9	5.5	20	7.0	7.0	5.7	5.9	5.8	2.9	3.2
15	4.8	3.8	5.2	5.7	17	7.3	7.1	5.6	6.1	5.9	3.9	3.3
16	4.8	2.0	4.4	5.5	15	7.0	7.4	5.9	6.6	7.8	4.6	3.3
17	4.8	2.1	4.5	5.5	14	7.5	6.8	7.6	5.1	7.2	4.7	3.2
18	4.7	2.8	4.4	4.9	13	6.9	6.4	8.2	4.2	6.6	4.0	3.1
19	4.5	3.8	4.7	4.8	12	6.7	6.4	4.5	4.2	5.4	2.9	3.0
20	4.7	4.5	4.8	4.2	11	6.8	6.1	4.2	4.2	3.4	2.9	3.0
21	4.4	4.2	5.1	4.2	11	6.6	6.1	5.3	4.2	3.3	4.0	2.9
22	4.9	4.1	5.9	4.8	11	6.7	6.1	6.6	4.2	3.3	3.4	2.9
23	5.9	4.2	5.1	6.1	11	9.5	6.1	8.1	4.5	3.4	3.2	2.9
24	5.8	4.1	5.1	5.8	11	12	6.1	8.2	4.6	3.7	3.4	2.9
25	5.6	3.6	5.1	4.8	11	12	6.1	6.9	4.7	4.0	5.5	2.8
26	5.3	3.5	4.8	3.9	11	9.3	5.9	5.7	4.2	8.0	6.9	3.1
27	5.0	3.5	5.0	3.5	11	7.7	5.5	3.5	4.0	8.7	16	7.6
28	5.0	9.5	5.1	3.1	9.8	7.7	5.5	4.2	4.0	3.7	8.6	4.8
29	6.1	29	5.0	3.1	---	9.1	5.2	5.1	4.2	3.5	7.5	4.1
30	5.3	8.7	4.8	3.0	---	9.6	4.6	4.8	4.1	3.9	4.8	3.6
31	5.1	---	4.8	3.2	---	9.1	---	6.2	---	3.7	4.3	---
TOTAL	162.0	154.5	176.3	153.4	489.9	257.3	209.0	180.6	168.9	150.6	151.5	110.5
MEAN	5.23	5.15	5.69	4.95	17.5	8.30	6.97	5.83	5.63	4.86	4.89	3.68
MAX	7.2	29	8.4	6.1	216	12	10	13	11	13	16	7.6
MIN	4.4	2.0	4.4	3.0	3.3	6.6	4.6	3.4	4.0	2.5	2.9	2.8
CFSM	.28	.27	.30	.26	.93	.44	.37	.31	.30	.26	.26	.20
IN.	.32	.30	.35	.30	.96	.51	.41	.36	.33	.30	.30	.22

CAL YR 1984 TOTAL 6671.4 MEAN 18.2 MAX 95 MIN 2.0 CFSM .96 IN 13.13
WTR YR 1985 TOTAL 2364.5 MEAN 6.48 MAX 216 MIN 2.0 CFSM .34 IN 4.65

01617800 MARSH RUN AT GRIMES, MD--Continued

WATER-QUALITY DATA

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

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)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 1985											
19...	11:30	2.4	616	8.3	21.0	16.5	<1	270	92	9.5	11

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
19...	8	0.3	2.5	280	2.7	32	28	0.2	9.0	312	260

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
19...	0.42	2.0	3.70	0.02	0.06	140	120	21	20	20	4

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	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
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	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV 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 DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 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	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (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

01619000 ANTIETAM CREEK NEAR WAYNESBORO, PA

LOCATION.--LAT 39°42'59", long 77°36'28", Washington County, Md., Hydrologic Unit 02070004, on right bank 100 ft upstream from highway bridge at Rocky Forge, 0.4 mi downstream from Pennsylvania-Maryland State line, 0.7 mi downstream from confluence of west and east branches, 1.9 mi northeast of Leitersburg, Md., 2.5 mi southwest of Waynesboro, Pa., and 36.6 mi upstream from mouth.

DRAINAGE AREA.--93.5 mi.

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

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
26...	16:00	54	345	8.1	26.0	21.0	10	170	30	45	14	7.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
AUG 1985											
26...	8	0.3	3.0	140	2.1	18	12	0.2	7.0	222	190

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
26...	0.3	32	4.00	0.45	1.4	680	660	23	30	20	15

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, Hydrologic Unit 02070004, on left bank 400 ft downstream from Burnside Bridge, 1.0 mi southeast of Sharpsburg, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--281 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum.

REMARKS.--Estimated daily discharges: Jan. 26, 27 and Feb. 9, 10. Water-discharge records good. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years (water years 1898-1903, 1905, 1931-85), 277 ft³/s, 13.39 in/yr, adjusted for inflow since January 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s, July 20, 1956, gage height, 16.73 ft; minimum discharge, 9.4 ft³/s, Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily discharge, 37 ft³/s, Jan. 30, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0330	*6,390	*11.32	No other peak greater than base discharge.			

Minimum discharge, 87 ft³/s, Jan. 21, gage height, 2.29 ft., result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	163	329	204	194	353	537	204	240	143	176	127
2	235	161	286	229	234	344	501	219	210	144	144	122
3	198	155	275	233	200	327	466	557	196	146	135	121
4	190	152	269	216	179	314	440	423	200	143	129	121
5	182	220	252	227	171	310	413	324	351	143	127	117
6	178	241	282	215	181	296	387	299	289	148	123	115
7	173	183	280	210	175	283	367	289	231	152	121	112
8	174	169	252	209	165	280	350	272	219	149	340	110
9	177	164	242	202	165	276	340	257	208	141	239	110
10	180	162	241	197	160	265	330	246	200	149	157	139
11	174	160	239	198	164	262	317	239	195	149	141	133
12	170	164	238	199	2920	278	310	233	190	179	147	128
13	163	159	229	194	3260	266	300	258	185	231	136	112
14	163	154	221	194	794	254	290	226	182	142	129	107
15	168	153	214	194	632	245	286	215	181	195	143	107
16	170	152	211	184	539	237	285	222	186	226	187	105
17	166	146	211	189	485	232	282	267	193	148	139	105
18	165	143	208	189	446	228	268	319	186	138	133	104
19	164	162	209	187	418	225	262	280	174	132	132	103
20	174	161	224	178	402	223	256	232	169	129	128	103
21	171	154	221	150	380	219	250	226	168	125	169	101
22	173	146	262	201	368	216	246	285	163	124	147	99
23	203	143	246	187	396	261	240	271	167	123	131	99
24	194	144	227	182	424	363	232	277	160	118	128	102
25	178	143	226	182	417	346	233	243	181	117	177	101
26	168	142	220	175	402	305	230	222	157	193	166	99
27	162	143	216	170	390	284	222	212	150	430	225	187
28	164	226	214	168	367	279	214	209	151	227	155	179
29	196	867	213	166	---	307	210	227	149	163	140	122
30	191	462	210	162	---	459	207	215	146	151	133	108
31	170	---	206	165	---	522	---	237	---	147	144	---
TOTAL	5572	5894	7373	5956	15028	9059	9271	8205	5777	5045	4821	3498
MEAN	180	196	238	192	537	292	309	265	193	163	156	117
MAX	238	867	329	233	3260	522	537	557	351	430	340	187
MIN	162	142	206	150	160	216	207	204	146	117	121	99
(†)	-13.3	-14.2	-9.6	-9.3	-12.4	-9.2	-9.8	-11.3	-11.5	-15.0	-15.1	-14.6
MEAN‡	167	182	228	183	525	283	299	254	181	148	141	102
CFSM‡	0.59	0.65	0.81	0.65	1.87	1.01	1.06	0.90	0.64	0.53	0.50	0.36
IN‡	0.68	0.73	0.93	0.75	1.95	1.16	1.18	1.04	0.71	0.61	0.58	0.40

CAL YR 1984 TOTAL 167705 MEAN 458 MAX 4240 MIN 142 MEAN‡ 443 CFSM‡ 1.58 IN‡ 21.46
CAL YR 1985 TOTAL 85499 MEAN 234 MAX 3260 MIN 99 MEAN‡ 222 CFSM‡ 0.79 IN‡ 10.72

† Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
‡ Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-83, 1985.

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)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 1985											
25...	17:00	100	551	8.1	19.5	17.5	5	240	71	16	15

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
25...	12	0.4	4.4	246	3.8	35	27	0.3	6.3	323	300

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
25...	0.44	87	4.70	0.64	2.0	300	270	33	20	10	9

01636500 SHENANDOAH RIVER AT MILLVILLE, WV

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 mi².

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 of 1929. 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. Water-discharge records good except those for periods with ice effect, Jan. 18-22, 25-31, Feb. 1, 8-11, which are poor. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mi upstream from station. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--70 years (water years 1896-1908, 1929-85), 2,698 ft³/s, 12.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 230,000 ft³/s, Oct. 16, 1942, gage height, 32.4 ft, from floodmarks; minimum discharge, about 59 ft³/s, Oct. 4, 1930, gage height, 0.39 ft; minimum daily discharge, 194 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 3	1930	15,500	8.55	Feb. 13	1545	*24,700	*10.83

Minimum discharge, 346 ft³/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-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...	11:00	1270	510	8.1	11.0	10.0	768	1.1	12.0	106
JAN 1985										
07...	10:00	4280	318	8.2	4.0	6.0	752	2.0	15.6	127
MAR										
11...	10:15	2120	310	8.6	15.0	11.0	761	1.5	12.7	115
MAY										
01...	09:30	1060	410	8.5	23.0	21.5	758	3.0	8.3	95
JUL										
01...	10:30	1830	425	8.9	21.0	25.0	764	2.0	7.5	91
SEP										
03...	10:00	1100	374	8.3	26.0	25.0	762	3.4	7.2	87

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...	--	K21	190	30	51	15	31	26	1	3.0
JAN 1985										
07...	48	180	140	17	38	10	11	15	0.4	1.9
MAR										
11...	K3	140	120	26	35	8.8	15	21	0.6	1.4
MAY										
01...	30	120	150	28	42	12	24	25	0.9	2.2
JUL										
01...	<1	K65	160	47	43	12	29	28	1	2.1
SEP										
03...	31	82	140	33	38	11	25	27	1	2.7

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...	159	2.4	67	18	0.1	4.7	296	290	0.4	1010
JAN 1985										
07...	119	1.3	28	10	<0.1	3.6	193	170	0.26	2230
MAR										
11...	98	0.5	42	9.8	<0.1	1.3	178	170	0.24	1020
MAY										
01...	126	0.8	57	13	0.1	3.8	251	230	0.34	718
JUL										
01...	110	0.3	72	19	0.1	1.7	272	250	0.37	1340
SEP										
03...	107	1.0	55	12	0.1	6.1	211	210	0.29	627

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

01636500 SHENANDOAH RIVER AT MILLVILLE, 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...	1.40	<0.01	--	0.5	0.28	0.86	0.16	0.15	0.46
JAN 1985									
07...	1.40	0.02	0.03	0.5	0.14	0.43	0.11	0.08	0.25
MAR									
11...	0.98	0.04	0.05	1.1	0.08	0.25	0.08	0.06	0.18
MAY									
01...	<0.10	<0.01	--	0.5	0.15	0.46	0.08	<0.01	--
JUL									
01...	0.14	0.02	0.03	0.7	0.12	0.37	0.08	0.07	0.21
SEP									
03...	0.86	0.05	0.06	0.5	0.12	0.37	0.12	0.11	0.34

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	43	<0.5	<1	<1	<3	1	9	1
MAR										
11...	20	<1	33	<0.5	<1	<1	<3	<1	27	3
MAY										
01...	20	1	37	0.6	<1	<1	<3	3	11	1
SEP										
03...	<10	1	39	<0.5	<1	<1	<3	1	6	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	4	<0.1	<10	1	<1	<1	180	<6	9
MAR										
11...	5	6	<0.1	<10	1	<1	<1	110	<6	8
MAY										
01...	<4	4	<0.1	<10	1	<1	<1	140	<6	5
SEP										
03...	8	12	<0.1	<10	1	<1	<1	130	<6	23

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV			
07...	8	27	29
JAN			
07...	14	162	62
MAR			
11...	6	34	97
MAY			
01...	22	63	78
JUL			
01...	29	143	71
SEP			
03...	15	45	99

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, Hydrologic Unit 02070008, on right bank 300 ft downstream from bridge on State Highway 17, 1.3 mi south of Middletown, 2.2 mi downstream from Little Catoctin Creek, and 14.8 mi upstream from mouth.

DRAINAGE AREA.--66.9 mi².

PERIOD OF RECORD.--August 1947 to current year.

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 17-19, 21-29, Feb. 5-7. Records good except those for periods with ice effect, Jan. 17-19, 21-29, Feb. 5-7, 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.--38 years, 76.2 ft³/s, 15.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s, Oct. 9, 1976, gage height, 14.13 ft, from rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow; no flow Aug. 27 to Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1300	*3,470	*7.35	July 15	1930	1,700	5.26

Minimum discharge, 5.3 ft³/s, Sept. 20, 21, 22, 23, 24, 25, 26, gage height, 1.53 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	23	103	38	62	91	147	22	52	11	87	15
2	25	21	79	72	77	86	126	26	32	12	47	13
3	15	19	75	73	58	76	118	136	29	12	36	13
4	13	17	68	62	42	70	112	57	29	11	30	11
5	11	64	57	67	38	70	103	39	156	9.7	25	10
6	9.9	45	88	61	35	60	94	33	127	11	22	9.5
7	9.9	31	74	59	32	54	86	31	79	43	20	8.7
8	10	25	63	57	29	57	80	28	75	15	105	8.2
9	12	22	61	45	32	54	74	25	59	12	48	10
10	11	21	60	46	34	49	70	24	50	16	31	44
11	11	22	59	48	36	48	67	22	41	15	25	15
12	10	21	54	41	1550	69	61	25	37	21	21	10
13	9.9	19	53	44	422	55	57	48	33	43	18	8.7
14	9.5	17	49	45	219	47	54	27	31	16	16	7.6
15	9.3	16	46	35	161	44	53	21	28	177	15	7.5
16	9.7	16	44	28	133	40	53	28	33	114	14	6.9
17	10	16	44	40	116	40	50	68	31	38	14	6.5
18	11	15	42	38	103	37	45	115	24	25	15	6.4
19	11	21	42	36	99	34	44	59	20	19	16	6.1
20	13	24	45	31	100	34	41	43	19	17	14	5.8
21	14	19	46	35	92	33	38	42	18	15	47	5.5
22	38	16	66	34	98	33	35	49	16	14	29	5.3
23	71	16	55	33	129	70	34	68	19	12	17	5.6
24	48	16	50	32	136	148	33	74	18	10	15	6.3
25	30	16	53	31	123	131	34	48	18	11	37	5.8
26	22	16	47	30	117	106	33	39	14	136	37	5.4
27	18	15	45	29	109	97	29	33	12	190	58	32
28	28	116	45	29	95	93	26	31	12	68	29	28
29	66	451	44	28	---	113	25	33	13	47	20	12
30	38	145	42	29	---	133	24	29	12	38	17	9.0
31	27	---	40	32	---	121	---	49	---	57	16	---
TOTAL	653.2	1301	1739	1308	4277	2193	1846	1372	1137	1235.7	941	337.8
MEAN	21.1	43.4	56.1	42.2	153	70.7	61.5	44.3	37.9	39.9	30.4	11.3
MAX	71	451	103	73	1550	148	147	136	156	190	105	44
MIN	9.3	15	40	28	29	33	24	21	12	9.7	14	5.3
CFSM	.32	.65	.84	.63	2.29	1.06	.92	.66	.57	.60	.45	.17
IN.	.36	.72	.97	.73	2.38	1.22	1.03	.76	.63	.69	.52	.19

CAL YR 1984 TOTAL 40922.9 MEAN 112 MAX 2720 MIN 8.2 CFSM 1.67 IN 22.75
WTR YR 1985 TOTAL 18340.7 MEAN 50.2 MAX 1550 MIN 5.3 CFSM .75 IN 10.20

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.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, Hydrologic Unit 02070009, on right bank 60 ft downstream from bridge on State Highway 140 at Bridgeport, 0.9 mi upstream from Cattail Branch, 3.4 mi northwest of Taneytown, 4.8 mi downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 mi upstream from mouth.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1382: 1944(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft above National Geodetic Vertical datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi downstream at datum 0.98 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-10 and Jan. 11-16. Records good except those for period of missing record, Oct. 1-10, and period with ice effect, Jan.11-16, which are fair. Occasional regulation at low flow from unknown source upstream from 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.--43 years, 204 ft³/s, 16.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft³/s, June 22, 1972, gage height, 24.05 ft, from rating curve extended above 7,000 ft³/s on basis of slope-conveyance study; no flow July 24-29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft present site and datum, from floodmarks, discharge, about 23,000 ft³/s. Stage exceeded that of June 1889, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0700	5,630	10.96	July 27	0500	6,700	11.99
Feb. 12	1930	*9,970	*14.76				

Minimum discharge, 4.8 ft³/s, Sept. 25, 26, gage height, 1.87 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	26	39	258	87	38	135	1090	37	43	12	46	17
2	30	34	177	284	84	126	418	38	32	12	39	16
3	21	32	188	309	93	111	291	1440	25	14	27	14
4	18	28	250	172	69	98	246	322	34	15	23	13
5	17	175	153	193	53	101	224	162	43	18	20	11
6	16	158	480	159	52	92	178	118	42	15	19	11
7	16	95	477	129	51	77	143	99	34	22	19	9.7
8	16	77	186	118	43	79	125	82	26	25	248	8.9
9	16	70	163	81	36	84	117	69	49	15	107	9.0
10	17	67	153	65	35	74	125	61	42	12	50	12
11	16	71	165	60	35	67	109	54	27	12	35	14
12	15	80	139	58	4150	103	101	50	22	14	28	13
13	15	70	127	56	2670	112	91	54	19	11	23	12
14	14	60	120	54	480	81	84	50	17	8.2	19	9.2
15	14	57	113	52	318	72	81	40	17	8.6	17	7.9
16	15	56	115	52	227	64	80	41	20	41	20	7.1
17	16	54	109	50	194	60	74	116	248	31	18	6.6
18	17	53	99	56	189	58	65	515	83	18	17	6.5
19	17	64	95	57	214	52	61	167	44	13	16	6.7
20	19	81	168	39	223	50	56	94	31	11	17	6.5
21	17	51	160	32	181	51	59	70	25	8.1	19	6.5
22	25	37	683	23	196	48	60	62	26	8.1	27	6.0
23	78	34	272	29	324	101	57	62	22	6.9	19	6.4
24	45	33	183	36	359	858	56	98	19	6.5	15	6.1
25	43	33	179	43	312	634	56	67	16	8.5	23	5.2
26	37	32	139	43	241	284	60	49	17	175	76	5.1
27	30	31	119	37	233	193	54	39	14	2750	70	112
28	29	90	117	34	164	160	47	34	13	198	37	134
29	164	3080	112	35	---	640	45	34	13	93	24	40
30	84	467	103	33	---	1450	41	36	13	64	19	22
31	50	---	92	32	---	705	---	35	---	48	17	---
TOTAL	953	5309	5894	2508	11264	6820	4294	4195	1076	3693.9	1154	554.4
MEAN	30.7	177	190	80.9	402	220	143	135	35.9	119	37.2	18.5
MAX	164	3080	683	309	4150	1450	1090	1440	248	2750	248	134
MIN	14	28	92	23	35	48	41	34	13	6.5	15	5.1
CFSM	.18	1.02	1.10	.47	2.32	1.27	.83	.78	.21	.69	.22	.11
IN.	.20	1.14	1.27	.54	2.42	1.47	.92	.90	.23	.79	.25	.12

CAL YR 1984 TOTAL 116467.0 MEAN 318 MAX 5160 MIN 14 CFSM 1.84 IN 25.04
WTR YR 1985 TOTAL 47715.3 MEAN 131 MAX 4150 MIN 5.1 CFSM .76 IN 10.26

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, Hydrologic Unit 02070009, on left bank 300 ft downstream from bridge on State Highway 194, 800 ft downstream from Bruceville, 3.5 mi upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11-31 and Feb. 9-11. Records good except those for periods with ice effect, Jan, 11-31, Feb. 9-11, which are poor. Occasional diversion for irrigation upstream from 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.--38 years, 112 ft³/s, 14.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, Sept. 26, 1975, gage height, 18.98 ft, from rating curve extended above 3,900 ft³/s on the basis of contracted-opening measurement at gage height 17.86 ft; minimum daily discharge, 1.0 ft³/s, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0200	2,320	6.54	Feb. 12	1500	*6,980	*11.97

Minimum discharge, 11 ft³/s, Sept. 5, 18, 21, gage height, 0.77 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	69	67	186	85	123	92	178	45	73	31	36	25
2	80	64	146	188	307	91	155	51	60	35	30	26
3	51	59	157	145	124	84	138	252	60	32	29	26
4	44	56	141	115	78	80	126	99	58	36	27	25
5	42	197	117	122	87	87	115	73	108	32	27	21
6	41	107	388	107	100	74	108	66	82	29	26	22
7	39	79	210	102	82	69	101	63	62	51	28	20
8	40	69	151	96	60	76	96	58	67	33	137	21
9	42	65	135	86	58	72	94	53	82	35	53	43
10	42	65	131	82	56	67	91	51	61	37	36	54
11	40	77	123	80	56	69	88	49	52	37	32	30
12	40	80	111	76	3480	81	84	48	51	31	31	25
13	39	63	117	72	827	68	79	100	47	31	28	24
14	38	58	107	70	239	65	77	60	45	28	26	20
15	36	55	100	69	175	62	77	50	45	31	27	22
16	38	55	95	67	142	59	77	58	54	147	23	22
17	39	52	92	65	126	59	72	227	50	39	26	20
18	38	52	90	63	118	56	67	479	46	31	24	21
19	38	75	94	63	116	55	66	144	43	28	28	21
20	73	78	108	62	112	57	63	109	40	25	28	19
21	48	60	142	62	103	55	62	93	39	26	30	18
22	44	56	215	61	108	57	59	92	37	26	32	20
23	242	60	129	60	129	143	58	125	38	24	26	19
24	119	54	114	59	137	176	55	133	39	22	24	21
25	84	53	115	58	129	142	60	91	36	33	37	21
26	65	51	96	57	120	103	58	77	32	153	53	20
27	58	51	96	56	112	93	53	71	30	235	119	366
28	56	232	94	60	96	164	51	69	29	61	40	113
29	313	1280	93	58	---	470	49	88	32	43	31	51
30	100	269	89	56	---	258	47	71	31	39	29	40
31	77	---	84	54	---	284	---	75	---	35	28	---
TOTAL	2115	3639	4066	2456	7400	3368	2504	3120	1529	1476	1151	1196
MEAN	68.2	121	131	79.2	264	109	83.5	101	51.0	47.6	37.1	39.9
MAX	313	1280	388	188	3480	470	178	479	108	235	137	366
MIN	36	51	84	54	56	55	47	45	29	22	23	18
CFSM	.67	1.19	1.28	.78	2.59	1.07	.82	.99	.50	.47	.36	.39
IN.	.77	1.33	1.48	.90	2.70	1.23	.91	1.14	.56	.54	.42	.44

CAL YR 1984 TOTAL 61132 MEAN 167 MAX 1410 MIN 35 CFSM 1.64 IN 22.29
WTR YR 1985 TOTAL 34020 MEAN 93.2 MAX 3480 MIN 18 CFSM .91 IN 12.41

01640965 HUNTING CREEK NEAR FOXVILLE, MD

LOCATION.--Lat 39°37'10", long 77°28'00", Frederick County, Hydrologic Unit 02070008, on left downstream wingwall of culvert on park road in Cunningham Falls State Park, 0.25 mi upstream from Hunting Creek Lake, and 2.9 mi west of Thurmont.

DRAINAGE AREA.--2.14 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 5-8, 20-24, and Apr. 18-23. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 255 ft³/s, Feb. 14, 1984, gage height, 4.00 ft; minimum daily discharge, 0.04 ft³/s, Aug. 30, Sept. 18, 1982.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	2215	33	3.17	Feb. 12	1300	*88	*3.52

Minimum daily discharge, 0.06 ft³/s, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.51	3.1	1.7	1.5	4.5	9.4	.78	1.5	.23	.29	.20
2	.60	.48	2.4	4.5	1.7	4.1	6.5	2.2	1.1	.25	.23	.19
3	.47	.45	2.8	3.1	1.3	3.5	5.5	11	.92	.23	.21	.16
4	.42	.42	2.3	2.8	1.3	3.2	4.7	3.4	.84	.20	.20	.15
5	.38	3.1	2.0	2.6	1.2	3.1	4.3	2.6	3.7	.18	.18	.13
6	.37	1.1	2.7	2.4	1.2	2.7	4.0	2.3	2.2	.52	.17	.12
7	.36	.76	2.1	2.2	1.2	2.5	3.4	2.0	1.3	.37	.20	.12
8	.36	.63	1.8	2.2	1.1	2.5	3.1	1.7	1.1	.22	.87	.13
9	.38	.60	1.8	2.0	1.1	2.2	3.0	1.5	.91	.21	.28	.33
10	.38	.60	2.1	1.9	1.0	2.1	2.7	1.4	.73	.23	.23	.24
11	.36	.66	2.5	1.9	1.0	2.2	2.5	1.2	.64	.20	.21	.16
12	.36	.63	2.2	1.9	26	3.2	2.4	2.1	.62	.24	.19	.15
13	.36	.57	2.1	1.8	15	2.4	2.2	2.0	.56	.22	.17	.12
14	.36	.55	2.0	1.8	8.1	2.2	2.0	1.2	.50	.18	.15	.11
15	.36	.55	1.9	1.6	5.8	2.0	2.0	1.1	.52	.29	.19	.11
16	.36	.55	1.8	1.5	4.7	1.9	1.9	1.8	.64	.28	.15	.10
17	.36	.52	1.8	1.5	4.1	1.9	1.8	3.4	.53	.16	.15	.10
18	.36	.54	1.7	1.6	3.6	1.7	1.6	6.8	.45	.13	.17	.10
19	.38	.74	1.8	1.5	3.7	1.6	1.5	2.9	.39	.11	.18	.10
20	.48	.71	1.8	1.5	3.8	1.5	1.5	2.2	.36	.10	.17	.10
21	.46	.52	2.4	1.5	4.0	1.4	1.4	2.1	.34	.10	.41	.09
22	1.0	.49	3.8	1.4	7.6	1.3	1.3	2.3	.31	.10	.21	.09
23	1.4	.48	2.7	1.4	15	7.0	1.2	5.4	.38	.09	.16	.16
24	1.3	.50	2.5	1.3	12	9.2	1.1	3.7	.32	.08	.20	.14
25	.71	.51	2.5	1.3	8.6	7.2	1.2	2.6	.29	.26	.39	.13
26	.53	.51	2.1	1.2	7.4	5.4	1.1	2.0	.25	8.6	1.4	.12
27	.46	.51	2.0	1.2	6.2	4.7	.97	1.6	.23	2.9	.93	.66
28	.58	7.3	2.0	1.1	5.0	4.2	.91	1.6	.23	.50	.31	.19
29	1.6	15	2.0	1.1	---	5.3	.88	1.5	.23	.34	.25	.10
30	.73	4.8	1.9	1.0	---	8.0	.83	1.3	.21	.29	.22	.07
31	.56	---	1.7	1.0	---	7.2	---	2.2	---	.27	.21	---
TOTAL	18.09	45.29	68.3	55.5	154.2	111.9	76.89	79.88	22.30	18.08	9.28	4.67
MEAN	.58	1.51	2.20	1.79	5.51	3.61	2.56	2.58	.74	.58	.30	.16
MAX	1.6	15	3.8	4.5	26	9.2	9.4	11	3.7	8.6	1.4	.66
MIN	.36	.42	1.7	1.0	1.0	1.3	.83	.78	.21	.08	.15	.07
CFSM	.27	.71	1.03	.84	2.58	1.69	1.20	1.21	.35	.27	.14	.08
IN.	.31	.79	1.19	.96	2.68	1.94	1.34	1.39	.39	.31	.16	.08

CAL YR 1984 TOTAL 1571.26 MEAN 4.29 MAX 101 MIN .28 CFSM 2.01 IN 27.30
WTR YR 1985 TOTAL 664.38 MEAN 1.82 MAX 26 MIN .07 CFSM .85 IN 11.54

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD

LOCATION.--Lat 39°37'42", long 77°27'44", Frederick County, Hydrologic Unit 02070003, on left downstream wingwall of culvert of park road in Cunningham Falls State Park, 600 ft upstream from Hunting Creek Lake, and 2.7 mi west of Thurmont.

DRAINAGE AREA.--4.01 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 5-8, 20-25. Records fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 506 ft³/s, Aug. 11, 1984, gage height, 3.44 ft; minimum discharge, 0.12 ft³/s, Sept. 10, 11, 12, 20, 1983.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 90 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1330	*144	*2.33	No other peak greater than base discharge.			

Minimum discharge, 0.53 ft³/s, July 24, Sept. 16-22.

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	5.2	2.4	6.4	4.3	4.0	8.2	18	2.5	3.2	1.3	1.2	.87
2	2.3	2.4	5.2	9.5	4.2	7.7	12	6.0	2.5	1.4	.89	.80
3	2.0	2.2	6.5	6.6	3.5	7.0	11	22	2.3	1.4	.76	.72
4	1.8	2.2	5.5	5.9	3.2	6.7	9.6	6.4	2.2	1.1	.76	.69
5	1.7	9.8	4.9	5.5	3.0	6.8	8.8	4.9	11	1.0	.72	.62
6	1.7	3.4	6.5	5.4	3.1	6.0	8.2	4.2	5.1	1.4	.71	.62
7	1.7	2.8	4.9	5.0	3.1	5.6	7.4	3.9	3.1	1.6	.79	.56
8	1.7	2.5	4.6	4.4	3.0	6.0	7.1	3.7	3.0	1.1	7.3	.62
9	1.7	2.4	4.7	3.9	2.9	5.5	6.9	3.4	2.6	1.0	1.4	2.2
10	1.8	2.4	5.4	4.0	2.9	5.2	6.5	3.2	2.3	1.0	1.1	1.3
11	1.7	2.5	6.2	4.1	2.9	5.6	6.4	3.0	2.1	.99	.91	.75
12	1.7	2.5	5.3	4.3	61	7.4	5.9	4.7	2.1	1.3	.86	.63
13	1.7	2.2	5.1	4.3	23	5.5	5.5	4.8	2.0	1.1	.74	.56
14	1.7	2.2	4.9	4.3	11	5.2	5.3	3.0	1.9	.87	.72	.55
15	1.7	2.2	4.9	4.2	8.8	4.9	5.2	2.8	1.9	.95	.98	.55
16	1.7	2.2	4.5	4.4	8.5	4.6	5.1	4.1	2.7	1.5	.72	.53
17	1.7	2.1	4.4	3.9	7.1	4.6	5.0	7.6	2.3	.79	.72	.53
18	1.7	2.2	4.3	4.0	6.7	4.3	4.5	12	2.0	.69	.78	.53
19	1.7	2.8	4.8	3.9	7.2	4.1	4.3	4.9	1.8	.65	.91	.53
20	1.8	2.6	4.8	4.0	7.3	4.2	4.2	3.7	1.7	.66	.76	.53
21	1.9	2.1	6.0	3.8	7.6	4.0	3.9	3.6	1.6	.70	2.7	.53
22	3.2	2.0	8.4	3.8	14	3.9	3.7	4.1	1.4	.62	1.0	.53
23	4.8	2.0	5.8	3.6	22	18	3.5	8.6	1.8	.62	.76	.85
24	4.4	2.1	5.3	3.6	18	18	3.4	5.8	1.5	.53	1.1	.72
25	2.9	2.2	5.5	3.4	13	13	3.6	4.1	1.3	1.4	2.8	.54
26	2.6	2.1	4.8	3.4	12	9.7	3.4	3.4	1.2	18	3.7	.54
27	2.4	2.1	4.6	3.1	10	8.7	3.0	3.0	1.2	4.6	2.9	4.4
28	2.9	20	4.6	3.1	8.7	8.2	2.9	3.3	1.2	1.6	1.3	1.2
29	6.8	27	4.6	3.0	---	14	2.8	3.4	1.3	1.2	.96	.75
30	3.1	8.3	4.7	2.8	---	22	2.6	3.0	1.2	.97	.87	.63
31	2.6	---	4.3	2.8	---	16	---	4.2	---	.97	.87	---
TOTAL	76.3	125.9	162.4	132.3	281.7	250.6	179.7	157.3	71.5	53.01	42.69	25.38
MEAN	2.46	4.20	5.24	4.27	10.1	8.08	5.99	5.07	2.38	1.71	1.38	.85
MAX	6.8	27	8.4	9.5	61	22	18	22	11	18	7.3	4.4
MIN	1.7	2.0	4.3	2.8	2.9	3.9	2.6	2.5	1.2	.53	.71	.53
CFSM	.61	1.05	1.31	1.07	2.52	2.02	1.49	1.26	.59	.43	.34	.21
IN.	.71	1.17	1.51	1.23	2.61	2.32	1.67	1.46	.66	.49	.40	.24

CAL YR 1984 TOTAL 3770.30 MEAN 10.3 MAX 258 MIN 1.5 CFSM 2.57 IN 34.97
WTR YR 1985 TOTAL 1558.78 MEAN 4.27 MAX 61 MIN .53 CFSM 1.07 IN 14.46

01640975 HUNTING CREEK NEAR THURMONT, MD

LOCATION.--Lat 39°27'48", long 77°27'20", Frederick County, Hydrologic Unit 02070008, on left bank 600 ft downstream from dam on Hunting Creek Lake, 1.6 mi upstream from Bear Branch, 2.4 mi west of Thurmont, and 10.7 mi upstream from mouth.

DRAINAGE AREA.--7.08 mi².

PERIOD OF RECORD.--December 1981 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 940 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Hunting Creek Lake 600 ft upstream. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 915 ft³/s Feb. 14, 1984, gage height, 4.82 ft; minimum discharge, 1.3 ft³/s, Aug. 15, 16, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft³/s, Mar. 29, May 3; maximum gage height, 1.10 ft, Mar. 29; minimum discharge 1.8 ft³/s June 30, July 1, and part or all of each day July 18-25, gage height, 0.12 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	3.7	6.9	4.7	13	3.4	27	31	3.7	7.0	1.9	2.7	2.5
2	4.0	6.8	4.6	13	3.4	27	24	4.3	6.3	2.2	2.4	2.5
3	3.6	6.8	4.4	13	3.4	27	20	26	5.9	2.2	2.2	2.5
4	3.3	6.8	4.4	13	3.4	22	18	17	5.2	2.2	2.1	2.5
5	3.2	6.8	4.4	13	3.8	9.6	17	10	6.1	2.2	2.0	2.5
6	3.2	6.8	4.4	13	4.4	9.5	14	8.7	9.3	3.1	2.0	2.5
7	3.2	6.8	4.4	13	4.4	9.3	13	8.0	7.2	3.4	2.1	2.5
8	3.2	6.8	4.4	13	4.4	9.3	13	7.1	7.2	3.0	2.2	2.5
9	3.2	6.8	4.4	13	4.4	8.8	12	6.3	6.1	2.7	2.2	2.7
10	3.2	6.3	4.4	11	4.4	7.7	11	5.8	5.2	2.7	2.2	2.7
11	3.2	6.3	5.9	9.3	4.4	7.7	11	5.4	3.7	2.5	2.2	2.7
12	3.2	6.3	7.1	9.3	5.0	8.1	10	5.8	2.7	2.5	2.2	2.5
13	3.2	6.2	7.6	9.3	5.0	8.3	9.6	8.9	2.8	2.3	2.2	2.5
14	3.2	5.9	12	9.3	5.7	8.3	9.3	6.9	2.7	2.0	2.2	2.5
15	3.2	5.5	17	9.3	6.0	8.3	9.0	5.5	2.7	2.1	2.5	2.5
16	3.2	5.5	17	9.3	6.3	7.9	8.7	5.9	3.1	2.0	2.5	2.4
17	3.2	5.2	17	9.3	7.3	7.2	8.3	9.3	3.7	2.0	2.2	2.2
18	6.5	5.1	16	9.3	13	7.2	8.1	16	3.4	1.8	2.2	2.5
19	8.3	5.0	16	9.3	18	7.2	8.4	11	3.2	1.8	2.2	2.5
20	8.3	4.7	16	9.3	18	6.1	8.0	9.3	2.9	1.8	2.2	2.5
21	8.3	4.7	16	9.3	18	4.7	7.9	9.1	2.9	1.8	2.5	2.5
22	8.3	4.7	15	9.3	18	4.7	8.3	8.7	2.9	1.8	2.2	2.5
23	8.1	4.1	15	9.3	18	4.9	8.1	9.7	2.7	1.8	2.2	2.5
24	7.9	3.2	15	9.3	18	4.7	6.8	12	2.6	1.8	2.3	2.5
25	7.7	3.2	15	9.3	21	4.7	6.4	10	2.3	2.0	2.3	2.5
26	7.7	3.2	14	9.3	23	6.6	6.0	8.6	2.2	3.5	2.4	3.1
27	7.7	3.2	14	9.3	24	9.7	5.9	7.7	2.2	10	2.2	4.3
28	7.7	3.5	14	8.9	27	11	5.6	6.8	2.2	7.4	2.2	4.0
29	7.7	5.2	13	6.9	---	22	5.3	6.8	2.0	3.9	2.3	4.0
30	7.4	5.0	13	4.1	---	30	4.8	6.0	1.9	2.7	2.5	4.0
31	7.2	---	13	3.4	---	27	---	6.3	---	2.7	2.5	---
TOTAL	165.0	163.3	333.1	309.4	295.1	363.5	328.5	272.6	120.3	85.8	70.3	82.1
MEAN	5.32	5.44	10.7	9.98	10.5	11.7	11.0	8.79	4.01	2.77	2.27	2.74
MAX	8.3	6.9	17	13	27	30	31	26	9.3	10	2.7	4.3
MIN	3.2	3.2	4.4	3.4	3.4	4.7	4.8	3.7	1.9	1.8	2.0	2.2
CFSM	.75	.77	1.51	1.41	1.48	1.65	1.55	1.24	.57	.39	.32	.39
IN.	.87	.86	1.75	1.63	1.55	1.91	1.73	1.43	.63	.45	.37	.43

CAL YR 1984 TOTAL 6656.6 MEAN 18.2 MAX 457 MIN 2.3 CFSM 2.57 IN 34.97
WTR YR 1985 TOTAL 2589.0 MEAN 7.09 MAX 31 MIN 1.8 CFSM 1.00 IN 13.60

01641000 HUNTING CREEK AT JIMTOWN, MD

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, Hydrologic Unit 02070009, on right bank just downstream from highway bridge, 0.4 mi southwest of Jimtown, about 2.2 mi southeast of Thurmont, 2.2 mi upstream from Little Hunting Creek, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--18.4 mi².

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

REVISED RECORDS.--WSP 1332: 1952.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20-29. Records good except those for period wth ice effect, Jan. 20-29, which are fair. Slight regulation at irregular intervals caused by pumpage at recreation camp near Foxville, and from occasional draining and refilling of pond near Thurmont by Maryland Game and Inland Fish Commission. Regulation since spring of 1970 at low flow by Hunting Creek Lake, 5.6 miles upstream from 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.--36 years, 27.0 ft³/s, 19.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft³/s, Oct. 9, 1976, gage height, 6.32 ft; minimum discharge, 0.4 ft³/s, Sept. 9, 1966, gage height, 1.48 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1200	*515	*3.59	No other peak greater than base discharge.			

Minimum discharge, 3.2 ft³/s, July 23, 24, 25, gage height, 1.60 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	13	11	15	21	15	44	71	10	14	6.5	5.4	5.2
2	10	11	14	38	16	43	54	20	12	6.3	4.7	4.9
3	8.8	11	16	26	12	39	47	63	11	6.3	4.5	4.6
4	8.1	11	13	25	11	37	41	29	11	6.3	4.5	4.6
5	7.5	25	13	27	11	23	38	20	22	6.1	4.4	4.6
6	7.4	13	28	26	12	20	33	17	17	10	4.3	4.6
7	7.4	11	16	25	11	20	29	15	12	8.8	5.3	4.6
8	7.6	11	14	25	10	21	28	14	13	6.2	10	4.6
9	7.8	11	14	23	10	19	27	13	12	5.4	4.9	7.9
10	7.4	11	14	23	11	17	26	12	10	5.6	4.6	5.1
11	7.4	12	14	19	11	19	25	12	9.1	4.9	4.6	4.5
12	7.5	11	15	22	161	22	24	13	7.4	5.6	4.5	4.5
13	7.5	10	16	21	54	18	22	16	7.4	5.0	4.5	4.5
14	7.7	9.7	18	19	34	18	20	13	7.4	3.9	4.3	4.5
15	7.6	9.7	25	17	27	17	20	12	8.0	5.3	4.8	4.6
16	7.7	9.6	25	20	25	16	20	14	9.0	5.2	4.3	4.5
17	7.9	9.4	25	18	23	15	18	24	8.7	4.3	4.4	4.5
18	9.1	9.7	24	18	27	15	17	31	8.1	3.8	4.7	4.5
19	13	12	25	17	35	15	17	19	7.5	3.7	4.6	4.5
20	14	10	24	16	34	15	16	15	7.4	3.9	4.5	4.5
21	14	9.5	32	16	33	12	15	21	7.1	4.0	7.4	4.5
22	21	9.4	31	15	36	13	15	18	6.9	3.8	4.5	4.5
23	17	9.3	26	15	38	40	15	32	7.5	3.6	4.5	5.0
24	16	7.8	25	14	39	45	14	25	6.8	3.5	5.9	4.6
25	12	7.5	26	14	41	32	14	19	6.0	6.1	8.0	4.5
26	12	7.4	24	13	45	27	13	16	5.7	41	26	5.0
27	12	7.4	23	13	43	29	12	14	5.6	21	10	16
28	17	32	23	12	44	28	12	13	5.7	11	5.9	6.9
29	18	54	23	12	---	54	12	13	5.7	7.7	5.3	6.4
30	12	19	21	11	---	78	11	12	6.0	5.7	5.4	6.6
31	12	---	21	10	---	64	---	14	---	5.5	5.3	---
TOTAL	337.4	392.4	643	591	869	875	726	579	277.0	226.0	186.0	159.8
MEAN	10.9	13.1	20.7	19.1	31.0	28.2	24.2	18.7	9.23	7.29	6.00	5.33
MAX	21	54	32	38	161	78	71	63	22	41	26	16
MIN	7.4	7.4	13	10	10	12	11	10	5.6	3.5	4.3	4.5
CFSM	.59	.71	1.13	1.04	1.69	1.53	1.32	1.02	.50	.40	.33	.29
IN.	.68	.79	1.30	1.19	1.76	1.77	1.47	1.17	.56	.46	.38	.32

CAL YR 1984 TOTAL 15884.4 MEAN 43.4 MAX 1050 MIN 5.8 CFSM 2.36 IN 32.11
WTR YR 1985 TOTAL 5861.6 MEAN 16.1 MAX 161 MIN 3.5 CFSM .88 IN 11.85

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, Hydrologic Unit 02070009, on right bank 0.2 mi upstream from Jug Bridge on U.S. Highway 40, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi².

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 8, 9, 12-15, 22-26, Feb. 6-10. Records good except those for periods of ice effect, Jan. 8, 9, 12-15, 22-26, Feb. 6-10, which are fair. National Weather Service 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.--56 years, 934 ft³/s, 15.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft³/s, June 23, 1972, gage height, 35.9 ft, from floodmark; minimum daily, 19 ft³/s, Sept. 7-13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft, from floodmarks, discharge, 56,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	1630	11,200	11.84	Feb. 13	0830	*26,700	*19.38

Minimum discharge, 92 ft³/s, Sept. 20, gage height, 1.21 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	310	385	1480	545	397	839	3160	268	387	151	267	141
2	370	340	1080	753	938	787	2160	273	336	154	206	136
3	356	317	941	1600	882	729	1530	1950	291	157	185	136
4	279	293	1110	990	586	663	1320	1900	298	152	167	135
5	228	514	879	920	499	650	1170	786	470	149	156	130
6	211	1040	1530	940	440	617	1040	582	697	146	147	126
7	203	594	2370	778	410	545	878	497	405	184	141	123
8	200	452	1230	640	390	529	781	445	350	233	233	121
9	203	392	961	540	370	540	725	392	341	168	726	126
10	205	371	877	479	370	511	700	355	345	162	307	143
11	204	369	867	520	359	479	661	338	294	157	209	166
12	201	411	809	465	9200	535	626	339	258	161	175	135
13	203	383	756	455	20300	584	584	366	236	152	156	122
14	191	333	745	440	2830	523	542	390	219	144	145	112
15	187	306	674	425	1740	466	518	309	215	267	135	109
16	182	300	645	361	1330	434	512	298	231	734	130	105
17	186	293	631	423	1120	412	495	422	243	327	128	101
18	189	290	615	479	1010	397	453	1750	464	201	143	103
19	190	330	589	465	1020	382	426	1180	293	158	144	102
20	197	396	688	326	1040	371	409	613	232	144	140	99
21	246	392	763	392	959	365	384	483	208	135	156	100
22	357	329	1740	380	915	357	368	494	193	131	166	99
23	1780	293	1410	370	1170	446	358	591	192	124	159	98
24	764	281	954	360	1470	1990	339	781	188	118	153	101
25	530	276	875	350	1390	2130	341	584	181	136	171	150
26	392	270	800	350	1210	1400	348	441	177	450	201	101
27	334	266	682	410	1150	984	333	369	159	3230	683	270
28	301	355	659	331	982	856	309	338	155	1250	385	993
29	1020	7600	646	326	---	966	291	329	152	427	213	377
30	817	3200	621	311	---	3500	280	343	152	285	171	208
31	490	---	575	306	---	3020	---	366	---	254	153	---
TOTAL	11526	21371	29202	16430	54477	27007	22041	18572	8362	10641	6651	4968
MEAN	372	712	942	530	1946	871	735	599	279	343	215	166
MAX	1780	7600	2370	1600	20300	3500	3160	1950	697	3230	726	993
MIN	182	266	575	306	359	357	280	268	152	118	128	98
CFSM	.46	.87	1.15	.65	2.38	1.07	.90	.73	.34	.42	.26	.20
IN.	.52	.97	1.33	.75	2.48	1.23	1.00	.85	.38	.48	.30	.23

CAL YR 1984 TOTAL 553593 MEAN 1513 MAX 25200 MIN 165 CFSM 1.85 IN 25.21
WTR YR 1985 TOTAL 231248 MEAN 634 MAX 20300 MIN 98 CFSM .78 IN 10.53

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, Hydrologic Unit 02070009, at Reich's Ford Bridge, 1.1 mi downstream from U.S. Highway 40, 1.2 mi downstream from gaging station, 2 mi southeast of Frederick, and 15.0 mi upstream from mouth.

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. Water-discharge records for Monocacy River at Jug bridge near Frederick (station 01643000) are used for computation of sediment loads. Prior to 1970, published as Monocacy River at Jug Bridge near Frederick (station 01643000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1961-72, 1975, 1977, 1980-85): Maximum daily, 32.0°C, July 21, 1980; minimum, daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,000 mg/L, July 10, 1970; minimum daily mean, 1 mg/L on many days in water years 1961-67, 1970, 1972, 1982, 1985.
SEDIMENT LOAD: Maximum daily, 134,000 tons, June 22, 1972; minimum daily, 0.39 ton, Dec. 14, 1981.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 30.0°C, Aug. 15, 16; minimum daily, 1.0°C, Feb. 3, 4, 9.
SEDIMENT CONCENTRATION: Maximum daily mean, 573 mg/L, Nov,29; minimum daily mean, 1 mg/L, Mar. 16-19, 21, 22.
SEDIMENT LOAD: Maximum daily, 7,260 tons, Feb. 13; minimum daily, 0.96 ton, Mar. 22.

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

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

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, 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	28	23	53	55	35	140	22	32	16	17	15	34
2	61	61	35	32	31	90	34	69	16	41	15	32
3	50	48	18	15	30	76	83	359	12	29	12	24
4	17	13	10	7.9	29	87	41	110	10	16	9	16
5	16	9.8	22	31	19	45	22	55	9	12	9	16
6	16	9.1	32	90	44	240	19	48	6	7.1	12	20
7	15	8.2	27	43	112	771	17	36	15	17	10	15
8	15	8.1	29	35	40	133	14	24	11	12	7	10
9	15	8.2	37	39	34	88	14	20	9	9.0	9	13
10	15	8.3	32	32	17	40	5	6.5	12	12	11	15
11	16	8.8	26	26	12	28	5	7.0	12	12	18	23
12	17	9.2	19	21	22	48	3	3.8	47	2010	13	19
13	17	9.3	14	14	30	61	5	6.1	126	7260	8	13
14	16	8.3	12	11	31	62	8	9.5	68	528	3	4.2
15	14	7.1	17	14	22	40	12	14	40	188	2	2.5
16	11	5.4	22	18	15	26	12	12	27	97	1	1.2
17	12	6.0	18	14	21	36	13	15	19	57	1	1.1
18	15	7.7	16	13	30	50	16	21	16	44	1	1.1
19	16	8.2	15	13	30	48	12	15	16	44	1	1.0
20	16	8.5	18	19	27	50	4	3.5	16	45	2	2.0
21	12	8.0	28	30	23	47	8	8.5	14	36	1	.99
22	38	110	27	24	64	301	10	10	12	30	1	.96
23	493	2330	22	17	44	168	6	6.0	16	51	6	7.2
24	170	351	18	14	32	82	5	4.9	22	87	80	430
25	62	89	14	10	30	71	3	2.8	25	94	62	357
26	40	42	13	9.5	26	56	6	5.7	26	85	16	60
27	25	23	13	9.3	24	44	8	8.9	23	71	10	27
28	20	16	30	29	30	53	10	8.9	17	45	8	18
29	115	317	573	11400	34	59	8	7.0	---	---	20	52
30	90	199	112	1230	32	54	5	4.2	---	---	314	2800
31	58	77	---	---	28	43	12	9.9	---	---	152	1340
TOTAL	---	3837.2	---	13315.7	---	3137	---	943.2	---	10956.1	---	5356.25
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	120	1020	17	12	15	16	8	3.3	90	65	17	6.5
2	124	723	23	17	27	24	7	2.9	23	13	16	5.9
3	20	83	240	1990	16	13	8	3.4	19	9.5	12	4.4
4	7	25	269	1630	11	8.9	7	2.9	15	6.8	12	4.4
5	4	13	36	76	44	56	6	2.4	16	6.7	16	5.6
6	5	14	29	46	85	160	6	2.4	15	6.0	17	5.8
7	7	17	32	43	68	74	8	4.0	13	4.9	15	5.0
8	7	15	22	26	37	35	13	8.2	19	12	13	4.2
9	7	14	17	18	28	26	6	2.7	82	161	11	3.7
10	12	23	23	22	29	27	8	3.5	35	29	10	3.9
11	18	32	27	25	14	11	10	4.2	18	10	10	4.5
12	16	27	16	15	8	5.6	10	4.3	18	8.5	10	3.6
13	10	16	17	17	13	8.3	15	6.2	16	6.7	9	3.0
14	8	12	24	25	11	6.5	10	3.9	15	5.9	8	2.4
15	7	9.8	16	13	10	5.8	15	11	13	4.7	8	2.4
16	8	11	24	19	11	6.9	105	208	10	3.5	8	2.3
17	10	13	34	39	12	7.9	75	66	9	3.1	7	1.9
18	10	12	146	690	28	35	33	18	8	3.1	6	1.7
19	9	10	235	749	12	9.5	20	8.5	9	3.5	7	1.9
20	9	9.9	40	66	23	14	15	5.8	10	3.8	9	2.4
21	9	9.3	24	31	15	8.4	12	4.4	11	4.6	9	2.4
22	13	13	24	32	8	4.2	10	3.5	11	4.9	9	2.4
23	19	18	36	57	6	3.1	10	3.3	10	4.3	11	2.9
24	18	16	48	101	8	4.1	10	3.2	8	3.3	16	4.4
25	16	15	41	65	11	5.4	15	5.5	11	5.1	25	10
26	15	14	39	46	12	5.7	35	43	22	12	54	15
27	14	13	20	20	13	5.6	355	3880	47	87	90	66
28	19	16	10	9.1	12	5.0	195	723	44	46	124	332
29	36	28	17	15	10	4.1	60	69	28	16	60	61
30	27	20	22	20	9	3.7	120	92	21	9.7	32	18
31	---	---	14	14	---	---	153	105	18	7.4	---	---
TOTAL	---	2262.0	---	5948.1	---	599.7	---	5303.5	---	567.0	---	589.6

TOTAL LOAD FOR YEAR: 52815.35 TONS.

01643500 BENNETT CREEK AT PARK MILLS, MD

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, Hydrologic Unit 02070009, on left bank 75 ft downstream from highway bridge, 0.2 mi south of Park Mills, 1.8 mi upstream from mouth, and 3.7 mi southwest of Urbana.

DRAINAGE AREA.--62.8 mi².

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, Jan. 6, 7, 12, 13, 17-19, 23-25, Feb. 6, 7. Records good except those for period of no gage-height record, Oct. 1, and periods with ice effect, Jan. 6, 7, 12, 13, 17-19, 23-25, Feb. 6, 7, which are fair. 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 (water years 1949-58, 1967-85), 69.9 ft³/s, 15.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft³/s, June 21, 1972, gage height, 22.1 ft, from flood-mark, from rating curve extended above 2,700 ft³/s on basis of contracted-opening measurements at gage heights 11.15 ft, 14.33 ft, and 22.1 ft; minimum discharge, 0.30 ft³/s, Sept. 8, 1966, gage height, 0.80 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1415	*3,360	*8.28	No other peak greater than base discharge.			

Minimum daily discharge, 5.7 ft³/s, 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	33	26	58	32	91	44	133	25	36	15	20	9.9
2	29	26	46	43	219	44	87	26	28	16	17	9.6
3	23	24	51	44	75	41	72	73	27	16	15	9.6
4	21	23	43	54	63	41	65	38	37	14	14	8.8
5	19	63	40	61	51	42	59	32	185	13	13	7.9
6	18	38	121	54	48	40	54	29	99	12	13	7.1
7	17	30	77	48	44	38	48	28	50	12	14	6.5
8	18	27	60	44	40	41	46	25	51	11	21	6.4
9	20	26	52	42	37	39	46	24	40	11	15	7.9
10	20	25	47	41	38	37	43	24	33	20	13	11
11	18	29	45	41	44	37	43	23	30	17	12	8.1
12	18	28	42	40	1400	42	42	26	29	17	12	7.1
13	17	25	41	40	276	37	40	39	27	21	10	6.4
14	17	24	38	38	151	37	39	25	25	14	10	6.2
15	16	23	36	32	111	35	39	24	25	22	11	6.4
16	17	23	35	31	84	33	40	26	30	44	9.9	6.4
17	17	22	34	31	71	34	36	45	25	16	11	6.3
18	18	22	34	30	60	33	34	52	24	13	13	6.1
19	18	36	35	30	57	33	34	32	23	12	19	6.1
20	19	29	35	24	57	33	33	27	21	11	12	6.0
21	19	25	40	22	55	33	33	27	22	11	13	5.7
22	21	24	51	29	56	33	32	39	20	11	12	5.7
23	66	24	40	29	59	64	32	75	19	44	10	6.1
24	37	24	37	28	59	133	30	52	18	14	9.7	7.4
25	30	23	37	29	56	98	34	37	17	20	14	6.4
26	26	23	33	33	53	65	32	31	15	108	18	6.0
27	24	23	34	30	50	57	30	27	15	241	19	82
28	25	79	33	31	45	53	28	32	15	34	12	23
29	75	314	33	30	---	73	27	37	16	24	10	13
30	35	77	32	29	---	69	26	28	15	22	9.9	11
31	29	---	32	33	---	85	---	44	---	19	10	---
TOTAL	780	1205	1372	1123	3450	1524	1337	1072	1017	875	412.5	316.1
MEAN	25.2	40.2	44.3	36.2	123	49.2	44.6	34.6	33.9	28.2	13.3	10.5
MAX	75	314	121	61	1400	133	133	75	185	241	21	82
MIN	16	22	32	22	37	33	26	23	15	11	9.7	5.7
CFSM	.40	.64	.71	.58	1.96	.78	.71	.55	.54	.45	.21	.17
IN.	.46	.71	.81	.67	2.04	.90	.79	.63	.60	.52	.24	.19

CAL YR 1984 TOTAL 29656.5 MEAN 81.0 MAX 1040 MIN 9.5 CFSM 1.29 IN 17.57
WTR YR 1985 TOTAL 14483.6 MEAN 39.7 MAX 1400 MIN 5.7 CFSM .63 IN 8.58

01645000 SENECA CREEK AT DAWSONVILLE, MD

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, Hydrologic Unit 02070008, on right bank 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, 0.5 mi east of Dawsonville, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi².

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M), 1941(M). WDR MD-DE-74-1: 1970(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft above National Geodetic Vertical Datum of 1929. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930, to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 11, 14-17, 20, 21, 26-31, Feb. 4, 5, 9, 10. Records good except those for periods of ice effect, Jan. 11, 14-17, 20, 21, 26-31, Feb. 4, 5, 9, 10, which are fair. Small diversion at times for irrigation upstream from 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.--55 years, 103 ft³/s, 13.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s, June 22, 1972, gage height, 16.4 ft, from high-water mark in gage house, from rating curve extended above 3,000 ft³/s on basis of contracted-opening and flow over-road measurement at gage height 12.17 ft at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft at site 5.0 mi downstream, adjusted for flow from intervening area; minimum discharge observed, 1.7 ft³/s, Sept. 28, 29, 1930, gage height, 0.56 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1145	3140	8.01	Feb. 12	2230	*3620	*8.33

Minimum discharge, 12 ft³/s, Sept. 19, gage height, 1.71 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	44	74	61	182	71	209	41	67	32	37	28
2	90	50	66	67	284	71	132	43	52	37	34	26
3	56	45	80	73	119	68	115	136	48	49	32	26
4	50	44	68	104	93	68	105	61	69	35	31	26
5	52	106	65	114	84	69	97	50	372	32	30	24
6	57	64	197	84	82	65	89	46	357	31	29	22
7	49	52	101	70	79	63	81	44	87	30	31	20
8	47	47	76	72	66	66	78	42	86	27	37	21
9	47	47	70	58	69	65	76	40	68	27	34	23
10	42	47	68	53	69	62	71	39	58	32	29	41
11	42	51	67	53	71	62	70	37	58	34	27	33
12	42	53	62	54	1980	68	69	40	62	75	26	24
13	40	46	63	52	870	60	67	71	57	127	25	21
14	38	45	61	52	338	60	66	43	53	44	24	20
15	37	44	60	52	293	60	66	38	56	147	26	20
16	36	45	60	50	257	58	67	45	77	146	26	20
17	38	44	59	62	231	58	65	141	55	54	26	18
18	39	44	59	54	178	56	62	117	51	42	37	17
19	40	67	61	53	136	55	61	67	45	36	52	17
20	44	58	60	52	112	55	59	61	45	34	31	19
21	42	48	64	50	96	55	58	62	45	32	35	18
22	39	47	79	50	91	56	57	91	43	37	30	18
23	56	46	66	51	92	95	51	139	45	55	28	22
24	71	46	64	50	92	179	51	98	39	31	25	24
25	57	46	63	49	89	129	62	67	37	62	54	21
26	46	45	58	48	84	97	50	58	33	92	57	21
27	44	45	66	48	80	87	46	52	33	227	54	440
28	43	107	83	46	73	81	44	107	33	70	34	78
29	76	526	81	46	---	104	43	126	33	50	26	41
30	54	97	79	46	---	108	42	59	32	43	28	33
31	46	---	70	44	---	151	---	89	---	39	31	---
TOTAL	1573	2096	2250	1818	6290	2402	2209	2150	2196	1809	1026	1182
MEAN	50.7	69.9	72.6	58.6	225	77.5	73.6	69.4	73.2	58.4	33.1	39.4
MAX	113	526	197	114	1980	179	209	141	372	227	57	440
MIN	36	44	58	44	66	55	42	37	32	27	24	17
CFSM	.50	.69	.72	.58	2.23	.77	.73	.69	.73	.58	.33	.39
IN.	.58	.77	.83	.67	2.32	.88	.81	.79	.81	.67	.38	.44

CAL YR 1984 TOTAL 53010 MEAN 145 MAX 2190 MIN 27 CFSM 1.44 IN 19.52
WTR YR 1985 TOTAL 27001 MEAN 74.0 MAX 1980 MIN 17 CFSM .73 IN 9.94

01645200 WATTS BRANCH AT ROCKVILLE, MD

LOCATION.--Lat 39°05'03", long 77°10'38", Montgomery County, Hydrologic Unit 02070008, on left bank 0.2 mi south of State Highway 28, 1.3 mi west of post office in Rockville, and 9.4 mi upstream from mouth.

DRAINAGE AREA.--3.70 mi².

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

REVISED RECORDS.--WSP 2103: 1965. WDR MD-DE-75-1: 1967-70.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11-15, 20-22, 27-29, Feb. 15, July 18-24, and Sept. 11-23. Records good except those for estimated daily discharges which are fair, and for those above 250 ft³/s, which are poor. Some regulation of low flow from unknown source upstream from 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.--28 years, 4.16 ft³/s, 15.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, Sept. 26, 1975, gage height, 7.32 ft, from rating curve extended above 280 ft³/s on basis of combined computation of peak flow through culvert and slope-area measurement of tributary inflow at gage height 7.22 ft, 7.83 ft, from floodmarks; minimum discharge, 0.10 ft³/s Sept. 2, 1966, gage height, 1.10 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 14	0800	343	4.84	July 15	1530	*589	*5.91
June 5	1700	362	4.95	July 27	0730	339	4.81
July 12	2130	318	4.68	Sept. 27	0600	394	5.14

Minimum discharge, 0.28 ft³/s, Sept. 5, 6, 7, 8, 9, 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	18	.97	1.6	1.6	26	1.8	4.1	1.1	1.3	.98	1.0	.49
2	2.2	.99	1.4	4.2	12	1.8	2.1	5.2	1.1	8.0	.85	.44
3	1.0	.89	5.3	7.0	3.3	1.7	2.0	14	2.4	1.7	.80	.46
4	.85	.98	1.7	5.7	2.4	2.1	1.8	1.5	1.9	.67	.75	.54
5	.76	7.6	8.6	6.2	2.5	1.8	1.8	1.3	33	.61	.75	.36
6	.71	1.2	11	2.3	4.4	1.6	1.7	1.3	3.0	.62	.72	.33
7	.77	1.2	2.2	2.1	2.5	1.5	1.6	1.2	2.4	.52	.74	.31
8	.78	.96	1.9	1.9	2.0	1.8	1.7	1.2	3.2	.83	3.1	.34
9	.99	.99	1.7	1.7	1.9	1.6	1.7	1.2	1.5	.81	.82	3.3
10	.78	.98	1.8	1.6	2.0	1.5	1.6	1.2	1.4	1.8	.67	10
11	.88	2.2	1.6	1.5	2.7	1.8	1.6	1.2	1.3	.53	.66	.80
12	.75	.95	1.5	1.5	97	2.5	1.5	2.6	2.8	23	.61	.50
13	.76	.91	1.4	1.4	5.4	1.4	1.5	1.6	1.2	3.7	.59	.35
14	.78	.89	1.4	1.4	3.5	1.4	1.6	1.1	1.1	.91	.62	.40
15	.84	.92	1.4	1.3	2.8	1.6	1.6	.99	1.9	49	.57	.32
16	.99	1.0	1.3	1.3	2.4	1.4	1.6	6.7	2.5	3.9	.58	.32
17	1.0	.90	1.4	1.6	2.3	1.4	1.4	21	1.2	1.8	.60	.32
18	1.2	1.2	1.3	1.7	2.1	1.3	1.6	4.8	1.4	1.2	6.1	.36
19	1.2	5.7	1.4	1.8	2.1	1.3	1.5	1.3	1.2	1.0	1.1	.32
20	1.1	1.2	1.3	1.5	2.1	1.3	1.4	1.1	1.7	1.0	.75	.32
21	1.1	1.0	3.7	1.5	1.9	1.3	1.3	4.9	1.2	.95	2.7	.30
22	1.2	1.0	1.8	1.4	2.1	1.9	1.3	1.6	1.2	.90	.65	.32
23	3.4	1.1	1.4	1.4	2.2	12	1.3	12	1.5	.90	.50	.32
24	4.2	1.2	1.5	1.5	2.2	8.5	1.3	1.7	1.8	1.2	.82	.85
25	.87	1.2	1.5	1.6	2.0	2.9	3.9	1.3	.79	14	6.3	.68
26	.79	.99	1.3	1.4	2.3	2.0	1.5	1.1	.71	7.5	1.8	2.2
27	.78	.96	1.3	1.3	1.9	1.9	1.3	1.0	.69	33	1.1	76
28	3.5	36	1.4	1.3	1.8	1.8	1.2	16	.71	1.6	.63	1.7
29	15	12	1.4	1.3	---	2.9	1.2	2.0	.71	1.4	.53	1.3
30	1.2	2.0	1.3	1.4	---	6.9	1.2	1.3	.67	1.3	.80	1.3
31	1.0	---	1.8	1.6	---	5.7	---	4.6	---	1.2	1.1	---
TOTAL	69.38	90.08	69.6	65.0	197.8	80.4	50.9	119.09	77.48	166.53	39.31	105.55
MEAN	2.24	3.00	2.25	2.10	7.06	2.59	1.70	3.84	2.58	5.37	1.27	3.52
MAX	18	36	11	7.0	97	12	4.1	21	33	49	6.3	76
MIN	.71	.89	1.3	1.3	1.8	1.3	1.2	.99	.67	.52	.50	.30
CFSM	.61	.81	.61	.57	1.91	.70	.46	1.04	.70	1.45	.34	.95
IN.	.70	.91	.70	.65	1.99	.81	.51	1.20	.78	1.67	.40	1.06

CAL YR 1984 TOTAL 1615.84 MEAN 4.41 MAX 86 MIN .60 CFSM 1.19 IN 16.24
WTR YR 1985 TOTAL 1131.12 MEAN 3.10 MAX 97 MIN .30 CFSM .84 IN 11.37

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Md., Hydrologic Unit 02070008, on left bank just above Little Falls Dam, 1 mi upstream from District of Columbia boundary line, 1.2 mi upstream from Chain Bridge, 1.8 mi east of Langley, Fairfax County, Va., and at mile 117.4.
DRAINAGE AREA.--11,560 mi².
PERIOD OF RECORD.--March 1930 to current year.
REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi upstream on right bank at same datum.
REMARKS.--No estimated daily discharges. Records good. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D.C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); since April 1964, at Violets Lock to Chesapeake and Ohio Canal; and since October 1985, at Fairfax County Water Authority Treatment Plant for water supply of the county. Low flow affected slightly 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). Gage-height telemeter at station.
AVERAGE DISCHARGE.--55 years, 11,500 ft³/s, 13.51 in/yr, adjusted for diversions.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484,000 ft³/s, Mar. 19, 1936, gage height, 28.1 ft, site then in use; minimum daily discharge observed at gaging station, 121 ft³/s, Sept. 9, 1966, does not include diversion of 489 ft³ for municipal use; minimum daily discharge (adjusted), 601 ft³/s, Sept. 10, 1966, includes diversion of 449 ft³/s for municipal use.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 30	2245	46,900	6.54	Feb. 14	0115	*106,000	*9.08

Minimum daily discharge, 993 ft³/s, Sept. 21, does not include diversion for municipal use; minimum daily (adjusted) discharge, 1,730 ft³/s, Sept. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3280	3870	39900	9070	5290	27200	24300	4390	7200	2110	2950	2910
2	3900	3530	25900	8640	8550	23100	30700	4270	15000	1960	2890	2650
3	3460	3930	18700	8900	8970	19500	31200	5190	27200	2160	2690	2340
4	3310	3800	14800	10000	10100	16400	25800	11100	17100	1840	2490	2040
5	3410	3780	12600	9670	11000	14200	20600	29500	12300	1960	2290	1990
6	3660	3830	12700	10400	8970	12700	17600	26200	12900	2040	2220	1860
7	3430	4210	12300	11900	8070	11800	15300	19400	10200	2200	2140	1650
8	3100	4030	11500	12600	6740	11000	13600	15000	11900	2100	2180	1560
9	2910	3620	10100	12200	5090	10300	12300	12300	11400	2290	2300	1360
10	2770	3600	9070	11400	6030	9390	11500	10500	9480	2310	2910	2150
11	2590	3610	8300	10400	6490	8880	10700	8930	9410	2260	2490	2190
12	3180	3530	7990	9240	22400	8700	9870	7740	8740	2340	2180	1750
13	3210	3180	7860	8180	78200	8640	9220	7620	7240	8610	2020	1590
14	2880	3230	7930	7700	82700	8490	8640	6760	6400	8840	1880	1550
15	2420	3220	8070	6980	40900	10100	8370	6300	6310	6440	1850	1410
16	2490	3280	8070	6450	26900	10700	8300	6360	5740	9100	1740	1270
17	2420	3160	7850	5920	20500	9420	8020	6730	5110	7300	2100	1240
18	2310	3360	7550	6390	16700	8540	7570	6390	4660	5680	2650	1220
19	2330	3390	7320	6260	14500	7930	7220	8100	4550	4430	2430	1280
20	2450	3240	7050	5280	13200	7390	7000	8120	4330	3530	2130	1050
21	2470	3290	7030	2770	12700	7100	6890	7300	3930	3080	2230	993
22	2610	3340	7960	3150	13100	6590	6440	6970	3620	2760	4540	1100
23	2630	3400	10800	3280	13900	6660	5930	6340	3410	2540	4560	1240
24	4600	3530	14800	3860	16000	8210	5700	6300	3270	2330	3880	1230
25	4110	3860	14600	4400	26600	14200	5880	6050	3210	2120	3630	1110
26	3610	3680	13100	4320	34000	21800	5570	7370	2920	2200	3260	1150
27	3360	3520	12100	5050	35300	22000	5300	11900	2740	3550	3190	3570
28	3200	3850	11800	5090	31300	19200	5090	11300	2560	6450	4420	2410
29	3730	12300	11300	4910	---	16500	4880	10100	2290	4330	4470	2550
30	4460	37400	10500	4620	---	16100	4840	8140	2140	3310	3690	2250
31	4270	---	9720	4680	---	21300	---	7590	---	3120	3170	---
TOTAL	98560	149570	369270	223710	584200	404040	344330	300260	227260	115290	87570	52663
MEAN	3179	4986	11910	7216	20860	13030	11480	9686	7575	3719	2825	1755
MAX	4600	37400	39900	12600	82700	27200	31200	29500	27200	9100	4560	3570
MIN	2310	3160	7030	2770	5090	6590	4840	4270	2140	1840	1740	993
(†)	573	530	528	530	530	508	569	595	612	677	659	668
MEAN‡	3752	5516	12440	7746	21390	13540	12050	10280	8187	4396	3484	2423
CFSM‡	.32	.48	1.08	.67	1.85	1.17	1.04	.89	.71	.38	.30	.21
IN‡	.37	.54	1.24	.77	1.93	1.35	1.16	1.03	.79	.44	.35	.23

CAL YR 1984	TOTAL	6025070	MEAN	16460	MAX	209000	MIN	2280	MEAN‡	16990	CFSM‡	1.47	IN‡	20.01
WTR YR 1985	TOTAL	2956723	MEAN	8101	MAX	82700	MIN	993	CFSM‡	8683	CFSM‡	.75	IN‡	10.20

† Diversion in cfs, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), Fairfax County, and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year); records furnished by Corps of Engineers, Washington Suburban Sanitary Commission, city of Rockville, city of Fairfax, and Fairfax County Water Authority.
‡ Adjusted for diversion.

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC
(National stream-quality accounting network station)

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.

DRAINAGE AREA.--11,570 mi².

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
pH: June 1978 to September 1981.
WATER TEMPERATURE: June 1978 to September 1981.
DISSOLVED OXYGEN: June 1978 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor June 1978 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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 1984											
14...	10:00	3220	435	8.2	9.0	8.0	774	1.9	14.0	116	--
JAN 1985											
14...	11:00	7770	275	8.1	4.0	3.0	757	3.0	17.0	127	K7
MAR											
18...	12:30	8540	274	8.3	6.0	9.0	766	1.5	12.9	111	K3
MAY											
06...	11:00	26000	235	7.8	26.0	17.0	763	5.0	9.4	97	260
JUL											
08...	10:00	1940	325	8.0	25.5	28.0	763	2.5	7.6	97	K14
08...	10:05	1940	--	--	25.5	--	763	--	--	--	--
SEP											
04...	11:00	1990	352	8.1	27.0	28.0	766	3.4	7.7	98	100
04...	11:05	1990	--	--	27.0	--	766	--	--	--	--

DATE	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)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
NOV 1984											
14...	K2	170	42	49	11	17	18	0.6	2.9	126	1.5
JAN 1985											
14...	88	110	32	33	7.0	8.3	14	0.4	1.8	79	1.2
MAR											
18...	66	110	42	33	7.0	8.5	14	0.4	1.5	69	0.7
MAY											
06...	71	91	43	27	5.6	7.7	15	0.4	2.2	48	1.5
JUL											
08...	37	120	50	31	9.8	16	22	0.7	2.8	68	1.3
SEP											
04...	100	140	55	42	9.3	17	20	0.6	3.4	88	1.3

DATE	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
NOV 1984											
14...	54	21	0.1	3.1	243	230	0.33	2110	--	1.30	0.02
JAN 1985											
14...	31	12	0.1	4.3	150	150	0.2	3150	--	1.40	0.06
MAR											
18...	43	11	0.1	2.3	153	150	0.21	3530	--	1.10	0.05
MAY											
06...	39	10	0.1	5.5	147	130	0.2	10300	--	0.96	0.15
JUL											
08...	51	19	0.2	0.9	210	170	0.29	1100	--	<0.10	0.07
08...	--	--	--	--	--	--	--	--	0.01	0.10	0.07
SEP											
04...	49	19	0.1	6.3	206	200	0.28	1110	--	1.00	0.04
04...	--	--	--	--	--	--	--	--	0.01	1.10	0.04

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

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (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											
14...	0.03	--	0.5	--	--	--	0.05	0.15	0.08	0.08	0.25
JAN 1985											
14...	0.08	--	0.8	--	--	--	0.10	0.31	0.06	0.04	0.12
MAR											
18...	0.06	--	1.1	--	--	--	0.07	0.21	0.04	0.03	0.09
MAY											
06...	0.19	--	1.1	--	--	--	0.05	0.15	0.01	0.04	0.12
JUL											
08...	0.09	--	0.6	--	--	--	0.04	0.12	0.02	<0.01	--
08...	0.09	0.23	0.7	0.4	0.3	--	0.03	0.09	0.03	0.01	0.03
SEP											
04...	0.05	--	0.5	--	--	--	0.10	0.31	0.09	0.09	0.28
04...	0.05	0.36	0.5	0.1	0.4	1.5	0.11	0.34	0.09	0.08	0.25

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										
14...	40	1	44	<0.5	<1	3	<3	1	16	1
MAR										
18...	30	<1	37	0.7	<1	<1	<3	1	17	1
MAY										
06...	70	<1	44	<0.5	<1	<1	<3	5	37	3
SEP										
04...	<10	1	49	<0.5	<1	<1	<3	7	5	<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										
14...	8	8	0.1	<10	2	<1	<1	230	<6	12
MAR										
18...	13	11	<0.1	<10	1	<1	<1	140	<6	11
MAY										
06...	17	6	<0.1	<10	2	<1	<1	120	<6	8
SEP										
04...	8	13	<0.1	<10	1	<1	<1	200	<6	23

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
MAR 1985							
18...	<3.4	<0.4	<2.3	<0.4	<2.0	0.26	0.05
SEP							
04...	<1.5	<0.4	4.1	<0.4	3.1	0.16	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1984					
14...	10:00	3220	10	87	64
JAN 1985					
14...	11:00	7770	4	84	52
MAR					
18...	12:30	8540	10	231	76
MAY					
06...	11:00	26000	104	7300	90
JUL					
08...	10:00	1940	29	152	57
SEP					
04...	11:00	1990	8	43	100

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC

LOCATION.--Lat 38°58'21", long 77°02'25", District of Columbia, Hydrologic Unit 02070010, on left bank 125 ft downstream from Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--62.2 mi².

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 11-14, Feb. 1, 8-11. Records good. Flow affected by two upstream reservoirs which control flow from about 25 mi², Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 62.4 ft³/s, 13.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s, June 22, 1972, gage height, 16.2 ft, from flood-mark, from rating curve extended above 5,640 ft³/s on basis of contracted-opening measurements at gage heights 13.19 ft and 16.2 ft; minimum discharge, 0.5 ft³/s, Oct. 1-7, 1930, gage height, 1.04 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	2345	1220	5.95	July 12	2315	1370	6.33
Feb. 12	1700	*1750	*7.25	Sept. 27	0700	1670	7.07

Minimum discharge, 4.5 ft³/s, Sept. 18, 19, 20, 21, 22, 25, 26, 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	185	24	63	32	260	32	80	21	32	13	22	8.1
2	146	21	44	48	258	32	54	29	26	18	15	7.2
3	51	20	77	69	104	30	46	195	23	68	13	6.6
4	27	18	38	97	67	31	41	46	25	18	12	6.7
5	20	165	55	99	53	33	38	34	218	15	11	6.9
6	16	33	207	52	79	30	35	29	164	25	10	6.3
7	15	25	63	42	52	29	32	27	103	12	9.9	5.8
8	14	21	47	36	42	31	31	23	105	11	39	6.2
9	15	20	39	32	36	30	31	22	57	13	15	19
10	15	19	34	29	32	28	30	21	42	43	11	144
11	15	32	31	30	30	28	30	20	33	21	9.5	45
12	14	23	29	28	923	43	30	33	35	137	8.7	10
13	13	17	28	28	226	29	29	54	30	297	8.5	7.1
14	13	16	27	26	168	28	29	24	24	34	7.7	5.9
15	13	16	27	27	145	28	29	21	24	207	7.9	5.3
16	15	19	27	26	123	27	29	60	33	153	7.5	5.3
17	14	19	25	28	105	27	29	223	23	40	7.4	5.2
18	15	21	25	29	84	26	28	71	28	26	51	4.6
19	14	80	24	29	62	24	28	40	24	21	36	4.9
20	14	30	24	25	50	24	27	31	19	17	13	4.9
21	14	22	38	24	42	24	27	38	18	15	26	4.5
22	15	20	40	29	38	30	26	70	19	17	13	4.6
23	28	19	29	28	37	137	25	133	18	13	9.3	15
24	56	19	28	27	37	138	24	57	16	11	8.7	7.6
25	26	18	28	26	37	80	59	39	20	68	34	5.5
26	21	17	26	26	44	55	28	31	12	57	27	25
27	20	18	24	25	35	46	26	27	11	177	32	858
28	19	203	27	24	32	43	24	68	11	58	12	96
29	119	357	24	24	---	47	23	67	14	34	11	54
30	35	95	23	23	---	73	22	45	12	26	12	34
31	28	---	24	27	---	72	---	56	---	25	15	---
TOTAL	1025	1427	1245	1095	3201	1335	990	1655	1219	1690	515.1	1419.2
MEAN	33.1	47.6	40.2	35.3	114	43.1	33.0	53.4	40.6	54.5	16.6	47.3
MAX	185	357	207	99	923	138	80	223	218	297	51	858
MIN	13	16	23	23	30	24	22	20	11	11	7.4	4.5
CFSM	.53	.77	.65	.57	1.83	.69	.53	.86	.65	.88	.27	.76
IN.	.61	.85	.74	.65	1.91	.80	.59	.99	.73	1.01	.31	.85

CAL YR 1984 TOTAL 28378.0 MEAN 77.5 MAX 924 MIN 10 CFSM 1.25 IN 16.97
WTR YR 1985 TOTAL 16816.3 MEAN 46.1 MAX 923 MIN 4.5 CFSM .74 IN 10.06

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Riverdale Road, 1.8 mi downstream from Indian Creek, and 1.8 mi upstream from confluence with Northwest Branch.
DRAINAGE AREA.--72.8 mi².
PERIOD OF RECORD.--August 1938 to current year.
REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).
GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942, to Mar. 22, 1966, and Apr. 12, 1967, to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966, to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 0.25 ft above mean sea level.
REMARKS.--Estimated daily discharges: Oct. 6-22, Jan. 10-31, Feb. 9-11, Apr. 8-19, Aug. 3-7, 10-17, 29 and Sept. 1-7, 12-26. Records fair except those for period of doubtful gage-height record, Oct.6-22, periods with ice effect, Jan, 10-31 and Feb. 9-11, and periods with doubtful stage-discharge relationship, Apr. 8-19, Aug. 3-7, 10-17, 29, and Sept. 1-7, 12-26, which are poor. Some regulation at low flow by sand and gravel plants upstream from 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, 84.8 ft³/s, 15.82 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s, June 22, 1972, gage height, 9.52 ft, from rating curve extended above 3,800 ft³/s on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft; maximum gage height, 12.93 ft, Oct. 16, 1942; minimum daily discharge, 1.4 ft³/s Sept. 12, 1966.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23 or 24, 1933, reached a stage of about 15.5 ft at datum 14.00 ft above mean sea level, from floodmarks, discharge, 10,500 ft³/s, from rating curve extended above 3,000 ft³/s on basis of velocity-area study.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	0345	2,410	5.47	July 25	1600	2,390	5.75
Nov. 28	2215	2,390	5.44	Sept 27	0715	*5,360	*8.04
Feb. 12	1100	3,950	6.91				

Minimum daily discharge, 6.0 ft³/s, Sept. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	19	48	37	422	35	105	22	29	10	27	16
2	132	19	40	49	557	35	53	46	21	20	21	14
3	28	18	80	115	198	35	44	228	20	43	17	11
4	20	18	47	149	87	36	39	49	21	17	16	10
5	18	486	104	179	75	43	37	31	252	13	14	9.5
6	18	50	355	79	110	35	34	27	104	15	14	9.0
7	17	29	78	51	80	33	32	24	43	12	14	11
8	17	24	49	42	56	36	30	21	64	10	78	65
9	18	22	43	37	50	34	30	18	37	18	25	22
10	18	21	41	34	46	32	28	18	27	43	16	100
11	16	35	39	34	44	34	30	18	22	21	14	33
12	16	24	37	33	1420	47	30	79	27	125	12	15
13	15	21	36	33	327	35	28	56	21	84	10	10
14	15	21	33	32	103	32	26	27	18	21	9.5	8.0
15	16	20	34	32	71	32	28	22	20	45	9.0	9.0
16	15	19	33	34	58	34	28	30	29	62	9.0	7.5
17	15	19	32	36	54	31	26	329	19	19	9.0	7.0
18	16	25	32	36	49	28	24	110	32	13	59	7.0
19	15	106	32	34	48	27	26	42	25	12	38	7.0
20	14	34	31	32	44	27	28	31	20	12	21	6.5
21	14	24	45	32	42	26	27	48	22	12	32	6.0
22	15	22	46	34	42	33	23	84	16	11	20	7.0
23	59	21	35	32	40	168	24	179	15	9.7	17	24
24	73	21	32	30	40	159	24	78	24	11	17	10
25	25	21	33	30	38	90	45	51	19	481	117	8.0
26	21	20	30	28	52	53	29	32	12	109	51	20
27	19	20	31	28	41	44	26	25	11	127	24	1610
28	22	462	32	28	37	40	24	53	9.4	37	18	104
29	126	488	32	26	---	47	22	46	14	25	14	40
30	29	75	32	26	---	75	22	29	11	22	22	28
31	22	---	32	30	---	88	---	50	---	38	20	---
TOTAL	1069	2204	1604	1432	4231	1504	972	1903	1004.4	1497.7	784.5	2234.5
MEAN	34.5	73.5	51.7	46.2	151	48.5	32.4	61.4	33.5	48.3	25.3	74.5
MAX	205	488	355	179	1420	168	105	329	252	481	117	1610
MIN	14	18	30	26	37	26	22	18	9.4	9.7	9.0	6.0
CFSM	.47	1.01	.71	.64	2.07	.67	.45	.84	.46	.66	.35	1.02
IN.	.55	1.13	.82	.73	2.16	.77	.50	.97	.51	.77	.40	1.14

CAL YR 1984 TOTAL 34409.5 MEAN 94.0 MAX 2190 MIN 9.0 CFSM 1.29 IN 17.58
WTR YR 1985 TOTAL 20440.1 MEAN 56.0 MAX 1610 MIN 6.0 CFSM .77 IN 10.44

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mi downstream from Sligo Branch, 1.0 mi west of Hyattsville, and 1.6 mi upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi².

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938, to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951, to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--Estimated daily discharges: Jan. 11-14, 16-21, 23-26, and Feb. 9-11. Records good. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7.0 mi upstream from station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses upstream from 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, 46.8 ft³/s, 12.87 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s, June 22, 1972, gage height, 14.47 ft, from rating curve extended above 4,000 ft³/s on the basis of the average of slope-area and step-backwater measurements at gage height 14.47 ft; minimum discharge, 0.2 ft³/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	0215	2,380	4.84	July 12	2230	*3,520	*5.57
Feb.12	1030	2,780	5.11	Sept.27	0630	3,410	5.51
May 17	0715	1,830	4.42				

Minimum discharge, 3.0 ft³/s Sept. 14, 15, 16, 17, 25, and 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	15	27	27	339	26	63	15	21	9.0	13	7.7
2	61	13	23	41	307	26	33	38	17	28	8.3	7.0
3	16	12	61	88	76	26	29	180	16	38	8.0	7.4
4	11	12	28	95	43	27	28	25	16	12	8.0	7.0
5	12	314	76	105	42	30	26	18	271	9.1	8.0	6.6
6	11	25	209	48	68	25	25	16	130	15	8.6	6.6
7	10	16	38	33	42	24	23	15	29	8.1	8.6	6.3
8	11	14	29	28	24	27	21	15	49	7.5	48	9.3
9	12	14	24	23	25	26	21	14	23	8.4	11	7.1
10	12	13	23	22	24	25	20	13	18	27	7.6	129
11	11	29	20	22	24	26	20	14	17	17	6.3	25
12	10	17	20	21	1190	39	21	57	22	267	5.9	6.9
13	10	12	20	20	114	23	20	40	17	107	5.9	4.2
14	12	11	20	19	54	22	20	14	13	21	5.5	3.1
15	12	12	20	18	42	22	21	13	14	73	5.2	3.0
16	11	12	19	19	36	21	20	22	21	72	5.2	3.0
17	9.9	12	19	20	33	20	19	328	16	16	5.2	3.4
18	11	16	20	22	31	20	18	66	18	11	49	3.5
19	11	81	21	22	30	19	19	25	20	9.5	25	3.5
20	12	22	22	21	29	19	24	20	14	8.7	10	4.6
21	10	14	33	20	28	19	18	44	12	8.5	20	3.8
22	16	12	36	19	28	24	17	48	11	9.4	9.7	4.7
23	49	12	24	22	32	132	17	131	10	9.6	7.3	20
24	51	12	20	22	30	119	15	44	12	9.9	6.6	4.6
25	19	13	21	21	30	57	42	28	14	100	50	3.2
26	13	14	19	20	41	32	19	20	9.5	42	19	12
27	14	13	19	20	29	28	17	18	8.4	120	16	999
28	16	343	19	20	26	27	16	39	8.7	24	9.8	31
29	107	298	20	20	---	34	15	47	11	13	8.0	12
30	22	38	21	19	---	70	15	20	9.2	10	7.7	8.9
31	16	---	20	25	---	56	---	36	---	21	12	---
TOTAL	687.9	1441	991	942	2817	1091	682	1423	867.8	1131.7	418.4	1353.4
MEAN	22.2	48.0	32.0	30.4	101	35.2	22.7	45.9	28.9	36.5	13.5	45.1
MAX	107	343	209	105	1190	132	63	328	271	267	50	999
MIN	9.9	11	19	18	24	19	15	13	8.4	7.5	5.2	3.0
CFSM	.45	.97	.65	.62	2.05	.71	.46	.93	.59	.74	.27	.91
IN.	.52	1.09	.75	.71	2.12	.82	.51	1.07	.65	.85	.32	1.02

CAL YR 1984 TOTAL 21364.0 MEAN 58.4 MAX 887 MIN 8.3 CFSM 1.18 IN 16.09
WTR YR 1985 TOTAL 13846.2 MEAN 37.9 MAX 1190 MIN 3.0 CFSM .77 IN 10.43

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on left bank 75 ft downstream from bridge on State Highway 223, at Piscataway, 0.4 mi upstream from Tinker Creek, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--39.5 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11-15, 22-26. Records good. 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.--20 years, 46.8 ft³/s, 16.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft³/s, Sept. 6, 1979, gage height, 11.21 ft, from rating curve extended above 1,700 ft³/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream; no flow at times in 1966, 1970, 1977, 1980-83, and 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 2	1000	593	6.39	Sept. 28	0200	*806	*6.93
Feb. 13	0900	590	6.38				

No flow July 6-10, 19-23, Aug. 7-17, 31, Sept. 1-7, 9-26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	8.9	29	13	144	32	41	7.2	13	.78	6.7	.00
2	52	7.9	21	16	420	32	30	7.4	6.6	.25	2.9	.00
3	19	6.8	23	37	123	29	27	39	5.3	.55	1.5	.00
4	10	6.7	20	94	62	28	25	18	4.7	.29	.60	.00
5	7.4	22	19	85	51	32	24	11	8.8	.07	.21	.00
6	6.1	16	119	66	53	27	23	8.5	88	.00	.06	.00
7	5.8	9.1	47	42	50	25	21	7.0	21	.00	.00	.00
8	5.8	7.5	31	33	37	28	26	6.2	29	.00	.00	.01
9	5.5	7.2	26	26	36	28	23	5.4	18	.00	.00	.00
10	5.5	7.5	24	24	33	25	20	5.3	9.4	.00	.00	.00
11	5.2	9.3	21	24	32	24	21	4.9	6.9	.16	.00	.00
12	5.1	11	19	24	343	31	20	5.3	13	.06	.00	.00
13	4.8	8.2	19	22	370	25	19	18	7.8	8.0	.00	.00
14	4.5	6.7	17	22	88	24	19	7.7	5.4	3.8	.00	.00
15	4.3	6.3	17	20	66	22	20	5.1	4.5	.81	.00	.00
16	4.7	6.5	17	18	57	20	19	5.3	4.8	.04	.00	.00
17	5.1	6.4	17	20	52	21	17	18	4.7	.66	.00	.00
18	5.0	6.6	16	22	48	20	16	26	6.5	.03	.76	.00
19	4.9	71	15	22	46	18	15	11	5.5	.00	41	.00
20	5.1	41	15	18	43	19	15	6.6	4.3	.00	6.9	.00
21	5.2	19	15	19	40	18	13	5.1	3.0	.00	5.1	.00
22	5.0	14	20	22	40	21	13	6.5	2.8	.00	4.5	.00
23	5.2	12	16	20	39	57	12	19	2.4	.00	1.9	.00
24	14	11	15	19	38	96	10	25	3.5	.96	.85	.00
25	10	10	15	19	36	65	11	24	2.3	21	1.4	.00
26	7.2	9.8	13	18	43	43	9.9	12	1.0	34	6.7	.00
27	6.4	9.4	13	18	40	36	9.5	8.3	.48	7.1	3.4	500
28	6.2	20	13	17	33	34	9.1	10	.30	6.7	1.3	292
29	35	201	13	17	---	32	8.4	31	.43	3.0	.38	26
30	28	48	13	15	---	33	7.5	12	2.5	2.1	.08	13
31	12	---	13	19	---	30	---	12	---	6.4	.00	---
TOTAL	383.0	626.8	691	851	2463	975	544.4	387.8	285.91	96.76	86.24	831.01
MEAN	12.4	20.9	22.3	27.5	88.0	31.5	18.1	12.5	9.53	3.12	2.78	27.7
MAX	83	201	119	94	420	96	41	39	88	34	41	500
MIN	4.3	6.3	13	13	32	18	7.5	4.9	.30	.00	.00	.00
CFSM	.31	.53	.57	.70	2.23	.80	.46	.32	.24	.08	.07	.70
IN.	.36	.59	.65	.80	2.32	.92	.51	.37	.27	.09	.08	.78

CAL YR 1984 TOTAL 19431.30 MEAN 53.1 MAX 814 MIN 1.7 CFSM 1.34 IN 18.30
WTR YR 1985 TOTAL 8221.92 MEAN 22.5 MAX 500 MIN .00 CFSM .57 IN 7.74

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD

LOCATION.--Lat 38°29'26", long 76°55'37", Charles County, Hydrologic Unit 02070011, on left-center downstream side of bridge on Maryland Route 6, 1.0 miles southeast of Newtown, and 1.7 miles downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 34.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 11-17, 20-31, Feb. 5, 6, and Aug. 4-18. Records fair except those for period Aug. 4-18, which are poor. Low flow affected by ground-water diversions from municipal well fields at Waldorf and St. Charles, and occasional farm irrigation upstream from station during summer months. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s, Mar. 29, 1984, gage height, 4.71 ft; no flow for several days in 1983, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 3	1330	646	3.78	Sept. 28	1130	*919	*4.08
Feb. 13	2130	721	3.87				

No flow July 21-24, Aug. 14-17, Sept. 21-25.

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	65	34	88	25	110	66	58	9.2	63	.90	21	6.2
2	106	25	55	26	428	62	56	10	40	.61	26	5.4
3	53	19	45	48	569	58	46	25	29	.49	14	4.4
4	21	17	42	129	507	54	44	35	25	.95	8.0	3.4
5	12	24	39	160	300	55	42	24	24	4.6	4.0	2.2
6	9.2	32	101	128	180	50	39	20	31	3.9	2.0	1.5
7	7.8	27	123	91	112	43	35	19	35	3.2	1.0	1.1
8	7.1	20	78	66	93	46	41	21	32	2.3	.50	.70
9	6.6	16	55	49	78	53	42	20	34	1.2	.26	.55
10	6.3	16	46	40	72	49	36	17	27	.59	.14	.42
11	6.3	18	42	40	70	44	35	16	21	.85	.07	2.5
12	6.3	23	39	38	273	52	34	16	49	3.5	.03	2.7
13	6.2	22	35	38	655	52	33	21	45	6.4	.02	1.6
14	5.9	18	34	36	506	45	32	27	26	6.4	.00	.91
15	5.5	15	31	36	196	40	33	27	19	4.5	.00	.47
16	6.3	15	30	34	123	36	34	27	17	2.3	.00	.27
17	6.9	14	29	36	103	36	31	35	16	1.1	.00	.17
18	8.2	14	29	41	92	35	27	45	15	.38	20	.11
19	7.0	77	29	41	86	31	27	41	14	.14	180	.06
20	7.5	117	29	40	80	31	25	33	12	.06	100	.02
21	8.0	80	28	38	73	31	23	29	8.6	.00	38	.00
22	7.7	46	34	40	71	32	21	25	6.3	.00	22	.00
23	7.7	34	35	38	70	70	19	34	4.4	.00	12	.00
24	13	29	29	36	72	142	16	55	3.9	.00	7.4	.00
25	17	27	27	36	69	151	17	87	2.5	2.3	17	.00
26	17	25	25	34	83	100	16	61	3.0	21	71	.14
27	14	24	24	34	96	73	16	37	2.5	23	36	302
28	12	29	24	32	77	63	14	33	1.5	24	18	717
29	40	135	24	30	---	58	12	104	2.1	23	9.6	305
30	78	153	25	28	---	57	9.9	112	1.5	14	6.9	59
31	61	---	25	34	---	53	---	63	---	10	6.3	---
TOTAL	635.5	1145	1299	1522	5244	1768	913.9	1128.2	610.3	161.67	621.22	1417.82
MEAN	20.5	38.2	41.9	49.1	187	57.0	30.5	36.4	20.3	5.22	20.0	47.3
MAX	106	153	123	160	655	151	58	112	63	24	180	717
MIN	5.5	14	24	25	69	31	9.9	9.2	1.5	.00	.00	.00
CFSM	.26	.48	.52	.62	2.34	.71	.38	.46	.25	.07	.25	.59
IN.	.30	.53	.60	.71	2.44	.82	.43	.53	.28	.08	.29	.66

CAL YR 1984 TOTAL 34993.10 MEAN 95.6 MAX 1400 MIN 1.1 CFSM 1.20 IN 16.29
WTR YR 1985 TOTAL 16466.61 MEAN 45.1 MAX 717 MIN .00 CFSM .56 IN 7.67

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD

LOCATION.--Lat 38°20'00", long 76°43'31", St. Marys County, Hydrologic Unit 02070011, on left bank 60ft downstream from bridge on State Highway 242, 0.5 mi north of Clements, 2.3 mi upstream from mouth, and 5.7 mi northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi².

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

REVISED RECORDS.--WDR MD-DE-79-1: 1974(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12-16, Jan. 12-15, 21-23, 25-26, 29, and Feb. 10-11. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 20.9 ft³/s, 15.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s, Sept. 6, 1979, from rating curve extended above 480 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; maximum gage height, 6.96 ft, Sept. 6, 1979 (backwater from tide); maximum gage height unaffected by backwater, 6.55 ft, June 22, 1972; no flow at times in 1977, 1980, 1981, 1983, and 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 19	0130	*3690	*6.41	Sept. 27	1230	1100	5.47

No flow July 11.

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	48	7.6	15	12	80	16	14	3.4	11	.53	3.6	4.9
2	50	7.2	13	12	143	16	12	3.2	4.4	.37	2.0	4.0
3	16	6.5	12	29	59	15	11	9.8	3.0	.38	1.0	3.4
4	11	5.8	12	69	28	14	11	10	2.7	.20	.55	2.9
5	9.0	9.3	12	48	21	15	11	5.6	2.5	.05	.33	2.5
6	7.6	10	51	26	22	13	11	4.3	5.0	.03	.24	2.0
7	7.6	7.6	26	19	21	12	10	3.3	4.0	.14	.19	1.8
8	7.2	6.4	16	16	14	13	15	2.8	4.1	.14	1.3	1.6
9	6.4	6.3	14	13	13	14	14	2.7	4.8	.10	1.8	3.4
10	6.8	6.3	13	12	13	13	12	2.5	2.9	.03	.69	6.6
11	6.4	9.8	13	12	13	12	11	2.4	2.3	.00	.42	2.9
12	6.2	14	12	12	109	15	11	2.4	2.4	.06	.25	1.9
13	5.8	9.4	12	11	78	13	11	2.4	2.1	.02	.14	1.4
14	5.4	7.7	11	11	29	12	11	2.0	1.6	.06	.11	1.2
15	5.0	6.6	11	10	22	12	11	1.7	1.4	.02	.09	1.1
16	4.7	6.3	10	9.8	19	10	10	1.6	1.4	.34	.13	1.1
17	3.9	5.8	10	10	18	10	9.5	11	1.4	3.1	.81	1.1
18	4.0	5.7	9.8	12	17	10	8.3	15	2.4	.67	285	1.3
19	4.3	44	9.8	13	18	9.6	8.1	5.7	4.8	.20	879	1.4
20	4.3	28	9.4	12	16	10	7.7	3.3	2.2	.10	41	1.3
21	4.3	13	9.6	13	15	9.9	6.9	2.5	1.5	.04	15	1.1
22	4.2	10	12	13	15	12	6.3	2.4	1.0	.03	11	1.2
23	8.5	9.5	10	12	15	24	5.8	5.0	.77	.07	6.8	2.4
24	11	9.4	8.7	11	15	43	5.3	17	1.4	.04	4.7	2.9
25	12	9.0	8.6	11	15	33	5.2	22	1.3	.01	31	2.2
26	9.0	8.6	8.2	11	33	19	5.1	8.6	.54	2.8	67	3.0
27	7.5	8.6	8.3	11	29	16	4.4	4.0	.25	1.6	17	504
28	7.1	12	8.6	10	18	15	4.1	5.2	.50	1.9	8.4	106
29	11	62	8.6	10	---	14	4.4	20	1.5	5.2	5.8	18
30	12	26	8.6	10	---	15	4.3	9.1	.87	5.1	4.6	12
31	9.1	---	10	13	---	14	---	8.9	---	2.1	5.4	---
TOTAL	315.3	378.4	393.2	493.8	908	469.5	271.4	199.8	76.03	25.43	1395.35	700.6
MEAN	10.2	12.6	12.7	15.9	32.4	15.1	9.05	6.45	2.53	.82	45.0	23.4
MAX	50	62	51	69	143	43	15	22	11	5.2	879	504
MIN	3.9	5.7	8.2	9.8	13	9.6	4.1	1.6	.25	.00	.09	1.1
CFSM	.55	.68	.69	.86	1.75	.82	.49	.35	.14	.04	2.43	1.27
IN.	.63	.76	.79	.99	1.83	.94	.55	.40	.15	.05	2.81	1.41

CAL YR 1984 TOTAL 8778.40 MEAN 24.0 MAX 354 MIN 2.8 CFSM 1.30 IN 17.65
WTR YR 1985 TOTAL 5626.81 MEAN 15.4 MAX 879 MIN .00 CFSM .83 IN 11.31

01661500 ST. MARYS RIVER AT GREAT MILLS, MD

LOCATION.--Lat 38°14'36", long 76°30'13", St. Marys County, Hydrologic Unit 02070011, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mi downstream from Western Branch, and 12.0 mi upstream from mouth.

DRAINAGE AREA.--24.0 mi².

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

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58. WDR MD-DE-83-1: 1981-82(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. 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.--39 years, 24.0 ft³/s, 13.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,950 ft³/s, Aug. 20, 1969, gage height, 13.34 ft, from rating curve extended above 1,500 ft³/s on basis of contracted-opening measurement at gage height 12.08 ft; minimum discharge, 0.2 ft³/s, Sept. 7, 1966, gage height, 1.13 ft.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 19	0300	930	7.60	Sept. 27	0830	*3,110	*10.93

Minimum discharge, 0.32 ft³/s, July 23, 24, 25, Aug. 15, 16, 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	29	8.7	20	10	85	15	9.8	3.5	4.7	1.4	2.4	5.7
2	22	8.2	16	12	153	13	8.9	3.5	3.2	1.6	1.9	4.2
3	12	6.8	15	30	82	9.8	8.6	7.4	2.8	1.5	1.5	3.5
4	8.2	6.2	13	59	51	9.4	8.2	6.2	2.7	1.3	1.1	3.0
5	6.8	8.0	13	44	40	9.6	7.9	4.8	2.9	1.2	.95	2.6
6	6.3	7.4	40	30	36	8.5	7.7	4.0	3.6	1.1	.85	2.3
7	5.8	6.3	21	23	31	8.1	7.4	3.5	6.1	1.2	.85	2.0
8	5.7	5.6	16	19	25	8.7	11	3.0	6.3	.89	1.3	1.9
9	5.4	5.4	14	16	21	9.3	13	2.9	3.6	.75	1.7	1.9
10	5.3	5.4	13	14	19	8.3	8.1	3.1	2.6	1.4	1.3	2.7
11	5.3	8.8	12	14	18	8.0	7.7	3.0	3.6	2.1	1.0	2.5
12	5.1	10	11	13	164	10	7.4	3.1	3.1	1.6	.82	2.1
13	5.1	7.9	11	12	104	8.4	6.8	3.6	3.0	1.7	.66	1.6
14	4.8	6.9	10	12	59	8.0	6.8	3.0	2.3	2.0	.56	1.6
15	4.6	5.8	10	12	44	7.7	7.3	2.6	1.9	1.3	.52	1.5
16	4.4	56	9.7	11	36	7.4	7.4	2.8	2.1	1.0	.39	1.5
17	4.4	112	9.6	10	30	7.7	6.4	11	2.2	.92	2.1	1.5
18	4.5	102	9.3	11	26	7.2	6.2	7.2	3.2	.82	107	1.5
19	4.7	134	9.2	11	23	6.6	6.1	4.3	6.0	.69	482	1.5
20	5.0	98	8.9	11	21	6.9	5.8	3.5	2.8	.63	74	1.5
21	4.9	76	9.2	11	18	6.8	5.3	3.8	2.2	.55	41	1.5
22	4.9	63	9.8	12	17	9.7	7.2	3.8	1.9	.48	15	2.1
23	6.1	49	8.9	11	14	25	5.1	5.8	1.7	.42	8.3	3.6
24	14	37	8.4	9.6	9.7	39	4.5	16	1.6	.37	5.6	3.4
25	8.7	28	8.2	10	9.1	36	4.5	22	1.4	.77	8.2	2.6
26	7.7	22	7.8	10	29	19	4.4	7.5	1.2	2.2	12	7.3
27	7.1	18	8.0	9.0	21	14	4.1	4.7	1.2	2.0	8.9	1180
28	6.6	21	7.9	9.4	16	12	3.8	3.8	1.6	2.2	6.2	234
29	31	72	8.1	9.5	---	10	3.6	4.1	1.8	5.1	4.4	98
30	14	29	8.0	9.2	---	11	3.5	3.8	1.6	4.2	4.3	42
31	11	---	9.9	13	---	9.8	---	4.8	---	2.5	9.6	---
TOTAL	270.4	1024.4	375.9	487.7	1201.8	369.9	204.5	166.1	84.9	45.89	806.40	1621.1
MEAN	8.72	34.1	12.1	15.7	42.9	11.9	6.82	5.36	2.83	1.48	26.0	54.0
MAX	31	134	40	59	164	39	13	22	6.3	5.1	482	1180
MIN	4.4	5.4	7.8	9.0	9.1	6.6	3.5	2.6	1.2	.37	.39	1.5
CFSM	.36	1.42	.50	.65	1.79	.50	.28	.22	.12	.06	1.08	2.25
IN.	.42	1.59	.58	.76	1.86	.57	.32	.26	.13	.07	1.25	2.51

CAL YR 1984 TOTAL 14366.60 MEAN 39.3 MAX 888 MIN 3.0 CFSM 1.64 IN 22.27
WTR YR 1985 TOTAL 6658.99 MEAN 18.2 MAX 1180 MIN .37 CFSM .76 IN 10.32

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, Hydrologic Unit 05020006, on left bank 200 ft downstream from Baltimore and Ohio Railroad bridge, 250 ft downstream from Little Youghiogheny River, 1.2 mi northwest of Oakland, and 1.5 mi upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi².

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

REVISED RECORDS.--WSP 1113: 1947(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 22 to Feb. 15. Records good except those for period with ice effect, Jan. 22 to Feb. 15, which are fair. Town of Oakland diverted an average of 0.4 ft³/s for water supply. The diversion is returned upstream from station as sewage. 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.--44 years, 300 ft³/s, 30.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s, Oct. 16, 1954, gage height, 12.16 ft; minimum daily discharge, 2.5 ft³/s, Oct. 4, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 15.3 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 29	0145	2,460	5.85	May 31	1630	*6,540	*9.10
Dec. 19	2300	2,170	5.54	June 5	2245	2,510	5.90
Feb. 25	0630	5,110	8.10	July 9	0800	3,700	6.99
May 3	0700	2,040	5.40	July 10	1700	6,210	8.88

Minimum discharge, 13 ft³/s, Sept. 24, gage height, 1.90 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	132	254	878	284	110	769	1200	83	2560	67	425	42
2	91	238	676	275	110	636	839	185	796	69	299	33
3	54	203	616	239	105	577	644	1520	529	83	183	28
4	38	189	531	227	105	480	516	722	485	137	138	26
5	31	670	409	244	150	667	404	477	1330	85	112	24
6	28	538	390	210	130	478	361	363	1620	69	96	22
7	25	389	320	203	120	353	311	283	882	79	87	22
8	24	294	333	195	110	415	304	224	917	90	118	22
9	29	245	257	171	105	464	308	182	593	2520	92	25
10	34	249	219	192	105	354	282	152	426	3600	72	32
11	30	272	494	154	105	377	379	131	344	2990	62	26
12	25	280	617	141	130	1530	408	116	914	948	57	23
13	23	244	613	143	400	1070	355	112	904	635	52	21
14	22	220	509	144	330	749	311	95	668	426	47	18
15	23	230	437	130	280	553	272	84	503	594	54	17
16	29	342	361	128	246	428	506	88	593	402	53	17
17	39	281	307	129	209	383	498	116	468	283	51	16
18	42	256	282	135	183	327	359	142	439	215	46	16
19	38	291	897	128	177	250	294	125	380	172	42	15
20	99	261	1500	112	185	223	245	88	341	140	41	15
21	93	218	1100	135	187	194	209	73	259	127	41	15
22	78	183	1210	130	247	181	182	66	208	173	39	15
23	262	179	809	125	875	471	164	118	197	234	34	15
24	360	177	628	120	2230	915	158	142	154	135	41	14
25	276	166	1340	120	4290	901	167	89	125	101	92	15
26	188	176	825	115	2120	614	133	73	103	122	57	17
27	144	218	634	115	1620	464	113	64	88	339	50	18
28	122	850	500	110	1110	388	107	68	81	183	40	19
29	671	1960	414	105	---	384	99	143	73	131	34	18
30	741	931	375	100	---	889	88	87	66	107	37	18
31	372	---	329	96	---	974	---	3440	---	121	52	---
TOTAL	4163	11004	18810	4855	16074	17458	10216	9651	17046	15377	2644	624
MEAN	134	367	607	157	574	563	341	311	568	496	85.3	20.8
MAX	741	1960	1500	284	4290	1530	1200	3440	2560	3600	425	42
MIN	22	166	219	96	105	181	88	64	66	67	34	14
CFSM	1.00	2.74	4.53	1.17	4.28	4.20	2.55	2.32	4.24	3.70	.64	.16
IN.	1.16	3.05	5.22	1.35	4.46	4.85	2.84	2.68	4.73	4.27	.73	.17

CAL YR 1984 TOTAL 138658 MEAN 379 MAX 3520 MIN 16 CFSM 2.83 IN 38.49
WTR YR 1985 TOTAL 127922 MEAN 350 MAX 4290 MIN 14 CFSM 2.61 IN 35.51

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD

LOCATION.--Lat 39°30'34", long 79°23'28", Garrett County, Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi upstream from mouth and 7.0 mi north of Oakland.

DRAINAGE AREA.--64.7 mi².

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at mean sea level, unadjusted.

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft between elevations 2,425 ft, top of intake to outlet tunnel, and 2,462 ft, crest of spillway. Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Elevations and capacity table furnished by Pennsylvania Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,258 acre-ft, July 24, 25, 1949, elevation, 2,462.075 ft; minimum observed, 11,763 acre-ft, Sept. 30, 1925, elevation, 2,433.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,200 acre-ft, July 11, elevation, 2,461.80 ft; minimum, 65,000 acre-ft, Oct. 31, elevation, 2,454.20 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2456.1	71500	
Oct. 31	2454.2	65000	-6500
Nov. 30	2454.8	67000	+2000
Dec. 31	2457.3	75700	+8700
CAL YR 1983			+7600
Jan. 31	2456.2	71800	-3900
Feb. 29	2457.9	77900	+6100
Mar. 31	2458.7	80800	+2900
Apr. 30	2459.5	83700	+2900
May 31	2460.8	88500	+4800
June 30	2460.4	87000	-1500
July 31	2460.2	86300	-700
Aug. 31	2459.0	81900	-4400
Sept. 30	2458.1	78600	-3300
WTR YR 1984			+7100

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi upstream from Bear Creek.

DRAINAGE AREA.--295 mi².

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-31, 1940, published in WSP 1675. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--Estimated daily discharges: Dec. 8, 9, Jan. 13, 14, 21-23, 27, 28, and Feb. 3, 4. Records good except those for periods with ice effect, Dec. 8, 9, Jan. 13, 14, 21-23, 27, 28, and Feb. 3, 4, which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir (see station 03076000). 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.--51 years (water years 1899-1904, 1941-85), 645 ft³/s, 29.69 in/yr, adjusted for storage since October 1940.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft³/s, Mar. 29, 1924, gage height, 14.2 ft, from flood-marks, site and datum then in use or 10.2 ft, present site and datum, from rating curve extended above 5,800 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 8.2 ft³/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,260 ft³/s, July 10, gage height, 7.34 ft; minimum discharge, 39 ft³/s, Sept. 30, gage height, 1.95 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	315	377	1390	504	647	1730	2560	184	4500	252	593	91
2	416	313	1110	614	665	1120	1650	264	1490	300	643	77
3	282	329	1020	579	250	949	1300	2270	1210	269	311	117
4	295	256	961	546	240	1040	1150	1230	1030	217	246	112
5	307	442	746	606	851	1310	932	795	1520	314	357	106
6	74	669	697	413	836	1130	662	613	3010	165	328	105
7	62	639	587	602	757	829	594	504	1600	176	313	71
8	173	528	435	712	793	898	693	419	1600	290	350	55
9	222	514	405	497	510	826	708	359	1180	3560	354	112
10	228	431	502	509	265	645	650	358	808	5300	141	153
11	231	446	765	494	457	755	770	284	650	5330	124	125
12	265	520	1040	390	1040	2520	880	261	1370	2400	204	113
13	68	467	1040	320	1530	2190	620	250	1680	1840	190	104
14	50	420	962	415	1190	1550	558	234	1270	1500	188	54
15	128	424	758	451	1030	1200	609	208	886	2470	251	49
16	182	575	629	483	464	783	636	207	1080	1740	222	93
17	177	492	649	460	314	630	852	269	1020	1340	115	94
18	151	432	595	451	303	863	656	334	921	788	93	116
19	138	496	1060	268	544	763	563	300	822	671	185	94
20	71	487	2490	207	438	724	408	232	734	402	83	92
21	144	468	1670	560	469	681	366	183	632	314	177	45
22	212	341	2060	540	611	603	391	161	447	463	124	42
23	268	339	1320	540	1310	687	385	205	399	569	123	89
24	433	320	1100	516	3340	1320	339	361	440	468	74	93
25	416	301	1940	556	5940	1670	358	230	432	391	139	89
26	372	355	1430	439	3700	1160	328	182	389	395	185	90
27	253	382	1250	198	3080	930	245	157	358	461	145	90
28	172	1080	925	194	2380	712	230	276	336	373	134	44
29	399	3100	679	630	---	717	263	412	223	412	128	41
30	860	1590	611	601	---	1530	200	323	157	346	126	91
31	584	---	665	612	---	2030	---	3530	---	353	87	---
TOTAL	7948	17533	31491	14907	33954	34495	20556	15595	32194	33869	6733	2647
MEAN	256	584	1016	481	1213	1113	685	503	1073	1093	217	88.2
MAX	860	3100	2490	712	5940	2520	2560	3530	4500	5330	643	153
MIN	50	256	405	194	240	603	200	157	157	165	74	41
(†)	-106	+33.6	+142	-63.5	+110	+47.1	+48.8	+78.1	-25.2	-11.4	-71.6	-55.5
MEAN#	150	618	1158	418	1323	1160	734	581	1048	1082	145	32.7
CFSM#	0.51	2.09	3.93	1.42	4.48	3.93	2.49	1.97	3.55	3.67	0.49	0.11
IN#	0.59	2.33	4.53	1.64	4.66	4.53	2.78	2.27	3.96	4.23	0.56	0.12

CAL YR 1984 TOTAL 308255 MEAN 842 MAX 6090 MIN 50 MEAN# 852 CFSM# 2.89 IN# 39.31
WTR YR 1985 TOTAL 251922 MEAN 690 MAX 5940 MIN 41 MEAN# 700 CFSM# 2.37 IN# 32.21

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir furnished by Pennsylvania Electric Co.
# Adjusted for change in contents.

03076600 BEAR CREEK AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'22", long 79°23'41", Garrett County, Hydrologic Unit 05020006, on right bank 0.2 mi downstream from bridge on Accident-Friendsville Road, 0.6 mi downstream from South Branch Bear Creek, 0.8 mi southeast of Friendsville, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--48.9 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9-18, 21-28, and Feb. 12-18. Records good except those for periods with ice effect, Jan. 9-18, 21-28, and Feb. 12-18, which are fair. 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.--21 years, 89.3 ft³/s, 24.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft³/s, Sept. 14, 1971, gage height, 9.6 ft, from flood-marks, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft³/s, Sept. 12, 1966, gage height, 0.42 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	1945	795	3.64	July 9	0700	*2,630	*6.58
Feb. 23	1745	1,140	4.19	July 10	1230	2,020	5.62
Feb. 24	1715	1,910	5.43	July 13	1915	827	3.69
Apr. 1	0100	963	3.89	July 14	2330	801	3.65
May 31	0900	814	3.67				

Minimum discharge, 4.0 ft³/s, Sept. 27, 28, 29, 30, gage height, 0.63 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	26	36	345	98	37	250	742	29	301	28	34	11
2	17	37	283	89	36	189	370	69	169	28	26	9.2
3	11	31	250	79	34	145	307	313	111	29	21	8.3
4	8.9	33	163	77	34	117	243	164	84	32	19	8.0
5	7.9	78	126	82	46	151	168	108	101	28	18	7.3
6	7.2	72	114	70	42	108	135	86	84	27	17	7.1
7	7.0	61	91	69	38	89	114	72	70	29	16	7.1
8	7.1	51	83	67	34	109	102	60	63	27	18	6.7
9	7.2	49	68	60	36	108	96	51	54	1370	15	6.5
10	7.1	63	69	56	35	95	88	47	47	1270	14	11
11	6.8	71	141	52	38	94	107	43	42	753	13	8.3
12	6.4	74	188	48	60	323	118	40	67	386	13	6.7
13	6.5	69	212	48	120	298	115	37	60	304	12	6.1
14	6.0	61	171	50	100	243	103	34	51	333	11	5.7
15	6.3	58	141	46	84	160	91	33	63	557	13	5.6
16	14	66	121	43	70	118	84	34	202	423	22	5.6
17	11	59	107	43	62	102	73	37	137	281	17	5.5
18	27	59	91	43	58	86	62	45	138	153	12	5.5
19	12	64	191	44	58	74	57	40	105	103	11	5.1
20	15	54	286	33	56	69	53	31	94	78	11	5.1
21	13	49	304	44	59	62	48	28	75	67	11	5.1
22	13	46	363	43	144	56	46	26	63	60	10	5.1
23	31	49	286	42	689	120	43	36	59	52	9.6	4.9
24	39	46	233	41	1280	227	40	34	53	43	11	4.6
25	32	46	322	40	1160	262	41	28	46	38	20	4.9
26	26	49	262	38	583	197	38	25	39	42	14	4.3
27	22	54	197	36	397	138	35	22	36	46	11	4.0
28	25	287	139	34	331	115	34	70	33	34	9.5	4.0
29	61	502	110	32	---	122	32	96	30	29	8.7	4.0
30	52	327	117	30	---	403	30	59	27	27	11	4.0
31	42	---	103	32	---	668	---	371	---	27	18	---
TOTAL	573.4	2601	5677	1609	5721	5298	3615	2168	2504	6704	466.8	186.3
MEAN	18.5	86.7	183	51.9	204	171	121	69.9	83.5	216	15.1	6.21
MAX	61	502	363	98	1280	668	742	371	301	1370	34	11
MIN	6.0	31	68	30	34	56	30	22	27	27	8.7	4.0
CFSM	.38	1.77	3.74	1.06	4.17	3.50	2.47	1.43	1.71	4.42	.31	.13
IN.	.44	1.98	4.32	1.22	4.35	4.03	2.75	1.65	1.90	5.10	.36	.14

CAL YR 1984 TOTAL 42180.0 MEAN 115 MAX 1460 MIN 6.0 CFSM 2.35 IN 32.09
WTR YR 1985 TOTAL 37123.5 MEAN 102 MAX 1370 MIN 4.0 CFSM 2.09 IN 28.24

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi upstream from Slaubaugh Run, 0.7 mi downstream from U.S. Highway 40, and 1.0 mi northeast of Grantsville.

DRAINAGE AREA.--62.5 mi².

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 23. Records good except those for period with ice effect, Jan. 9 to Feb. 23, which are fair. 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.--38 years, 119 ft³/s, 25.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s, Oct. 15, 1954, gage height, 10.70 ft, from rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement at gage height 8.13 ft; no flow Aug. 31, 1962, result of regulation from unknown source.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 23	2215	1,020	3.71	May 3	0530	1,070	3.79
Feb. 24	2030	*1,900	*4.82	July 9	1330	1,270	4.04
Mar. 31	2300	1,210	3.97	July 10	1815	1,820	4.73

Minimum discharge, 2.7 ft³/s, Sept. 27, 28, 29, 30, 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	38	46	341	122	50	276	822	35	254	27	58	15
2	33	45	230	113	50	264	422	139	113	30	34	12
3	19	42	220	99	48	246	332	752	86	31	25	9.6
4	13	44	189	94	56	205	308	247	76	27	21	8.8
5	11	179	145	102	64	257	258	157	153	30	18	7.5
6	9.0	112	137	88	58	200	212	123	112	28	16	6.8
7	8.4	84	114	86	54	157	184	105	74	27	16	6.6
8	8.5	69	122	81	50	190	176	90	67	25	17	6.2
9	9.2	64	123	76	50	193	171	78	57	739	16	7.7
10	9.0	105	95	72	50	150	149	70	49	933	14	9.7
11	8.4	134	203	68	54	147	174	64	42	547	13	9.7
12	7.3	116	212	64	80	460	166	58	68	197	12	8.2
13	7.9	92	257	66	150	318	135	53	86	144	10	7.0
14	7.5	82	216	68	120	243	120	46	64	184	9.9	6.0
15	7.1	84	190	64	100	194	111	42	70	448	18	6.1
16	14	115	153	68	90	163	104	44	193	234	26	5.4
17	18	89	132	64	80	148	93	49	128	136	23	5.0
18	58	79	117	60	74	130	81	72	116	99	14	4.6
19	26	85	282	56	74	116	73	71	84	79	13	4.3
20	25	76	322	56	76	111	68	50	77	66	12	4.3
21	28	68	314	60	80	100	63	40	66	61	12	4.0
22	24	88	410	60	150	97	59	38	54	66	11	4.0
23	55	128	244	60	400	300	56	50	54	58	9.5	3.6
24	86	93	200	58	1200	464	53	67	45	44	11	3.4
25	66	72	384	56	1250	397	55	45	43	38	21	3.3
26	45	68	215	52	678	262	50	34	34	42	17	3.3
27	35	80	181	50	532	209	45	28	29	51	13	3.1
28	35	400	166	48	352	184	44	41	27	37	11	3.0
29	134	567	144	45	---	199	41	145	24	29	9.9	2.8
30	88	245	152	44	---	570	37	66	21	27	9.3	2.8
31	58	---	135	48	---	833	---	319	---	27	14	---
TOTAL	991.3	3551	6345	2148	6070	7783	4662	3218	2366	4511	524.6	183.8
MEAN	32.0	118	205	69.3	217	251	155	104	78.9	146	16.9	6.13
MAX	134	567	410	122	1250	833	822	752	254	933	58	15
MIN	7.1	42	95	44	48	97	37	28	21	25	9.3	2.8
CFSM	.51	1.89	3.28	1.11	3.47	4.02	2.48	1.66	1.26	2.34	.27	.10
IN.	.59	2.11	3.78	1.28	3.61	4.63	2.77	1.92	1.41	2.68	.31	.11

CAL YR 1984 TOTAL 48873.6 MEAN 134 MAX 1680 MIN 5.9 CFSM 2.14 IN 29.09
WTR YR 1985 TOTAL 42353.7 MEAN 116 MAX 1250 MIN 2.8 CFSM 1.86 IN 25.21

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of annual maximum stage for tidal crest-stage stations.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1985

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		INDIAN RIVER BASIN				
01484550	Pepper Creek at Dagsboro, De.	Lat 38°32'50", long 75°14'40", Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 26, at Dagsboro and 3.5 mi upstream from mouth.	8.78	1955-71, 1985	7- 8-85	1.48
01484655	Love Creek at Robinsonville, De.	Lat 38°43'03", long 75°11'14", Sussex County, Hydrologic Unit 02060010, at bridge on road No. 277, 0.4 mi northeast of Robinsonville and about 2.8 mi upstream from mouth.	12	1985	7- 8-85	4.28
01484600	Blackwater Creek near Clarksville, De.	Lat 38°32'43", long 75°09'49", Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 54, 1.0 mi west of Clarksville and 3.1 mi upstream from mouth.	3.5	1968-69*, 1971*, 1985	7- 8-85	.19
01484677	Chapel Branch at Angola, De.	Lat 38°40'18", long 75°11'10", Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 24, at Angola and 0.3 mi upstream from mouth.	8.0	1985	7- 8-85	2.11
01484525	Millsboro Pond Outlet at Millsboro, De.	Lat 38°35'40", long 75°17'29", Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 24, at Millsboro.	66	1985	7- 8-85	18.6
01484530	Iron Branch at Millsboro, De.	Lat 38°34'40", long 75°17'19", Sussex County, Hydrologic Unit 02060010, at bridge on U.S. Highway 113, at Millsboro, 1.1 mi upstream from Whartons Branch and 1.4 mi upstream from mouth.	8.0	1985	7- 8-85	.92
01484531	Whartons Branch near Millsboro, De.	Lat 38°33'42", long 75°16'30", Sussex County, Hydrologic Unit 02060010, at bridge on U.S. Highway 113, 2.2 mi southeast of Millsboro, and 1.7 mi upstream from mouth.	5.8	1968-69, 1971, 1985	7- 8-85	.29
01484535	Swan Creek near Warwick, De.	Lat 38°36'49", long 75°15'19", Sussex County, Hydrologic Unit 02060010, at bridge on road No. 304, 0.6 mi upstream from Waples Pond, 1.5 mi northwest of Warwick and 2.3 miles upstream from mouth.	7.2	1985	7- 8-85	1.33

* Drainage area was published as 4.5 sq mi.

Discharge measurements made at low-flow partial-record stations during water year 1985

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		INDIAN RIVER BASIN--Continued				
01484548	Vines Creek at Omar, De.	Lat 38°31'44", long 75°12'09", Sussex County, Hydrologic Unit 02060010, at bridge on road No. 382, at Omar and 6.2 mi upstream from the confluence with Indian River at Indian River Bay.	13.6	1985	7- 8-85	.80
		DIRICKSON CREEK BASIN				
01484700	Bearhole Ditch at Bunting, De.	Lat 38°28'17", long 75°09'22", Sussex County, Hydrologic Unit 02060010, at culverts on road No. 390A, 0.6 mi north of Bunting, 3.7 mi east of Selbyville and 1.6 mi upstream from mouth.	6.4	1968-71*, 1985	7- 8-85	.96
		CHOPTANK RIVER BASIN				
01490550	Choptank River near Choptank Mills, De.	Lat 39°03'15", long 75°44'05", Kent County, Hydrologic Unit 02060005, at bridge on road No. 211, near Choptank Mills, 2.2 mi southeast of Henderson, Md., 1.5 mi downstream from mud millpond and about 66 mi upstream from mouth.	58	1985	7-22-85	7.50

* Drainage area was published as 6.2 sq mi.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1985

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
		Delaware River basin					
01478040	Christina River near Bear, DE	Lat 39°38'12", long 75°40'53", New Castle County, Hydrologic Unit 02040205, on right bank 500 ft upstream from highway bridge, 1.3 mi northwest of Bear, 1.6 mi downstream from Belltown Run, and 17.7 mi upstream from mouth.	40.6	1979-82‡, 1983-85	2-12-85	9.30	2,180
		Susquehanna River basin					
01577940	Broad Creek tributary at Whiteford, MD	Lat 39°42'14", long 76°21'49", Harford County, Hydrologic Unit 02050306, at upstream side of culvert on State Highway 165, 0.8 mi upstream from mouth, and 1.0 mi southwest of Whiteford.	.77	1971-85	2-12-85	7.85	222
		Gunpowder River basin					
01584500	Little Gunpowder Falls at Laurel Brook, MD	Lat 39°30'18", long 76°25'56", Baltimore County, Hydrologic Unit 02060003, 750 ft upstream from bridge on Bottom Road, 5 mi southwest of Bel Air, and 10.5 mi upstream from mouth.	36.1	1927-70‡, 1971-85	2-12-85	9.21	7,460
		Potomac River basin					
01596005	Savage River near Frostburg, MD	Lat 39°40'56", long 78°57'54", Garrett County, Hydrologic Unit 02070002, at upstream side of culvert on U.S. Highway 40, 1.9 mi northwest of Frostburg city limits, and about 26 mi upstream from mouth.	a1.5	1971-85	2-24-85	20.65	150
01601000	Wills Creek below Hyndman, PA	Lat 39°48'43", long 78°43'00", Bedford County, Hydrologic Unit 02070002, 150 ft above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mi downstream from Little Wills Creek, and 0.5 mi south of Hyndman.	146	1951-67‡, 1968-85	3-31-85	4.95	1,840
01610105	Pratt Hollow tributary at Pratt, MD	Lat 39°41'35", long 78°30'18", Allegany County, Hydrologic Unit 02070003, at upstream side of culvert on U.S. Highway 40, 0.2 mi northeast of Pratt, and 1.0 mi upstream from Kifer Hollow.	.70	1971-85	2-13-85	11.59	47
01613150	Ditch Run near Hancock, MD	Lat 39°41'30", long 78°07'57", Washington County, Hydrologic Unit 02070004, at upstream side of culvert on U.S. Highway 40, 0.3 mi upstream from mouth, and 2.7 mi east of Hancock.	a4.8	1965-85	2-13-85	5.81	220
01658000	Mattawoman Creek near Pomonkey MD	Lat 38°35'45", long 77°03'25", Charles County, Hydrologic Unit 02070011, at downstream side of bridge on State Highway 227, 1.2 mi southeast of Pomonkey, and 12.6 mi upstream from mouth.	54.8	1949-72‡, 1973-85	9-28-85	4.84	892

‡ Operated as a continuous-record station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations during water year 1985

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum Date	Gage height (ft)	Discharge (ft³/s)
		Monongahela River basin					
03075600	Toliver Run tributary near Hoyes Run, MD	Lat 39°29'39", long 79°25'14", Garrett County, Hydrologic Unit 05020006, at upstream side of culvert on Swallow Falls Road, 100 ft upstream from mouth, and 2.4 mi south of Hoyes Run.	.53	1965-85	5-31-85	5.05	36
03078500	Big Piney Run near Salisbury, PA	Lat 39°43'34", long 79°02'55", Somerset County, Hydrologic Unit 05020006, 600 ft upstream from Little Piney Run, and 2.5 mi southeast of Salisbury.	24.5	1932-70‡, 1974-85	2-24-85	3.79	680

‡ Operated as a continuous-record station.

Annual maximum discharge at crest-stage partial-record stations during water year 1985

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The informaton is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929. Only the maximum stage is given. Information on some other high stages 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 stage at tidal crest-stage partial-record stations during water year 1985

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		SMYRNA RIVER BASIN			
01483335	Duck Creek at Smyrna, DE	Lat 39°18'31", long 75°36'34", Kent County, Hydrologic Unit 02040207, at bridge on U.S. Highway 13, at north edge of Smyrna, 2 mi north of intersection of State Highway 300 and U.S. Highway 13 on downstream right wingwall of bridge.	1966-85	9-27-85	4.80
		MURDERKILL RIVER BASIN			
01484085	Murderkill River at Bowers, DE	Lat 39°03'30", long 75°23'51", Kent County, Hydrologic Unit 02040207, at Faulkner's Landing in Bowers, on left bank 10 ft southeast of southeast corner of restaurant on Faulkner's Pier.	1966-85	9-27-85	7.10
		CEDAR CREEK BASIN			
01484235	Cedar Creek near Slaughter Beach, DE	Lat 38°56'06", long 75°19'26", Sussex County, Hydrologic Unit 02040207, at bridge No. S-164 on State Highway 36, 1.8 mi northwest of Slaughter Beach.	1966-85	9-27-85	5.38
		INDIAN RIVER BASIN			
01484595	Indian River at Oak Orchard, DE	Lat 38°35'45", long 75°10'24", Sussex County, Hydrologic Unit 02060010, at Hanes Landing, 2.0 mi southeast of intersection of State Highways 24 and 5, at Oak Orchard.	1966-85	9-27-85	4.52
01484670	Rehoboth Bay at Dewey Beach, DE	Lat 38°41'40", long 75°05'05", Sussex County, Hydrologic Unit 02060010, on north shore of Rehoboth Bay at Head of Bay Cove, at Dewey Beach and at south end of Ventian Drive on bulkhead of a boat slip.	1985	10-14-84	3.18
01484549	Vines Creek near Dagsboro, DE	Lat 38°33'23", long 75°12'13", Sussex County, Hydrologic Unit 02060010, on right bank at upstream side of bridge on State Highway 26, 2.4 mi east of Dagsboro and 3.8 mi upstream from the confluence with Indian River at Indian River Bay.	1985	9-27-85	3.96

Potomac River basin low-flow investigations

Base-flow discharge measurements were made throughout Washington County as part of a water-availability study in cooperation with Washington County and the Maryland Geological Survey. The data collected in these measurements, along with that already collected, will provide the basis for determining the base-flow yields throughout the county.

Weather records at Hagerstown, in the eastern portion of the area, and Hancock, in the western part of the area, were used to check periods prior to measurements for rainfall. Measurements are considered to represent base flow except as indicated.

The measurements on each stream are listed in order proceeding downstream, and each tributary is inserted in the order in which it enters the main stream. Drainage areas were determined from recent U.S. Geological Survey topographic maps of a scale of 1:24,000 and contour interval of 10 to 20 ft. Previous series of measurements were made as indicated.

Discharge measurements of tributaries to the Potomac River in Washington County, MD

Station No.	Station Name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
01610150*	Bear Creek at Forest Park, Md.	Lat 39°42'07", long 78°19'02", Washington County, Hydrologic Unit 02070004, at upstream side of culvert on U.S. Highway 40, 0.2 mi upstream from mouth, and 0.9 mi west of Forest Park.	10.4	-	3-14-85 4-30-85 6-26-85 8-28-85	3.82 2.03 .15 .30	0.367 .195 .014 .029
01610155	Sideling Hill Creek near Bellegrove, Md.	Lat 39°38'58", long 78°20'40", Washington County, Hydrologic Unit 02070003, on left bank at Highway bridge on Pearre Road, 1.2 mi upstream from mouth, and 4.0 mi south of Bellegrove.	102	1967-77‡	8-28-85	3.24	.032
01610170	Potomac River Tributary at Woodmont, Md.	Lat 39°37'55", long 78°18'33", Washington County, Hydrologic Unit 02070004, upstream side of culvert on Pearre Road, 0.1 mi upstream from mouth, and 0.2 mi west of Woodmont Road intersection.	3.29	-	3-14-85 4-30-85 6-26-85 8-28-85	.94 .71 .32 .30	.286 .216 .097 .091
01612500	Little Tonoloway Creek near Hancock, Md.	Lat 39°42'45", long 78°13'55", Washington County, Hydrologic Unit 02070004, on right bank at downstream side of highway bridge, 100 ft downstream from unnamed tributary and 2.8 miles northwest of Hancock.	16.9	1947-63‡	8-28-85	.90	.053
01613100	Tonoloway Creek at Hancock, Md.	Lat 39°41'55", long 78°09'15", Washington County, Hydrologic Unit 02070004, on Raylock Road directly under westbound Interstate 70 bridge at Hancock, and 0.6 mi upstream from mouth.	113	-	3-14-85 4-30-85 6-26-85 9-18-85	55.7 30.3 5.37 1.41	.493 .268 .048 .012
01613150*	Ditch Run near Hancock, Md.	Lat 39°41'30", long 78°07'57", Washington County, Hydrologic Unit 02070004, at upstream side of culvert on U.S. Highway 40, 0.3 mi upstream from mouth, and 2.7 mi east of Hancock.	4.80	-	3-14-85 4-30-85 6-26-85 8-28-85	1.36 .59 .14 .39	.283 .123 .029 .081
01613540	Lanes Run near Forsythe, Md.	Lat 39°39'50", long 78°00'08", Washington County, Hydrologic Unit 02070004, at bridge on Little Cove Road, 1.2 mi north of Indian Springs, and 2.4 mi upstream from mouth.	9.98	1980-82	4-29-85 6-27-85 8-29-85	1.75 1.30 1.90	.175 .130 .190
01613545	Licking Creek near Pecktonville, Md.	Lat 39°39'05", long 78°02'47" Washington County, Hydrologic Unit 02070004, at westbound Interstate 70 bridge, 0.3 mi upstream from mouth, and 1.25 mi south of Pecktonville.	212	-	4-29-85 6-27-85 9-18-85	128 34.1 14.9	.604 .161 .070

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.

Discharge measurements of tributaries to the Potomac River in Washington County, MD

Station No.	Station Name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
01614050	Little Conococheague Creek near Charlton, Md.	Lat 39°35'17", long 77°34'38", Washington County, Hydrologic Unit 02070004, at bridge on Dam #5 Road, 0.1 mi upstream from mouth, and 2.0 mi south of Charlton.	18.1	-	4- 3-85 4-29-85 6-27-85 8-29-85	13.3 5.93 3.49 4.04	.735 .328 .193 .223
01614525	Rockdale Run at Fairview, Md.	Lat 39°42'07", long 77°50'45", Washington County, Hydrologic Unit 02070004, at bridge on Rockdale Road, 0.7 mi south of Fairview, and 1.7 mi upstream from mouth.	9.67	1976-79, 1981-82	4-23-85 6-27-85 8-26-85 9-26-85	7.04 3.50 3.08 2.09	.728 .362 .319 .216
01614575	Rush Run near Huyett, Md.	Lat 39°40'23", long 77°47'37", Washington County, Hydrologic Unit 02070004, at bridge on State Highway 63, 1.5 mi north of Huyett, and 1.9 mi upstream from mouth.	5.20	1976-79, 1981-82	4-23-85 6-27-85 9-26-85	3.56 2.03 1.33	.685 .390 .256
01614625	Meadow Brook at Conococheague, Md.	Lat 39°38'55", long 77°51'19", Washington County, Hydrologic Unit 02070004, at bridge on Ridge Road, 0.7 mi southwest of Conococheague, and 2.1 mi upstream from mouth.	6.77	1976-79, 1981-82	4-23-85 6-27-85 9-26-85	1.84 1.53 .32	.272 .226 .047
01614675	Conococheague Creek tributary near Huyett, Md.	Lat 39°37'39", long 77°48'43", Washington County, Hydrologic Unit 02070004, at bridge on light-duty road, 0.4 mi upstream from mouth, and 1.9 mi south of Huyett.	7.94	1977-79, 1981-82	4-23-85 6-27-85 9-24-85	3.31 1.59 1.29	.417 .200 .162
01614705	Conococheague Creek at Williamsport, Md.	Lat 39°36'29", long 77°49'09", Washington County, Hydrologic Unit 02070004, downstream side of Western Maryland Railroad bridge at Williamsport, 0.9 mi upstream from mouth.	564	-	9-19-85	105	.186
01617780	St. James Run at Spielman, Md.	Lat 39°33'03", long 77°45'52", Washington County, Hydrologic Unit 02070004, at bridge on Jordon Road, 0.9 mi north of Spielman, and 1.0 mi upstream from Marsh Run.	7.14	1977-79, 1981-82	4-23-85 6-27-85 9-19-85	3.34 3.22 2.54	.468 .451 .356
01619000	Antietam Creek near Waynesboro, Pa.	Lat 39°42'59", long 77°36'28", Washington County, Hydrologic Unit 02070004, on right bank 100 ft upstream from highway bridge at Rocky Forge, 0.4 mi downstream from Pennsylvania-Maryland State line, 0.7 mi downstream from confluence of west and east branches, 1.9 mi northeast of Leitersburg, Md., 2.5 mi southwest of Waynesboro, Pa., and 36.6 mi upstream from mouth.	93.5	1948-81‡	8-26-85	54.4	.582
01619050	Little Antietam Creek at Leitersburg, Md.	Lat 39°40'57", long 77°37'44", Washington County, Hydrologic Unit 02070004, at bridge on State Highway 62, 0.4 mi upstream from mouth, and 0.8 mi southwest of Leitersburg.	24.5	1976-79, 1981-82	4-22-85 9-26-85	16.0 5.51	.653 .225
01619150	Marsh Run at Fiddlesburg, Md.	Lat 39°39'29", long 77°41'16", Washington County, Hydrologic Unit 02070004, at bridge on Old Forge Road at Fiddlesburg, 0.5 mi east of Hagerstown city limits, and 0.6 mi above mouth.	a31	1965-74, 1976-79	4-22-85 6-28-85 9-26-85	17.1 7.07 2.15	.552 .228 .069

‡ Operated as a continuous-record gaging station.
a Approximately.

Discharge measurements of tributaries to the Potomac River in Washington, County, MD

Station No.	Station Name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
01619275	Landis Spring Branch near Benevola, Md.	Lat 39°34'17", long 77°41'23", Washington County, Hydrologic Unit 02070004, at bridge on U.S. Highway 40, 100 ft upstream from mouth, and 1.9 mi northwest of Benevola.	6.60	1976-79, 1981-82	3-11-85 4-22-85 9-20-85 9-25-85	2.47 2.00 .96 .80	.374 .303 .145 .121
01619325	Beaver Creek at Benevola, Md.	Lat 39°33'04", long 77°40'55", Washington County, Hydrologic Unit 02070004, at bridge on light-duty road at Benevola, and 0.4 mi upstream from Little Beaver Creek.	22.9	1975-79	3-11-85 4-22-85 9-20-85 9-25-85	23.1 19.3 11.9 10.6	1.009 .843 .520 .463
01619350	Little Beaver Creek at Benevola, Md.	Lat 39°32'48", long 77°40'39", Washington County, Hydrologic Unit 02070004, at bridge on U.S. Highway 40 (Alternate) at Benevola, and 0.2 mi upstream from Beaver Creek.	8.70	1975-79	4-22-85 9-20-85 9-25-85	7.26 3.46 3.32	.834 .398 .382
01619480	Little Antietam Creek at Keedysville, Md.	Lat 39°29'10", long 77°42'05", Washington County, Hydrologic Unit 02070004, at bridge on Koffman Lane at Keedysville, and 1.2 mi upstream from mouth.	a24	1964-67, 1976-79	4-23-85 9-19-85	18.9 5.86	.788 .244
01636730	Israel Creek at Weverton, Md.	Lat 39°19'45", long 77°41'03", Washington County, Hydrologic Unit 02070004, at bridge on light-duty road at Weverton, and 0.1 mi upstream from mouth.	13.2	1975-79	4-23-85 9-19-85 9-25-85	8.67 1.17 0.95	.657 .089 .072

a Approximately.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN

01589493 - SAWMILL C AT QUEENSTOWN RD NR GLEN BURNIE MD

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)	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)
NOV 1984										
27...	09:15	0.57	148	7.8	--	3.0	38	31	11	2.6
MAR 1985										
20...	09:30	0.54	142	6.8	15.5	8.5	--	--	--	--
AUG										
14...	09:05	0.17	142	6.7	29.0	24.0	--	--	--	--
SEP										
18...	09:00	0.14	140	6.5	25.0	14.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	7.6	27	0.6	4.5	7.0	0.2	28	14	<0.1	4.7

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	81	77	0.11	0.12	1.80	<0.01	<100	20	61	13

01589494 - SAWMILL C AT MEADOWBROOK RD AT GLEN BURNIE MD

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)	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)
NOV 1984										
27...	12:20	1.1	134	6.5	--	6.5	34	27	9.8	2.3
MAR 1985										
20...	09:00	0.97	130	7.1	14.0	7.0	--	--	--	--
AUG										
14...	08:45	0.22	132	6.7	31.0	22.0	--	--	--	--
SEP										
18...	09:25	0.11	128	6.9	23.0	16.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	7.5	30	0.6	3.4	7.0	4.3	25	12	<0.1	5.2

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	86	69	0.12	0.26	1.40	<0.01	<100	20	45	24

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

01589499 - SAWMILL C TR AT DORSEY RD AT GLEN BURNIE MD

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)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 1984										
27...	09:00	0.03	320	7.1	--	6.5	48	14	3.2	54
MAR 1985										
20...	08:20	0.02	302	6.8	12.0	8.0	--	--	--	--
AUG										
14...	08:50	0.02	270	6.9	27.0	22.0	--	--	--	--
SEP										
18...	08:40	0.01	262	6.9	20.0	18.0	--	--	--	--

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	69	4	3.3	52	8.0	30	50	0.3	7.5	214

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984									
27...	200	0.29	0.02	0.72	0.16	<100	40	1400	170

01589502 - SAWMILL C TR AT EASTERN AVE AT FERNDALE MD

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)	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)
NOV 1984										
27...	13:20	0.09	330	6.6	--	9.0	68	31	21	3.8
MAR 1985										
20...	13:20	0.05	525	6.5	19.5	9.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	42	56	2	3.9	37	18	26	62	0.2	6.3

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	212	190	0.29	0.05	2.40	<0.01	<100	30	960	160

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

01589504 - SAWMILL C TR NR LONGWOOD AVE AT GLEN BURNIE MD

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)	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)
NOV 1984										
27...	13:45	0.06	370	6.9	--	7.0	69	32	21	4.0
MAR 1985										
20...	10:00	0.02	520	7.8	15.0	8.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	42	55	2	3.8	37	9.0	27	61	0.2	5.2

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	179	190	0.24	0.03	2.10	<0.01	<100	30	97	43

01589506 - SAWMILL C AT EIGHTH AVE AT GLEN BURNIE MD

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)	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)
NOV 1984										
27...	14:15	0.58	175	6.9	--	6.0	41	26	12	2.7
MAR 1985										
20...	10:30	0.4	190	6.9	18.0	8.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	14	40	1	3.6	15	3.7	27	20	<0.1	5.1

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	119	94	0.16	0.19	0.57	<0.01	<100	30	89	37

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

01589508 - SAWMILL C TR AT OLEN DR AT FERNDALE MD

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)	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)
NOV 1984										
27...	13:45	0.65	255	6.8	--	11.5	87	37	26	5.4
MAR 1985										
20...	12:55	0.61	286	7.2	20.5	11.0	--	--	--	--
AUG										
14...	11:30	0.42	325	7.4	35.0	19.0	--	--	--	--
SEP										
18...	11:25	0.43	275	7.2	29.0	17.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	18	30	0.9	2.9	50	15	23	32	<0.1	7.2

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	158	140	0.21	0.28	2.70	<0.01	<100	20	53	29

01589510 - SAWMILL C TR BL CRESTHAVEN DR AT GLEN BURNIE MD

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)	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)
NOV 1984										
27...	14:20	0.24	167	6.5	--	11.5	46	40	12	4.0
MAR 1985										
20...	12:25	0.23	185	5.8	22.0	12.0	--	--	--	--
AUG										
14...	11:10	0.2	195	6.5	33.0	18.0	--	--	--	--
SEP										
18...	10:55	0.13	198	6.3	24.0	16.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	12	34	0.8	2.8	6.0	3.7	24	23	0.1	6.9

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	112	89	0.15	0.07	3.40	<0.01	<100	20	32	95

ANALYSE OF SAMPLES COLLECTED ET WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

01589515 - MARLEY C AT PHIRNE RD NR GLEN BURNIE MD

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)
AUG 1985						
14...	09:45	E0.05	245	6.2	30.0	22.0

01589517 - MARLEY C AT ELVATION RD NR GLEN BURNIE MD

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)	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)
NOV 1984										
27...	10:20	1.1	176	6.6	--	7.0	38	25	11	2.6
MAR 1985										
20...	10:45	1.2	165	6.3	19.0	10.0	--	--	--	--
AUG										
14...	--	0.81	164	6.7	32.0	22.0	--	--	--	--
SEP										
18...	10:30	0.68	142	6.3	25.0	14.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	14	43	1	2.2	13	6.3	15	30	<0.1	7.4

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	108	90	0.15	0.32	1.50	<0.01	<100	20	160	62

E Estimated

WATER QUALITY DATA, WATER YEAR OVTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

01589523 - MARLEY C TR AT HARUNDALE MD

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)	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)
NOV 1984										
27...	11:30	0.01	270	7.0	--	5.0	66	19	22	2.8
MAR 1985										
20...	12:20	0.11	300	6.8	20.0	15.5	--	--	--	--
AUG										
14...	11:45	0.04	239	9.1	34.0	31.0	--	--	--	--
SEP										
18...	11:40	0.04	155	6.9	27.0	15.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
NOV 1984										
27...	24	43	1	2.5	47	9.1	12	40	0.1	7.0

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1984										
27...	141	140	0.19	0.0	0.67	<0.01	<100	30	900	190

390748076382701 - EAST PARK CENTER BASIN, GLEN BURNIE MD

DATE	TIME	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ARSENIC TOTAL (UG/L AS AS)
SEP 1985												
26...	23:00	8.1	21.0	19	10	6.7	1.2	0.6	4.0	1.6	0.2	<1

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
SEP 1985												
26...	<1	<1	<1	<100	<10	<0.5	1	<1	<10	<1	<1	<3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
SEP 1985												
26...	6	<10	220	10	12	<10	20	6	2	<10	<1	<100

ANALYSE OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

PATAPSCO RIVER BASIN-Continued

390748076382701 - EAST PARK CENTER BASIN, GLEN BURNIE MD-Continued

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ANTHRA-CENE TOTAL (UG/L)	BENZO B FLUOR-AN-THENE TOTAL (UG/L)	BENZO K FLUOR-AN-THENE TOTAL (UG/L)
SEP 1985												
26...	<1	<1	<1	<6	30	15	4.0	<5.0	<5.0	<5.0	<10.0	<10.0

DATE	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	CHRY-SENE TOTAL (UG/L)	DIETHYL PHTHAL-ATE TOTAL (UG/L)	DI-METHYL PHTHAL-ATE TOTAL (UG/L)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L)	FLUOR-ANTHENE TOTAL (UG/L)
SEP 1985												
26...	<10.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<10.0	<5.0

DATE	FLUOR-ENE TOTAL (UG/L)	HEXA-CHLORO-BENZENE TOTAL (UG/L)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-CYCLO-PENT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-ETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISO-PHORONE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L)	NITRO-BENZENE TOTAL (UG/L)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)
SEP 1985												
26...	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

DATE	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	PARA-CHLORO-META CRESOL TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PHENAN-THRENE TOTAL (UG/L)	PHENOL (C6H-5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)
SEP 1985												
26...	<5.0	<30.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0

DATE	2-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-NITRO-PHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
SEP 1985											
26...	<5.0	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0	<30.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

385917076304701 - ANNAPOLIS MALL BASIN, ANNAPOLIS MD

DATE	TIME	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ARSENIC TOTAL (UG/L AS AS)
SEP 1985 26...	20:30	7.4	23.0	70	32	25	6.0	1.9	5.0	3.7	0.2	6

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
SEP 1985 26...	1	2	<1	<100	<10	<0.5	<1	<1	110	<1	9	<3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
SEP 1985 26...	12	10	47000	180	15	<10	120	9	<1	<10	2	<100

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ANTHRA-CENE TOTAL (UG/L)	BENZO B FLUOR-AN-THENE TOTAL (UG/L)	BENZO K FLUOR-AN-THENE TOTAL (UG/L)
SEP 1985 26...	2	<1	<1	10	220	28	10	<5.0	<5.0	<5.0	<10.0	<10.0

DATE	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	CHRY-SENE TOTAL (UG/L)	DIETHYL PHTHAL-ATE TOTAL (UG/L)	DI-METHYL PHTHAL-ATE TOTAL (UG/L)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L)	FLUOR-ANTHENE TOTAL (UG/L)
SEP 1985 26...	<10.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<5.0	<5.0	<5.0	<10.0	<5.0

DATE	FLUOR-ENE TOTAL (UG/L)	HEXA-CHLORO-BENZENE TOTAL (UG/L)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-CYCLO-PENT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-ETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISO-PHORONE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L)	NITRO-BENZENE TOTAL (UG/L)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)
SEP 1985 26...	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

385917076304701 - ANNAPOLIS MALL BASIN, ANNAPOLIS MD-Continued

DATE	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	PARA-CHLORO-META CRESOL TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PHENAN-THRENE TOTAL (UG/L)	PHENOL (C6H-5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)
SEP 1985												
26...	<5.0	<30.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0

DATE	2-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-NITRO-PHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
SEP 1985											
26...	<5.0	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30:0	<30.0

POTOMAC RIVER BASIN

01610150 - BEAR C AT FOREST PARK, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
28...	11:00	0.3	318	7.9	21.5	19.0	10	110	48	27	9.3	20

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
AUG 1985											
28...	28	0.9	3.6	58	1.4	28	46	<0.1	3.3	198	170

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
28...	0.27	0.16	0.50	0.04	0.12	160	140	24	30	4	26

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01610170 - POTOMAC R TR AT WOODMONT, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
28...	13:35	0.3	86	7.2	20.5	21.5	45	33	5	7.8	3.3	3.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
AUG 1985											
28...	17	0.3	2.5	28	3.4	7.3	5.5	<0.1	6.6	66	53

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
28...	0.09	0.05	0.30	0.04	0.12	1200	510	690	90	70	20

01613100 - TONOLOWAY C AT HANCOCK, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
18...	12:00	1.4	443	7.4	22.0	15.0	10	150	44	42	11	17

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
18...	19	0.6	4.0	106	8.2	60	28	0.1	0.4	279	220

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
18...	0.38	1.1	0.50	0.90	2.8	100	90	14	20	8	12

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01613150 - DITCH RN NR HANCOCK, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985												
28...	16:15	0.39	150	7.7	22.0	21.5	10	46	13	11	4.5	8.1

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
AUG 1985											
28...	25	0.5	4.5	33	1.3	18	13	<0.1	4.6	97	84

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
AUG 1985											
28...	0.13	0.1	0.30	0.05	0.15	320	250	74	50	6	44

01613500 - LICKING CREEK NEAR SYLVAN, PA.

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
18...	15:45	8.7	390	8.2	25.0	16.0	5	170	13	41	17	4.6

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985											
18...	5	0.2	3.0	177	2.1	19	9.1	0.1	3.3	216	190

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
18...	0.29	5.1	0.90	0.03	0.09	130	120	11	40	30	9

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01613540 - LANES RN NR FORSYTHE, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985 29...	15:40	1.9	145	8.3	27.0	22.0	5	65	6	20	3.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
AUG 1985 29...	2.5	8	0.1	1.5	59	0.6	7.3	3.4	<0.1	7.2	82

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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, DIS-SOLVED (UG/L AS MN)
AUG 1985 29...	80	0.11	0.42	2.40	0.01	0.03	180	130	47	<10	12

01613545 - LICKING C NR PECTONVILLE, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985 18...	18:30	15	323	8.4	19.5	17.5	10	150	5	39	12	3.6

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985 18...	5	0.1	2.3	142	1.1	16	6.8	<0.1	3.5	178	160

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985 18...	0.24	7.2	0.30	0.02	0.06	120	110	15	40	40	5

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01614050 - L CONOCOCHEAGUE C NR CHARLTON, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
AUG 1985 29...	18:15	4.0	390	8.5	24.5	21.0	10	180	17	57	10

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
AUG 1985 29...	6.0	7	0.2	3.1	167	1.0	15	15	0.1	7.2	237

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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, DIS-SOLVED (UG/L AS MN)
AUG 1985 29...	210	0.32	2.6	0.30	0.12	0.37	210	200	14	<10	12

01614525 - ROCKDALE RN AT FAIRVIEW, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
~~SEP~~ Aug 1985 26...	10:15	2.1	414	8.0	14.5	12.0	5	210	22	63	13	3.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
~~SEP~~ Aug 1985 26...	3	0.1	2.2	189	3.6	12	9.7	0.1	7.3	242	220

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
~~SEP~~ Aug 1985 26...	0.33	1.4	4.90	0.05	0.15	420	410	9	50	20	29

WATRER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01614575 - RUSH RN NR HUYETT, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
26...	13:30	1.3	706	7.8	22.0	14.0	15	330	140	110	14	17

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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)
SEP 1985											
26...	10	0.4	3.7	188	5.8	39	37	0.1	9.7	429	340

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
26...	0.58	1.5	7.30	0.12	0.37	1400	1300	130	90	60	30

01614625 - MEADOW BK AT CONOCOCHEAGUE, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
26...	11:30	0.32	519	8.0	18.5	14.5	15	240	23	76	13	9.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
26...	8	0.3	3.6	220	4.2	16	22	0.1	7.5	299	280

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
26...	0.41	0.26	4.70	0.11	0.34	410	400	9	50	30	16

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01614675 - CONOCOCHEAGUE C NR HUYETT, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
24...	19:10	1.3	711	7.6	15.5	17.0	10	320	24	100	16	18

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985											
24...	11	0.5	3.7	292	14	36	39	0.2	9.0	424	360

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
24...	0.58	1.5	5.80	0.07	0.21	1000	1000	5	50	50	4

01614705 - CONOCOCHEAGUE C AT WILLIAMSPORT, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
19...	19:00	105	460	8.8	21.0	21.0	15	200	20	59	13	12

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985											
19...	11	0.4	3.6	181	0.5	25	22	0.2	1.1	279	240

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
19...	0.38	79	2.40	0.20	0.61	140	130	6	30	30	5

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01617780 - ST. JAMES RN AT SPIELMAN, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 1985 19...	10:15	2.5	655	8.1	21.0	14.0	5	290	100	9.5	11

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985 19...	8	0.3	2.4	299	4.6	38	28	0.2	9.2	317	290

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985 19...	0.43	2.1	3.80	0.04	0.12	270	260	14	20	20	5

01619050 - L ANTIETAM C AT LEITERSBURG, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985 26...	17:00	5.5	481	7.9	21.0	15.5	10	240	19	62	20	7.5

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985 26...	6	0.2	2.5	218	5.3	24	16	0.2	8.1	282	260

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985 26...	0.38	4.2	3.70	0.11	0.34	580	570	9	20	10	6

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01619150 - MARSH RN AT FIDDLERSBURG, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
26...	15:15	2.2	571	8.0	19.0	14.0	5	290	20	96	12	4.8

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
26...	3	0.1	2.5	269	5.2	32	15	0.2	8.0	338	310

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
26...	0.46	2.0	5.20	0.07	0.21	350	330	17	40	30	13

01619275 - LANDIS SPRING B NR BENEVOLA, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
25...	12:30	0.8	615	8.1	19.5	14.5	5	300	22	88	20	9.6

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985											
25...	6	0.2	2.9	280	4.3	32	23	0.4	9.6	307	280

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
25...	0.42	0.66	5.10	0.04	0.12	400	400	4	30	20	7

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01619325 - BEAVER C AT BENEVOLA, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 1985											
25...	14:00	11	519	8.2	19.0	16.0	10	260	67	23	5.6

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985											
25...	4	0.2	2.3	268	3.2	33	15	0.3	8.2	312	280

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
25...	0.42	9.3	4.70	0.05	0.15	350	300	51	20	9	11

01619350 - L BEAVER C AT BENEVOLA, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985												
25...	15:30	3.3	419	8.2	25.0	16.5	10	200	16	52	17	8.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03)	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)
SEP 1985											
25...	8	0.3	2.0	184	2.2	14	17	0.2	7.9	237	220

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985											
25...	0.32	2.1	3.30	0.08	0.25	290	280	8	30	20	8

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

POTOMAC RIVER BASIN-Continued

01619480 - L ANTIETAM C AT KEEDYSVILLE, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 1985 19...	13:20	5.9	482	7.7	30.0	15.5	5	210	61	14	7.5

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985 19...	7	0.2	2.8	273	11	17	15	0.2	8.4	274	240

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985 19...	0.37	4.4	3.00	0.12	0.37	340	330	7	20	7	13

01636730 - ISRAEL C AT WEVERTON, MD

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)	COLOR (PLAT-INUM-COBALT UNITS)	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)
SEP 1985 25...	18:45	0.95	203	7.9	16.5	16.0	10	77	7	20	6.5	7.5

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 1985 25...	17	0.4	2.2	70	1.7	12	15	<0.1	13	125	110

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	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)
SEP 1985 25...	0.17	0.32	0.70	0.07	0.21	100	80	22	20	20	3

GROUND-WATER LEVELS

DELAWARE

KENT COUNTY

391026075304901. Local number, Id 55-1.
LOCATION.--Lat 39°10'26", long 75°30'49", Hydrologic Unit 02040207, White Oak Road at Dover.
Owner: City of Dover.
AQUIFER.--Piney Point.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2.5 in., depth 349 ft, cased to 329 ft, screened 329 to 349 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.0 ft above land-surface datum.
REMARKS.--Water level affected by pumping in the Dover area. Missing record from Sept. 24-30 was due to recorder malfunction.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 67.40 ft below land-surface datum, May 5, 1970; lowest recorded, 145.61 ft below land-surface datum, Aug. 25, 26, 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	141.73	141.05	138.62	134.72	135.38	135.90	132.32	131.01	129.93	130.58	134.36	136.22
10	141.15	140.82	137.98	134.67	135.62	135.63	131.85	131.22	129.78	130.76	135.11	137.21
15	140.54	140.69	137.61	134.14	135.69	135.01	131.23	131.43	130.12	131.32	136.25	138.05
20	141.02	140.80	137.17	134.44	135.80	134.18	130.76	131.26	130.10	132.06	138.00	136.81
25	141.12	139.99	136.76	134.81	136.19	133.33	130.78	130.82	130.14	132.84	137.96	------
EOM	141.31	138.83	135.61	135.43	136.14	132.94	131.02	130.21	130.80	133.01	137.28	------

WTR YEAR 1985 HIGHEST *129.72 JUN 9, 10, 1985 LOWEST *142.07 OCT 1, 1984

*Maximum and minimum water levels recorded.

390607075331501. Local number, Jd 42-3.
LOCTION.--Lat 39°06'07", long 75°33'15", Hydrologic Unit 02040207, 1 mi south of Camden.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in., depth 11 ft, well point 8.5 to 11 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 44 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located 2 ft north of the original well. The measurements published in WSP 1782, for the years 1958-61 for the original well, are doubtful.
PERIOD OF RECORD.--October 1950 to December 1961, August 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land-surface datum, July 18, 1975; lowest measured, 9.70 ft below land-surface datum, Nov. 24, 1982.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	6.99	JAN 28	7.89	APR 22	7.73	JUN 20	8.15	JUL 26	8.75	SEP 20	9.44
NOV 27	7.37	FEB 22	7.16	26	7.80	26	8.24	AUG 22	8.91	26	9.53
DEC 27	7.72	MAR 22	7.51	MAY 22	8.05	JUL 18	8.54	26	9.07	30	8.71
JAN 24	7.83	27	7.51	28	8.05						

385041075395601. Local number, Mc 51-1.
LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi northeast of Adamsville.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 19 ft, well point 15 to 19 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 55 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located about 60 ft north of original well.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land-surface datum, May 31, 1984; lowest measured, 15.74 ft below land-surface datum, Sept. 30, 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	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	13.64	JAN 24	14.09	MAR 22	13.28	MAY 22	13.91	JUL 18	14.17	SEP 20	14.95
DEC 18	14.24	FEB 22	13.27	APR 22	13.57	JUN 20	13.68	AUG 22	14.68		

385310075331301. Local number, Md 22-1.
LOCATION.--Lat 38°53'10", long 75°33'13", Hydrologic Unit 02040207, 2.4 mi west of Williamsville.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in., depth 17 ft, well point 14 to 17 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 58 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land-surface datum, July 14, 1975; lowest measured, 11.14 ft below land-surface datum, Jan. 6, 1966.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	9.29	DEC 27	9.13	MAR 5	5.50	APR 30	6.91	JUN 20	7.06	AUG 21	9.17
NOV 8	9.16	JAN 24	7.72	22	6.17	MAY 21	6.31	27	7.41	22	9.09
28	9.54	FEB 4	6.73	APR 2	5.80	22	6.35	JUL 18	8.40	SEP 4	9.30
DEC 11	9.03	22	5.29	22	6.53	30	6.48	30	8.44	20	9.62

NEW CASTLE COUNTY

393854075415401. Local number, Db 24-10.
LOCATION.--Lat 39°38'54", long 75°41'54", Hydrologic Unit 02040205, 2 mi south of Ogletown.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in., depth 24 ft, well point 21 to 24 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 77 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--August 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.71 ft below land-surface datum, May 24, 1983; lowest measured, 17.43 ft below land-surface datum, Feb. 10, 1966. Previous highest water level measured, 4.33 ft below land-surface datum, Oct. 6, 1978, doubtful reading (well plugged).

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	10.46	JAN 7	12.53	MAR 1	11.92	MAY 1	12.73	JUN 28	13.52	AUG 1	14.20
NOV 1	11.50	FEB 4	12.73	APR 3	12.67	31	13.06	JUL 16	13.80	SEP 5	14.65
28	11.73	15	12.45								

391949075410701. Local number, Hb 14-1.
LOCATION.--Lat 39°19'49", long 75°41'07", Hydrologic Unit 02040205, at Prices Corners.
Owner: Delaware Department of Highways and Transporation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in., depth 19 ft, well point 16 to 19 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 72 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft below land-surface datum, Apr. 7, 1958; lowest measured, 11.95 ft below land-surface datum, Aug. 31, 1966.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	8.12	DEC 10	7.91	FEB 22	7.19	APR 23	7.84	JUN 20	7.19	AUG 22	8.11
9	7.68	27	8.08	MAR 5	7.56	30	7.85	27	7.42	22	8.20
31	8.12	JAN 24	8.23	22	7.62	MAY 22	7.20	JUL 18	7.08	SEP 4	8.47
NOV 16	8.24	FEB 4	7.94	APR 2	7.62	30	6.95	30	7.58	20	8.73
28	8.37	21	7.41								

DELAWARE--Continued

SUSSEX COUNTY

384930075370201. Local number, Nc 13-3.
LOCATION.--Lat 38°49'30", long 75°37'02", Hydrologic Unit 02060008, 2.0 mi northwest of Greenwood.
Owner: University of Delaware.
AQUIFER.--Piney Point.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 630 ft, cased to 620 ft, screened 620 to 630 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land surface datum is 62.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--December 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.70 ft below land-surface datum, Jan. 1, 1971; lowest recorded, 81.59 ft below land-surface datum, Sept. 14, 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	81.00	80.85	81.14	80.75	80.88	80.77	80.87	81.03	81.09	81.21	81.46	81.27
10	81.04	80.96	80.90	81.07	80.94	80.96	81.11	81.10	80.96	81.14	81.24	81.27
15	80.92	81.04	81.06	80.81	80.80	80.90	80.89	81.16	81.14	81.24	81.31	81.57
20	81.02	81.09	80.96	80.78	80.97	80.91	81.02	81.08	81.08	81.27	81.25	81.50
25	81.16	81.07	81.11	80.72	80.94	80.92	80.90	80.92	81.18	81.42	81.29	81.46
EOM	81.14	80.89	81.09	80.86	81.02	80.92	81.08	81.02	81.26	81.33	81.22	81.24

WTR YEAR 1985 HIGHEST 80.47 FEB 12, 1985 LOWEST 81.59 SEP 14, 1985

384639075353101. Local number, Nc 45-1.
LOCATION.--Lat 38°46'39", long 75°35'31", Hydrologic Unit 02060008, 2.0 mi south of Greenwood.
Owner: P. H. Cannon.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 in., depth 15 ft, screened 14 to 15 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 43 ft above National Geodectic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.67 ft below land-surface datum, Jan. 30, 1952; lowest measured, 14.66 ft below land-surface datum, Dec. 11, 1978.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 8	12.71	JAN 24	9.57	MAR 22	12.26	MAY 22	12.53	JUL 18	12.90	SEP 20	13.25
DEC 11	12.96	FEB 22	11.77	APR 22	12.49	JUN 20	12.61	AUG 22	12.97		

384955075192801. Local number, Ng 11-1.
LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi east of Jefferson Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in., depth 19 ft, well point 16 to 19 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft below land-surface datum, Apr. 10, 1984; lowest measured, 14.64 ft below land-surface datum, Jan. 7, 1966.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	12.34	DEC 10	12.98	FEB 22	11.42	APR 22	12.03	JUN 20	11.98	AUG 22	12.43
31	12.62	JAN 24	12.06	MAR 22	11.82	MAY 22	12.09	JUL 18	12.08	SEP 20	12.89

383138075260201. Local number, Qe 44-1.
LOCTION.--Lat 38°31'38", long 75°26'02", Hydrologic Unit 02060008, 1.0 mi east of Whaleys Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in., depth 25 ft, well point 22 to 25 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is about 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.98 ft below land-surface datum, Mar.16, 1979, and Mar. 15, 1984; lowest measured, 12.22 ft below land-surface datum, Dec. 2, 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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	11.20	DEC 27	9.42	MAR 5	7.02	APR 30	9.04	JUN 20	10.42	AUG 21	6.68
31	10.77	JAN 24	8.56	22	8.10	MAY 20	9.83	27	10.59	22	6.55
31	10.74	FEB 4	6.89	APR 2	7.57	22	9.89	JUL 18	11.13	SEP 4	6.60
NOV 28	10.04	22	6.97	22	8.61	30	10.00	30	11.44	20	8.66
DEC 10	8.95										

MARYLAND

ALLEGANY COUNTY

394024078273401. Local number, AL-Ah 1.
LOCATION.--Lat 39°40'24", long 78°27'34", Hydrologic Unit 02070003, on Fifteen Mile Creek, 2.8 mi southeast of Pratt.
Owner: Green Ridge State Forest.
AQUIFER.--Jennings Formation.
WELL CHARACTERISTICS.--Drilled unused artesian (?) well, diameter 8 in., reported depth 300 ft, measured depth 113 ft, cased to unknown depth, open hole.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of sanitary seal in casing, 0.3 ft above land-surface datum.
REMARKS.--Water level was deeper than 40 ft below land-surface datum on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped.
PERIOD OF RECORD.--December 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft below land-surface datum, May 18, 1978; lowest measured, 22.80 ft below land-surface datum, July 16, 1968.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	5.42	JAN 3	4.14	APR 4	7.74	JUN 17	4.36	SEP 11	5.25		
NOV 19	4.58	FEB 14	2.85	MAY 6	3.18	JUL 29	4.67				

ANNE ARUNDEL COUNTY

390303076463201. Local number, AA-Cb 1.
LOCATION.--Lat 39°03'03", long 76°46'32", Hydrologic Unit 02060006, on Duvall Bridge Rd., Fort George G. Meade.
Owner: U.S. Army.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 505 ft, cased to 485 ft, screened 485 to 505 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 126 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top lip of 3-in. extension pipe 3.35 ft above land-surface datum.
REMARKS.--Equipped with water-level recorder during many periods.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.60 ft below land-surface datum, May 1, 1962; lowest measured, 83.65 ft below land-surface datum, Aug. 1, 1985.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	75.41	JAN 7	74.02	APR 17	74.95	JUN 21	80.24	SEP 12	84.79		
DEC 4	75.08	30	74.72	MAY 23	79.24	AUG 1	83.65				

390423076432001. Local number, AA-Cc 40.
LOCATION.--Lat 39°04'23", long 76°43'20", Hydrologic Unit 02060006, on Rifle Range Rd., Fort George G. Meade.
Owner: U.S. Army.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 238 ft, cased to 208 ft, screened 208 to 238 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 137 ft above National Geodetic Vertical Datum of 1929 (incorrectly reported as 148 ft in 1978 report). Measuring point: Top of recorder platform, 1.0 ft above land-surface datum.
REMARKS.--Equipped with water-level recorder Dec. 4, 1959, to July 21, 1960.
PERIOD OF RECORD.--December 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land-surface datum, Mar. 25, 1961; lowest measured, 50.09 ft below land-surface datum, Oct. 15, 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	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	46.42	JAN 7	45.67	APR 17	46.58	JUN 21	48.44	SEP 12	48.41		
DEC 4	46.24	30	46.48	MAY 23	46.97	AUG 1	47.85				

MARYLAND--Continued

BALTIMORE CITY

391617076322001. Local number, 2S5E-1.
LOCATION.--Lat 39°16'17", long 76°32'20", Hydrologic Unit 02060003, near Holabird Avenue and Pumphrey Street, at Holabird Industrial Park, Baltimore.
Owner: City of Baltimore.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 290 ft, length of casing and position of screen unknown.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929. Measuring point: April 1943 to Nov. 22, 1979, and after July 31, 1981, top of casing, 1.8 ft above land-surface datum; Nov. 23, 1979, to July 31, 1981, lower lip of discharge pipe, 3.6 ft above land-surface datum; Sept. 11, 1981, top of casing, 1.8 ft above land-surface datum.
REMARKS.--Reported water level of 58 ft in 1934.
PERIOD OF RECORD.--1934, April 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.15 ft below land-surface datum, Sept. 27, 1976; lowest measured, 103.70 ft below land-surface datum, Oct. 15, 1948.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	76.47	DEC 4	79.36	FEB 4	73.87	MAR 28	83.32	MAY 30	80.88	AUG 5	82.26
NOV 7	82.26	JAN 7	77.48	MAR 7	78.47	MAY 1	86.48	JUL 1	82.43	SEP 6	79.50

BALTIMORE COUNTY

393102076341801. Local number, BA-Ce 21.
LOCATION.--Lat 39°31'02", long 76°34'18", Hydrologic Unit 02060003, on Paper Mill Rd, about 0.6 mi west of Jacksonville.
Owner: Baltimore County.
AQUIFER.--Loch Raven Schist (Wissahickon Group).
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in., depth 350 ft, diameter of casing 10 in. with depth from 0 to 12.4 ft, diameter of casing 6 in. with depth from 0 to 33.1 ft, open hole.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 536 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2 ft above land surface datum.
PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft below land-surface datum, June 23, 1972; lowest measured, 21.54 ft below land-surface datum, Feb. 10, 1966.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	18.74	DEC 5	19.44	FEB 5	19.02	APR 2	18.42	JUN 3	18.89	AUG 7	19.33
NOV 5	19.32	JAN 8	19.14	MAR 5	18.10	MAY 7	18.56	JUL 1	19.25	SEP 5	20.46

CALVERT COUNTY

381952076270901. Local number, CA-Gd 6.
LOCATION.--Lat 38°19'52", long 76°27'09", Hydrologic Unit 02060006, at the Lord Calvert Yacht Club about 0.5 mi northeast of Solomons.
Owner: Calvert Marina.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 to 6 in., depth 493 ft, cased to 472 ft, screened 469 to 493 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pump base, 10 ft above land-surface datum.
REMARKS.--Water level reported at land surface 1942; water level measured 58.9 ft below land-surface datum, Jan. 13, 1944. Equipped with water-level recorder Oct. 19, 1949, to Feb. 25, 1960.
PERIOD OF RECORD.--1942, January 1944, October 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.34 ft below land-surface datum, May 16, 1950; lowest measured, 63.69 ft below land-surface datum, Aug. 6, 1985.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	60.16	DEC 10	59.97	FEB 12	56.72	APR 3	56.50	JUN 12	59.35	AUG 6	63.69
31	59.93	JAN 9	60.48	MAR 5	56.42	MAY 8	58.78	JUL 10	61.98	SEP 11	62.64

MARYLAND--Continued

CARROLL COUNTY

393638076510001. Local number, CL-Bf 1.
LOCATION.--Lat 39°36'38", long 76°51'00", Hydrologic Unit 02060003, on Hillcrest Street, Hampstead.
Owner: Town of Hampstead.
AQUIFER.--Prettyboy Schist (Wissahickon Group).
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in., depth 407 ft, cased to about 65 ft, open hole.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 933 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2-in. casing extension, 2.35 ft above land-surface datum.
REMARKS.--Equipped with water-level recorder July 1, 1952, to Nov. 7, 1962.
PERIOD OF RECORD.--September and December 1946, April and September 1947, February 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.30 ft below land-surface datum, May 13, 1952; lowest measured, 76.26 ft below land-surface datum, Feb. 10, 1966.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	67.98	DEC 5	70.43	FEB 5	69.01	APR 2	68.33	JUN 3	68.67	AUG 7	70.74
NOV 5	69.33	JAN 8	68.65	MAR 5	67.57	MAY 7	67.44	JUL 1	69.36	SEP 8	72.67

CHARLES COUNTY

383422077114601. Local number, CH-Cb 7.
LOCATION.--Lat 38°34'22", long 77°11'46", Hydrologic Unit 02070011, at Caffee and Greenslade Roads about 2.5 mi southwest of Indian Head.
Owner: U.S. Navy: Naval Ordnance Station.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 to 6 in., depth 400 ft, cased to 400 ft, screened 154 to 167 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 36 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
REMARKS.--Equipped with water-level recorder Sept. 21, 1953, to July 8, 1965.
PERIOD OF RECORD.--March and April 1952, August 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.35 ft below land-surface datum, Apr. 18, 1952; lowest measured, 88.58 ft below land-surface datum, Oct. 22, 1968.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	83.66	DEC 18	83.81	MAR 13	83.74	JUN 12	79.81	SEP 12	80.32		
NOV 15	84.35	FEB 8	82.40	APR 22	83.30	JUL 23	82.09				

DORCHESTER COUNTY

383346076030301. Local number, DO-Ce 21.
LOCATION.--Lat 38°33'46", long 76°03'03", Hydrologic Unit 02060005, on Shoal Creek about 1.5 mi southeast of Cambridge.
Owner: Eastern Shore State Hospital.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 368.5 (?) ft, diameter 8 to 4.5 in., cased to 368.5 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 11.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
REMARKS.--Equipped with water-level recorder Aug. 23, 1956, to Nov. 6, 1958, and Sept. 11, 1965, to Oct. 13, 1966. Water-level measured 73.77 ft below land-surface datum, Feb. 14, 1952.
PERIOD OF RECORD.--August 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 14 ft below land-surface datum, August 1914; highest water level measured, 62.52 ft below land-surface datum, Aug. 20, 1980; lowest measured, 132.95 ft below land-surface datum, Sept. 6, 1956.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	78.62	DEC 26	73.67	MAR 11	64.61	MAY 17	66.25	AUG 16	61.37		
NOV 19	73.77	JAN 15	71.62	APR 11	63.59	JUL 9	62.32	SEP 23	59.84		

MARYLAND--Continued

GARRETT COUNTY

394016078581601. Local number, GA-Ag 1.
LOCATION.--Lat 39°40'16", long 78°58'16", Hydrologic Unit 02070002, in the Savage River valley, 2.5 mi northwest of Frostburg.
Owner: Town of Frostburg.
AQUIFER.--Pocono Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in., depth 30 ft, cased to unknown depth, open hole.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.71 ft below land-surface datum, Jan. 28, 1985; lowest measured, 14.59 ft below land-surface datum, Jan. 28, 1985, affected by nearby pumpage.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	9.31	DEC 27	7.73	MAR 7	7.74	JUN 28	7.87	SEP 20	8.46		
NOV 26	8.27	JAN 28	14.59	MAY 15	7.71	AUG 5	7.97				

HARFORD COUNTY

392343076161901. Local number, HA-Ed 24.
LOCATION.--Lat 39°23'43", long 76°16'19", Hydrologic Unit 02060003, at Bush River Road and 29th Street, about 2 mi southeast of Edgewood.
Owner: U.S. Army: Edgewood Arsenal.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 10 in., depth 149 ft, diameter of casing 18 in. with depth of 0 to 73 ft, diameter of casing 10 in. with depth of 65 to 120 ft. Diameter of screen 10 in., screened from 120 to 135 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 12.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.15 ft above land-surface datum.
REMARKS.--Equipped with water-level recorder Jan. 24, 1950, to June 6, 1961.
PERIOD OF RECORD.--April 1944, September 1949, January 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.41 ft below land-surface datum, Apr. 13, 1944, and Sept. 17, 1984; lowest measured, 42.55 ft below land-surface datum, June 26, 1955.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	10.19	DEC 4	10.39	FEB 4	10.79	APR 2	10.15	JUL 1	9.98	SEP 5	10.38
NOV 7	10.60	JAN 7	9.94	MAR 7	10.34	MAY 30	9.71	AUG 5	10.26		

MONTGOMERY COUNTY

390434076573002. Local number, MO-Eh 20.
LOCATION.--Lat 39°04'34", long 76°57'30", Hydrologic Unit 02070010, at State Highway 196 and Fairland Road, Fairland.
Owner: Cities Service Oil Co.
AQUIFER.--Wissahickon Group (Lower Pelitic Schist).
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5.6 in., depth 102.9 ft, cased to 50 ft, open hole.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 410 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--March 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft below land-surface datum, June 25, 1972; lowest measured, 15.56 ft below land-surface datum, Nov. 23, 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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	13.89	DEC 27	12.97	FEB 26	11.94	APR 26	13.14	JUN 25	13.88	AUG 26	15.22
NOV 26	13.90	JAN 28	13.42	MAR 27	12.28	MAY 28	13.23	JUL 26	14.46		

MARYLAND--Continued

WASHINGTON COUNTY

393638078001301. Local number, WA-Be 2.
LOCATION.--Lat 39°36'38", long 78°00'13", Hydrologic Unit 02070004, about 1.2 mi southeast of Big Pool.
Owner: Fort Frederick State Park.
AQUIFER.--Romney Formation.
WELL CHARACTERISTICS.--Dug stone-lined unused water-table well, diameter 42 in., depth 42.7 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of stone sill, 0.8 ft above land-surface datum.
PERIOD OF RECORD.--December 1949, June 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.75 ft below land-surface datum, April 26, 1984; lowest measured, 36.92 ft below land-surface datum, Jan. 11, 1965.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	34.82	JAN 28	34.08	MAR 26	32.83	MAY 28	30.05	JUL 26	33.92	SEP 30	33.68
NOV 26	35.62	FEB 25	31.25	APR 25	31.08	JUN 26	33.54	AUG 27	33.38		

WICOMICO COUNTY

382037075310801. Local number, WI-Cf 3.
LOCATION.--Lat 38°20'37", long 75°31'08", Hydrologic Unit 02060007, on Airport Road, about 5 mi southeast of Salisbury.
Owner: Salisbury Wicomico Airport.
AQUIFER.--Beaverdam Sand.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in., depth 109 ft, cased to 90 ft, screened 90 to 110 ft.
INSTRUMENTATION.--Measurements with chalked tape.
DATUM.--Elevation of land-surface datum is 45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Equipped with water-level recorder Aug. 2, 1949, to Apr. 11, 1960, and Aug. 29, 1963, to Aug. 20, 1968; measurement for Oct. 26, 1984, affected by dewatering due to construction.
PERIOD OF RECORD.--October 1942, September 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.18 ft below land-surface datum, May 8, 1958; lowest measured, 13.44 ft below land-surface datum, Sept. 18, 1947.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	10.19	DEC 26	8.77	FEB 26	7.17	APR 26	8.14	JUN 26	8.69	AUG 28	6.64
NOV 27	9.40	JAN 28	8.34	MAR 26	7.41	MAY 28	8.41	JUL 25	9.48		

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

NEW CASTLE COUNTY, DELAWARE-Continued

		LOCAL IDENTIFIER	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)
CD42	17	040146	49	42	84	<0.1	11	253	220	0.34
CD43	4		104	76	170	<0.1	11	533	420	0.72
CD44	16	62608	161	42	290	0.4	11	--	640	0.81
CD52	27	033721	29	4.4	20	<0.1	11	78	67	0.11
CD53	1		56	63	400	0.1	14	--	760	1.0
DC15	18		49	4.4	40	<0.1	12	124	93	0.17
DC24	18	010050	34	5.2	55	<0.1	10	165	110	0.22
DC24	41	010050	18	3.8	13	<0.1	10	67	47	0.09
DC25	27	037604	490	5.9	56	<0.1	11	167	120	0.23
DC33	7	043962	46	1.3	11	<0.1	10	59	42	0.08
EC15	28	037981	5.2	15	19	0.3	7.8	137	150	0.19
P10A			16	12	17	0.2	8.1	143	150	0.19

		LOCAL IDENTIFIER	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)
CD42	17	040146	3.90	<0.01	--	<20	10	45	180
CD43	4		2.80	0.16	0.49	60	12	950	160
CD44	16	62608	--	--	--	70	41000	1000	--
CD52	27	033721	2.00	0.02	0.06	<20	2100	35	71
CD53	1		--	--	--	40	1600	220	--
DC15	18		1.90	<0.01	--	<20	500	30	87
DC24	18	010050	2.60	<0.01	--	<20	11	3	91
DC24	41	010050	3.50	<0.01	--	<20	6	4	64
DC25	27	037604	1.70	0.15	0.46	20	20	30	110
DC33	7	043962	3.20	<0.01	--	<20	6	1	--
EC15	28	037981	<0.10	0.04	0.12	90	1100	17	110
P10A			<0.10	0.01	0.03	90	1100	<1	120

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SUSSEX COUNTY, DELAWARE

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)
NI52	11	384558075083501	122PCMK	08-22-85	10.58	155.00	155	145	16.0
NI51	31	384524075091602	122PCMK	08-22-85	--	150.00	150	100	16.0
OH54	1	384038075110001	122MNKN	08-26-85	10.82	290.00	290	280	18.0
OH54	2	384038075110002	122PCMK	08-28-85	11.77	189.00	189	179	18.0
OI24	6	384258075063101	122MNKN	08-23-85	19.61	250.00	250	230	23.0
OI34	1	384257075063101	122MNKN	08-23-85	--	131.00	131	69	23.0
PG53	13	383525075174101	122PCMK	08-29-85	--	255.00	255	205	22.0
PH13	3	59683 383907075124104	112CLMB	05-16-85	9.79	25.00	25	20	22.0
PH13	3	59683 383907075124104	112CLMB	07-10-85	10.43	25.00	25	20	22.0
PH13	4	59678 383903075123005	112CLMB	05-16-85	6.89	25.00	25	20	20.0
PH13	4	59678 383903075123005	112CLMB	07-23-85	8.22	25.00	25	20	20.0
PH13	8	59688 383919075123505	112CLMB	05-02-85	12.50	25.00	25	20	22.0
PH13	8	59688 383919075123505	112CLMB	07-22-85	12.24	25.00	25	20	22.0
PH13	12	59694 383929075123104	112CLMB	04-30-85	13.23	40.00	40	35	18.0
PH13	12	59694 383929075123104	112CLMB	07-19-85	14.00	40.00	40	35	18.0
PH13	13	59695 383929075123103	112CLMB	04-30-85	13.15	60.00	60	55	18.0
PH13	13	59695 383929075123103	112CLMB	07-19-85	13.92	60.00	60	55	18.0
PH13	14	59696 383929075123102	112CLMB	04-23-85	13.06	75.00	75	70	18.0
PH13	14	59696 383929075123102	112CLMB	07-19-85	13.99	75.00	75	70	18.0
PH13	16	59684 383907075124103	112CLMB	05-16-85	9.86	45.00	45	40	22.0
PH13	16	59684 383907075124103	112CLMB	07-10-85	10.50	45.00	45	40	22.0
PH13	17	59685 383907075124102	112CLMB	05-16-85	9.92	60.00	60	55	22.0
PH13	17	59685 383907075124102	112CLMB	07-10-85	10.56	60.00	60	55	22.0
PH13	18	59686 383907075124101	112CLMB	05-08-85	9.96	85.00	85	80	22.0
PH13	18	59686 383907075124101	112CLMB	07-10-85	10.60	85.00	85	80	22.0
PH13	19	59689 383919075123504	112CLMB	05-02-85	10.94	45.00	45	40	22.0
PH13	19	59689 383919075123504	112CLMB	07-22-85	12.24	45.00	45	40	22.0
PH13	20	59690 383919075123503	112CLMB	04-30-85	10.88	60.00	60	55	22.0
PH13	20	59690 383919075123503	112CLMB	07-22-85	12.48	60.00	60	55	22.0
PH13	21	59691 383919075123502	112CLMB	05-02-85	10.18	85.00	85	80	22.0
PH13	21	59691 383919075123502	112CLMB	07-22-85	12.83	85.00	85	80	22.0
PH13	23	59679 383903075123004	112CLMB	05-16-85	7.01	45.00	45	40	20.0
PH13	23	59679 383903075123004	112CLMB	07-23-85	8.30	45.00	45	40	20.0
PH13	24	59680 383903075123003	112CLMB	05-20-85	7.05	65.00	65	60	20.0
PH13	24	59680 383903075123003	112CLMB	07-23-85	8.39	65.00	65	60	20.0
PH13	25	59681 383903075123002	112CLMB	05-20-85	7.04	85.00	85	80	20.0
PH13	25	59681 383903075123002	112CLMB	07-23-85	10.30	85.00	85	80	20.0
PH23	10	59673 383854075122004	112CLMB	04-23-85	6.93	25.00	25	20	20.0
PH23	10	59673 383854075122004	112CLMB	07-18-85	8.17	25.00	25	20	20.0
PH23	12	59674 383854075122003	112CLMB	04-23-85	6.89	45.00	45	40	20.0
PH23	12	59674 383854075122003	112CLMB	07-18-85	8.28	45.00	45	40	20.0
PH23	13	59675 383854075122002	112CLMB	04-22-85	7.09	65.00	65	60	20.0
PH23	13	59675 383854075122002	112CLMB	07-18-85	8.48	65.00	65	60	20.0
PH23	14	59676 383854075122001	112CLMB	04-22-85	7.18	83.00	83	78	20.0
PH23	14	59676 383854075122001	112CLMB	07-18-85	8.61	83.00	83	78	20.0
PH42	1	56855 383644075134801	112PCPC	03-12-85	--	78.00	78	68	E25.0
PJ41	4	47453 383646075041801	122PCMK	08-23-85	--	220.00	220	200	10.0
QH54	4	383050075105201	122MNKN	08-28-85	--	328.00	328	324	28.0
QH54	5	383050075105202	122MNKN	08-28-85	--	232.00	232	229	28.0
QH54	6	383050075105203	122PCMK	08-28-85	--	148.00	148	144	28.0
QJ32	22	383210075035801	122MNKN	08-23-85	--	250.00	250	200	7.0
QJ41	2	383122075040301	122MNKN	08-26-85	--	366.00	366	341	6.0
RJ31	7	382721075042601	122PCMK	08-29-85	--	200.00	200	150	5.0

Geologic unit (aquifer): 112CLMB - Columbia Formation
112PCPC - Pleistocene-Pliocene Series
122MNKN - Manokin Aquifer
122PCMK - Pocomoke Aquifer

GROUND-WATER-QUALITY RECORDS

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

PRINTED OUTPUT	REMARK
E	Estimated
>	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 egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

NEW CASTLE COUNTY, DELAWARE

		LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)
CD42	17	040146	394133075331101	217PTMC	05-01-85	--	125.00	125	100	45.0
CD43	4		394125075324901	217PTMC	04-25-85	--	104.00	104	94	30.0
CD44	16	62608	394130075320001	112CLMB	09-20-85	3.00	65.00	65	55	0
CD52	27	033721	394058075335001	217PTMC	05-01-85	13.25	141.00	141	128	9.0
CD53	1		394100075320001	112CLMB	09-24-85	6.00	80.00	80	70	0
DC15	18		393900075353001	217PTMC	04-30-85	32.50	118.00	118	113	15.0
DC24	18	010050	393827075362802	217PTMC	04-30-85	--	155.00	155	115	19.9
DC24	41	010050	393827075362801	217PTMC	04-30-85	--	155.00	155	115	47.0
DC25	27	037604	393848075353101	217PTMC	04-25-85	--	183.00	140	120	15.0
DC33	.7	043962	393739075371501	217PTMC	04-23-85	--	215.00	215	155	15.0
EC15	28	037981	393445075351001	217PTMC	04-30-85	--	737.00	737	707	10.0
P10A			393424075361901	217PTMC	04-24-85	--	725.00	725	710	10.0

		LOCAL IDENT-I-FIER	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (GPM)	SAM-PLING METHOD, CODES	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)
CD42	17	040146	60	300	4040	445	5.6	33.0	16.0	95
CD43	4		60	400	4040	880	5.7	21.0	14.0	100
CD44	16	62608	120	7.0	4040	1280	5.9	25.0	17.0	190
CD52	27	033721	60	400	4040	138	5.9	24.0	13.5	29
CD53	1		90	10	4040	1490	6.0	22.0	17.0	210
DC15	18		25	7.0	4040	200	5.5	26.0	14.5	32
DC24	18	010050	60	150	4040	252	5.6	24.0	14.0	36
DC24	41	010050	60	200	4040	102	5.8	31.0	14.0	27
DC25	27	037604	60	200	4040	259	5.5	15.0	14.0	38
DC33	7	043962	30	800	4040	94	5.7	22.5	14.0	22
EC15	28	037981	30	300	4040	293	7.3	22.0	17.0	14
P10A			60	--	4040	255	7.0	13.0	14.5	17

		LOCAL IDENT-I-FIER	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)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)
CD42	17	040146	85	20	11	38	45	2	3.2	10
CD43	4		76	18	14	110	69	5	4.0	--
CD44	16	62608	120	21	33	150	62	5	6.3	--
CD52	27	033721	17	7.3	2.6	10	42	0.8	1.2	12
CD53	1		180	33	30	190	66	6	5.9	--
DC15	18		24	8.0	3.0	18	54	1	1.3	8.0
DC24	18	010050	29	8.3	3.7	25	59	2	1.4	--
DC24	41	010050	21	6.2	2.8	5.1	28	0.4	1.4	6.0
DC25	27	037604	--	9.8	3.3	29	61	2	1.4	80
DC33	7	043962	10	5.2	2.1	6.1	36	0.6	1.3	12
EC15	28	037981	--	4.0	0.98	47	85	6	2.8	54
P10A			--	4.7	1.2	47	83	5	3.0	--

Geologic unit (aquifer): 112CLMB - Clombia Formation
217PTMC - Potomac Group

Sampling method: 4040 - Submersible pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SUSSEX COUNTY, DELAWARE-Continued

		LOCAL IDENT-I-FIER	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (GPM)	SAM-PLING METHOD, CODES	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
NI52	11		--	--	--	77	5.3	--	15.0	--
NI51	31		--	--	--	121	5.3	--	14.0	--
OH54	1		--	--	--	362	7.2	--	15.0	--
OH54	2		--	--	--	62	5.5	28.0	14.0	--
OI24	6		--	--	--	84	--	25.0	14.0	--
OI34	1		--	--	--	164	--	--	14.0	--
PG53	13		--	--	--	143	6.5	--	15.0	--
PH13	3	59683	30	1.0	4040	298	4.7	24.5	14.0	10.4
PH13	3	59683	25	1.0	4040	291	4.7	28.0	14.5	10.5
PH13	4	59678	30	1.0	4040	375	4.9	24.5	14.0	10.0
PH13	4	59678	25	1.0	4040	357	5.0	28.5	14.0	10.4
PH13	8	59688	40	1.0	4040	397	4.7	14.5	13.0	11.7
PH13	8	59688	35	1.0	4040	394	4.7	35.0	15.0	10.0
PH13	12	59694	75	1.0	4040	313	5.5	28.0	15.0	11.2
PH13	12	59694	40	1.0	4040	332	5.6	31.5	15.5	9.8
PH13	13	59695	50	1.0	4040	136	5.3	21.0	15.0	8.2
PH13	13	59695	55	1.0	4040	73	5.6	31.5	15.5	6.8
PH13	14	59696	45	1.0	4040	64	5.5	14.5	14.0	7.6
PH13	14	59696	60	1.0	4040	64	5.6	30.0	15.0	6.8
PH13	16	59684	55	1.0	4040	291	5.1	25.0	15.0	9.5
PH13	16	59684	30	1.0	4040	314	5.1	34.0	15.0	10.1
PH13	17	59685	70	1.0	4040	398	5.3	23.0	15.0	6.4
PH13	17	59685	55	1.0	4040	372	5.0	32.5	15.0	6.6
PH13	18	59686	60	1.0	4040	109	5.5	22.5	15.0	7.0
PH13	18	59686	50	1.0	4040	104	5.4	29.0	14.5	6.2
PH13	19	59689	60	1.0	4040	277	5.0	13.0	13.5	10.5
PH13	19	59689	45	1.0	4040	274	5.1	33.0	15.0	8.9
PH13	20	59690	55	1.0	4040	270	5.4	26.0	15.0	9.7
PH13	20	59690	50	1.0	4040	270	5.3	31.5	15.0	8.5
PH13	21	59691	105	1.0	4040	225	5.4	12.5	13.0	10.3
PH13	21	59691	55	1.0	4040	228	5.5	28.5	15.0	9.0
PH13	23	59679	45	1.0	4040	386	4.9	21.0	14.5	9.8
PH13	23	59679	40	1.0	4040	367	4.9	27.5	15.0	10.5
PH13	24	59680	45	1.0	4040	370	5.4	28.0	15.0	7.2
PH13	24	59680	45	1.0	4040	365	5.5	26.5	15.0	7.8
PH13	25	59681	60	1.0	4040	233	5.3	27.0	15.0	8.1
PH13	25	59681	60	1.0	4040	224	5.5	25.5	14.5	8.2
PH23	10	59673	35	1.0	4040	380	4.9	15.5	12.0	0.4
PH23	10	59673	30	1.0	4040	378	5.0	30.0	14.0	0.1
PH23	12	59674	45	1.0	4040	364	5.2	13.5	13.0	5.2
PH23	12	59674	30	1.0	4040	403	5.4	32.0	14.5	3.4
PH23	13	59675	55	1.0	4040	333	5.2	30.5	13.5	5.5
PH23	13	59675	40	1.0	4040	333	5.6	28.5	14.5	5.0
PH23	14	59676	75	1.0	4040	333	5.4	30.0	14.0	3.4
PH23	14	59676	55	1.0	4040	337	5.3	28.5	14.5	2.3
PH42	1	56855	>30	--	4040	168	5.4	17.0	13.0	8.0
PJ41	4	47453	--	--	--	345	--	--	15.0	--
QH54	4		--	--	--	405	6.4	--	15.0	--
QH54	5		--	--	--	222	6.6	--	14.0	--
QH54	6		--	--	--	238	6.5	--	14.0	--
QJ32	22		--	--	--	315	--	--	14.0	--
QJ41	2		--	--	--	482	6.4	--	15.0	--
RJ31	7		--	--	--	245	6.5	--	15.0	--

Sampling method: 4040 - Submersible pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SUSSEX COUNTY, DELAWARE-Continued

		LOCAL IDENT-I-FIER	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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
					SUSSEX COUNTY						
NI52	11		08-22-85	9	5	2.3	0.91	8.3	61	1	1.6
NI51	31		08-22-85	21	15	5.1	2.0	11	51	1	1.6
OH54	1		08-26-85	9	--	1.3	1.3	72	91	11	5.8
OH54	2		08-28-85	7	--	2.0	0.59	7.1	64	1	1.1
OI24	6		08-23-85	10	--	2.1	1.2	8.0	56	1	2.8
OI34	1		08-23-85	33	23	6.7	3.9	12	43	0.9	1.7
PG53	13		08-29-85	0	--	0.05	0.02	31	99	31	0.5
PH13	3	59683	05-16-85	--	--	--	--	--	--	--	--
PH13	3	59683	07-10-85	--	--	--	--	--	--	--	--
PH13	4	59678	05-16-85	--	--	--	--	--	--	--	--
PH13	4	59678	07-23-85	--	--	--	--	--	--	--	--
PH13	8	59688	05-02-85	--	--	--	--	--	--	--	--
PH13	8	59688	07-22-85	--	--	--	--	--	--	--	--
PH13	12	59694	04-30-85	--	--	--	--	--	--	--	--
PH13	12	59694	07-19-85	--	--	--	--	--	--	--	--
PH13	13	59695	04-30-85	--	--	--	--	--	--	--	--
PH13	13	59695	07-19-85	--	--	--	--	--	--	--	--
PH13	14	59696	04-23-85	--	--	--	--	--	--	--	--
PH13	14	59696	07-19-85	--	--	--	--	--	--	--	--
PH13	16	59684	05-16-85	--	--	--	--	--	--	--	--
PH13	16	59684	07-10-85	--	--	--	--	--	--	--	--
PH13	17	59685	05-16-85	--	--	--	--	--	--	--	--
PH13	17	59685	07-10-85	--	--	--	--	--	--	--	--
PH13	18	59686	05-08-85	--	--	--	--	--	--	--	--
PH13	18	59686	07-10-85	--	--	--	--	--	--	--	--
PH13	19	59689	05-02-85	--	--	--	--	--	--	--	--
PH13	19	59689	07-22-85	--	--	--	--	--	--	--	--
PH13	20	59690	04-30-85	--	--	--	--	--	--	--	--
PH13	20	59690	07-22-85	--	--	--	--	--	--	--	--
PH13	21	59691	05-02-85	--	--	--	--	--	--	--	--
PH13	21	59691	07-22-85	--	--	--	--	--	--	--	--
PH13	23	59679	05-16-85	--	--	--	--	--	--	--	--
PH13	23	59679	07-23-85	--	--	--	--	--	--	--	--
PH13	24	59680	05-20-85	--	--	--	--	--	--	--	--
PH13	24	59680	07-23-85	--	--	--	--	--	--	--	--
PH13	25	59681	05-20-85	--	--	--	--	--	--	--	--
PH13	25	59681	07-23-85	--	--	--	--	--	--	--	--
PH23	10	59673	04-23-85	--	--	--	--	--	--	--	--
PH23	10	59673	07-18-85	--	--	--	--	--	--	--	--
PH23	12	59674	04-23-85	--	--	--	--	--	--	--	--
PH23	12	59674	07-18-85	--	--	--	--	--	--	--	--
PH23	13	59675	04-22-85	--	--	--	--	--	--	--	--
PH23	13	59675	07-18-85	--	--	--	--	--	--	--	--
PH23	14	59676	04-22-85	--	--	--	--	--	--	--	--
PH23	14	59676	07-18-85	--	--	--	--	--	--	--	--
PH42	1	56855	03-12-85	46	39	13	3.2	10	31	0.7	1.5
PJ41	4	47453	08-23-85	85	17	23	6.7	16	28	0.8	4.0
QH54	4		08-28-85	91	--	25	6.9	25	36	1	3.9
QH54	5		08-28-85	42	--	13	2.2	8.7	30	0.6	1.6
QH54	6		08-28-85	54	--	19	1.7	9.1	26	0.6	1.1
QJ32	22		08-23-85	100	--	31	6.3	11	18	0.5	3.3
QJ41	2		08-26-85	100	--	34	4.5	36	42	2	3.9
RJ31	7		08-29-85	70	--	20	4.9	9.8	22	0.5	3.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SUSSEX COUNTY, DELAWARE-Continued

		LOCAL IDENT-I-FIER	ALKA-LINITY FIELD (MG/L AS CACO3)	ALKA-LINITY LAB (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)
NI52	11		--	4.0	39	3.8	11	<0.1	21	52
NI51	31		--	6.0	58	7.1	10	<0.1	18	48
OH54	1		--	155	19	3.9	9.2	0.5	14	204
OH54	2		--	9.0	55	4.4	8.0	<0.1	21	63
OI24	6		--	13	--	4.5	11	<0.1	20	55
OI34	1		--	10	--	10	18	<0.1	16	105
PG53	13		--	57	35	3.6	7.0	<0.1	31	108
PH13	3	59683	1	--	30	--	--	--	--	--
PH13	3	59683	1	--	36	--	--	--	--	--
PH13	4	59678	1	--	32	--	--	--	--	--
PH13	4	59678	2	--	42	--	--	--	--	--
PH13	8	59688	1	--	49	--	--	--	--	--
PH13	8	59688	1	--	35	--	--	--	--	--
PH13	12	59694	8	--	46	--	--	--	--	--
PH13	12	59694	9	--	42	--	--	--	--	--
PH13	13	59695	6	--	60	--	--	--	--	--
PH13	13	59695	11	--	56	--	--	--	--	--
PH13	14	59696	11	--	71	--	--	--	--	--
PH13	14	59696	10	--	52	--	--	--	--	--
PH13	16	59684	3	--	43	--	--	--	--	--
PH13	16	59684	4	--	60	--	--	--	--	--
PH13	17	59685	5	--	48	--	--	--	--	--
PH13	17	59685	3	--	45	--	--	--	--	--
PH13	18	59686	9	--	60	--	--	--	--	--
PH13	18	59686	7	--	58	--	--	--	--	--
PH13	19	59689	3	--	57	--	--	--	--	--
PH13	19	59689	3	--	36	--	--	--	--	--
PH13	20	59690	6	--	50	--	--	--	--	--
PH13	20	59690	7	--	59	--	--	--	--	--
PH13	21	59691	5	--	41	--	--	--	--	--
PH13	21	59691	5	--	28	--	--	--	--	--
PH13	23	59679	1	--	33	--	--	--	--	--
PH13	23	59679	2	--	46	--	--	--	--	--
PH13	24	59680	8	--	59	--	--	--	--	--
PH13	24	59680	8	--	46	--	--	--	--	--
PH13	25	59681	6	--	56	--	--	--	--	--
PH13	25	59681	6	--	36	--	--	--	--	--
PH23	10	59673	9	--	246	--	--	--	--	--
PH23	10	59673	10	--	202	--	--	--	--	--
PH23	12	59674	13	--	146	--	--	--	--	--
PH23	12	59674	13	--	94	--	--	--	--	--
PH23	13	59675	7	--	84	--	--	--	--	--
PH23	13	59675	7	--	30	--	--	--	--	--
PH23	14	59676	9	--	80	--	--	--	--	--
PH23	14	59676	6	--	51	--	--	--	--	--
PH42	1	56855	7	--	44	0.4	13	<0.1	22	--
PJ41	4	47453	--	68	--	28	42	0.1	30	184
QH54	4		--	112	86	35	34	<0.1	33	225
QH54	5		--	53	26	29	15	<0.1	33	195
QH54	6		--	62	38	21	15	<0.1	38	148
QJ32	22		--	112	--	14	14	0.2	38	190
QJ41	2		--	109	84	14	51	0.1	37	252
RJ31	7		--	82	50	1.7	14	<0.1	36	138

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SUSSEX COUNTY, DELAWARE-Continued

		LOCAL IDENT-I-FIER	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NI52	11		52	0.07	<0.10	<0.01	--	200	37
NI51	31		58	0.06	2.70	<0.01	--	12	6
OH54	1		200	0.28	<0.10	0.96	2.9	76	9
OH54	2		50	0.09	0.50	<0.01	--	300	2
OI24	6		59	0.08	0.11	<0.01	--	1900	23
OI34	1		75	0.14	5.00	0.15	0.46	27	3
PG53	13		110	0.15	<0.10	0.24	0.74	60	1
PH13	3	59683	--	--	--	--	--	--	--
PH13	3	59683	--	--	--	--	--	--	--
PH13	4	59678	--	--	--	--	--	--	--
PH13	4	59678	--	--	--	--	--	--	--
PH13	8	59688	--	--	--	--	--	--	--
PH13	8	59688	--	--	--	--	--	--	--
PH13	12	59694	--	--	--	--	--	--	--
PH13	12	59694	--	--	--	--	--	--	--
PH13	13	59695	--	--	--	--	--	--	--
PH13	13	59695	--	--	--	--	--	--	--
PH13	14	59696	--	--	--	--	--	--	--
PH13	14	59696	--	--	--	--	--	--	--
PH13	16	59684	--	--	--	--	--	--	--
PH13	16	59684	--	--	--	--	--	--	--
PH13	17	59685	--	--	--	--	--	--	--
PH13	17	59685	--	--	--	--	--	--	--
PH13	18	59686	--	--	--	--	--	--	--
PH13	18	59686	--	--	--	--	--	--	--
PH13	19	59689	--	--	--	--	--	--	--
PH13	19	59689	--	--	--	--	--	--	--
PH13	20	59690	--	--	--	--	--	--	--
PH13	20	59690	--	--	--	--	--	--	--
PH13	21	59691	--	--	--	--	--	--	--
PH13	21	59691	--	--	--	--	--	--	--
PH13	23	59679	--	--	--	--	--	--	--
PH13	23	59679	--	--	--	--	--	--	--
PH13	24	59680	--	--	--	--	--	--	--
PH13	24	59680	--	--	--	--	--	--	--
PH13	25	59681	--	--	--	--	--	--	--
PH13	25	59681	--	--	--	--	--	--	--
PH23	10	59673	--	--	--	--	--	--	--
PH23	10	59673	--	--	--	--	--	--	--
PH23	12	59674	--	--	--	--	--	--	--
PH23	12	59674	--	--	--	--	--	--	--
PH23	13	59675	--	--	--	--	--	--	--
PH23	13	59675	--	--	--	--	--	--	--
PH23	14	59676	--	--	--	--	--	--	--
PH23	14	59676	--	--	--	--	--	--	--
PH42	1	56855	67	0.09	9.00	<0.01	--	6	3
PJ41	4	47453	210	0.25	<0.10	<0.01	--	16000	170
QH54	4		250	0.31	<0.10	0.33	1.0	21000	220
QH54	5		160	0.27	<0.10	<0.01	--	21000	140
QH54	6		160	0.2	<0.10	<0.01	--	19000	120
QJ32	22		190	0.26	0.11	0.25	0.77	8700	120
QJ41	2		260	0.34	0.10	0.28	0.86	8500	120
RJ31	7		150	0.19	0.11	<0.01	--	7700	94

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ANNE ARUNDEL COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
AA BC 234	AA-81-3424	390512076434501	217PTXN	10-18-84	135.00	643.00	643	476	135	2095
AA BD 155	AA-81-3460	390938076383701	217PPSC	10-09-84	21.54	159.00	155	145	60.0	420
AA BD 156	AA-81-3462	390922076371001	217PPSC	10-23-84	50.70	173.00	170	160	70.0	300
AA BD 157	AA-81-3464	390737076374401	217PPSC	10-31-84	37.93	178.00	175	165	80.0	165
AA BD 158	AA-81-3460	390744076390001	217PPSC	01-25-85	49.09	187.00	184	174	110	240
AA BD 159	AA-81-346	390737076374402	217PPSC	01-24-85	39.57	103.00	99	89	80.0	240
AA BD 160	AA-81-3461	390908076394402	217PPSC	03-28-85	17.40	104.00	97	87	90.0	240
AA CC 120	AA-81-3425	390457076432501	217PTXN	10-12-84	160.00	685.00	685	566	130	2225
AA CC 123	AA-CC-123	390419076431901	217PTXN	02-21-85	91.00	743.00	743	607	130	1360
AA DE 139	AA-81-3643	385912076340901	217PPSC	06-19-85	100.00	1095.00	1090	790	30.0	1410
AA DF 101	AA-81-4345	385927076293001	217PTXN	04-10-85	100.00	593.00	588	498	10.0	2870

	LOCAL IDENTIFIER	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
				ANNE ARUNDEL COUNTY						
AA BC 234	AA-81-3424	1070	4040	34	4.8	14.5	<1	3	--	0.84
AA BD 155	AA-81-3460	60	4070	56	5.9	17.0	--	13	10	3.2
AA BD 156	AA-81-3462	40	4070	125	5.6	15.0	--	22	19	4.1
AA BD 157	AA-81-3464	40	4070	32	5.8	15.0	--	8	5	2.0
AA BD 158	AA-81-3460	172	4070	42	4.9	15.0	--	11	9	2.4
AA BD 159	AA-81-346	33	4070	135	5.2	14.0	--	33	29	7.2
AA BD 160	AA-81-3461	60	4070	81	4.5	14.0	--	19	17	4.5
AA CC 120	AA-81-3425	1170	4040	33	4.7	15.0	<1	3	2	0.56
AA CC 123	AA-CC-123	1100	4040	31	5.0	15.0	10	3	--	0.59
AA DE 139	AA-81-3643	2000	4040	72	6.1	19.0	35	11	3	2.3
AA DF 101	AA-81-4345	1210	4040	144	6.1	16.0	20	28	26	6.1

	LOCAL IDENTIFIER	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
AA BC 234	AA-81-3424	0.33	1.2	39	0.3	0.5	<1.0	--	6.9	1.2
AA BD 155	AA-81-3460	1.1	2.6	29	0.3	1.0	3.0	7.3	0.2	4.4
AA BD 156	AA-81-3462	2.8	12	51	1	2.5	3.0	15	0.7	26
AA BD 157	AA-81-3464	0.66	2.3	37	0.4	0.7	3.0	9.2	0.4	2.8
AA BD 158	AA-81-3460	1.2	4.2	42	0.6	1.5	2.0	49	0.3	7.0
AA BD 159	AA-81-346	3.6	9.7	37	0.8	2.2	4.0	49	1.0	21
AA BD 160	AA-81-3461	1.9	4.6	32	0.5	1.4	2.0	123	0.3	1.6
AA CC 120	AA-81-3425	0.3	1.2	44	0.3	0.5	1.0	39	6.8	5.1
AA CC 123	AA-CC-123	0.27	1.6	52	0.4	0.5	<1.0	--	7.3	1.7
AA DE 139	AA-81-3643	1.2	1.3	19	0.2	1.1	8.0	12	12	3.6
AA DF 101	AA-81-4345	3.1	1.1	7	0.1	1.8	2.0	3.1	36	1.1

Geologic unit (aquifer): 217PPSC - Patapsco Formation
217PTXN - Patuxent Formation

Sampling method: 4040 - Submersible pump
4070 - Air lift

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ANNE ARUNDEL COUNTY, MARYLAND-Continued

	LOCAL IDENTIFIER	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
AA BC 234	AA-81-3424	<0.1	8.1	25	--	0.03	<0.10	--	<0.01	--
AA BD 155	AA-81-3460	<0.1	7.3	46	22	0.06	--	3.50	--	<0.01
AA BD 156	AA-81-3462	0.2	7.2	86	58	0.12	--	3.80	--	<0.01
AA BD 157	AA-81-3464	0.2	7.7	25	19	0.03	--	5.20	--	0.09
AA BD 158	AA-81-3460	<0.1	2.2	42	20	0.06	--	2.60	--	0.02
AA BD 159	AA-81-346	<0.1	7.6	91	55	0.12	--	5.40	--	<0.01
AA BD 160	AA-81-3461	<0.1	7.2	60	23	0.08	--	5.10	--	<0.01
AA CC 120	AA-81-3425	<0.1	8.0	22	24	0.03	<0.10	--	<0.01	--
AA CC 123	AA-CC-123	<0.1	8.2	22	--	0.03	<0.10	--	<0.01	--
AA DE 139	AA-81-3643	<0.1	8.9	42	47	0.06	<0.10	--	<0.01	--
AA DF\101	AA-81-4345	<0.1	8.5	67	80	0.09	<0.10	--	0.06	--

	LOCAL IDENTIFIER	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)	BORON, DISSOLVED (UG/L AS B)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
AA BC 234	AA-81-3424	--	--	--	880	--	890	20	--	29
AA BD 155	AA-81-3460	--	100	<20	--	--	46	--	--	13
AA BD 156	AA-81-3462	--	<100	20	--	--	150	--	--	54
AA BD 157	AA-81-3464	0.28	<100	<20	--	--	170	--	--	19
AA BD 158	AA-81-3460	0.06	200	<20	--	--	23	--	--	13
AA BD 159	AA-81-346	--	<100	<20	--	--	13	--	--	42
AA BD 160	AA-81-3461	--	<100	<20	--	--	160	--	--	30
AA CC 120	AA-81-3425	--	--	--	1100	0	1100	30	--	31
AA CC 123	AA-CC-123	--	--	--	1000	10	990	20	--	29
AA DE 139	AA-81-3643	--	--	--	11000	0	11000	430	0	430
AA DF 101	AA-81-4345	--	--	--	21000	0	21000	400	10	390

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CHARLES COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
CH BE 42	CH-73-0216	383855076562702	211MGTY	10-17-84	--	567.00	556	416	205	200
CH BE 48	CH-81-0135	383649076554701	211MGTY	10-17-84	--	E600.00	E600	E400	E200	>200
CH BE 57		383706076575601	217PTXN	06-12-85	203.00	1700.00	1700	1650	210	200
CH BE 58		383706076575602	210CRCS	08-28-85	238.00	1100.00	1100	1000	E200	200
CH BF 144		383913076510201	210CRCS	10-15-84	--	700.00	700	479	E200	E200
CH BF 145	CH-73-2889	383558076524501	211MGTY	10-14-84	--	592.00	592	442	E200	E200
CH BF 150		383901076524301	210CRCS	07-16-85	--	1346.00	1340	890	200	1440
CH CE 51		383111076570701	210CRCS	11-02-84	--	E1200.00	E1200	E1000	E150	330

	LOCAL IDENTIFIER	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
CH BE 42	CH-73-0216	450	8010	290	7.9	18.0	--	0	94	--
CH BE 48	CH-81-0135	500	8010	364	7.8	18.0	16.5	0	140	--
CH BE 57		36	4040	730	7.8	26.0	23.0	0	6	0
CH BE 58		550	--	350	7.6	30.0	21.0	--	4	0
CH BF 144		400	4040	310	7.8	18.0	18.0	0.3	110	--
CH BF 145	CH-73-2889	E400	8010	345	7.8	22.0	18.0	<0.1	150	--
CH BF 150		550	8010	245	8.3	32.0	22.5	0.1	1	0
CH CE 51		450	--	385	7.6	18.0	23.0	<0.2	1	--

	LOCAL IDENTIFIER	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
CH BE 42	CH-73-0216	24	8.2	15	24	0.7	9.3	129	3.1	12
CH BE 48	CH-81-0135	35	12	16	19	0.6	11	184	5.6	6.8
CH BE 57		1.4	0.52	180	98	34	2.8	310	9.5	10
CH BE 58		0.9	0.3	70	96	17	2.6	134	6.0	16
CH BF 144		29	9.7	10	15	0.4	9.0	141	4.3	7.0
CH BF 145	CH-73-2889	37	13	7.0	9	0.3	11	168	5.1	9.1
CH BF 150		0.21	0.12	56	98	25	1.0	100	1	23
CH CE 51		0.26	0.11	90	98	38	1.6	174	8.4	14

	LOCAL IDENTIFIER	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	PHOSPHORUS, DISSOLVED (MG/L AS P)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)
CH BE 42	CH-73-0216	1.2	0.2	9.9	0.04	156	160	0.21	<10	<1
CH BE 48	CH-81-0135	1.2	0.2	10	0.02	187	200	0.25	<10	<1
CH BE 57		37	0.8	40	--	56	460	0.08	200	<1
CH BE 58		1.9	1.0	38	1.00	210	210	0.29	60	<1
CH BF 144		0.9	0.3	9.7	0.51	152	160	0.21	10	<1
CH BF 145	CH-73-2889	1.3	0.2	12	0.01	186	190	0.25	--	--
CH BF 150		4.0	0.4	21	0.37	183	170	0.25	10	<1
CH CE 51		2.3	0.8	39	1.20	265	250	0.36	<10	<1

Geologic unit (aquifer): 210CRCS - Cretaceous System
211MGTY - Magothy Formation
217PTXN - Patuxent Formation

Sampling method: 4040 - Submersible pump
8010 - Other

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CHARLES COUNTY, MARYLAND-Continued

	LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	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, TOTAL RECOV-ERABLE (UG/L AS FE)
CH BE 42	CH-73-0216	<1	180	<0.5	100	<1	<1	2	<1	140
CH BE 48	CH-81-0135	<1	280	<0.5	90	<1	<1	3	<1	440
CH BE 57		<1	29	0.7	--	1	1	<1	3	2600
CH BE 58		<1	18	<0.5	210	3	<1	<1	8	60
CH BF 144		<1	310	<0.5	80	1	<1	4	<1	450
CH BF 145	CH-73-2889	<1	310	<0.5	80	<1	<1	4	<1	580
CH BF 150		<1	9	<0.5	90	<1	<1	2	2	200
CH CE 51		1	5	<0.5	150	1	<1	2	<1	170

	LOCAL IDENT-I-FIER	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	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)	MERCURY DIS-SOLVED (UG/L AS HG)
CH BE 42	CH-73-0216	120	21	4	12	20	8	12	1.0
CH BE 48	CH-81-0135	180	260	3	<4	--	--	32	2.5
CH BE 57		1900	680	2	17	50	20	29	0.3
CH BE 58		30	31	6	<4	20	2	18	--
CH BF 144		150	300	<1	6	40	20	21	0.5
CH BF 145	CH-73-2889	190	390	4	6	--	--	30	1.0
CH BF 150		190	7	3	<4	<10	--	2	0.3
CH CE 51		60	110	1	<4	<10	--	4	<0.1

	LOCAL IDENT-I-FIER	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)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC TOTAL (MG/L AS C)
CH BE 42	CH-73-0216	<1	1	<1	<1	360	<3	--	0.7
CH BE 48	CH-81-0135	<1	2	<1	1	530	<3	--	0.7
CH BE 57		1	2	<1	<1	17	24	-3.6	1.0
CH BE 58		1	1	<1	<1	11	30	--	1.0
CH BF 144		<1	1	<1	<1	420	<3	--	0.7
CH BF 145	CH-73-2889	--	3	<1	--	530	<3	--	0.4
CH BF 150		<1	4	<1	<1	4	5	--	--
CH CE 51		1	<1	<1	<1	3	14	--	0.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

FREDERICK COUNTY, MARYLAND

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	SITE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)
FR AD 1		394004077284001	400MTRL	05-22-85	SP	--	--	--	1140	--
FR AD 1		394004077284001	400MTRL	08-15-85	SP	--	--	--	1140	--
FR BD 4		393923077284401	400MTRL	11-30-84	SP	--	--	--	1420	--
FR BD 4		393923077284401	400MTRL	05-22-85	SP	--	--	--	1420	--
FR BD 8		393837077264801	400CTCN	11-29-84	GW	127.00	127	28	1180	25
FR BD 8		393837077264801	400CTCN	02-26-85	GW	127.00	127	28	1180	30
FR BD 8		393837077264801	400CTCN	08-16-85	GW	127.00	127	28	1180	--
FR BD 35		393840077291601	400MTRL	12-04-84	GW	250.00	250	66	1511	10
FR BD 35		393840077291601	400MTRL	02-28-85	GW	250.00	250	66	1511	60
FR BD 35		393840077291601	400MTRL	06-04-85	GW	250.00	250	66	1511	15
FR BD 35		393840077291601	400MTRL	08-20-85	GW	250.00	250	66	1511	480
FR BD 36		393837077291901	400MTRL	12-04-84	GW	250.00	250	59	1510	10
FR BD 36		393837077291901	400MTRL	02-28-85	GW	250.00	250	59	1510	60
FR BD 36		393837077291901	400MTRL	06-04-85	GW	250.00	250	59	1510	15
FR BD 36		393837077291901	400MTRL	08-20-85	GW	250.00	250	59	1510	480
FR BD 38		393855077290701	400MTRL	12-04-84	GW	450.00	450	86	1520	10
FR BD 38		393855077290701	400MTRL	02-28-85	GW	450.00	450	86	1520	60
FR BD 38		393855077290701	400MTRL	06-04-85	GW	450.00	450	86	1520	15
FR BD 38		393855077290701	400MTRL	08-20-85	GW	450.00	450	86	1520	480
FR BD 39		393859077292301	400CTCN	11-30-84	SP	--	--	--	1380	--
FR BD 39		393859077292301	400CTCN	02-27-85	SP	--	--	--	1380	--
FR BD 39		393859077292301	400CTCN	05-23-85	SP	--	--	--	1380	--
FR BD 39		393859077292301	400CTCN	08-15-85	SP	--	--	--	1380	--
FR BD 40		393906077285101	400CTCN	11-29-84	GW	180.00	180	76	1510	25
FR BD 40		393906077285101	400CTCN	02-28-85	GW	180.00	180	76	1510	45
FR BD 40		393906077285101	400CTCN	05-21-85	GW	180.00	180	76	1510	40
FR BD 40		393906077285101	400CTCN	08-20-85	GW	180.00	180	76	1510	30
FR BD 43		393833077290001	400CTCN	11-29-84	GW	120.00	120	27	1645	25
FR BD 43		393833077290001	400CTCN	02-26-85	GW	120.00	120	27	1645	40
FR BD 43		393833077290001	400CTCN	05-21-85	GW	120.00	120	27	1645	40
FR BD 43		393833077290001	400CTCN	08-20-85	GW	120.00	120	27	1645	25
FR BD 49		393734077262601	377WVRN	11-29-84	GW	202.00	202	30	820	20
FR BD 49		393734077262601	377WVRN	02-26-85	GW	202.00	202	30	820	40
FR BD 49		393734077262601	377WVRN	05-21-85	GW	202.00	202	30	820	35
FR BD 49		393734077262601	377WVRN	08-20-85	GW	202.00	202	30	820	20
FR BD 72		393938077293401	400MTRL	05-23-85	SP	--	--	--	1320	--
FR BD 72		393938077293401	400MTRL	08-15-85	SP	--	--	--	1320	--
FR BD 73		393939077293801	400MTRL	11-30-84	SP	--	--	--	1380	--
FR BD 73		393939077293801	400MTRL	02-27-85	SP	--	--	--	1380	--
FR BD 73		393939077293801	400MTRL	05-23-85	SP	--	--	--	1380	--
FR BD 73		393939077293801	400MTRL	08-15-85	SP	--	--	--	1380	--
FR BD 106		393915077283801	400MTRL	05-22-85	SP	--	--	--	1460	--
FR BD 107		393853077284801	400MTRL	11-30-84	SP	--	--	--	1480	--
FR BD 107		393853077284801	400MTRL	02-27-85	SP	--	--	--	1480	--
FR BD 107		393853077284801	400MTRL	05-23-85	SP	--	--	--	1480	--
FR BD 107		393853077284801	400MTRL	08-15-85	SP	--	--	--	1480	--
FR BD 108		393850077292301	400MTRL	11-30-84	SP	--	--	--	1425	--
FR BD 108		393850077292301	400MTRL	02-27-85	SP	--	--	--	1425	--
FR BD 108		393850077292301	400MTRL	05-23-85	SP	--	--	--	1425	--
FR BD 110		393904077290101	400MTRL	05-22-85	SP	--	--	--	1450	--
FR BD 114		393853077284901	400MTRL	05-21-85	GW	143.00	--	--	1488	20
FR BD 114		393853077284901	400MTRL	08-21-85	GW	143.00	--	--	1488	25

Geologic unit (aquifer): 377WVRN - Weverton Formation
400CTCN - Catoctin Metabasalt
400MTRL - Metarhyolite and Associated Pyroclastic Sediments

Site type: GW - Ground water
SP - Spring

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

FREDERICK COUNTY, MARYLAND-Continued

	LOCAL IDENTIFIER	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
FR AD 1		--	4080	63	6.1	15.0	11.0	K2	<1	K1
FR AD 1		--	4080	75	6.3	23.0	11.0	K4	K10	K5
FR BD 4		0.2	4080	65	5.9	11.0	8.5	30	K1	--
FR BD 4		--	4080	69	6.1	13.0	10.0	K10	<1	<1
FR BD 8		22	4040	51	6.2	5.0	11.0	<1	<1	<1
FR BD 8		16	4040	62	6.2	11.0	11.0	<1	<1	<1
FR BD 8		5.0	4040	55	6.2	23.0	12.0	<1	<1	<1
FR BD 35		--	4040	221	5.9	10.0	11.0	<1	<1	<1
FR BD 35		--	4040	223	5.8	1.5	12.0	K1	<1	<1
FR BD 35		--	4040	370	7.3	24.0	14.0	<1	K1	<1
FR BD 35		--	4040	255	6.8	20.0	12.0	<1	K1	<1
FR BD 36		--	4040	224	6.4	10.0	11.0	<1	<1	<1
FR BD 36		--	4040	230	6.5	1.5	13.0	K1	<1	<1
FR BD 36		--	4040	418	7.0	24.0	11.0	<1	K1	<1
FR BD 36		--	4040	210	6.5	20.0	13.0	<1	<1	<1
FR BD 38		--	4040	108	6.2	11.0	10.0	<1	<1	<1
FR BD 38		--	4040	310	8.6	1.5	11.0	<1	<1	<1
FR BD 38		--	4040	300	8.6	24.0	15.0	>80	<1	K1
FR BD 38		--	4040	190	6.8	20.0	12.0	<1	<1	<1
FR BD 39		0.2	4080	122	5.9	10.0	11.0	<1	K1	--
FR BD 39		0.1	4080	118	6.2	9.0	10.0	<1	<1	<1
FR BD 39		0.2	4080	121	6.2	13.0	10.0	>80	<1	K2
FR BD 39		--	4080	138	6.2	29.0	13.0	K17	27	>100
FR BD 40		35	4040	69	6.2	2.5	10.0	<1	<1	<1
FR BD 40		35	4040	68	6.5	6.0	10.0	<1	<1	<1
FR BD 40		--	4040	81	6.5	25.0	13.0	<1	<1	<1
FR BD 40		40	4040	72	6.4	21.0	11.0	<1	<1	<1
FR BD 43		41	4040	35	5.9	1.0	9.0	<1	<1	<1
FR BD 43		40	4040	20	5.7	7.0	10.0	<1	<1	K1
FR BD 43		55	4040	32	6.0	26.0	13.0	<1	<1	<1
FR BD 43		2.0	4040	39	6.2	23.0	11.0	<1	<1	<1
FR BD 49		6.0	4040	56	6.1	6.0	11.0	<1	<1	<1
FR BD 49		6.0	4040	49	5.9	11.0	11.0	<1	<1	<1
FR BD 49		4.6	4040	57	5.5	22.0	12.5	<1	<1	<1
FR BD 49		--	4040	55	6.5	23.0	15.0	<1	<1	<1
FR BD 72		1.0	4080	56	6.6	16.0	11.0	>80	K1	27
FR BD 72		--	4080	49	6.6	25.0	13.0	25	16	--
FR BD 73		0.5	4080	83	6.3	11.0	11.0	51	<1	K4
FR BD 73		0.5	4080	78	6.3	6.0	10.0	22	<1	<1
FR BD 73		0.2	4080	76	6.6	16.0	12.0	>80	K1	K2
FR BD 73		--	4080	78	6.6	25.0	13.0	--	K13	K7
FR BD 106		0.2	4080	56	5.8	13.0	9.0	<1	K2	<1
FR BD 107		15	4080	270	6.2	7.0	12.0	>80	K6	--
FR BD 107		1.0	4080	400	6.2	8.0	9.0	>80	<1	K1
FR BD 107		--	4080	283	6.4	13.0	10.0	>80	>60	>100
FR BD 107		--	4080	158	6.3	29.0	13.0	>80	>60	65
FR BD 108		0.5	4080	152	5.7	7.0	12.0	>80	K16	--
FR BD 108		0.2	4080	144	5.9	9.0	10.0	>80	K3	K4
FR BD 108		0.2	4080	150	6.3	13.0	12.0	<1	K4	29
FR BD 110		--	4080	76	6.0	16.0	9.0	<1	<1	<1
FR BD 114		--	4040	177	6.2	26.0	12.5	<1	K1	<1
FR BD 114		--	4040	180	6.5	19.0	12.0	--	--	--

Sampling method: 4040 - Submersible pump
4080 - Peristaltic pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

FREDERICK COUNTY, MARYLAND-Continued

	LOCAL IDENTIFIER	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)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)
FR AD 1		21	4	5.2	1.9	3.1	24	0.3	0.7	21
FR AD 1		25	3	6.2	2.3	3.5	23	0.3	0.8	27
FR BD 4		22	10	5.3	2.1	2.5	19	0.2	1.1	15
FR BD 4		22	11	5.3	2.2	2.5	19	0.2	0.4	14
FR BD 8		22	2	3.7	3.1	1.9	16	0.2	0.3	24
FR BD 8		27	--	4.5	3.9	2.1	14	0.2	0.2	34
FR BD 8		24	--	4.1	3.4	1.9	14	0.2	0.3	32
FR BD 35		83	38	23	6.2	13	25	0.6	1.5	55
FR BD 35		73	48	18	6.8	11	24	0.6	1.9	30
FR BD 35		86	--	26	5.1	49	55	2	1.5	173
FR BD 35		100	38	30	6.0	10	18	0.5	1.6	76
FR BD 36		96	33	32	3.8	8.5	16	0.4	1.3	77
FR BD 36		85	13	28	3.7	11	22	0.5	1.5	88
FR BD 36		83	--	25	5.0	51	57	3	1.4	205
FR BD 36		76	16	25	3.2	8.3	19	0.4	1.4	73
FR BD 38		46	8	14	2.8	5.1	19	0.3	1.3	46
FR BD 38		64	--	20	3.4	49	62	3	2.1	189
FR BD 38		69	--	22	3.5	43	57	2	1.8	167
FR BD 38		78	15	25	3.8	6.7	15	0.3	2.1	77
FR BD 39		44	22	11	4.0	4.3	17	0.3	0.4	27
FR BD 39		45	19	11	4.2	4.3	17	0.3	0.4	32
FR BD 39		45	21	11	4.2	4.7	18	0.3	0.4	29
FR BD 39		44	14	11	4.1	4.4	18	0.3	0.4	37
FR BD 40		29	4	7.7	2.4	2.4	15	0.2	0.4	30
FR BD 40		28	--	7.2	2.4	2.2	14	0.2	0.4	41
FR BD 40		35	--	8.2	3.5	3.3	17	0.3	0.4	43
FR BD 40		30	0	8.1	2.4	2.3	14	0.2	0.4	37
FR BD 43		9	--	2.2	0.87	2.9	38	0.4	0.8	15
FR BD 43		7	--	1.6	0.63	2.1	37	0.4	0.9	13
FR BD 43		9	--	2.1	0.83	2.8	39	0.4	0.8	17
FR BD 43		12	--	2.8	1.2	3.1	34	0.4	0.8	18
FR BD 49		17	--	5.2	0.87	3.4	28	0.4	1.6	23
FR BD 49		14	--	4.4	0.73	2.5	25	0.3	1.5	21
FR BD 49		17	--	5.2	0.87	3.0	26	0.3	1.6	25
FR BD 49		17	--	5.2	0.9	3.2	27	0.4	1.6	26
FR BD 72		21	0	4.8	2.2	2.6	21	0.3	0.4	26
FR BD 72		18	--	4.1	2.0	2.6	23	0.3	0.1	23
FR BD 73		30	14	6.9	3.0	3.2	19	0.3	0.4	19
FR BD 73		29	10	6.8	3.0	3.0	18	0.2	0.6	23
FR BD 73		29	10	6.8	2.9	3.1	19	0.3	0.5	23
FR BD 73		28	4	6.6	2.9	3.3	20	0.3	0.3	29
FR BD 106		18	7	4.6	1.6	2.1	20	0.2	0.4	13
FR BD 107		73	40	18	6.8	22	39	1	0.5	40
FR BD 107		89	52	22	8.3	41	49	2	2.0	45
FR BD 107		69	29	17	6.5	27	45	1	2.1	49
FR BD 107		51	17	13	4.4	12	33	0.8	1.8	41
FR BD 108		48	23	12	4.5	9.8	30	0.6	0.6	30
FR BD 108		47	15	12	4.2	9.1	29	0.6	1.0	39
FR BD 108		48	18	12	4.4	9.9	30	0.6	1.2	37
FR BD 110		26	7	6.8	2.3	2.8	18	0.2	1.0	23
FR BD 114		60	23	13	6.7	7.0	20	0.4	1.6	45
FR BD 114		56	19	12	6.4	7.4	22	0.4	1.9	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

FREDERICK COUNTY, MARYLAND-Continued

	LOCAL IDENTIFIER	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)
FR AD 1		17	27	7.2	1.6	<0.1	18	44	48
FR AD 1		22	22	5.7	1.7	<0.1	20	50	54
FR BD 4		12	30	4.8	5.4	<0.1	13	48	42
FR BD 4		12	18	4.5	7.1	<0.1	12	51	41
FR BD 8		20	24	1.0	2.3	<0.1	13	38	37
FR BD 8		28	34	2.5	2.1	<0.1	14	48	46
FR BD 8		26	32	0.9	2.7	<0.1	12	40	41
FR BD 35		45	110	6.8	33	<0.1	17	162	130
FR BD 35		25	76	6.5	40	<0.1	16	146	120
FR BD 35		142	14	4.8	30	<0.1	18	233	220
FR BD 35		62	19	8.0	30	<0.1	18	165	140
FR BD 36		63	49	4.2	21	<0.1	18	151	130
FR BD 36		72	44	3.2	21	<0.1	18	143	130
FR BD 36		168	33	4.9	29	<0.1	18	219	240
FR BD 36		60	37	1.8	19	<0.1	17	133	110
FR BD 38		38	46	2.4	7.9	<0.1	21	91	77
FR BD 38		155	0.8	3.8	8.1	<0.1	22	230	200
FR BD 38		137	0.7	4.8	7.5	<0.1	22	202	190
FR BD 38		63	19	5.1	8.6	<0.1	23	117	110
FR BD 39		22	54	5.3	15	<0.1	20	95	73
FR BD 39		26	32	5.3	12	<0.1	20	86	73
FR BD 39		24	29	5.4	13	<0.1	20	91	73
FR BD 39		30	37	5.2	13	0.1	20	98	77
FR BD 40		25	30	0.2	1.9	<0.1	16	50	46
FR BD 40		34	21	0.3	1.6	<0.1	16	57	50
FR BD 40		35	22	2.1	1.6	<0.1	18	60	58
FR BD 40		30	23	0.3	1.6	<0.1	16	48	50
FR BD 43		12	30	0.5	0.6	<0.1	18	32	33
FR BD 43		11	42	0.5	1.3	<0.1	15	32	29
FR BD 43		14	27	1.9	1.1	<0.1	17	22	35
FR BD 43		15	18	0.5	1.1	<0.1	20	39	38
FR BD 49		19	33	4.1	1.1	<0.1	11	33	39
FR BD 49		17	42	5.0	1.7	<0.1	10	40	37
FR BD 49		21	126	6.2	1.2	<0.1	10	43	41
FR BD 49		21	13	3.8	1.1	<0.1	11	37	40
FR BD 72		21	10	2.5	1.7	<0.1	22	37	49
FR BD 72		19	9.2	2.1	1.6	<0.1	22	34	46
FR BD 73		16	15	8.1	4.3	<0.1	19	66	54
FR BD 73		19	18	8.5	2.4	<0.1	20	65	56
FR BD 73		19	9.2	7.0	2.1	<0.1	20	56	54
FR BD 73		24	12	6.9	3.6	<0.1	20	70	58
FR BD 106		11	33	4.2	4.7	<0.1	12	37	36
FR BD 107		33	40	9.2	51	<0.1	16	168	140
FR BD 107		37	45	8.4	91	<0.1	15	264	210
FR BD 107		40	31	7.5	52	<0.1	16	204	150
FR BD 107		34	33	5.0	25	<0.1	17	108	98
FR BD 108		25	95	10	14	<0.1	16	101	82
FR BD 108		32	78	15	8.4	<0.1	15	88	84
FR BD 108		30	33	13	11	<0.1	16	123	86
FR BD 110		19	37	2.9	5.9	<0.1	15	57	48
FR BD 114		37	45	5.0	21	<0.1	20	140	96
FR BD 114		--	23	4.6	17	<0.1	20	99	92

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

FREDERICK COUNTY, MARYLAND-Continued

	LOCAL IDENT-I-FIER	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	BORON, DIS-SOLVED (UG/L AS B)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
FR AD 1		0.06	0.63	<0.01	--	<20	--	<3	--
FR AD 1		0.07	0.51	0.03	0.09	<20	<1	5	1
FR BD 4		0.06	1.00	0.01	0.03	60	--	7	--
FR BD 4		0.07	0.86	<0.01	--	<20	--	3	--
FR BD 8		0.05	0.15	0.02	0.06	<20	--	3	--
FR BD 8		0.06	0.11	0.10	0.31	<20	--	5	--
FR BD 8		0.05	0.14	<0.01	--	<20	9	5	<1
FR BD 35		0.22	3.50	<0.01	--	<20	--	54	--
FR BD 35		0.2	3.40	<0.01	--	<20	--	160	--
FR BD 35		0.32	3.10	<0.01	--	<20	--	15	--
FR BD 35		0.22	2.30	<0.01	--	<20	45	2300	11
FR BD 36		0.21	3.00	0.01	0.03	<20	--	140	--
FR BD 36		0.19	2.90	<0.01	--	<20	--	33	--
FR BD 36		0.3	3.10	<0.01	--	<20	--	14	--
FR BD 36		0.18	2.30	0.01	0.03	<20	88	460	7
FR BD 38		0.12	2.30	0.01	0.03	<20	--	180	--
FR BD 38		0.31	2.50	0.01	0.03	<20	--	6	--
FR BD 38		0.27	2.30	0.02	0.06	<20	--	7	--
FR BD 38		0.16	2.60	0.03	0.09	<20	36	160	2
FR BD 39		0.13	3.30	0.02	0.06	<20	--	69	--
FR BD 39		0.12	2.80	<0.01	--	<20	--	5	--
FR BD 39		0.12	2.80	<0.01	--	<20	--	<3	--
FR BD 39		0.13	2.70	<0.01	--	<20	<1	180	<1
FR BD 40		0.07	1.10	0.06	0.18	<20	--	12	--
FR BD 40		0.08	1.10	0.05	0.15	<20	--	22	--
FR BD 40		0.08	1.20	0.04	0.12	<20	--	7	--
FR BD 40		0.06	1.20	0.07	0.21	<20	5	20	2
FR BD 43		0.04	<0.10	0.03	0.09	<20	--	<3	--
FR BD 43		0.04	3.30	<0.01	--	30	--	4	--
FR BD 43		0.03	0.13	0.01	0.03	<20	--	<3	--
FR BD 43		0.05	0.13	0.03	0.09	<20	2	4	<1
FR BD 49		0.05	<0.10	0.11	0.34	<20	--	480	--
FR BD 49		0.05	0.20	<0.01	--	<20	--	560	--
FR BD 49		0.06	<0.10	0.13	0.4	<20	--	450	--
FR BD 49		0.05	0.12	0.15	0.46	<20	21	390	<1
FR BD 72		0.05	0.50	<0.01	--	<20	--	5	--
FR BD 72		0.05	0.22	<0.01	--	<20	--	5	--
FR BD 73		0.09	2.50	<0.01	--	<20	--	6	--
FR BD 73		0.09	2.40	<0.01	--	<20	--	6	--
FR BD 73		0.08	2.10	<0.01	--	<20	1	4	<1
FR BD 73		0.09	2.40	<0.01	--	<20	1	11	2
FR BD 106		0.05	1.20	<0.01	--	<20	--	6	--
FR BD 107		0.23	2.00	0.01	0.03	<20	--	4	--
FR BD 107		0.36	2.30	<0.01	--	<20	--	<3	--
FR BD 107		0.28	2.00	<0.01	--	<20	6	4	<1
FR BD 107		0.15	1.70	<0.01	--	<20	4	<3	<1
FR BD 108		0.14	2.60	0.01	0.03	<20	--	10	--
FR BD 108		0.12	3.00	0.02	0.06	60	--	15	--
FR BD 108		0.17	3.50	<0.01	--	70	--	10	--
FR BD 110		0.08	1.80	0.02	0.06	<20	5	<3	1
FR BD 114		0.19	2.20	<0.01	--	<20	--	72	--
FR BD 114		0.13	2.00	0.02	0.06	<20	190	710	11

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

GARRETT COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
GA FA 34		391539079254604	321CNMG	10-18-84	95.50	115.00	115	96	2618	30
GA FB 30		391513079243605	321CNMG	11-27-84	79.20	85.00	85	82	2755	210

	LOCAL IDENTIFIER	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
GA FA 34		3.0	4040	402	7.5	19.0	11.0	10	210	110
GA FB 30		8.0	4040	201	7.5	14.0	14.0	<1	100	10

	LOCAL IDENTIFIER	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)
GA FA 34		61	13	0.9	1	0	1.3	100	6.1
GA FB 30		32	5.3	0.4	1	0	1.4	92	5.6

	LOCAL IDENTIFIER	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
GA FA 34		110	1.0	0.1	6.6	257	260	0.35	<0.10
GA FB 30		11	2.1	0.2	6.3	108	110	0.15	<0.10

	LOCAL IDENTIFIER	PHOSPHORUS, TOTAL (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
GA FA 34		0.05	<100	--	--	--	190	10	180
GA FB 30		0.05	<100	--	--	--	100	--	120

Geologic unit (aquifer): 321CNMG - Conemaugh Formation

Sampling method: 4040 - Submersible pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

QUEEN ANNES COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
QA EA 32	QA-73-0963	385758076200201	125AQUI	03-19-85	--	225.00	225	215	10.0	150
QA EA 36	QA-73-1637	385819076202701	125AQUI	08-19-85	--	140.00	140	120	18.0	--
QA EA 37	QA-73-3317	385822076202501	125AQUI	08-19-85	--	92.00	92	85	17.0	--
QA EA 39	QA-73-3240	385825076202901	125AQUI	08-19-85	--	95.00	95	80	15.0	--
QA EA 42	QA-73-2611	385820076202501	125AQUI	08-19-85	--	120.00	120	100	18.0	--
QA EB 152	QA-73-3050	385517076154801	125AQUI	03-22-85	--	250.00	250	230	8.0	90
QA EC 89	QA-81-0873	385758076141901	211MGTY	01-16-85	56.00	785.00	785	750	5.0	1825

	LOCAL IDENTIFIER	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)
QA EA 32	QA-73-0963	5.0	4040	350	7.8	9.0	15.0	--	0.4
QA EA 36	QA-73-1637	--	4040	--	--	--	--	--	--
QA EA 37	QA-73-3317	--	4040	--	--	--	--	--	--
QA EA 39	QA-73-3240	--	4040	--	--	--	--	--	--
QA EA 42	QA-73-2611	--	4090	--	--	--	--	--	--
QA EB 152	QA-73-3050	10	4040	382	7.7	5.0	15.0	--	0.3
QA EC 89	QA-81-0873	150	4040	162	6.6	--	20.0	<1	--

	LOCAL IDENTIFIER	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)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
QA EA 32	QA-73-0963	120	--	37	7.2	33	36	1	3.8
QA EB 152	QA-73-3050	100	--	25	9.3	48	48	2	10
QA EC 89	QA-81-0873	49	25	12	4.7	2.1	8	0.1	3.7

	LOCAL IDENTIFIER	ALKALINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	IODIDE, DISSOLVED (MG/L AS I)	SILICA, DISSOLVED (MG/L AS SIO2)
QA EA 32	QA-73-0963	183	5.6	15	3.8	0.2	<0.01	0.001	21
QA EA 36	QA-73-1637	--	--	--	570	--	--	--	--
QA EA 37	QA-73-3317	--	--	--	4.3	--	--	--	--
QA EA 39	QA-73-3240	--	--	--	16	--	--	--	--
QA EA 42	QA-73-2611	--	--	--	34	--	--	--	--
QA EB 152	QA-73-3050	216	8.3	4.5	1.5	0.9	<0.01	0.001	16
QA EC 89	QA-81-0873	24	12	36	0.7	0.3	--	--	8.3

Geologic unit (aquifer): 125AQUI - Aquia Formation
211MGTY - Magothy Formation

Sampling method: 4040 - Submersible pump
4090 - Jet pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

QUEEN ANNES COUNTY, MARYLAND-Continued

	LOCAL IDENTIFIER	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
QA EA 32	QA-73-0963	--	230	0.31	--	<0.10	--	<0.01	10
QA EB 152	QA-73-3050	--	250	0.33	--	<0.10	--	<0.01	30
QA EC 89	QA-81-0873	103	93	0.14	0.10	--	0.41	--	--

	LOCAL IDENTIFIER	BARIUM, DISSOLVED (UG/L AS BA)	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)	STRONTIUM, DISSOLVED (UG/L AS SR)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC DISSOLVED (MG/L AS C)
QA EA 32	QA-73-0963	170	--	280	--	12	200	--	1.9
QA EB 152	QA-73-3050	6	--	220	--	160	430	-13.5	1.8
QA EC 89	QA-81-0873	--	13000	11000	200	180	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ST MARYS COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)
SM BB 27		382841076464401	125AQUI	07-25-85	340.00	594.00	594	466	164

PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)
1425	320	4040	285	8.0	20.0	10	110

CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)
25	11	9.7	14	0.4	20	144	2.8

SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)
8.4	0.8	0.3	13	167	170	0.23

NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
<0.10	<0.01	230	30	200	<10	4

Geologic unit (aquifer): 125AQUI - Aquia Formation

Sampling method: 4040 - Submersible pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

TALBOT COUNTY, MARYLAND

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)
TA CD 55	TA-71-0080	384620076052401	125AQUI	03-21-85	12:50	669.00	669	575	19.0	150

SAM-PLING METHOD, CODES	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
4040	810	8.4	20.0	20.0	; 0.1	16	2.6

MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
2.2	200	95	23	7.1	455	3.5	12

CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
3.0	3.8	<0.01	0.018	13	520	0.7	<0.10

PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	C-13/ C-12 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
0.02	40	9	19	1	67	-5.6	1.8

Geologic unit (aquifer): 125AQUI - Aquia Formation

Sampling method: 4040 - Submersible pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WASHINGTON COUNTY, MARYLAND

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE	SITE	DEPTH OF WELL, TOTAL (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE, INSTANTANEOUS (GPM)	SAMPLING METHOD, CODES
WA AB 78		394314078193301	341CMNG	08-27-85	GW	65.00	945	40	2.5	4040
WA AB 80		394202078164301	341HMPR	08-27-85	GW	258.00	965	20	--	4040
WA AB 81		394118078180101	337PRSL	08-27-85	GW	322.00	1530	35	3.0	4040
WA AC 3		394204078135201	351WLCK	08-28-85	GW	154.00	585	15	3.3	4040
WA AC 5		394302078143501	341WDMN	08-28-85	GW	125.00	705	15	2.1	4040
WA AC 44		394136078144401	344RMNY	08-27-85	GW	45.00	540	--	--	4100
WA AD 72		394231078073101	341HMPR	08-28-85	GW	220.00	765	15	3.8	4040
WA CG 14		393314077512501	361MRBG	08-27-85	SP	--	500	--	5.4	--
WA CG 36		393316077501701	367SNNG	08-27-85	GW	405.00	420	--	--	4040
WA CH 115		393129077483401	371CCCG	08-27-85	GW	175.00	445	2	--	4040
WA CH 117		393254077482401	367RCKR	08-27-85	GW	300.00	470	2	--	4040
WA CJ 69		393258077363701	110MNWS	08-27-85	SP	--	960	--	5.5	--
WA CJ 74		393150077381101	377ANTM	08-27-85	GW	265.00	885	2	--	4040
WA CJ 83		393306077382001	377TMSN	08-27-85	GW	125.00	600	3	--	4040

	LOCAL IDENTIFIER	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	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)
WA AB 78		189	6.7	24.0	13.5	74	--	15	8.9	7.6
WA AB 80		175	6.8	25.0	13.5	69	--	11	10	6.6
WA AB 81		250	7.0	21.5	13.0	40	--	6.6	5.8	23
WA AC 3		450	7.3	32.0	14.0	270	28	80	17	1.7
WA AC 5		165	7.4	28.5	13.5	68	--	15	7.3	7.0
WA AC 44		--	6.6	24.5	12.0	170	64	50	11	4.8
WA AD 72		250	8.0	28.0	14.0	0	--	0.1	0.02	60
WA CG 14		115	5.9	23.0	13.0	40	19	9.9	3.8	5.5
WA CG 36		585	7.3	23.5	16.5	270	18	100	5.2	12
WA CH 115		475	7.3	26.0	24.5	180	--	62	7.3	25
WA CH 117		615	7.6	24.0	14.0	330	57	110	14	9.9
WA CJ 69		148	5.7	24.0	13.0	24	14	5.1	2.7	19
WA CJ 74		34	5.7	26.0	15.0	7	--	1.9	0.52	2.3
WA CJ 83		280	7.9	27.0	25.5	120	6	42	4.8	3.4

Geologic unit (aquifer):
110MNWS - Mountain Wash
337PRSL - Purslane Sandstone
341CNMG - Chemung Formation
341HMPR - Hampshire Formation
341WDMN - Woodmont Formation
344RMNY - Romney Formation
351WLCK - Wills Creek Shale
361MRBG - Martinsburg Shale
367RCKR - Rockdale Run Formation
367SNNG - Stonehenge Limestone
371CCCG - Conococheague Limestone

Site type:
GW - Ground water
SP - Spring

Sampling method:
4040 - Submersible pump
4100 - Flowing well

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WASHINGTON COUNTY, MARYLAND-Continued

LOCAL IDENTIFIER	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
WA AB 78	18	0.4	0.6	85	33	5.5	2.3	<0.1	21
WA AB 80	17	0.4	1.5	83	25	4.3	1.8	<0.1	16
WA AB 81	54	2	2.2	77	15	22	11	0.1	7.0
WA AC 3	1	0	1.0	242	23	22	5.6	0.3	9.0
WA AC 5	18	0.4	0.5	75	5.8	8.3	1.0	0.2	18
WA AC 44	6	0.2	0.9	106	52	85	1.0	0.1	15
WA AD 72	99	47	0.3	142	2.7	6.3	1.6	<0.1	18
WA CG 14	22	0.4	2.0	21	51	8.2	6.9	<0.1	11
WA CG 36	9	0.3	2.7	253	25	18	29	0.1	9.2
WA CH 115	22	0.8	2.1	222	22	3.5	14	0.1	10
WA CH 117	6	0.2	1.6	275	13	35	30	0.1	9.5
WA CJ 69	62	2	1.3	10	39	2.1	38	<0.1	7.6
WA CJ 74	32	0.4	2.8	10	39	0.9	2.1	<0.1	13
WA CJ 83	5	0.1	3.5	119	2.9	2.7	4.9	0.2	11

LOCAL IDENTIFIER	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
WA AB 78	110	0.15	1.10	--	--	<100	120	340
WA AB 80	100	0.14	0.67	0.10	0.31	<100	32	3
WA AB 81	140	0.17	0.12	<0.01	--	<100	12000	1900
WA AC 3	250	0.34	4.40	<0.01	--	100	5	16
WA AC 5	100	0.14	0.11	--	--	<100	7	22
WA AC 44	230	0.3	0.10	<0.01	--	--	10000	220
WA AD 72	160	0.22	0.69	--	--	<100	6	<1
WA CG 14	61	0.08	4.70	--	--	<100	11	3
WA CG 36	290	0.39	11.0	--	--	<100	4	<1
WA CH 115	230	0.32	3.90	--	--	100	15	<1
WA CH 117	290	0.4	7.80	--	--	100	7	9
WA CJ 69	82	0.11	0.32	--	--	<100	27	52
WA CJ 74	30	0.04	0.13	--	--	<100	5	<1
WA CJ 83	140	0.19	3.10	--	--	<100	10	<1

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WORCHESTER COUNTY, MARYLAND

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (GPM)
WO AE 23		382621075174201	122MNKN	09-11-85	280.00	280	270	40.0	70	50
WO AE 24		382621075174202	122MNKN	09-11-85	220.00	220	190	40.0	60	15
WO AE 25		382621075174203	122PCMK	09-11-85	118.00	118	108	40.0	80	18
WO AH 34	WO-72-0059	382632075031901	122MNKN	09-03-85	450.00	450	350	5.0	--	--
WO BG 15		382359075094501	122MNKN	09-10-85	325.00	318	288	10.0	40	75
WO BG 47		382325075063301	122MNKN	06-19-85	268.00	268	258	5.0	50	18
WO BG 47		382325075063301	122MNKN	08-29-85	268.00	268	258	5.0	60	30
WO BG 48		382325075063302	122MNKN	06-19-85	420.00	420	410	5.0	30	30
WO BG 48		382325075063302	122MNKN	08-29-85	420.00	420	410	5.0	50	50
WO BG 49		382038075065901	122OCNC	06-19-85	243.00	243	233	15.0	65	16
WO BG 49		382038075065901	122OCNC	09-10-85	243.00	243	233	15.0	55	15
WO BH 28	WO-05-0667	382215075041802	122MNKN	09-03-85	294.00	294	248	5.0	--	--
WO BH 34		382443075033501	122MNKN	09-06-85	353.00	353	337	4.0	60	37
WO CG 32		381941075052201	122MNKN	09-03-85	280.00	280	250	8.0	--	--
WO CG 69		381931075071101	122OCNC	06-19-85	235.00	235	215	10.0	85	18
WO CG 69		381931075071101	122OCNC	09-09-85	235.00	235	215	10.0	65	16
WO CG 75		381939075052102	122MNKN	09-03-85	427.00	427	367	6.0	--	--
WO DE 36		381457075174101	122MNKN	09-12-85	330.00	330	320	30.0	100	5.0
WO DG 21	WO-73-0519	381427075081102	122MNKN	09-06-85	310.00	310	300	6.0	75	11

	LOCAL IDENT-I-FIER	SAM-PLING METHOD, CODES	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	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)	SODIUM, DIS-SOLVED (MG/L AS NA)
WO AE 23		--	151	6.6	22.0	14.0	38	9.1	3.6	9.4
WO AE 24		--	485	6.9	22.0	14.0	210	77	3.2	7.7
WO AE 25		--	530	6.7	22.0	14.0	220	85	2.3	8.3
WO AH 34	WO-72-0059	--	505	5.9	31.0	16.0	73	21	4.9	57
WO BG 15		--	310	6.6	34.0	14.5	63	17	5.0	24
WO BG 47		4030	410	6.9	28.0	16.0	--	--	--	--
WO BG 47		--	412	6.7	27.0	15.0	59	13	6.4	49
WO BG 48		--	430	6.8	29.0	18.0	--	--	--	--
WO BG 48		--	454	6.6	26.0	16.0	70	15	7.9	51
WO BG 49		4030	418	7.6	--	15.0	--	--	--	--
WO BG 49		--	448	7.4	33.0	15.0	100	27	8.0	48
WO BH 28	WO-05-0667	--	820	6.7	30.0	16.0	110	19	16	94
WO BH 34		--	241	6.6	32.0	15.0	58	14	5.7	11
WO CG 32		--	468	7.4	28.0	16.0	130	33	11	36
WO CG 69		4030	445	7.6	27.0	17.0	--	--	--	--
WO CG 69		4030	445	7.1	33.0	15.0	130	32	12	34
WO CG 75		--	500	6.9	29.0	17.0	59	9.5	8.5	65
WO DE 36		4030	390	7.6	22.0	15.0	120	39	5.8	29
WO DG 21	WO-73-0519	--	499	8.0	34.0	16.0	140	33	13	44

Geologic unit (aquifer): 122MNKN - Manokin Aquifer
122OCNC - Ocean City Aquifer
122PCMK - Pocomoke Aquifer

Sample method: 4030 - Suction pump

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WORCHESTER COUNTY, MARYLAND—Continued

	LOCAL IDENTIFIER	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
WO AE 23		33	0.7	3.4	55	27	1.8	7.1	<0.1	27
WO AE 24		7	0.2	1.4	219	53	1.2	11	<0.1	29
WO AE 25		8	0.3	0.7	231	89	11	11	0.1	34
WO AH 34	WO-72-0059	61	3	5.1	85	207	16	87	<0.1	34
WO BG 15		44	1	3.5	90	44	12	26	0.1	36
WO BG 47		--	--	--	--	--	--	53	--	--
WO BG 47		62	3	4.9	100	39	12	52	0.1	35
WO BG 48		--	--	--	--	--	--	15	--	--
WO BG 48		58	3	9.1	105	51	1.2	68	0.1	37
WO BG 49		--	--	--	--	--	--	15	--	--
WO BG 49		48	2	11	198	15	<0.2	15	<0.1	23
WO BH 28	WO-05-0667	61	4	13	115	44	2.0	160	0.1	34
WO BH 34		27	0.6	5.4	73	36	27	18	<0.1	35
WO CG 32		36	1	11	168	13	0.5	40	0.2	26
WO CG 69		--	--	--	--	--	--	18	--	--
WO CG 69		33	1	15	195	30	0.4	19	<0.1	21
WO CG 75		67	4	9.0	106	26	2.5	78	0.2	29
WO DE 36		33	1	4.3	181	8.8	0.4	8.2	0.1	27
WO DG 21	WO-73-0519	39	2	12	214	4.1	0.5	25	<0.1	19

	LOCAL IDENTIFIER	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
WO AE 23		98	99	0.13	0.10	<0.01	--	4800	97
WO AE 24		286	280	0.39	<0.10	0.01	0.03	14000	82
WO AE 25		307	300	0.42	0.11	<0.01	--	13000	120
WO AH 34	WO-72-0059	278	290	0.38	0.14	<0.01	--	12000	130
WO BG 15		168	190	0.23	<0.10	0.20	0.61	8700	130
WO BG 47		226	240	0.31	<0.10	0.03	0.09	8300	97
WO BG 48		250	260	0.34	<0.10	0.19	0.58	4700	94
WO BG 49		243	--	--	<0.10	0.07	0.21	990	24
WO BH 28	WO-05-0667	411	410	0.56	<0.10	<0.01	--	7400	140
WO BH 34		138	170	0.19	0.11	<0.01	--	12000	100
WO CG 32		260	260	0.35	<0.10	0.07	0.21	550	82
WO CG 69		257	250	0.35	<0.10	0.05	0.15	1000	47
WO CG 75		270	270	0.37	<0.10	0.30	0.92	6300	180
WO DE 36		227	220	0.31	0.13	0.12	0.37	730	91
WO DG 21	WO-73-0519	285	280	0.39	<0.10	0.14	0.43	33	41

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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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