1972

Water Resources Data for Maryland and Delaware

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the States of Maryland and Delaware and with other agencies

CALENDAR FOR WATER YEAR 1972

OCTOBER 1971

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
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31						

NOVEMBER 1971

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JANUARY 1972

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FEBRUARY 1972

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MARCH 1972

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APRIL 1972

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MAY 1972

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JUNE 1972

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JULY 1972

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AUGUST 1972

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SEPTEMBER 1972

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Part 1. Surface Water Records

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Prepared in cooperation with

Delaware Geological Survey
Delaware State Highway Department
Maryland Geological Survey
Maryland State Roads Commission
Maryland Department of Health
Maryland National Capital Park and Planning Commission
Washington Suburban Sanitary Commission
City of Baltimore
Corps of Engineers, U. S. Army
National Park Service, U. S. Department of the Interior
District of Columbia

Water resources records, 1972, for Maryland and Delaware are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Maryland and Delaware
   Part 1: Surface Water Records

2. Water Resources Data for Maryland and Delaware
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
8809 Satyr Hill Road
Parkville, Maryland 21234

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NORTH ATLANTIC SLOPE BASINS--CONTINUED

WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1972

PART 1. SURFACE WATER RECORDS

INTRODUCTION

Surface-water records for the 1972 water year for Maryland and Delaware, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report and their locations shown in figure 2. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U. S. Geological Survey under the direction of W. F. White, district chief. These data represent that portion of the National Water Data System collected by the U. S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes or reservoirs were published in an annual series of U. S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 have been published in a Geological Survey water-supply paper series entitled "Surface Water Supply of the United States 1961-65." There will be a similar series of water supply papers for the water years 1966-70.

COOPERATION

Cooperative agreements between the U. S. Geological Survey and organizations of the State of Maryland for the systematic collection of streamflow records began in 1896, continued through 1909, and after a lapse of 15 years, resumed in 1924. Similar agreements between the Survey and organizations of the State of Delaware began in 1943. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

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

Delaware Department of Highways and Transportation, E. A. Davidson, director of operations.

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

Maryland State Highway Administration, D. H. Fisher, administrator.

Maryland Department of Health, W. J. Peeples, M.H., M.P.H., Commissioner.

Maryland National Capital Park and Planning Commission, J. P. Hewitt, executive director.

Maryland Water Resources Administration, H. M. Sachs, director.

Montgomery County Department of Public Works, J. C. Kordella, director.

Washington Suburban Sanitary Commission, R. J. McLeod, general manager.

District of Columbia Department of Environmental Services, J. P. Alexander, director.

City of Baltimore, Department of Public Works, R. J. Kretzschmar, chief of water division, bureau of engineering.

Assistance in the form of funds or services was given by the Corps of Engineers, U. S. Army, in collecting records for 27 gaging stations published in this report.

Assistance was also furnished by the Weather Bureau, U. S. Department of Commerce; the National Park Service, U. S. Department of the Interior.

The following organizations aided in collecting records:

Maryland: Upper Potomac River Commission; Baltimore County; Harford County; municipalities of Bel Air, Cumberland, Frederick, and Salisbury, Celanese Fibers Co.; Congoleum-Nairn Inc.; W. J. Dickey and Sons, Inc.; Kelly Springfield Tire Co.; Potomac Edison Co.; Potomac Electric Power Co.; and West Virginia Pulp and Paper Co.

DEFINITION OF TERMS

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

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1,9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL NETWORKS AND PROGRAMS.

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

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

DOWNSTREAM ORDER AND STATION NUMBERS

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

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 01646500, which appears just to the left of the station name, includes the 2-digit part number "01" and the 6-digit downstream order number, "646500." In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

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

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

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

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

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

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

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begin on October 1 and ends on September 30. A calendar for the 1969 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

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

accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

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

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

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

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height.

In the yearly summary below the monthly summary, the figures of maximum are the maximum discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year.

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

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

Accuracy of Data

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

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

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

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published

unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

PUBLICATIONS

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965, include lists of annual and special reports published as water-supply papers.

Records for the 5-year period October 1, 1960, to September 30, 1965, for the area covered by this report have been compiled and published in Water-Supply Papers 1902 (Pt. 1, vol. 2), 1903 (Pt. 1, vol. 3), and 1907 (Pt. 3, vol. 1).

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

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

OTHER DATA AVAILABLE

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

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in Maryland and Delaware through 1967 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest

mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

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

HYDROLOGIC CONDITIONS

Streamflow was in the above normal range for most of the 1972 water year. Annual mean discharges at four index stations were maximum of record, and ranged from 160 percent of median in the western part of the district to 300 percent in the central part. The monthly flow of the Potomac River near Washington, D. C., ranged from 87 percent of median in January to 636 percent in June, referenced period, 1941-70. Monthly flows at the Washington station were excessive, upper 25 percent of recorded flows, from October to July except for January and March. The monthly flows of Seneca Creek at Dawsonville, Md., were excessive all year and ranged from 160 percent of median in September to 1,150 percent in June, referenced period, 1941-70.

Graphical illustrations of streamflow conditions during the year in comparison with previous records for two stations are shown on the following page. Data for the station, Potomac River at Point of Rocks, Md., a long-term record, reflects runoff conditions in the Potomac River basin excluding the coastal plain. Data for the station, Choptank River at Greensboro, Md., reflects runoff from a 113 square mile area (21.6 square miles in Delaware) in the central part of the Delmarva peninsula. Annual mean discharge is shown in figure 1 for the period of record of the two stations.

The most destructive flood in history, in terms of property damage, occurred in June 1972 caused by tropical storm Agnes. The flood was also one of the most widespread in history, affecting large parts of a 10-State area. The most intense rainfall occurred in the Washington, D. C., area and in a band across the central part of Maryland. Record peak flows occurred on long-term stations, more than 20-years of record, as far west as Conococheague Creek in Washington County and as far east as Morgan Creek in Kent County, Md. Maximum unit rate of runoff was measured at nearly 2,000 cfsm on two small streams, Nursery Run at Cloverly, Md., Montgomery County (drainage area, 0.35 sq mi) and Western Run tributary at Western Run, Md., Baltimore County (drainage area, 0.26 sq mi). Two gaging stations, Western Run at Western Run, Md., and North Branch Patapsco River at Cedarhurst, Md., had peak flows that were 6-1/2 times greater than any previous peak flow during more than 25-years of record. At Conococheague Creek at Fairview, Md., and Monocacy River at Jug Bridge near Frederick, Md., peak flows exceeded the record 1889 peak flows by nearly 50 percent. Over 30 gaging stations had peak flows whose flood frequency exceeded the 100-year flood.

Estimated streamflow entering the Chesapeake Bay was the highest inflow for the period 1951-72. The water-year mean of 116,000 cfs was 166 percent of the long-term average of 70,000 cfs, and exceeded the previous high of 90,700 cfs, which occurred in 1952. As a result of tropical storm Agnes, record monthly inflows of 325,000 cfs and 117,000 cfs occurred in June and July respectively.

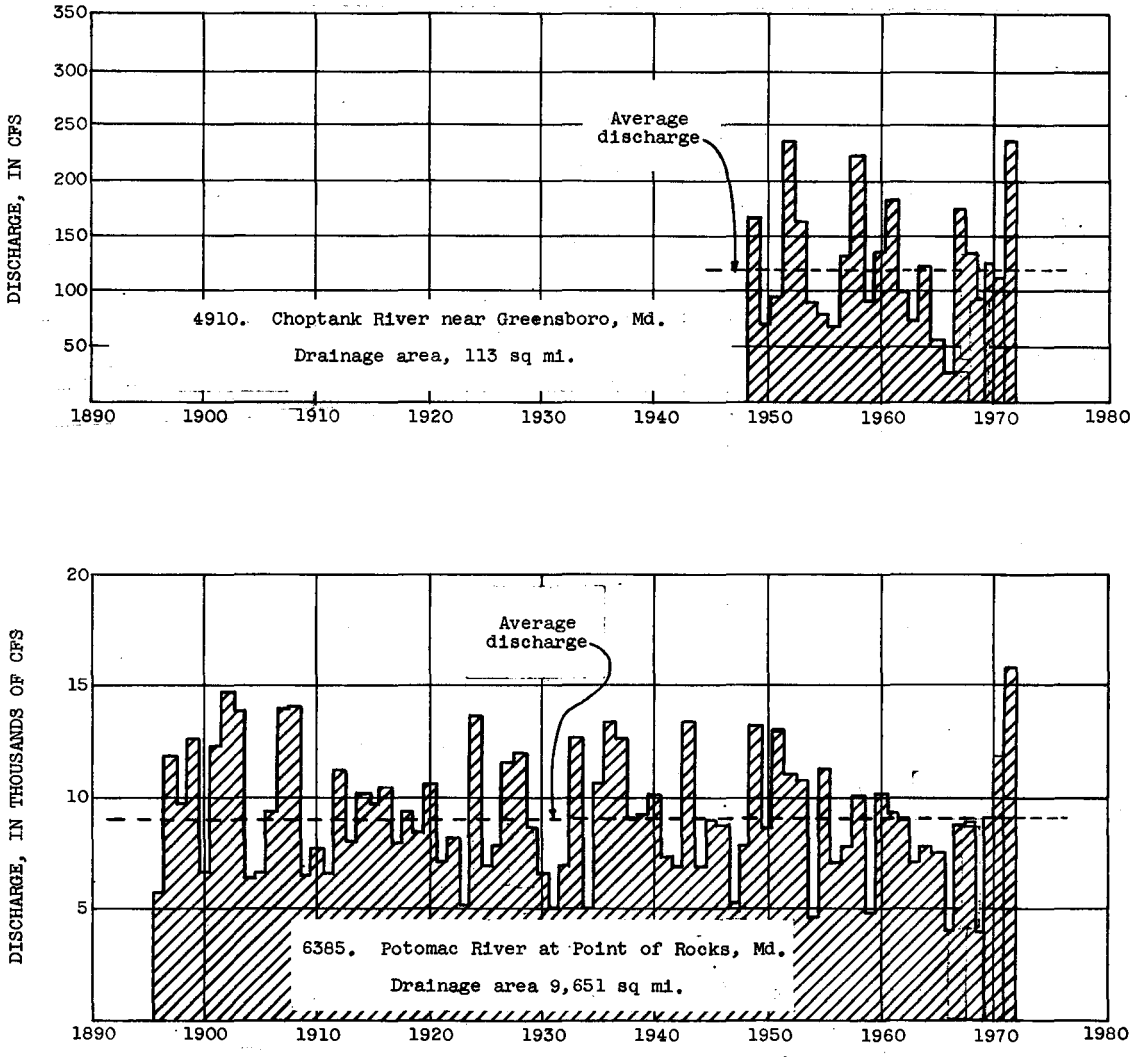

Figure 1.--Annual mean discharge at two gaging stations in Maryland.

SELECTED REFERENCES

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Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

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DELAWARE RIVER BASIN

01477800 Shellpot Creek at Wilmington, Del.

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, on right bank 100 ft east of intersection of Forty-fourth and Pine Streets in Clifton Park, 700 ft downstream from highway bridge on North Market Street in Wilmington, 0.2 mile downstream from Matson Run, and 2.3 miles upstream from mouth.

DRAINAGE AREA.--7.46 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft above mean sea level.

AVERAGE DISCHARGE.--26 years (1946-72), 9.34 cfs (17.00 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,240 cfs June 22 (gage height, 6.66 ft); minimum daily, 0.47 cfs Sept. 24.
Period of record: Maximum discharge, 6,850 cfs Sept. 13, 1971 (gage height, 11.91 ft), from rating curve extended above 620 cfs on basis of computation of flow over dam at gage height 6.52 ft, and contracted-opening measurements at gage heights 6.52, 7.97 ft (8.6 ft from floodmarks), Type V Culvert measurement at 9.10 ft, and contracted-opening measurement of peak flow; minimum daily, 0.09 cfs Oct. 2, 4, 1968.
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.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1382: 1948(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.8	9.2	2.3	2.1	19	2.8	4.1	2.9	15	1.6	.79
2	6.0	14	6.4	31	3.2	12	2.6	3.5	1.4	4.6	1.5	11
3	2.5	47	5.4	7.8	162	70	2.4	44	1.3	3.8	1.5	1.2
4	2.1	8.9	4.8	7.7	38	12	10	45	1.4	3.1	1.5	.79
5	2.0	4.3	4.2	44	6.1	8.5	3.5	9.4	1.7	7.6	1.4	.64
6	2.0	3.8	4.6	8.6	4.7	5.7	3.4	7.0	1.2	4.3	1.4	.64
7	1.7	11	54	5.2	3.4	4.8	8.0	6.6	1.2	2.6	1.6	.59
8	1.7	4.0	21	4.1	3.0	4.7	6.8	5.9	1.1	12	1.6	.63
9	1.8	3.2	8.1	32	2.7	3.7	3.9	54	1.1	4.1	1.4	.92
10	439	3.0	6.3	28	2.5	3.4	3.3	24	1.2	2.5	1.4	.69
11	16	2.8	5.3	10	2.5	3.2	4.2	6.6	1.0	2.2	1.3	.64
12	5.2	2.6	4.4	7.8	2.4	3.3	3.3	4.9	1.1	2.1	1.2	.74
13	3.4	2.6	4.0	8.4	131	3.1	42	4.0	5.3	168	1.2	1.4
14	6.9	2.3	3.6	8.4	18	17	9.9	67	7.1	9.9	1.1	7.8
15	4.1	3.5	3.7	4.7	6.0	9.9	106	69	1.6	4.5	1.0	3.0
16	2.5	2.8	3.7	2.9	4.3	8.6	111	22	1.4	3.5	.93	.77
17	2.1	2.3	4.2	3.1	3.2	98	85	6.5	2.0	3.2	.93	.64
18	2.0	2.3	4.0	3.4	3.3	15	9.4	4.8	22	2.9	.93	.64
19	2.1	2.5	2.9	3.9	28	6.6	6.4	4.2	5.6	2.4	.93	1.2
20	2.0	2.7	12	4.9	14	5.1	6.8	9.5	2.2	2.3	.86	.59
21	2.0	2.4	4.9	4.2	9.6	5.1	5.3	4.4	12	2.2	.86	.51
22	1.9	2.1	3.6	3.8	10	46	32	3.7	501	2.2	.79	.55
23	2.0	2.0	3.0	4.3	5.1	12	14	3.0	35	2.0	.79	.52
24	77	12	3.3	5.0	5.9	5.8	36	2.9	9.8	2.0	.79	.47
25	13	149	3.1	6.7	17	4.4	8.6	2.6	32	5.1	.79	.49
26	8.0	12	3.0	3.4	71	3.9	6.0	2.4	6.9	4.0	1.0	.55
27	4.1	16	3.1	2.8	20	3.5	5.2	2.3	4.2	1.5	16	.60
28	3.3	10	2.8	2.8	32	3.3	4.2	2.3	3.4	1.5	13	.63
29	2.6	201	2.5	2.8	33	3.0	4.0	2.2	9.3	1.4	1.3	.56
30	2.6	30	3.6	2.4	------	2.8	3.6	2.2	78	1.3	1.0	4.7
31	2.8	------	3.2	2.0	------	2.8	------	2.7	------	2.1	.86	------
TOTAL	626.2	564.9	207.9	268.4	644.0	406.2	549.6	432.7	755.4	285.9	62.46	44.89
MEAN	20.2	18.8	6.71	8.66	22.2	13.1	18.3	14.0	25.2	9.22	2.01	1.50
MAX	439	201	54	44	162	98	111	69	501	168	16	11
MIN	1.7	2.0	2.5	2.0	2.1	2.8	2.4	2.2	1.0	1.3	.79	.47
CFSM	2.71	2.52	.90	1.16	2.98	1.76	2.45	1.88	3.38	1.24	.27	.20
IN.	3.12	2.82	1.04	1.34	3.21	2.03	2.74	2.16	3.77	1.43	.31	.22

CAL YR 1971 TOTAL 5,759.71 MEAN 15.8 MAX 1,300 MIN .25 CFSM 2.12 IN 28.72
WTR YR 1972 TOTAL 4,848.55 MEAN 13.2 MAX 501 MIN .47 CFSM 1.77 IN 24.18

PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1030	6.42	2,090	4-16	2040	4.65	1,200
11-25	0415	3.75	700	5-14	2245	3.80	724
11-29	1800	4.91	1,320	6-22	1130	6.66	2,240
2-03	2130	4.31	1,030	6-30	1730	4.31	1,020
2-13	1310	3.62	616	7-13	1225	5.31	1,520
4-15	1255	3.88	778				

01478000 Christina River at Coochs Bridge, Del.

LOCATION.--Lat 39°38'16", long 75°43'46", New Castle County, on left bank 82 ft downstream from highway bridge, 0.3 mile south of Coochs Bridge, 3.3 miles upstream from Muddy Run, 3.5 miles south of Newark, and 23.0 miles upstream from mouth.

DRAINAGE AREA.--20.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 25.6 ft above mean sea level. Prior to Sept. 14, 1944, non-recording gage on upstream side of bridge at same datum. Sept. 14, 1944 to May 13, 1969, recording gage at site 70 ft upstream at same datum.

AVERAGE DISCHARGE.--29 years, 25.8 cfs (17.09 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,320 cfs June 22 (gage height, 11.35 ft); minimum daily, 3.3 cfs Sept. 24.
Period of record: Maximum discharge, 3,320 cfs June 22, 1972; maximum gage height, 12.41 ft May 1, 1947; minimum daily discharge, 0.2 cfs Aug. 7, 14, 18, 21, 27, 28, 1966.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Low and medium flow regulated by mill above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	19	35	19	18	37	22	20	15	47	10	7.7
2	66	84	27	72	19	35	22	18	13	24	11	46
3	32	322	24	30	186	89	25	31	13	69	8.8	12
4	17	56	23	26	193	39	32	38	12	50	9.4	7.4
5	15	28	21	110	26	32	23	24	14	30	9.3	6.8
6	14	23	21	35	23	26	20	20	12	25	8.6	6.6
7	11	42	123	25	25	25	25	20	13	22	9.9	6.2
8	10	23	79	22	19	24	30	19	11	20	11	6.0
9	9.8	21	35	63	18	22	22	81	12	20	8.6	6.2
10	787	21	30	98	17	22	20	92	11	19	12	5.8
11	95	20	27	37	16	22	21	27	11	17	8.3	5.6
12	35	19	24	30	80	22	20	22	11	17	6.7	6.2
13	25	19	24	28	580	22	100	19	16	96	7.3	9.1
14	23	18	23	32	100	46	48	59	23	30	11	20
15	21	18	23	23	32	39	168	132	25	18	6.0	15
16	19	19	23	19	28	37	79	66	25	16	9.5	6.6
17	18	19	21	19	24	257	481	23	25	21	5.5	6.0
18	19	19	22	19	28	50	48	17	28	16	11	5.9
19	17	19	20	21	50	36	33	17	32	15	6.9	6.1
20	17	19	33	21	46	32	27	20	32	14	6.5	5.8
21	16	18	25	23	43	30	26	18	74	14	6.7	5.8
22	15	18	21	21	41	100	43	17	1,300	12	8.3	5.4
23	16	17	20	24	30	31	86	15	203	12	5.9	5.0
24	217	22	21	25	31	29	76	15	75	12	6.3	3.3
25	61	359	21	26	60	27	43	15	89	11	8.6	5.3
26	238	48	20	21	180	25	30	16	44	12	5.7	7.3
27	43	30	20	19	59	24	23	14	29	10	6.2	6.5
28	25	27	20	21	46	23	23	14	23	11	22	7.6
29	21	285	19	19	43	22	22	14	37	11	6.6	6.9
30	20	142	20	19	------	22	21	12	66	10	6.6	7.0
31	19	------	21	19	------	22	------	17	------	13	4.7	------
TOTAL	1,950.6	1,793	886	986	2,061	1,269	1,659	932	2,294	714	264.9	257.1
MEAN	62.9	59.8	28.6	31.8	71.1	40.9	55.3	30.1	76.5	23.0	8.55	8.57
MAX	787	359	123	110	580	257	481	132	1,300	96	22	46
MIN	9.8	17	19	19	16	22	20	12	11	10	4.7	3.3
CFSM	3.07	2.92	1.40	1.55	3.47	2.00	2.70	1.47	3.73	1.12	.42	.42
IN.	3.54	3.25	1.61	1.79	3.74	2.30	3.01	1.69	4.16	1.30	.48	.47

CAL YR 1971 TOTAL 13,099.1 MEAN 35.9 MAX 787 MIN 1.7 CFSM 1.75 IN 23.77
WTR YR 1972 TOTAL 15,066.6 MEAN 41.2 MAX 1,300 MIN 3.3 CFSM 2.01 IN 27.34

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1345	11.01	2,870	4-13	0400	10.00	1,300
11-29	2200	9.85	1,150	6-22	1630	11.35	3,320
2-13	*	*	*				

* Unknown (discharge greater than base).

01478500 White Clay Creek above Newark, Del.

LOCATION.--Lat 39°42'52", long 75°45'34", New Castle County, on right bank at downstream wingwall of abandoned bridge, 0.9 mile downstream from small tributary, 1.7 miles southeast of Delaware-Maryland-Pennsylvania State corner, 2.1 miles downstream from Pennsylvania-Delaware State line, 2.2 miles north of Newark, and 12.8 miles upstream from mouth.

DRAINAGE AREA.--66.7 sq mi.

PERIOD OF RECORD.--February 1952 to September 1959, July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 78.6 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 76.7 cfs (15.62 inches per year)

EXTREMES.--Current year: Maximum discharge, 10,200 cfs June 22 (gage height, 13.77 ft), from rating curve extended as explained below; minimum daily, 43 cfs Sept. 20, 21.
Period of record: Maximum discharge, 10,200 cfs June 22, 1972 (gage height, 13.77 ft), from rating curve extended above 1,800 cfs on basis of contracted-opening measurements at gage heights 9.97 and 13.77 ft; minimum, 4.6 cfs Dec. 7, 1954 (gage height, 0.55 ft), result of freezeup; minimum daily, 5.6 cfs Sept. 10, 1966.

REMARKS.--Records poor. Records do not include a negligible diversion above station by plant of E. I. du Pont de Nemours & Co. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	100	220	85	76	235	108	120	96	180	81	45
2	106	120	155	154	81	217	109	110	85	130	76	107
3	115	254	140	115	180	320	105	180	78	170	74	68
4	101	150	125	101	341	165	119	248	77	150	73	57
5	91	110	120	142	111	145	111	150	81	130	71	53
6	85	130	115	110	100	135	106	120	75	140	67	51
7	80	110	220	97	93	130	109	110	78	115	67	48
8	75	110	240	93	88	130	111	100	70	110	71	47
9	75	105	160	104	76	115	104	180	68	120	67	48
10	1,380	105	140	160	72	110	101	230	67	105	64	46
11	217	105	130	114	70	105	105	130	65	96	60	45
12	130	100	120	104	70	115	101	115	63	91	60	44
13	110	96	110	102	886	110	194	105	68	538	60	47
14	100	92	105	108	210	150	139	140	89	192	61	51
15	94	88	100	95	128	170	323	191	75	134	60	57
16	90	90	98	90	126	130	298	150	69	113	57	46
17	88	88	96	84	117	418	555	120	97	115	55	44
18	86	86	94	82	109	157	172	110	80	104	56	44
19	84	90	90	90	157	129	130	100	124	100	57	46
20	82	90	106	89	140	123	120	110	77	94	55	43
21	80	86	100	91	135	121	120	105	126	91	51	43
22	80	84	93	91	127	230	180	100	3,560	88	50	45
23	90	82	98	96	119	178	183	96	624	83	49	45
24	230	120	93	95	117	131	208	92	255	82	48	45
25	150	540	93	92	118	121	145	88	280	80	47	44
26	180	140	92	83	229	118	130	86	180	78	47	46
27	120	110	91	80	165	115	120	84	145	76	82	44
28	105	100	91	85	168	113	115	82	130	78	67	47
29	100	280	90	85	214	111	110	80	170	77	55	45
30	99	480	92	83	------	111	110	82	240	76	49	53
31	98	------	95	80	------	110	------	91	------	78	46	------
TOTAL	4,588	4,241	3,702	3,080	4,663	4,768	4,641	3,805	7,292	3,814	1,883	1,494
MEAN	148	141	119	99.4	161	154	155	123	243	123	60.7	49.8
MAX	1,380	540	240	160	886	418	555	248	3,560	538	82	107
MIN	75	82	88	80	70	105	101	80	63	76	46	43
CFSM	2.22	2.11	1.78	1.49	2.41	2.31	2.32	1.84	3.64	1.84	.91	.75
IN.	2.56	2.37	2.06	1.72	2.60	2.66	2.59	2.12	4.07	2.13	1.05	.83

CAL YR 1971 TOTAL 44,543 MEAN 122 MAX 1,940 MIN 27 CFSM 1.83 IN 24.84
WTR YR 1972 TOTAL 47,971 MEAN 131 MAX 3,560 MIN 43 CFSM 1.96 IN 26.75

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1345	8.92	3,770	6-22	1745	13.77	10,200
11-25	1130	5.68	1,710	7-13	1500	5.30	1,510
2-13	1515	7.23	2,620				

01479000 White Clay Creek near Newark, Del.

LOCATION.--Lat 39°42'01", long 75°41'00", New Castle County, on left bank 300 ft upstream from Baltimore & Ohio Railroad bridge, 0.4 mile downstream from Pike Creek, 3.5 miles east of Newark, and 5.5 miles upstream from mouth.

DRAINAGE AREA.--87.8 sq mi.

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.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 11.6 ft above mean sea level. Nov. 17, 1931, to Sept. 30, 1936, at site 15 ft downstream at same datum.

AVERAGE DISCHARGE.--32 years, 110 cfs (17.01 inches per year).

EXTREMES.--Current year: Maximum discharge, 9,080 cfs June 22 (gage height, 17.74 ft) from rating curve extended; minimum, 45 cfs Aug. 26; minimum daily, 46 cfs Sept. 24.

Period of record: Maximum discharge, 9,080 cfs June 22, 1972 (gage height, 17.74 ft) from rating curve extended above 6,000 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 4.7 cfs Sept. 11, 1966; minimum gage height, 3.66 ft July 26, 1954; minimum daily discharge, 5.0 cfs Sept. 10, 1966.

Maximum stage known, 23 ft in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

REMARKS.--Records good except those for January and February, which are poor. Slight diurnal fluctuation at low flow caused by mills above station. Records do not include a negligible diversion above station by plant of E. I. du Pont de Nemours & Co.

REVISIONS (WATER YEARS).--WSP 1051: 1933(M). WSP 1382: 1932, 1934.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	132	260	130	96	316	131	156	119	222	86	52
2	148	263	210	210	100	324	131	149	102	156	78	173
3	138	491	186	170	310	424	126	224	98	192	76	84
4	105	186	176	140	500	242	150	329	94	165	75	62
5	99	149	168	190	150	212	138	186	109	167	73	59
6	96	170	156	175	130	180	127	154	94	166	71	57
7	90	147	322	146	120	176	135	147	97	139	70	56
8	86	144	333	130	110	174	139	140	85	133	82	54
9	87	144	208	180	100	152	125	267	83	137	69	54
10	2,550	144	180	220	94	150	120	329	81	124	64	53
11	389	142	165	195	94	146	123	177	78	114	61	51
12	200	135	155	155	94	152	120	147	76	110	62	54
13	158	130	145	140	1,300	148	270	139	102	640	70	61
14	146	128	135	155	260	206	216	196	126	218	67	83
15	136	130	140	132	190	218	447	337	98	137	60	73
16	130	132	140	120	170	182	478	211	85	126	57	54
17	126	124	135	105	155	647	984	151	130	132	57	50
18	120	122	127	110	145	252	278	139	112	117	64	50
19	117	123	122	115	270	181	215	134	165	113	60	53
20	114	124	149	120	240	161	194	141	106	105	54	50
21	116	122	134	120	210	155	192	139	159	100	52	49
22	112	116	123	120	189	294	268	134	3,980	97	50	51
23	112	111	113	125	155	285	283	124	1,470	92	51	48
24	442	123	112	120	155	176	314	116	353	87	50	46
25	273	760	119	115	179	153	226	112	321	85	48	49
26	255	240	116	105	405	147	187	107	216	81	49	50
27	155	176	116	105	278	141	169	106	175	79	95	48
28	141	162	117	110	245	137	159	106	154	81	94	54
29	133	494	116	110	298	134	156	103	199	78	60	49
30	130	681	119	105	------	133	151	104	277	80	56	59
31	130	------	123	100	------	133	------	122	------	88	53	------
TOTAL	7,131	6,235	4,930	4,262	6,742	6,531	6,752	5,126	9,344	4,361	2,014	1,786
MEAN	230	208	159	137	232	211	225	165	311	141	65.0	59.5
MAX	2,550	760	333	220	1,300	647	984	337	3,980	640	95	173
MIN	86	111	112	100	94	133	120	103	76	78	48	46
CFSM	2.62	2.37	1.81	1.56	2.64	2.40	2.56	1.88	3.54	1.61	.74	.68
IN.	3.02	2.64	2.09	1.81	2.86	2.77	2.86	2.17	3.96	1.85	.85	.76

CAL YR 1971 TOTAL 62,135 MEAN 170 MAX 2,550 MIN 28 CFSM 1.94 IN 26.33
WTR YR 1972 TOTAL 65,214 MEAN 178 MAX 3,980 MIN 46 CFSM 2.03 IN 27.63

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1230	14.62	4,990	4-17	0130	10.70	2,080
2-13	0700	12.25	3,060	6-22	2015	17.74	9,080

01480000 Red Clay Creek at Wooddale, Del.

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

DRAINAGE AREA.--47.0 sq mi.

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

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

AVERAGE DISCHARGE.--29 years, 61.7 cfs (17.83 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,120 cfs June 22 (gage height 8.96 ft); minimum, 4.9 cfs Aug. 22, Sept. 10, result of regulation; minimum daily, 23 cfs Sept. 24.
Period of record: Maximum discharge, 4,780 cfs Sept. 12, 1960 (gage height, 9.93 ft); minimum, 2.9 cfs Sept. 4, 1966; minimum daily, 4.5 cfs Sept. 4, 1966.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Water-quality records for the current water year are published in Part 2 of this report.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	81	120	68	60	191	83	95	78	133	55	29
2	86	92	102	146	64	170	82	92	61	95	51	95
3	79	204	94	100	161	296	78	137	58	86	48	46
4	69	116	91	87	307	141	98	179	57	84	49	35
5	68	95	85	139	89	127	84	107	64	96	48	32
6	66	86	88	93	78	107	79	95	57	92	44	31
7	62	110	164	80	78	106	79	92	57	81	44	30
8	60	86	154	75	67	104	84	86	52	76	52	29
9	60	81	110	95	63	96	74	156	50	79	42	29
10	1,170	79	102	165	62	97	72	166	48	72	39	26
11	225	78	95	102	62	93	[illegible]	101	45	67	38	26
12	122	76	88	88	61	97	74	88	45	64	38	28
13	105	76	86	86	662	94	145	82	59	481	40	31
14	98	77	83	89	194	126	104	105	78	130	40	31
15	92	79	84	79	114	124	275	189	57	89	36	31
16	86	78	84	69	98	101	227	113	51	76	35	28
17	83	73	80	58	86	391	429	93	66	81	36	26
18	81	72	79	64	85	152	143	85	64	72	39	26
19	79	72	75	72	182	119	119	81	80	67	36	28
20	76	72	97	72	127	104	116	92	60	64	33	26
21	74	69	87	74	112	102	110	84	92	62	34	26
22	75	65	78	72	107	198	153	78	1,800	60	29	26
23	74	61	74	70	93	145	147	73	368	57	31	24
24	256	72	79	77	93	109	166	69	159	55	30	23
25	162	436	76	76	100	99	123	66	172	55	30	25
26	111	127	74	65	200	93	110	64	118	53	29	26
27	93	105	73	63	145	88	101	62	100	53	91	25
28	87	96	73	69	150	86	98	62	89	53	50	26
29	82	354	69	65	187	85	95	60	111	51	36	24
30	79	226	79	65	------	85	92	61	207	53	32	29
31	79	------	78	62	------	85	------	78	------	55	30	------
TOTAL	4,010	3,390	2,801	2,577	3,887	4,013	3,716	2,991	4,403	2,692	1,265	917
MEAN	129	113	90.4	83.1	134	129	124	96.5	147	86.8	40.8	30.6
MAX	1,170	436	164	165	662	391	429	189	1,800	481	91	95
MIN	60	61	69	58	60	85	72	60	45	51	29	23
CFSM	2.74	2.40	1.92	1.77	2.85	2.74	2.64	2.05	3.13	1.85	.87	.65
IN.	3.17	2.68	2.22	2.04	3.08	3.18	2.94	2.37	3.48	2.13	1.00	.73

CAL YR 1971 TOTAL 35,754 MEAN 98.0 MAX 1,450 MIN 16 CFSM 2.09 IN 28.30
WTR YR 1972 TOTAL 36,662 MEAN 100 MAX 1,800 MIN 23 CFSM 2.13 IN 29.02

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1530	7.24	2,920	6-22	1730	8.96	4,120
11-29	2015	5.09	1,360	7-13	1430	5.32	1,520
2-13	1530	5.66	1,760				

01480100 Little Mill Creek at Elsmere, Del.

LOCATION.--Lat 39°44'05", long 75°35'14", New Castle County, on left bank at downstream side of highway bridge on North du Pont Road at Elsmere, 0.5 mile downstream from unnamed tributary, and 2.2 miles upstream from mouth.

DRAINAGE AREA.--6.70 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Prior to March 19, 1964, nonrecording gage at same site and datum. Datum of gage is 48.62 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 9.59 cfs (19.44 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,380 cfs Oct. 10 (gage height, 6.37 ft), from rating curve extended above 1,000 cfs; minimum, 0.93 cfs Sept. 10, 23.
Period of record: Maximum discharge, 3,960 cfs Aug. 10, 1967 (gage height, 8.58 ft), from rating curve extended above 380 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.10 cfs July 17, 18, Sept. 18, 19, 1966.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.4	8.9	3.8	4.1	12	5.8	6.8	8.0	8.7	3.5	1.7
2	9.7	38	7.2	22	4.7	9.7	5.2	6.4	5.0	5.0	3.1	20
3	5.0	56	6.8	7.2	82	34	5.2	41	4.4	9.5	3.0	2.8
4	4.4	12	6.4	6.8	43	11	12	25	4.1	5.8	3.0	2.2
5	4.4	7.2	5.5	30	7.6	9.3	5.8	12	5.5	8.3	2.8	2.1
6	4.1	6.8	6.1	8.4	5.0	7.6	5.2	7.6	4.1	5.2	2.4	2.1
7	3.5	11	42	6.4	5.5	7.6	9.0	6.8	3.8	4.1	2.4	1.9
8	3.5	6.1	17	5.5	3.3	7.2	7.2	7.7	3.3	6.6	2.8	1.7
9	3.3	5.8	9.3	25	3.1	6.4	5.0	39	3.3	4.1	2.2	1.7
10	306	5.8	8.0	28	3.3	6.4	5.0	27	3.1	3.3	2.1	1.5
11	21	5.5	6.8	10	3.0	5.8	6.3	9.3	2.8	3.1	1.9	1.5
12	8.4	5.2	6.1	8.9	2.8	5.8	5.0	6.8	2.6	3.1	2.2	1.9
13	6.4	5.0	6.1	9.3	124	5.8	35	6.1	7.7	95	2.1	3.7
14	6.1	4.4	5.8	8.9	20	18	9.3	31	7.2	12	2.1	9.4
15	5.8	5.8	5.8	6.1	9.7	9.7	68	62	3.8	8.0	1.9	3.1
16	5.2	5.0	5.8	5.2	7.6	12	72	23	3.0	7.2	1.9	1.9
17	5.0	4.7	6.1	5.2	7.2	77	78	10	3.8	6.8	2.1	1.9
18	4.7	4.4	5.8	5.2	9.8	13	13	8.4	13	5.5	2.2	1.7
19	4.7	4.4	5.0	5.5	92	7.6	10	7.2	17	5.8	2.2	1.9
20	4.7	4.4	11	6.1	29	6.4	11	9.7	4.4	4.7	1.9	1.6
21	4.4	4.1	5.8	5.8	20	6.4	8.9	7.2	23	4.7	1.9	1.6
22	4.4	3.8	5.2	5.2	15	39	36	6.4	298	4.7	1.9	1.4
23	4.4	3.5	4.7	5.5	9.7	13	15	5.8	36	5.5	1.9	1.0
24	65	13	5.0	5.8	10	8.4	33	5.5	9.3	4.1	1.9	1.2
25	10	90	4.4	6.8	19	7.2	12	5.0	27	3.8	1.9	1.4
26	18	10	4.4	4.7	65	6.4	8.9	4.7	7.6	3.3	2.8	1.4
27	7.2	11	4.4	4.4	16	6.1	7.6	4.4	5.5	3.3	8.4	1.4
28	5.5	7.6	4.1	6.8	16	5.8	7.2	4.7	4.7	3.3	11	1.4
29	5.0	105	3.8	4.7	14	5.8	6.8	4.4	14	3.3	2.2	1.3
30	4.7	29	4.7	4.4	------	5.8	6.8	4.4	21	3.8	2.1	4.9
31	4.4	------	4.1	4.4	------	5.8	------	8.4	------	4.7	1.9	------
TOTAL	553.0	478.9	232.1	272.0	651.4	382.0	515.2	413.7	556.0	256.3	85.7	83.3
MEAN	17.8	16.0	7.49	8.77	22.5	12.3	17.2	13.3	18.5	8.27	2.76	2.78
MAX	306	105	42	30	124	77	78	62	298	95	11	20
MIN	3.3	3.5	3.8	3.8	2.8	5.8	5.0	4.4	2.6	3.1	1.9	1.0
CFSM	2.66	2.39	1.12	1.31	3.36	1.84	2.57	1.99	2.76	1.23	.41	.41
IN.	3.07	2.66	1.29	1.51	3.62	2.12	2.86	2.30	3.09	1.42	.48	.46

CAL YR 1971 TOTAL 5,521.0 MEAN 15.1 MAX 735 MIN 1.0 CFSM 2.25 IN 30.65
WTR YR 1972 TOTAL 4,479.6 MEAN 12.2 MAX 306 MIN 1.0 CFSM 1.82 IN 24.87

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1000	6.37	1,380	2-13	1330	4.17	470
11-02	2000	4.19	476	4-16	2030	4.62	638
11-29	1830	4.44	566	6-22	1200	5.85	1,130
2-03	2230	4.24	494	7-13	1130	4.88	742

01481000 Brandywine Creek at Chadds Ford, Pa.

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run and 1,200 ft downstream from highway bridge on U.S. Highway 1.
DRAINAGE AREA.--287 sq mi, including that of Harvey Run.
PERIOD OF RECORD.--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.
GAGE.--Water-stage recorder. Datum of gage is 150.45 ft above mean sea level. Prior to May 21, 1927, nonrecording gage at same site and datum.
AVERAGE DISCHARGE.--52 years, 381 cfs (18.03 inches per year).
EXTREMES.--Current year: Maximum discharge, 23,800 cfs June 22 (gage height, 16.56 ft), from rating curve extended as explained below; minimum, 123 cfs Sept. 29 (gage height, 1.26 ft).
Period of record: Maximum discharge, 23,800 cfs June 22, 1972 (gage height, 16.56 ft), from rating curve extended above 7,000 cfs on basis of area-velocity study; minimum, 4.9 cfs Oct. 2, 1941 (gage height, 0.28 ft); minimum daily, 42 cfs Sept. 12, 1966.
REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of the Pennsylvania annual report.
REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1202: 1919-20, 1932-33, 1936, 1938(P), 1942, (maximum only, 1917-18, 1922-31, 1934, 1939, 1944-46).
Revised figures of discharge, in cubic feet per second, for the water year 1971, superseding figures published in WRD Pa. 1971 and WRD Md. and Del. 1971 are given below:

Nov. 13, 1970.....1,950 Nov. 14, 1970..... 726 Nov. 15, 1970.....1,220

Month	CFS-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
November 1970	13,462	1,950	143	449	1.56	1.74
CAL YR 1970	148,853	3,290	115	408	1.42	19.28
WTR YR 1971	198,586	6,910	116	544	1.90	25.80

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	524	767	434	365	1,460	557	467	1,150	775	341	186
2	587	533	628	713	395	2,280	557	463	602	645	314	355
3	614	763	583	718	547	1,910	526	750	571	593	305	256
4	520	641	569	529	1,340	1,150	584	1,120	517	580	328	211
5	497	515	538	713	524	980	571	720	625	607	305	194
6	488	484	547	605	461	840	521	539	544	616	283	186
7	461	551	808	488	461	794	521	499	481	539	283	186
8	443	515	1,090	466	399	781	530	553	440	535	296	177
9	434	470	704	484	350	704	503	870	409	548	283	173
10	3,120	470	628	776	360	686	481	1,180	391	503	265	166
11	1,380	457	601	614	370	659	485	755	373	458	256	162
12	727	443	565	538	378	673	472	625	355	431	256	173
13	596	439	547	529	2,140	668	870	607	359	1,410	269	194
14	560	425	524	578	2,240	772	940	611	440	850	269	186
15	529	434	533	497	826	920	1,060	820	354	535	251	177
16	490	443	533	404	700	727	1,080	640	310	476	238	162
17	480	430	511	470	619	2,140	1,620	607	517	535	242	158
18	470	421	497	439	587	1,180	810	645	368	481	256	155
19	460	421	479	448	745	820	650	602	580	640	242	169
20	450	430	529	452	718	725	602	593	400	440	224	158
21	450	416	524	461	620	695	589	602	445	427	215	155
22	440	395	479	457	580	890	660	571	6,740	395	211	158
23	450	378	448	475	550	1,040	800	535	9,260	359	202	147
24	1,200	391	466	475	520	740	845	499	1,730	350	202	147
25	1,000	2,110	470	457	601	665	655	481	1,630	346	202	151
26	700	1,140	457	416	860	640	562	458	1,110	391	202	147
27	560	664	448	391	840	611	521	445	880	346	400	143
28	538	601	443	412	781	593	499	436	760	341	256	147
29	506	950	430	399	985	584	485	427	880	328	215	140
30	488	1,890	461	404	------	589	472	422	1,110	323	202	155
31	488	------	502	391	------	575	------	815	------	337	194	------
TOTAL	20,650	18,744	17,309	15,633	20,862	28,491	20,028	19,357	34,331	16,140	8,007	5,274
MEAN	666	625	558	504	719	919	668	624	1,144	521	258	176
MAX	3,120	2,110	1,090	776	2,240	2,280	1,620	1,180	9,260	1,410	400	355
MIN	434	378	430	391	350	575	472	422	310	323	194	140
CFSM	2.32	2.18	1.94	1.76	2.51	3.20	2.33	2.17	3.99	1.82	.90	.61
IN.	2.68	2.43	2.24	2.03	2.70	3.69	2.60	2.51	4.45	2.09	1.04	.68

CAL YR 1971 TOTAL 224,202 MEAN 614 MAX 6,910 MIN 143 CFSM 2.14 IN 29.06
WTR YR 1972 TOTAL 224,826 MEAN 614 MAX 9,260 MIN 140 CFSM 2.14 IN 29.14

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	2000	9.39	5,710	6-22	2300	16.56	23,800
2-14	0100	8.96	5,150				

01481500 Brandywine Creek at Wilmington, Del.

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

DRAINAGE AREA.--314 sq mi.

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

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

AVERAGE DISCHARGE.--26 years, 451 cfs (19.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 29,000 cfs June 23 (gage height, 15.49 ft) from rating curve extended above 18,000 cfs; minimum, 149 cfs Sept. 29; minimum daily, 164 cfs Sept. 29.
Period of record: Maximum discharge, 29,000 cfs June 23, 1972 (gage height 15.49 ft) from rating curve extended above 18,000 cfs; minimum, about 30 cfs Dec. 26, 1948, during period of ice effect; minimum daily, 56 cfs Aug. 23, 24, 1957.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. No diversion just above station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1432: 1948, 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	603	590	962	479	359	1,540	630	624	1,320	921	414	201
2	650	681	881	680	406	2,570	622	625	667	826	382	345
3	699	1,140	768	836	744	2,340	597	883	572	755	369	296
4	600	943	720	563	1,760	1,340	642	1,390	513	739	375	237
5	572	718	656	760	672	1,040	654	976	678	752	358	220
6	558	638	626	696	584	908	590	715	522	810	332	209
7	532	670	917	556	577	863	586	663	483	707	326	211
8	510	654	1,370	521	500	854	602	657	444	691	343	199
9	500	585	881	549	465	776	574	1,010	424	710	315	196
10	4,000	582	792	890	493	752	555	1,360	413	661	305	189
11	2,230	560	736	712	472	712	559	858	390	621	290	182
12	1,060	552	680	591	458	720	549	722	380	593	285	193
13	941	545	640	549	2,180	720	827	669	421	1,820	300	222
14	847	533	605	605	2,900	792	1,180	823	552	1,220	305	223
15	754	537	605	521	935	1,000	1,260	1,170	474	746	280	203
16	692	549	598	412	845	809	1,530	842	415	647	261	187
17	657	530	563	412	728	2,420	2,120	698	607	686	265	182
18	637	511	549	458	680	1,390	1,060	734	508	638	280	179
19	622	503	521	451	953	899	915	697	648	782	270	192
20	602	516	570	458	776	836	865	683	547	561	253	182
21	596	499	570	458	712	800	806	679	510	536	245	178
22	590	482	528	458	736	990	827	627	5,530	501	233	183
23	585	455	493	472	626	1,230	1,030	588	14,300	453	229	174
24	1,340	467	507	479	648	863	1,040	557	1,990	444	225	168
25	1,290	2,560	514	465	633	776	893	541	1,670	429	225	176
26	857	1,480	500	424	944	744	757	518	1,030	482	225	174
27	711	846	493	400	935	704	699	506	914	431	424	171
28	652	730	486	412	863	680	668	501	926	417	290	172
29	620	1,310	472	400	1,020	656	648	493	1,000	399	245	164
30	585	2,460	486	412	------	664	627	489	1,440	391	225	182
31	567	------	542	400	------	664	------	860	------	407	221	------
TOTAL	26,659	23,835	20,231	16,479	24,604	32,052	24,912	23,158	40,288	20,776	9,095	5,990
MEAN	860	795	653	532	848	1,034	830	747	1,343	670	293	200
MAX	4,000	2,560	1,370	890	2,900	2,570	2,120	1,390	14,300	1,820	424	345
MIN	500	455	472	400	359	656	549	489	380	391	221	164
CFSM	2.74	2.53	2.08	1.69	2.70	3.29	2.64	2.38	4.28	2.13	.93	.64
IN.	3.16	2.82	2.40	1.95	2.91	3.80	2.95	2.74	4.77	2.46	1.08	.71

CAL YR 1971 TOTAL 277,556 MEAN 760 MAX 9,770 MIN 148 CFSM 2.42 IN 32.88
WTR YR 1972 TOTAL 268,079 MEAN 732 MAX 14,300 MIN 164 CFSM 2.33 IN 31.76

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	2300	8.34	6,010	6-23	0330	15.49	29,000
2-14	0400	7.97	5,460				

01483200 Blackbird Creek at Blackbird, Del.

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

DRAINAGE AREA.--3.85 sq mi.

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 19.38 ft above mean sea level. Mar. 5, 1951 to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft upstream at same datum.

AVERAGE DISCHARGE.--16 years, 4.47 cfs (15.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 712 cfs June 22 (gage height, 5.04 ft), from rating curve extended above 200 cfs as explained below; minimum 0.72 cfs Aug. 27 (gage height 0.96 ft).
Period of record: Maximum discharge, 712 cfs June 22, 1972 (gage height, 5.04 ft), from rating curve extended above 200 cfs on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	6.1	12	5.3	4.8	9.6	5.1	5.2	4.1	14	2.8	1.1
2	7.0	6.7	8.9	7.8	5.7	9.0	5.0	5.0	2.9	8.2	2.5	6.9
3	7.8	17	7.6	8.7	11	12	4.7	6.6	2.7	12	2.4	4.3
4	3.5	16	7.3	6.9	33	12	6.4	8.2	2.5	24	2.3	1.7
5	3.0	9.4	6.9	16	9.7	9.3	6.1	5.6	3.9	9.6	2.3	1.6
6	3.7	6.8	6.8	13	6.8	7.9	5.0	4.9	3.6	9.4	2.0	1.5
7	2.7	7.2	27	7.6	7.8	7.4	6.5	4.5	5.3	6.9	2.0	1.3
8	2.4	6.6	42	6.7	5.9	7.2	9.9	4.4	2.7	6.3	2.2	1.3
9	2.3	6.2	15	8.0	5.0	6.7	6.4	16	2.4	6.6	1.8	1.2
10	42	6.4	11	19	4.9	6.5	5.3	18	2.2	5.6	1.6	1.1
11	20	6.0	9.8	13	4.8	6.4	5.1	7.5	1.9	4.9	1.6	1.1
12	6.8	5.8	9.8	10	4.8	6.5	4.7	5.5	2.0	4.7	1.6	1.2
13	4.6	5.6	8.2	9.3	32	6.4	12	4.9	1.9	14	2.2	1.4
14	4.2	5.3	7.5	8.4	29	8.9	12	8.6	3.5	17	2.1	1.3
15	3.9	5.4	7.3	7.4	12	10	12	34	2.5	5.7	1.7	1.6
16	3.8	5.4	7.2	5.5	9.2	7.9	13	11	1.9	4.9	1.5	1.3
17	3.7	5.1	6.9	4.7	8.1	28	24	6.7	3.1	9.5	1.5	1.1
18	3.5	5.0	6.5	5.5	8.9	21	11	5.7	51	8.5	1.8	1.1
19	3.4	5.0	6.2	6.5	43	9.5	7.2	5.6	33	8.1	1.6	1.3
20	3.2	5.0	9.1	6.8	25	7.2	6.9	6.4	6.6	5.1	1.4	1.1
21	3.2	4.9	10	6.9	12	6.7	6.6	5.7	6.1	4.4	1.3	1.3
22	3.2	4.6	7.2	5.4	11	8.4	11	5.2	338	3.9	1.2	1.6
23	3.3	4.4	6.2	6.2	10	9.0	16	4.5	100	3.4	1.2	1.2
24	53	4.9	6.3	6.2	10	6.7	9.2	4.0	29	3.1	1.2	1.1
25	22	57	6.2	6.1	16	5.9	7.6	3.7	32	2.9	1.2	1.3
26	15	21	6.0	5.5	38	5.7	6.4	3.3	17	2.6	1.1	1.2
27	12	12	6.0	5.1	19	5.5	5.9	3.2	11	2.7	1.0	1.1
28	8.5	13	5.9	5.5	12	5.4	5.5	3.1	9.0	2.9	3.5	1.4
29	6.9	15	5.7	5.6	11	5.2	5.4	3.0	11	2.8	1.6	1.3
30	6.4	31	5.8	5.6	------	5.2	5.3	3.1	39	2.9	1.3	2.5
31	6.2	------	5.8	5.4	------	5.3	------	3.2	------	3.1	1.1	------
TOTAL	273.7	308.8	293.1	239.8	410.4	268.5	246.2	216.3	731.8	219.7	54.6	48.5
MEAN	8.83	10.3	9.45	7.74	14.2	8.66	8.21	6.98	24.4	7.09	1.76	1.62
MAX	53	57	42	19	43	28	24	34	338	24	3.5	6.9
MIN	2.3	4.4	5.7	4.7	4.8	5.2	4.7	3.0	1.9	2.6	1.0	1.1
CFSM	2.29	2.68	2.45	2.01	3.69	2.25	2.13	1.81	6.34	1.84	.46	.42
IN.	2.64	2.98	2.83	2.32	3.97	2.59	2.38	2.09	7.07	2.12	.53	.47

CAL YR 1971 TOTAL 2,212.66 MEAN 6.06 MAX 91 MIN .19 CFSM 1.57 IN 21.38
WTR YR 1972 TOTAL 3,311.40 MEAN 9.05 MAX 338 MIN 1.0 CFSM 2.35 IN 32.00

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1630	2.46	85	2-19	1445	2.30	71
10-24	1445	2.61	105	5-15	0645	2.17	53
11-25	1130	2.54	96	6-18	1130	2.60	104
12-07	2245	2.37	76	6-22	1630	5.04	712
2-04	0530	2.14	53	6-30	1015	2.31	67
2-13	2045	2.28	67				

01483700 St. Jones River at Dover, Del.

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

DRAINAGE AREA.--31.9 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.50 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 33.3 cfs (14.18 inches per year).

EXTREMES.--Current year: Maximum discharge, 996 cfs June 23 (gage height, 7.52 ft); minimum, 5.0 cfs Sept. 10, 11.
Period of record: Maximum discharge, 1,900 cfs Sept. 13, 1960 (gage height, 9.45 ft, from floodmark); no flow at times in 1959, 1961, 1962.

REMARKS.--Records good. Flow affected by Silver Lake. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	69	166	43	37	94	32	40	27	100	16	5.9
2	25	62	128	48	40	81	32	38	23	79	13	66
3	34	85	90	54	59	102	30	48	18	50	12	79
4	48	112	72	68	132	112	32	63	16	40	12	38
5	42	114	63	100	126	106	38	58	17	52	11	16
6	33	92	58	134	86	76	36	42	17	60	11	11
7	29	77	204	112	63	62	37	36	18	60	11	9.5
8	25	63	542	77	50	58	53	31	15	42	14	9.0
9	22	62	354	68	40	49	53	86	13	32	11	9.0
10	64	57	208	102	34	47	43	162	13	29	9.0	7.1
11	138	52	152	142	33	43	36	132	9.0	26	7.1	5.9
12	140	49	120	126	33	43	31	74	9.0	23	7.1	7.1
13	90	48	98	98	98	43	64	47	9.5	68	9.5	8.0
14	57	44	83	92	228	45	136	45	12	178	16	14
15	42	43	74	88	172	52	128	85	12	146	13	30
16	33	42	69	66	112	57	106	110	14	72	9.0	22
17	30	38	64	47	81	81	150	68	39	58	8.0	13
18	28	38	60	42	68	126	146	45	150	86	9.5	10
19	27	38	53	47	167	110	98	39	242	56	11	12
20	26	32	63	53	258	69	64	42	144	34	8.4	9.5
21	25	38	77	56	156	52	52	43	66	28	7.1	10
22	24	34	81	56	120	50	65	39	364	24	7.1	11
23	24	31	66	53	86	54	122	33	876	20	7.1	8.4
24	171	36	56	52	81	53	136	28	501	18	7.6	8.0
25	379	170	52	53	104	43	94	23	261	16	7.6	8.0
26	358	282	50	48	234	38	68	20	162	15	7.6	8.4
27	384	218	49	43	282	34	54	20	110	13	6.7	8.4
28	241	178	49	43	178	33	47	19	72	15	9.0	9.0
29	150	160	47	42	122	31	44	18	58	15	8.4	9.5
30	108	175	45	42	------	32	42	18	87	15	7.1	13
31	81	------	45	40	------	33	------	20	------	16	6.3	------
TOTAL	2,900	2,539	3,338	2,135	3,280	1,909	2,063	1,572	3,374.5	1,486	300.2	475.7
MEAN	93.5	84.6	108	68.9	113	61.6	68.8	50.7	112	47.9	9.68	15.9
MAX	384	282	542	142	282	126	150	162	876	178	16	79
MIN	22	31	45	40	33	31	30	18	9.0	13	6.3	5.9
CFSM	2.93	2.65	3.39	2.16	3.54	1.93	2.16	1.59	3.51	1.50	.30	.50
IN.	3.38	2.96	3.89	2.49	3.82	2.23	2.41	1.83	3.94	1.73	.35	.55

CAL YR 1971 TOTAL 21,774.0 MEAN 59.7 MAX 757 MIN 2.1 CFSM 1.87 IN 25.39
WTR YR 1972 TOTAL 25,372.4 MEAN 69.3 MAX 876 MIN 5.9 CFSM 2.17 IN 29.59

01484000 Murderkill River near Felton, Del.

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

DRAINAGE AREA.--13.6 sq mi.

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 current year.

GAGE.--Water-stage recorder. Datum of gage is 22.18 ft above mean sea level. 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.

AVERAGE DISCHARGE.--14 years (1931-33, 1960-72), 18.3 cfs (18.27 inches per year).

EXTREMES.--Current year: Maximum discharge, 370 cfs Dec. 7 (gage height, 5.70 ft); minimum, 3.3 cfs Aug. 27.
Period of record: Maximum discharge, 2,090 cfs Aug. 4, 1967 (gage height, 8.83 ft); minimum, 0.80 cfs Aug. 28, Sept. 11, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	30	46	12	12	38	18	19	28	69	9.5	4.7
2	32	27	32	18	16	34	18	18	16	30	8.2	19
3	32	41	27	19	32	50	16	24	12	23	7.7	11
4	20	54	24	22	73	54	18	37	10	19	7.6	7.7
5	17	32	21	64	31	38	18	24	13	28	8.5	8.1
6	38	25	21	42	21	32	16	19	12	43	7.0	7.4
7	23	27	180	32	26	29	19	17	17	26	7.2	6.7
8	17	26	250	25	18	29	24	16	11	27	7.6	6.4
9	14	23	111	25	14	27	22	51	10	81	6.9	5.4
10	40	21	63	60	12	25	20	43	9.0	30	6.0	4.4
11	37	20	48	48	12	24	19	26	8.2	21	6.0	4.9
12	22	18	38	40	12	23	17	21	8.4	18	5.1	5.3
13	18	17	35	34	94	24	48	18	8.4	35	29	5.3
14	16	15	30	55	140	24	64	24	10	39	19	5.6
15	15	16	28	40	57	25	38	67	8.9	22	9.6	11
16	14	16	27	23	38	23	36	33	7.9	17	8.0	5.5
17	14	14	25	16	32	42	50	24	9.6	27	7.9	4.5
18	13	14	22	18	37	56	33	20	18	49	9.9	5.2
19	12	14	19	21	125	32	26	21	23	22	7.4	6.2
20	12	15	32	20	124	26	24	30	13	17	5.9	5.6
21	12	14	33	21	55	25	22	25	15	15	6.0	7.1
22	11	14	25	19	48	27	36	22	116	12	5.9	7.3
23	11	13	20	18	37	28	65	18	154	11	5.7	5.0
24	100	15	20	21	52	24	38	16	66	10	5.7	4.6
25	62	144	19	20	92	21	38	15	42	9.9	5.7	5.5
26	180	115	17	16	142	20	28	13	31	9.1	4.7	5.2
27	128	59	18	14	118	20	24	12	24	9.0	4.2	5.9
28	58	71	17	16	61	19	22	12	21	9.5	7.0	7.6
29	38	51	15	15	46	18	20	11	28	8.6	6.0	5.7
30	31	74	15	15	------	19	19	12	138	9.0	5.3	8.1
31	32	------	14	14	------	19	------	14	------	10	5.0	------
TOTAL	1,081	1,035	1,292	823	1,577	895	856	722	888.4	756.1	245.2	201.9
MEAN	34.9	34.5	41.7	26.5	54.4	28.9	28.5	23.3	29.6	24.4	7.91	6.73
MAX	180	144	250	64	142	56	65	67	154	81	29	19
MIN	11	13	14	12	12	18	16	11	7.9	8.6	4.2	4.4
CFSM	2.57	2.54	3.07	1.95	4.00	2.13	2.10	1.71	2.18	1.79	.58	.49
IN.	2.96	2.83	3.53	2.25	4.31	2.45	2.34	1.97	2.43	2.07	.67	.55

CAL YR 1971 TOTAL 9,298.8 MEAN 25.5 MAX 250 MIN 2.9 CFSM 1.88 IN 25.43
WTR YR 1972 TOTAL 10,372.6 MEAN 28.3 MAX 250 MIN 4.2 CFSM 2.08 IN 28.37

PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	1200	5.25	258	2-19	2015	4.96	197
11-25	1530	4.99	203	6-22	2000	5.16	237
12-07	1930	5.70	370	6-30	1245	4.91	188
2-13	2145	5.04	213				

01484100 Beaverdam Branch at Houston, Del.

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, on left bank 15 ft upstream from bridge on State Highway 384, 0.8 mile south of Houston, 2,000 ft upstream from unnamed stream, and 1.2 miles upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 sq mi.

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

GAGE.--Water-stage recorder and timber control. Datum of gage is 35.67 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 3.57 cfs (17.13 inches per year).

EXTREMES.--Current year: Maximum discharge, 50 cfs June 30 (gage height, 3.67 ft); minimum daily, 1.2 cfs Oct. 1, 8, 9.
Period of record: Maximum discharge, 176 cfs Sept. 12, 1960 (gage height, 5.55 ft); minimum daily, 0.20 cfs Sept. 18, 19, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.4	3.2	4.2	4.5	7.5	4.6	4.9	6.8	11	3.6	2.1
2	1.6	2.4	3.1	4.5	5.0	7.1	4.6	4.9	5.C	6.8	3.5	3.5
3	1.5	5.2	3.1	4.4	7.5	8.4	4.5	14	4.3	5.4	3.4	2.4
4	1.3	4.2	3.1	4.8	9.7	8.0	4.6	7.4	3.9	4.8	3.4	2.1
5	1.3	2.9	3.0	9.1	5.6	7.2	4.4	5.9	4.C	5.4	5.0	2.C
6	1.4	2.8	3.0	6.7	5.4	6.6	4.4	5.3	4.C	6.9	4.0	2.0
7	1.3	3.0	19	5.5	5.4	6.3	4.7	5.1	4.2	5.3	3.5	1.9
8	1.2	2.8	16	5.1	4.9	6.3	4.9	5.1	3.6	4.8	3.3	1.9
9	1.2	2.8	7.6	5.4	4.7	6.0	4.6	9.2	3.4	4.8	3.2	1.9
10	2.3	2.8	6.6	8.5	4.6	5.9	4.4	8.2	3.3	4.3	3.1	1.9
11	1.8	2.7	6.3	7.3	4.6	5.6	4.4	6.2	3.1	4.0	3.0	1.8
12	1.5	2.7	5.9	6.7	4.5	5.6	4.1	5.3	3.1	4.0	2.9	1.8
13	1.4	2.7	5.7	7.0	16	5.5	13	5.1	3.1	5.4	4.5	1.8
14	1.4	2.5	5.3	7.9	12	5.7	11	6.7	3.5	5.1	3.0	1.8
15	1.4	2.5	5.3	6.3	7.1	5.7	6.3	16	3.2	4.2	2.8	1.8
16	1.4	2.5	5.2	5.5	6.2	5.5	6.1	8.7	2.9	3.8	2.7	1.8
17	1.4	2.5	5.1	5.2	6.0	7.8	16	6.6	2.9	4.0	2.7	1.7
18	1.4	2.4	4.9	5.3	7.C	9.3	7.6	5.8	3.4	15	2.6	1.7
19	1.4	2.4	4.9	5.3	21	6.3	6.3	6.1	3.6	5.5	2.6	1.7
20	1.4	2.5	5.8	5.2	13	5.7	5.9	11	3.4	4.5	2.5	1.7
21	1.4	2.5	5.6	5.2	8.2	5.4	5.3	7.8	3.5	7.0	2.5	1.7
22	1.4	2.4	4.9	5.1	8.0	6.2	12	6.5	19	5.4	2.5	1.7
23	1.5	2.3	4.8	5.1	7.C	6.0	8.9	5.7	13	4.8	2.4	1.6
24	6.2	2.5	4.9	5.2	11	5.4	7.3	5.2	8.8	4.5	2.4	1.6
25	2.8	8.3	4.7	5.0	14	5.1	6.5	4.8	5.9	4.4	2.4	1.6
26	5.2	4.0	4.6	4.8	19	5.0	5.9	4.6	5.C	4.3	2.3	1.6
27	2.9	3.6	4.6	4.7	14	4.9	5.3	4.4	4.5	4.1	2.3	1.6
28	2.5	3.8	4.5	5.0	9.4	4.8	5.1	4.3	4.3	4.0	3.0	1.6
29	2.4	3.5	4.4	4.9	8.3	4.7	5.1	4.2	6.1	3.8	2.4	1.7
30	2.4	3.9	4.5	4.9	------	4.8	4.9	4.0	30	3.8	2.2	2.3
31	2.4	------	4.3	4.7	------	4.9	------	4.0	------	3.7	2.1	------
TOTAL	59.9	93.5	173.9	174.5	253.6	189.2	192.7	203.0	174.8	164.8	91.8	56.3
MEAN	1.93	3.12	5.61	5.63	8.74	6.10	6.42	6.55	5.83	5.32	2.96	1.88
MAX	6.2	8.3	19	9.1	21	9.3	16	16	30	15	5.0	3.5
MIN	1.2	2.3	3.0	4.2	4.5	4.7	4.1	4.0	2.9	3.7	2.1	1.6
CFSM	.68	1.10	1.98	1.99	3.09	2.16	2.27	2.31	2.06	1.88	1.05	.66
IN.	.79	1.23	2.29	2.29	3.33	2.49	2.53	2.67	2.30	2.17	1.21	.74

CAL YR 1971 TOTAL 1,307.38 MEAN 3.58 MAX 23 MIN .93 CFSM 1.27 IN 17.19
WTR YR 1972 TOTAL 1,828.00 MEAN 4.99 MAX 30 MIN 1.2 CFSM 1.76 IN 24.03

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-07	1900	3.46	39	6-22	1630	3.39	35
2-13	1930	3.23	31	6-30	0915	3.67	50
2-19	1700	3.26	32				

NOTE.--No gage-height record July 21 to Sept. 28.

01484300 Sowbridge Branch near Milton, Del.

LOCATION.--Lat 38°48'51", long 75°19'39", Sussex County, on left bank at downstream side of highway bridge, 1 mile downstream from Reynolds Pond, 2.5 miles north of Milton, and 0.7 mile upstream from mouth.

DRAINAGE AREA.--7.08 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1968. Datum of gage is 3.43 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 9.93 cfs (19.05 inches per year).

EXTREMES.--Current year: Maximum discharge, 85 cfs Apr. 14 (gage height, 5.92 ft); minimum, 7.0 cfs part of each day Aug. 27, 28, 30, 31, Sept. 1, 2, 18.
Period of record: Maximum discharge, 134 cfs Aug. 5, 1967 (gage height, 6.33 ft); minimum, 0.47 cfs Feb. 10, 1969.

REMARKS.--Records good. Flow regulated by Reynolds Pond.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	10	15	11	14	23	14	13	15	21	11	7.1
2	9.6	9.6	15	11	17	21	14	13	15	20	11	12
3	9.6	11	14	11	17	23	13	18	15	17	10	14
4	9.2	12	14	13	16	22	13	18	14	16	10	14
5	8.7	12	13	16	15	23	12	19	13	16	15	12
6	9.2	11	13	24	15	21	12	18	13	16	14	11
7	8.2	11	13	13	15	19	13	16	13	16	13	9.9
8	7.8	9.6	24	13	14	18	13	16	13	15	13	9.4
9	7.8	9.6	37	13	14	18	13	20	13	15	12	8.8
10	11	9.6	9.6	15	13	17	13	19	12	14	11	8.1
11	10	9.7	9.7	15	13	17	13	18	12	14	10	7.8
12	10	9.7	11	15	13	17	12	17	11	13	9.7	7.8
13	9.6	9.7	12	15	16	17	28	16	11	15	13	7.8
14	9.2	9.6	12	15	16	16	48	18	12	14	13	7.7
15	9.7	9.6	13	15	16	16	11	20	12	14	12	7.8
16	8.7	9.4	13	14	16	16	12	20	11	13	11	7.5
17	8.2	9.2	13	15	16	17	14	19	11	13	11	7.4
18	7.8	9.2	12	14	16	12	14	18	17	14	11	7.3
19	7.8	9.0	10	14	19	14	14	20	20	14	10	7.3
20	7.8	8.7	26	14	19	15	13	23	20	14	9.5	7.5
21	7.8	8.7	29	14	18	15	13	23	18	14	9.2	8.0
22	7.8	8.3	10	14	17	16	22	21	23	13	8.9	8.4
23	8.2	8.2	11	13	17	15	55	20	24	12	8.7	7.9
24	20	23	11	13	19	15	23	18	27	11	8.4	7.7
25	45	15	12	13	20	15	11	17	25	11	8.3	7.8
26	30	12	12	12	24	14	12	16	23	11	8.0	7.6
27	7.8	20	12	12	26	14	13	15	20	11	7.3	7.5
28	8.7	16	12	13	28	13	13	14	18	10	7.7	8.0
29	9.2	16	12	13	25	13	14	14	20	10	7.4	8.0
30	9.6	15	12	13	------	14	14	12	23	10	7.3	9.6
31	9.6	------	11	12	------	14	------	13	------	11	7.1	------
TOTAL	342.2	341.4	443.3	428	504	520	499	542	494	428	318.5	262.7
MEAN	11.0	11.4	14.3	13.8	17.4	16.8	16.6	17.5	16.5	13.8	10.3	8.76
MAX	45	23	37	24	28	23	55	23	27	21	15	14
MIN	7.8	8.2	9.6	11	13	12	11	12	11	10	7.1	7.1
CFSM	1.55	1.61	2.02	1.95	2.46	2.37	2.34	2.47	2.33	1.95	1.45	1.24
IN.	1.80	1.79	2.33	2.25	2.65	2.73	2.62	2.85	2.60	2.25	1.67	1.38

CAL YR 1971 TOTAL 4,416.7 MEAN 12.1 MAX 45 MIN 3.4 CFSM 1.71 IN 23.21
WTR YR 1972 TOTAL 5,123.1 MEAN 14.0 MAX 55 MIN 7.1 CFSM 1.98 IN 26.92

01484500 Stockley Branch at Stockley, Del.

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

DRAINAGE AREA.--5.24 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft above mean sea level. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--29 years, 6.98 cfs (18.09 inches per year).

EXTREMES.--Current year: Maximum discharge, 65 cfs Oct. 24 (gage height, 3.17 ft); minimum, 3.0 cfs part of each day Sept. 23, 25-28.
Period of record: Maximum discharge, 132 cfs June 4, 1948 (gage height, 5.0 ft, from graph based on gage readings), from rating curve extended above 50 cfs; minimum observed, 0.13 cfs Sept. 1-11, 1944.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1141: 1948(P). WSP 1432: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	12	10	6.7	7.3	19	8.3	7.8	12	22	6.2	3.8
2	5.6	12	8.9	7.0	8.1	17	8.1	7.6	10	18	5.8	12
3	5.2	17	8.3	6.7	11	24	7.9	13	8.8	13	5.6	11
4	4.7	19	8.0	8.1	17	24	7.8	23	8.1	11	5.5	6.6
5	4.6	14	7.4	15	11	20	7.6	16	7.8	12	8.8	5.9
6	5.2	12	7.3	12	10	17	7.6	12	7.6	13	6.4	5.4
7	4.4	12	19	11	9.8	15	7.8	11	7.7	11	5.8	4.9
8	4.1	11	20	9.3	8.9	15	8.9	10	7.1	9.8	5.5	4.7
9	4.0	10	17	8.1	8.2	14	8.2	14	6.9	9.3	5.2	4.4
10	9.3	8.9	15	12	7.9	13	8.1	13	6.7	8.6	4.9	4.0
11	7.7	9.2	13	14	7.6	12	8.0	12	6.3	8.0	4.7	3.8
12	6.4	8.6	12	12	7.6	12	7.7	10	6.1	7.9	4.6	4.0
13	5.8	8.4	11	12	21	11	11	9.4	5.7	14	9.4	3.7
14	5.6	7.7	10	15	19	11	10	12	7.0	11	7.5	3.6
15	5.3	7.6	8.9	12	14	11	9.1	25	5.9	9.3	5.8	3.7
16	5.2	7.3	8.5	10	12	11	8.7	22	5.6	8.2	5.3	3.5
17	5.0	6.9	8.0	9.3	12	14	9.2	17	5.7	12	5.3	3.4
18	4.9	6.7	8.6	9.2	14	17	8.3	14	17	15	5.3	3.3
19	4.8	6.7	8.0	9.2	26	13	7.8	14	9.8	9.5	4.9	3.4
20	4.6	7.1	11	8.9	23	12	7.6	22	8.3	8.6	4.6	3.4
21	4.5	6.8	11	8.8	17	11	7.3	18	8.0	8.3	4.3	3.7
22	4.3	6.4	9.4	8.5	16	11	13	15	31	7.7	4.3	3.6
23	5.0	5.9	8.6	8.5	14	11	16	13	33	7.3	4.2	3.3
24	38	6.5	8.5	8.3	21	11	13	12	28	6.7	4.0	3.3
25	19	19	8.2	8.1	23	10	11	11	19	6.7	3.9	3.2
26	55	13	8.1	7.6	44	9.7	9.8	9.8	15	6.6	3.7	3.1
27	31	13	7.8	7.6	37	9.2	9.0	9.4	12	6.6	3.7	3.1
28	20	14	7.6	8.1	27	8.7	8.5	9.1	11	6.3	8.9	3.2
29	16	12	7.3	7.7	22	8.4	8.2	8.8	25	6.2	4.6	3.3
30	14	12	7.4	7.8	------	8.4	7.9	8.7	33	6.5	4.1	3.9
31	13	------	7.2	7.5	------	8.5	------	9.0	------	6.4	3.8	------
TOTAL	326.7	313.7	314.0	297.0	476.4	408.9	271.4	408.6	375.1	306.5	166.6	132.2
MEAN	10.5	10.5	10.1	9.58	16.4	13.2	9.05	13.2	12.5	9.89	5.37	4.41
MAX	55	19	20	15	44	24	16	25	33	22	9.4	12
MIN	4.0	5.9	7.2	6.7	7.3	8.4	7.3	7.6	5.6	6.2	3.7	3.1
CFSM	2.00	2.00	1.93	1.83	3.13	2.52	1.73	2.52	2.39	1.89	1.02	.84
IN.	2.32	2.23	2.23	2.11	3.38	2.90	1.93	2.90	2.66	2.18	1.18	.94

CAL YR 1971 TOTAL 2,912.5 MEAN 7.98 MAX 55 MIN 2.0 CFSM 1.52 IN 20.68
WTR YR 1972 TOTAL 3,797.1 MEAN 10.4 MAX 55 MIN 3.1 CFSM 1.98 IN 26.96

PEAK DISCHARGE (BASE, 45 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-24	0845	3.17	65	2-26	1745	3.14	61
10-26	0415	3.16	64	6-22	1330	3.06	54

01485000 Pocomoke River near Willards, Md.

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

DRAINAGE AREA.--60.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft above mean sea level.

AVERAGE DISCHARGE.--22 years (1950-72), 68.0 cfs (15.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 924 cfs June 30 (gage height, 13.67 ft); minimum, 18 cfs Aug. 28.
Period of record: Maximum discharge, 924 cfs June 30, 1972 (gage height, 13.67 ft); minimum, 2.2 cfs Aug. 18, 19, 1957 (gage height, 1.91 ft).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	204	120	40	63	192	88	59	123	840	34	24
2	24	165	100	38	84	153	76	55	93	722	30	54
3	29	169	80	41	164	142	68	65	69	584	28	202
4	30	246	70	43	380	151	60	225	58	389	26	139
5	29	173	62	105	243	132	57	155	50	226	79	90
6	31	139	60	166	158	116	55	110	46	208	79	73
7	34	123	76	104	145	100	54	79	48	144	59	61
8	31	106	139	80	119	95	69	68	42	107	49	53
9	29	91	115	71	92	96	76	121	37	82	40	48
10	53	84	95	108	78	83	79	138	34	69	32	41
11	103	76	84	112	71	76	74	103	31	61	28	35
12	77	70	74	93	67	73	68	78	29	59	27	32
13	78	68	69	81	232	70	76	67	28	213	35	30
14	63	63	62	336	385	67	108	79	39	241	67	28
15	55	59	59	265	253	66	86	386	41	140	44	27
16	49	58	58	171	174	61	76	386	36	93	36	25
17	45	57	55	121	152	284	143	235	43	72	31	24
18	42	56	53	99	248	274	114	147	215	67	30	23
19	40	55	50	90	345	181	89	114	468	59	28	23
20	39	53	61	88	455	132	75	173	193	58	25	24
21	36	50	100	89	296	108	67	154	106	91	24	24
22	34	49	82	84	208	100	96	122	382	61	22	25
23	36	47	68	79	155	103	263	96	644	51	22	24
24	212	45	64	84	222	86	184	85	670	47	21	22
25	252	100	61	80	292	76	141	75	593	41	20	22
26	503	200	57	71	419	67	112	67	425	36	20	21
27	659	165	54	66	515	60	88	60	250	32	19	21
28	616	170	50	69	386	56	75	56	213	31	45	21
29	498	180	46	72	266	52	68	52	587	29	41	21
30	359	160	44	71	------	56	67	49	900	31	29	24
31	263	------	43	69	------	72	------	47	------	38	26	------
TOTAL	4,370	3,281	2,211	3,086	6,667	3,380	2,752	3,706	6,493	4,922	1,096	1,281
MEAN	141	109	71.3	99.5	230	109	91.7	120	216	159	35.4	42.7
MAX	659	246	139	336	515	284	263	386	900	840	79	202
MIN	21	45	43	38	63	52	54	47	28	29	19	21
CFSM	2.33	1.80	1.18	1.64	3.80	1.80	1.52	1.98	3.57	2.63	.59	.71
IN.	2.69	2.02	1.36	1.90	4.10	2.08	1.69	2.28	3.99	3.03	.67	.79

CAL YR 1971 TOTAL 29,506.7 MEAN 80.8 MAX 659 MIN 8.8 CFSM 1.34 IN 18.14
WTR YR 1972 TOTAL 43,245.0 MEAN 118 MAX 900 MIN 19 CFSM 1.95 IN 26.59

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-27	0800	11.28	---	6-19	0830	9.90	540
10-27	1300	11.25	675	6-24	0400	11.30	680
2-19	2100	9.66	516	6-30	1500	13.67	924
2-27	0030	10.01	551				

01485500 Nassawango Creek near Snow Hill, Md.

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

DRAINAGE AREA.--44.9 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft above mean sea level.

AVERAGE DISCHARGE.--22 years (1950-72), 51.3 cfs (15.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,320 cfs June 30 (gage height, 7.63 ft); minimum, 5.3 cfs Aug. 28. Period of record: Maximum discharge, 1,320 cfs June 30, 1972; maximum gage height, 7.82 ft Aug. 16, 1953; minimum discharge, 0.80 cfs Sept. 8, 9, 10, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1332: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	126	122	35	50	157	71	38	46	862	23	24
2	21	106	103	34	64	120	72	35	47	415	18	52
3	23	99	88	34	92	103	63	46	51	220	14	168
4	21	100	74	41	167	93	55	116	43	128	11	222
5	19	93	63	91	232	87	50	164	33	93	25	169
6	25	89	56	99	192	83	45	153	27	93	39	120
7	23	86	57	113	138	74	43	108	32	80	42	91
8	19	75	70	110	110	70	67	78	30	66	38	64
9	16	64	72	96	87	70	78	98	24	53	27	44
10	37	61	76	100	76	65	79	131	21	41	18	34
11	61	51	74	110	63	61	70	136	21	33	13	28
12	66	47	65	111	54	55	60	110	19	30	9.4	22
13	66	44	58	104	88	50	58	82	16	56	11	19
14	52	41	51	103	176	46	60	76	54	87	23	16
15	38	39	46	116	247	44	57	195	58	109	15	15
16	31	37	43	151	188	42	54	364	44	92	11	14
17	25	35	41	110	138	67	49	305	40	71	9.2	13
18	21	34	38	95	165	137	43	193	103	43	28	11
19	19	34	36	95	238	210	39	124	110	31	37	11
20	17	31	47	95	322	183	36	98	71	27	34	15
21	16	31	70	95	294	125	34	85	63	30	25	23
22	15	29	81	95	200	99	52	78	172	23	16	27
23	18	27	85	82	142	94	115	70	483	18	11	22
24	81	27	76	67	137	88	154	66	672	14	8.7	18
25	131	70	63	67	177	80	146	59	496	12	7.8	17
26	835	87	54	66	235	67	109	51	297	10	7.0	15
27	1,100	111	49	60	315	56	83	43	173	8.5	5.9	13
28	654	144	45	58	322	49	63	37	119	8.5	47	14
29	378	145	41	55	223	44	50	34	279	8.5	63	15
30	230	139	38	54	------	47	42	31	1,150	13	48	19
31	162	------	36	53	------	63	------	30	------	23	35	------
TOTAL	4,237	2,102	1,918	2,595	4,932	2,629	1,997	3,234	4,794	2,798.5	720.0	1,335
MEAN	137	70.1	61.9	83.7	170	84.8	66.6	104	160	90.3	23.2	44.5
MAX	1,100	145	122	151	322	210	154	364	1,150	862	63	222
MIN	15	27	36	34	50	42	34	30	16	8.5	5.9	11
CFSM	3.05	1.56	1.38	1.86	3.79	1.89	1.48	2.32	3.56	2.01	.52	.99
IN.	3.51	1.74	1.59	2.15	4.09	2.18	1.65	2.68	3.97	2.32	.60	1.11

CAL YR 1971 TOTAL 22,497.1 MEAN 61.6 MAX 1,100 MIN 3.0 CFSM 1.37 IN 18.64
WTR YR 1972 TOTAL 33,291.5 MEAN 91.0 MAX 1,150 MIN 5.9 CFSM 2.03 IN 27.58

PEAK DISCHARGE (BASE, 280 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-27	0300	7.55	1,230	5-16	1300	6.07	382
2-20	2000	5.86	332	6-24	0700	6.90	700
2-28	0200	5.95	352	6-30	1400	7.63	1,320

01486500 Beaverdam Creek near Salisbury, Md.

LOCATION.--Lat 38°21'05", long 75°34'11", Wicomico County, on upstream side of Schumaker Dam between spillway and emergency floodgate, 0.6 mile upstream from Beaglin Branch, 2 miles southeast of Salisbury, and 0.8 mile upstream from mouth.

DRAINAGE AREA.--19.5 sq mi.

PERIOD OF RECORD.--October 1929 to August 1933, May 1934 to September 1935, May 1936 to current year. Prior to October 1948, published as East Branch Wicomico River near Salisbury.

GAGE.--Water-stage recorder and concrete spillway of dam for control. Datum of gage is 8.93 ft above mean sea level (city of Salisbury bench mark). Prior to Sept. 28, 1938, at site on left bank at datum 9.02 ft higher.

AVERAGE DISCHARGE.--37 years (1929-32, 1938-72), 23.7 cfs (16.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 469 cfs Oct. 26 (gage height, 12.36 ft); minimum daily, 0.76 cfs June 13 (leakage under dam following closing of floodgate).
Period of record: Maximum discharge not determined, occurred Aug. 23, 1933, when dam was partly washed out; maximum gage height, 14.31 ft Aug. 4, 1948, from high-water mark in well; minimum daily discharge recorded, 0.40 cfs Dec. 17, 1963 (leakage under dam following closing of floodgate).

REMARKS.--Records good except those for periods below 1 cfs, which are poor. Records represent total flow and include flow over spillway, through spillway valve, over or through floodgate, and leakage under dam. Occasional regulation at low and medium flow caused by mill above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 741: 1931(m). WSP 1232: Drainage area. WSP 1432: 1931, 1936-37, 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	45	36	13	26	50	35	25	44	133	21	13
2	14	44	35	12	32	45	34	20	34	53	15	43
3	10	45	34	12	35	47	31	22	31	51	16	74
4	9.2	47	31	15	59	50	29	70	25	44	16	42
5	8.4	45	31	37	61	47	28	64	23	38	36	36
6	11	44	30	41	41	45	26	42	23	42	37	32
7	10	40	34	38	41	38	27	34	28	39	26	24
8	10	37	32	28	34	39	35	31	23	36	20	21
9	10	36	31	23	31	39	34	48	20	32	17	20
10	20	34	30	34	31	36	34	51	21	29	15	17
11	25	25	28	36	29	35	35	42	40	28	13	15
12	20	25	27	29	29	34	29	31	48	28	13	16
13	17	25	24	29	46	33	32	28	.76	40	21	16
14	15	25	23	83	82	32	31	36	.92	40	36	15
15	14	24	23	101	66	32	29	108	10	34	17	15
16	12	24	23	55	44	31	28	130	17	28	14	14
17	12	24	23	23	45	40	28	71	17	26	14	13
18	12	24	23	24	73	102	26	56	40	25	53	13
19	12	23	24	26	89	106	25	45	47	25	39	13
20	12	23	32	26	115	61	23	45	74	23	18	13
21	11	23	31	28	67	31	23	44	43	22	15	19
22	11	23	28	28	47	39	37	39	116	16	14	25
23	15	24	26	29	42	42	64	35	442	14	14	19
24	40	26	26	31	62	39	62	35	211	14	14	15
25	67	44	26	31	79	36	49	31	95	14	14	13
26	427	35	25	30	113	34	36	26	35	15	13	12
27	250	39	25	29	164	32	31	25	48	15	12	12
28	118	51	23	30	92	31	32	24	44	16	36	13
29	76	48	21	29	48	29	31	24	121	16	31	15
30	43	43	23	28	------	32	25	23	272	29	18	100
31	42	------	15	26	------	35	------	25	------	34	14	------
TOTAL	1,389.6	1,015	843	1,004	1,723	1,322	989	1,330	1,993.68	999	652	708
MEAN	44.8	33.8	27.2	32.4	59.4	42.6	33.0	42.9	66.5	32.2	21.0	23.6
MAX	427	51	36	101	164	106	64	130	442	133	53	100
MIN	8.4	23	15	12	26	29	23	20	.76	14	12	12
CFSM	2.30	1.73	1.39	1.66	3.05	2.18	1.69	2.20	3.41	1.65	1.08	1.21
IN.	2.65	1.94	1.61	1.92	3.29	2.52	1.89	2.54	3.80	1.91	1.24	1.35

CAL YR 1971 TOTAL 11,065.30 MEAN 30.3 MAX 427 MIN .90 CFSM 1.55 IN 21.11
WTR YR 1972 TOTAL 13,968.28 MEAN 38.2 MAX 442 MIN .76 CFSM 1.96 IN 26.65

01487000 Nanticoke River near Bridgeville, Del.

LOCATION.--Lat 38°43'45", long 75°33'41", Sussex County, on left bank 300 ft downstream from highway bridge, 1,100 ft downstream from Gum Branch, 2.5 miles southeast of Bridgeville, and 50.5 miles upstream from mouth.

DRAINAGE AREA.--75.4 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft above mean sea level (levels by Soil Conservation Service). Prior to Apr. 19, 1947 nonrecording gage, and Apr. 19, 1947 to Dec. 18, 1969 recording gage at site 300 ft upstream at same datum. Timber control Sept. 3, 1947 to Dec. 18, 1969.

AVERAGE DISCHARGE.--29 years, 91.6 cfs (16.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 522 cfs Dec. 7; maximum gage height, 6.33 ft Feb. 19; minimum discharge, 44 cfs Sept. 1.
Period of record: Maximum discharge, 2,360 cfs Aug. 5, 1967 (gage height, 8.86 ft); minimum observed, 6.3 cfs Sept. 29, 1943.
Maximum stage known, about 11.0 ft in September 1935, from information by local residents.

REMARKS.--Records fair. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1111: 1947. WSP 1232: 1945-49.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	82	101	67	74	213	118	110	187	292	87	45
2	82	81	95	69	81	198	116	110	159	207	83	77
3	76	105	94	72	99	211	113	180	140	174	79	91
4	72	132	92	72	167	217	113	300	130	156	78	70
5	66	99	90	143	124	198	110	210	127	150	108	65
6	76	92	88	158	112	184	109	180	122	168	95	63
7	68	92	269	127	113	174	113	160	124	153	88	59
8	62	89	330	113	99	173	119	150	116	142	88	57
9	70	87	185	107	93	164	112	190	112	134	82	55
10	90	86	153	164	89	157	110	180	109	128	79	52
11	120	84	137	157	85	152	115	160	103	121	75	51
12	100	83	123	152	82	150	119	150	100	116	73	51
13	90	81	118	145	217	147	174	140	98	125	71	51
14	86	78	108	173	268	146	255	150	102	129	72	50
15	82	77	104	149	187	144	184	280	98	118	70	53
16	78	77	103	126	162	140	167	239	95	117	67	49
17	74	75	99	117	153	157	215	201	92	116	64	48
18	72	74	94	114	166	185	181	177	94	116	66	48
19	70	74	88	112	330	159	160	169	101	134	65	49
20	68	75	101	106	319	148	150	217	105	130	61	48
21	66	74	111	106	236	143	135	211	96	123	59	51
22	64	72	97	101	221	150	180	187	223	114	56	51
23	100	69	88	99	200	150	250	168	275	108	54	48
24	200	69	88	96	242	142	200	156	208	102	53	47
25	220	155	87	92	306	135	160	147	169	97	50	47
26	120	126	84	84	374	132	145	139	150	92	48	46
27	100	105	82	82	335	129	135	133	139	90	47	47
28	88	110	78	86	265	126	125	129	131	89	53	50
29	84	104	74	83	235	123	120	126	173	85	51	48
30	83	111	73	81	------	123	115	124	404	86	49	54
31	83	------	73	78	------	121	------	125	------	90	47	------
TOTAL	2,770	2,718	3,507	3,431	5,434	4,891	4,418	5,298	4,282	4,002	2,118	1,621
MEAN	89.4	90.6	113	111	187	158	147	171	143	129	68.3	54.0
MAX	220	155	330	173	374	217	255	300	404	292	108	91
MIN	60	69	73	67	74	121	109	110	92	85	47	45
CFSM	1.19	1.20	1.50	1.47	2.48	2.10	1.95	2.27	1.90	1.71	.91	.72
IN.	1.37	1.34	1.73	1.69	2.68	2.41	2.18	2.61	2.11	1.97	1.04	.80

CAL YR 1971 TOTAL 37,098 MEAN 102 MAX 572 MIN 31 CFSM 1.35 IN 18.30
WTR YR 1972 TOTAL 44,490 MEAN 122 MAX 404 MIN 45 CFSM 1.62 IN 21.95

PEAK DISCHARGE (BASE, 360 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-07	2100	6.28	522	2-26	1700	6.26	434
2-13	2000	6.13	382	6-22	2100	5.93	382
2-19	1900	6.33	462	6-30	1300	6.27	518

01488500 Marshyhope Creek near Adamsville, Del.

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

DRAINAGE AREA.--43.9 sq mi (revised). Area at site used prior to Oct. 1, 1971, 44.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 28.21 ft above mean sea level. Prior to Nov. 24, 1953, non-recording gage and crest-stage gage, and Nov. 24, 1953 to March 1969 recording gage at site on old channel about 240 feet southeast of present site at same datum.

AVERAGE DISCHARGE.--26 years (1943-68, 1971-72), 52.5 cfs (16.24 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,430 cfs Dec. 7 (gage height, 7.58 ft), from rating curve extended above 590 cfs; minimum, 13 cfs part of each day Sept. 23-27 (gage height, 2.18 ft).
Period of record: Maximum discharge, 3,060 cfs Aug. 5, 1967 (gage height, 11.98 ft); minimum, 1.0 cfs Sept. 9, 10, 1964, Aug. 20, 1965.
Maximum stage known, 14.5 ft in September 1935, from information by local residents.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	87	110	48	51	111	45	56	76	235	26	15
2	97	70	86	51	54	96	45	54	54	119	25	23
3	110	118	76	55	93	141	43	66	45	77	24	20
4	70	136	70	58	209	143	43	106	41	61	24	16
5	62	89	64	202	108	111	42	77	40	60	28	15
6	58	75	62	155	81	90	41	62	38	83	24	15
7	54	73	751	106	83	80	42	56	39	63	23	15
8	44	69	648	85	70	77	47	53	35	53	24	15
9	41	63	275	79	58	70	48	106	34	53	22	15
10	128	60	180	193	54	65	46	108	32	46	21	14
11	120	58	138	169	51	61	44	78	31	42	20	14
12	74	55	111	148	50	60	42	64	30	40	20	14
13	58	54	97	120	330	59	176	56	29	50	20	14
14	53	50	84	174	312	58	198	66	31	55	20	15
15	50	49	79	126	172	59	113	221	28	43	19	16
16	47	49	77	88	121	57	96	132	28	40	19	14
17	45	47	71	70	97	91	248	86	28	36	19	14
18	41	47	67	65	110	139	133	67	34	48	19	13
19	40	46	61	64	450	89	90	63	47	42	19	14
20	38	46	79	64	311	72	75	117	34	35	18	13
21	37	45	91	66	174	65	66	95	34	33	17	14
22	35	42	74	65	159	68	121	75	276	31	17	14
23	35	41	65	65	118	69	207	62	218	29	17	13
24	308	41	64	66	192	61	136	55	148	28	16	13
25	191	344	62	65	282	56	123	50	108	29	16	13
26	593	189	60	60	499	53	93	46	80	29	16	13
27	259	149	58	56	308	51	78	43	63	28	15	14
28	150	165	56	57	186	49	68	42	55	28	16	16
29	107	133	53	58	138	47	63	40	91	27	16	14
30	88	174	53	57	------	47	59	39	674	27	15	16
31	83	------	52	55	------	47	------	40	------	27	15	------
TOTAL	3,142	2,664	3,874	2,790	4,921	2,342	2,671	2,281	2,501	1,597	610	444
MEAN	101	88.8	125	90.0	170	75.5	89.0	73.6	83.4	51.5	19.7	14.8
MAX	593	344	751	202	499	143	248	221	674	235	28	23
MIN	26	41	52	48	50	47	41	39	28	27	15	13
CFSM	2.30	2.02	2.85	2.05	3.87	1.72	2.03	1.68	1.90	1.17	.45	.34
IN.	2.66	2.26	3.28	2.36	4.17	1.98	2.26	1.93	2.12	1.35	.52	.38

WTR YR 1972 TOTAL 29,837 MEAN 81.5 MAX 751 MIN 13 CFSM 1.86 IN 25.28

PEAK DISCHARGE (BASE, 580 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-24	1200	5.33	604	2-19	1700	5.50	655
10-26	0630	6.44	984	2-26	1000	5.65	708
11-25	0700	5.12	541	6-22	1500	5.27	586
12-07	1600	7.58	1,430	6-30	0700	6.76	1,100
2-13	1700	5.78	753				

01489000 Faulkner Branch at Federalsburg, Md.

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, on right bank 25 ft downstream from highway bridge on Nichols Road, 1.6 miles northwest of Federalsburg, and 0.9 mile upstream from mouth.

DRAINAGE AREA.--7.10 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 8.66 cfs (16.56 inches per year).

EXTREMES.--Current year: Maximum discharge, 283 cfs June 22 (gage height, 3.65 ft); no flow part of each day Aug. 24-26, Aug. 31 to Sept. 2 (result of pumpage for irrigation).
Period of record: Maximum discharge, 792 cfs Aug. 25, 1967 (gage height, 5.03 ft), from rating curve extended above 210 cfs on basis of slope-area measurement at gage height 4.10 ft; no flow at times during many years (result of pumpage for irrigation).

REMARKS.--Records good. Diversion for irrigation of about 100 acres above station during some years.

REVISIONS (WATER YEARS).--WSP 1552: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	11	13	9.9	9.8	22	8.0	8.5	22	27	5.0	.31
2	8.8	9.8	11	12	12	20	8.0	8.2	11	18	4.2	14
3	9.8	17	11	11	19	23	7.4	14	8.2	14	4.0	6.5
4	6.1	22	10	16	29	22	7.6	17	7.0	12	3.7	3.8
5	5.5	14	9.3	34	17	20	7.0	12	7.4	14	11	3.3
6	5.0	12	9.1	26	15	17	6.6	9.6	6.7	16	6.2	2.9
7	4.4	12	64	20	15	15	7.6	8.7	6.8	12	5.6	2.6
8	4.0	10	50	17	13	15	9.1	8.3	5.7	11	5.1	2.5
9	3.7	9.8	26	17	11	14	8.6	14	5.3	9.5	4.3	2.4
10	9.5	8.9	22	28	10	13	8.3	11	5.1	8.6	3.8	2.1
11	10	8.4	19	26	9.9	12	8.0	8.9	4.6	7.8	3.4	2.0
12	7.4	7.8	17	24	9.5	12	7.3	7.9	4.4	7.4	3.3	2.1
13	6.8	7.7	16	25	39	12	21	7.2	4.3	12	3.3	2.0
14	6.1	7.0	14	31	32	12	21	14	5.0	19	3.3	1.9
15	5.8	6.8	14	23	20	12	14	33	4.3	9.4	3.1	2.2
16	5.5	6.6	13	18	17	11	12	22	3.9	9.0	2.9	2.0
17	5.0	6.3	11	16	16	18	13	15	4.0	8.1	3.0	1.9
18	4.7	6.1	10	15	20	19	11	13	10	7.4	3.2	1.8
19	4.7	6.1	15	15	87	14	9.7	12	6.9	7.4	2.9	1.8
20	4.4	6.0	19	14	45	12	9.4	13	5.5	8.8	2.6	1.8
21	4.2	5.8	16	14	27	12	8.5	12	5.8	13	2.5	2.0
22	4.2	5.2	14	14	28	13	19	11	138	7.8	2.4	2.2
23	4.7	4.9	14	14	23	12	26	9.1	64	6.4	2.1	2.0
24	5.4	5.6	13	14	40	11	17	8.2	34	5.8	.99	1.8
25	35	30	13	14	51	9.7	15	7.5	21	5.5	.77	1.8
26	20	19	13	12	80	9.3	12	6.8	16	5.2	1.8	1.8
27	16	16	12	11	46	9.0	11	6.3	13	4.7	1.9	1.6
28	14	18	11	12	30	8.7	9.9	6.1	20	4.7	2.4	1.9
29	12	15	11	12	25	8.4	9.4	5.8	22	4.7	2.1	1.9
30	11	17	11	12	------	8.5	8.8	5.6	76	5.0	1.9	2.8
31	11	------	10	10	------	8.5	------	6.9	------	5.5	.86	------
TOTAL	257.3	331.8	511.4	536.9	796.2	425.1	341.2	342.6	547.9	306.7	103.62	79.71
MEAN	8.30	11.1	16.5	17.3	27.5	13.7	11.4	11.1	18.3	9.89	3.34	2.66
MAX	35	30	64	34	87	23	26	33	138	27	11	14
MIN	2.6	4.9	9.1	9.9	9.5	8.4	6.6	5.6	3.9	4.7	.77	.31
CFSM	1.17	1.56	2.32	2.44	3.87	1.93	1.61	1.56	2.58	1.39	.47	.37
IN.	1.35	1.74	2.68	2.81	4.17	2.23	1.79	1.80	2.87	1.61	.54	.42

CAL YR 1971 TOTAL 3,213.76 MEAN 8.80 MAX 89 MIN .16 CFSM 1.24 IN 16.84
WTR YR 1972 TOTAL 4,580.43 MEAN 12.5 MAX 138 MIN .31 CFSM 1.76 IN 24.00

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-07	1715	2.93	141	2-26	1230	2.75	120
2-13	1900	2.37	80	6-22	1245	3.65	283
2-19	1300	2.83	129	6-30	0745	3.00	150
2-24	2145	2.28	71				

01490000 Chicamacomico River near Salem, Md.

LOCATION.--Lat 38°30'43", long 75°52'51", Dorchester County, on left bank 30 ft downstream from Big Mill Pond dam, 1.6 miles east of Salem, 3.5 miles northwest of Vienna, and 13 miles upstream from mouth.

DRAINAGE AREA.--15.0 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 17.6 cfs (15.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 300 cfs June 22 (gage height, 3.85 ft); minimum daily, 6.0 cfs Sept. 1.
Period of record: Maximum discharge, 518 cfs Aug. 25, 1967 (gage height, 4.42 ft); minimum, 0.4 cfs May 23, 1964, June 11, 1965, result of regulation; minimum daily, 0.5 cfs June 11, 1965.

REMARKS.--Records fair. Occasional regulation by Big Mill Pond.

REVISIONS (WATER YEARS).--WSP 1332: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	27	36	17	18	54	22	16	41	81	12	6.0
2	18	26	28	19	22	48	21	16	27	50	11	28
3	23	36	25	20	30	53	19	19	18	35	10	53
4	15	64	24	21	54	59	19	34	15	29	10	21
5	14	43	23	49	36	48	18	23	19	27	14	15
6	15	32	23	56	27	42	18	17	16	34	12	13
7	14	29	42	38	27	37	20	16	19	29	10	11
8	12	25	66	30	23	37	26	14	15	24	9.8	11
9	11	23	49	26	20	34	25	22	13	21	8.9	10
10	30	23	40	42	18	32	26	21	12	20	8.6	9.7
11	28	23	35	44	18	29	23	17	11	18	8.1	9.2
12	22	22	30	40	18	28	21	15	10	18	8.2	9.2
13	18	22	28	37	53	28	32	15	11	25	8.6	9.0
14	16	20	25	58	90	27	50	20	13	38	12	9.0
15	15	20	23	47	51	27	36	68	12	26	9.9	11
16	14	20	24	31	37	26	29	67	11	20	8.5	11
17	13	20	23	24	34	40	38	46	10	20	8.6	11
18	13	19	22	24	44	47	32	31	12	21	9.2	10
19	12	20	20	25	133	36	25	27	14	17	8.9	10
20	12	20	28	25	152	29	22	36	12	15	7.8	9.4
21	11	20	34	25	76	26	19	33	12	15	7.2	9.4
22	11	19	27	24	59	30	34	27	136	13	7.1	10
23	11	18	23	23	52	34	67	21	198	12	6.8	9.4
24	70	20	22	25	62	27	47	18	118	12	6.4	8.9
25	130	55	22	23	92	23	36	16	62	12	7.5	8.8
26	128	48	20	21	138	22	27	14	45	12	7.6	8.6
27	78	38	20	20	148	21	23	14	34	11	7.3	8.4
28	43	43	20	21	84	20	20	13	34	11	10	9.0
29	32	40	18	22	66	20	19	13	55	11	9.4	8.8
30	28	42	18	21	------	21	18	12	84	13	7.5	12
31	29	------	18	20	------	23	------	15	------	14	8.0	------
TOTAL	897	877	856	918	1,682	1,028	832	736	1,089	704	280.9	369.8
MEAN	28.9	29.2	27.6	29.6	58.0	33.2	27.7	23.7	36.3	22.7	9.06	12.3
MAX	130	64	66	58	152	59	67	68	198	81	14	53
MIN	11	18	18	17	18	20	18	12	10	11	6.4	6.0
CFSM	1.93	1.95	1.84	1.97	3.87	2.21	1.85	1.58	2.42	1.51	.60	.82
IN.	2.22	2.17	2.12	2.28	4.17	2.55	2.06	1.83	2.70	1.75	.70	.92

CAL YR 1971 TOTAL 8,626.0 MEAN 23.6 MAX 155 MIN 4.5 CFSM 1.57 IN 21.39
WTR YR 1972 TOTAL 10,269.7 MEAN 28.1 MAX 198 MIN 6.0 CFSM 1.87 IN 25.47

01491000 Choptank River near Greensboro, Md.

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, on left bank at highway bridge, 0.1 mile upstream from Gravelly Branch, 2 miles northeast of Greensboro, and 60 miles upstream from mouth.

DRAINAGE AREA.--113 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 125 cfs (15.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,760 cfs June 23 (gage height, 9.71 ft); minimum, 22 cfs Sept. 1; minimum daily, 24 cfs Sept. 1.
Period of record: Maximum discharge, 6,970 cfs Aug. 4, 1967 (gage height, 14.47 ft) from rating curve extended above 3,600 cfs; minimum, 1.2 cfs Aug. 29, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by mill above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1622: 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	279	481	134	132	317	121	137	99	510	43	24
2	121	255	361	135	129	272	118	129	111	359	42	77
3	220	254	285	155	147	273	114	129	55	258	38	130
4	203	323	240	180	289	355	112	177	49	198	36	95
5	152	346	216	274	361	337	117	241	49	188	38	68
6	156	286	199	403	278	276	120	193	48	265	38	45
7	225	247	434	364	223	236	121	132	53	279	37	37
8	192	227	2,160	278	198	214	147	117	49	223	37	34
9	151	219	1,380	225	162	197	188	160	44	279	34	34
10	220	199	726	302	140	175	183	297	43	319	32	33
11	497	172	460	401	128	146	155	335	42	203	30	31
12	463	160	343	378	121	143	141	274	40	143	30	31
13	310	150	319	325	210	150	197	213	38	152	36	32
14	227	142	284	305	748	152	436	169	38	331	91	32
15	184	135	246	320	619	167	407	306	37	410	88	86
16	137	130	224	266	378	183	349	400	36	298	51	62
17	129	128	210	210	295	250	344	339	43	216	42	42
18	122	122	193	141	258	386	395	220	152	223	44	39
19	116	118	178	129	383	383	330	163	345	218	44	38
20	109	115	180	144	930	298	260	169	378	155	42	36
21	104	115	225	164	570	235	220	225	248	117	40	36
22	95	112	260	172	379	210	234	160	542	86	34	38
23	70	105	218	173	324	212	468	143	2,370	63	32	35
24	290	102	189	177	294	213	520	123	1,960	65	33	34
25	1,000	332	177	180	366	186	410	105	1,030	65	33	34
26	1,750	1,090	169	169	624	157	323	71	676	53	30	33
27	2,450	718	163	151	991	144	254	55	425	51	29	33
28	1,320	516	155	142	571	135	208	53	261	49	30	37
29	658	452	147	140	387	127	166	51	232	42	30	35
30	409	494	140	139	------	122	152	48	365	40	28	37
31	299	------	138	137	------	122	------	49	------	42	26	------
TOTAL	12,447	8,043	11,100	6,813	10,635	6,773	7,310	5,383	9,858	5,900	1,218	1,358
MEAN	402	268	358	220	367	218	244	174	329	190	39.3	45.3
MAX	2,450	1,090	2,160	403	991	386	520	400	2,370	510	91	130
MIN	68	102	138	129	121	122	112	48	36	40	26	24
CFSM	3.56	2.37	3.17	1.95	3.25	1.93	2.16	1.54	2.91	1.68	.35	.40
IN.	4.10	2.65	3.65	2.24	3.50	2.23	2.41	1.77	3.25	1.94	.40	.45

CAL YR 1971 TOTAL 69,530.6 MEAN 190 MAX 2,450 MIN 5.9 CFSM 1.68 IN 22.89
WTR YR 1972 TOTAL 86,838.0 MEAN 237 MAX 2,450 MIN 24 CFSM 2.10 IN 28.59

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-27	0345	9.70	2,750	2-27	0715	6.84	1,070
11-26	0900	7.09	1,170	6-23	1615	9.71	2,760
2-20	1030	6.69	1,010				

01492000 Beaverdam Branch at Matthews, Md.

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, on left bank 50 ft upstream from bridge on State Highway 328, 1 mile west of Matthews, 6 miles northeast of Easton, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--5.85 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2.33 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 6.68 cfs (15.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 357 cfs June 22 (gage height, 4.58 ft); minimum, 0.22 cfs Aug. 27, 31, Sept. 1, 2 (gage height, 1.11 ft).
Period of record: Maximum discharge, 2,200 cfs Sept. 12, 1960 (gage height, 10.24 ft, from high-water mark in gage shelter) from rating curve extended above 440 cfs on basis of contracted-opening measurement at gage height 7.15 ft; no flow at times during many years.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	8.0	13	5.1	5.9	12	5.9	5.2	31	20	1.3	.26
2	20	7.4	9.0	8.9	8.3	11	6.1	4.6	6.0	8.6	1.1	7.9
3	16	35	8.6	9.3	27	31	5.1	14	2.8	6.1	.86	2.4
4	5.7	15	8.2	11	43	17	6.3	14	2.2	4.8	.88	.93
5	4.1	9.0	7.9	54	9.3	13	5.6	7.0	5.4	6.1	3.8	.76
6	4.8	7.0	7.8	18	8.4	9.4	4.9	5.1	3.4	7.6	1.5	.66
7	3.0	10	115	11	11	8.9	7.0	4.3	6.5	5.1	1.1	.51
8	2.2	9.0	45	9.3	6.7	9.2	11	3.9	2.3	4.0	.95	.46
9	2.1	6.2	18	14	5.7	7.9	8.7	26	1.9	3.5	.77	.40
10	63	5.8	14	33	5.5	7.7	7.0	9.8	1.6	2.8	.62	.32
11	23	5.4	12	17	5.9	7.1	6.1	6.2	1.4	2.4	.54	.30
12	8.2	5.0	9.6	14	6.2	7.4	5.4	4.5	1.3	2.6	.53	.35
13	5.7	5.0	9.6	12	86	7.3	53	3.7	1.3	31	.70	.37
14	4.7	4.4	8.2	23	33	7.8	22	27	1.5	24	.87	.53
15	3.9	4.4	8.2	13	13	7.6	10	44	1.3	4.8	.65	.92
16	3.4	4.4	8.2	6.9	10	8.6	8.9	13	1.8	3.0	.55	.56
17	3.4	4.4	7.9	5.6	9.2	61	18	7.5	18	2.6	.64	.43
18	3.1	4.4	7.1	6.8	16	25	9.6	5.8	27	2.6	1.0	.43
19	3.1	4.6	6.3	8.8	69	11	7.1	5.8	17	2.4	.83	.41
20	2.8	5.4	21	8.9	29	8.8	6.6	7.8	4.1	1.9	.55	.33
21	2.7	4.6	14	9.8	14	8.4	5.6	6.5	6.1	1.7	.47	.42
22	2.8	3.8	8.9	9.2	23	12	46	5.5	170	1.4	.40	.53
23	3.4	3.5	7.2	8.9	13	10	30	3.9	93	1.3	.39	.40
24	47	6.7	7.2	12	41	7.7	13	3.1	24	1.1	.37	.37
25	18	114	7.4	9.8	47	6.9	11	2.8	13	.96	.34	.40
26	84	24	7.4	7.9	81	6.7	8.1	2.4	8.1	.86	.32	.33
27	18	20	7.1	7.1	32	6.3	7.0	2.4	5.8	.86	.28	.36
28	11	19	6.9	8.9	18	6.1	6.1	2.3	60	.96	.38	.70
29	8.6	32	6.3	8.8	14	5.8	5.9	2.2	52	1.1	.38	.60
30	8.2	39	6.2	8.2	------	6.1	5.4	2.2	113	1.4	.31	1.1
31	8.5	------	6.0	7.1	------	6.3	------	13	------	1.7	.28	------
TOTAL	397.2	425.4	429.1	387.2	691.1	361.0	351.4	265.5	682.8	159.24	23.66	24.44
MEAN	12.8	14.2	13.8	12.5	23.8	11.6	11.7	8.56	22.8	5.14	.76	.81
MAX	84	114	115	54	86	61	53	44	170	31	3.8	7.9
MIN	2.1	3.5	6.0	5.1	5.5	5.8	4.9	2.2	1.3	.86	.28	.26
CFSM	2.19	2.43	2.36	2.14	4.07	1.98	2.00	1.46	3.90	.88	.13	.14
IN.	2.53	2.71	2.73	2.46	4.39	2.30	2.23	1.69	4.34	1.01	.15	.16

CAL YR 1971 TOTAL 3,535.40 MEAN 9.69 MAX 288 MIN .17 CFSM 1.66 IN 22.48
WTR YR 1972 TOTAL 4,199.04 MEAN 11.5 MAX 170 MIN .26 CFSM 1.97 IN 26.70

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	0615	2.84	130	6-22	1130	4.58	357
11-25	0930	3.22	167	6-23	1130	2.81	128
12- 7	1700	3.65	216	6-28	1730	3.16	164
2-13	1700	3.13	157	6-30	0630	3.57	210

01493000 Unicorn Branch near Millington, Md.

LOCATION.--Lat 39°14'59", long 75°51'40", Kent County, on right bank 20 ft upstream from bridge on State Highway 313, 1.4 miles southwest of Millington, and 0.9 mile upstream from mouth.

DRAINAGE AREA.--22.3 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 24.1 cfs (14.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs June 22 (gage height, 7.03 ft); minimum, 8.5 cfs Mar. 20 (result of regulation).
Period of record: Maximum discharge, 1,060 cfs 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.

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

REVISIONS (WATER YEARS).--WSP 1382: 1952(P)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	57	105	29	31	60	30	30	20	109	22	11
2	44	52	73	32	31	54	30	27	18	64	22	15
3	90	86	59	48	30	58	28	30	17	56	20	20
4	60	135	53	48	55	68	31	36	17	71	19	16
5	44	82	50	56	63	57	32	33	19	53	19	15
6	39	59	48	77	46	52	30	29	19	61	18	14
7	34	54	114	56	44	49	32	27	19	53	17	12
8	30	53	295	49	43	48	39	25	17	44	18	11
9	28	48	144	47	41	47	37	41	16	55	16	11
10	106	46	94	75	33	39	33	59	15	48	16	12
11	173	44	77	79	25	37	31	41	15	38	16	12
12	87	42	67	69	25	38	30	33	15	34	16	12
13	59	41	60	57	46	41	54	28	14	86	22	13
14	48	39	54	54	145	41	98	31	16	258	19	12
15	42	38	52	53	81	41	62	102	15	105	17	17
16	37	37	51	48	58	39	61	71	14	55	16	14
17	35	36	49	45	49	66	84	43	16	57	16	13
18	33	34	47	39	46	116	71	34	45	44	19	12
19	32	34	46	34	98	71	48	30	46	39	16	12
20	31	32	50	38	128	46	40	32	25	32	16	12
21	30	32	64	39	75	44	36	31	25	30	15	12
22	29	31	54	39	63	46	44	30	555	28	14	12
23	29	29	50	38	57	47	89	27	616	27	14	12
24	149	30	48	38	50	41	64	25	251	25	14	11
25	197	179	47	38	71	37	50	22	147	24	14	12
26	558	178	36	38	139	35	41	20	109	22	14	12
27	374	105	26	34	134	34	36	19	72	22	13	11
28	153	94	42	31	86	33	33	19	56	22	16	12
29	97	85	43	33	70	31	31	19	56	22	14	12
30	77	150	36	32	------	31	30	19	135	22	13	15
31	66	------	29	32	------	30	------	19	------	23	12	------
TOTAL	2,836	1,962	2,063	1,425	1,863	1,477	1,355	1,032	2,420	1,629	513	387
MEAN	91.5	65.4	66.5	46.0	64.2	47.6	45.2	33.3	80.7	52.5	16.5	12.9
MAX	558	179	295	79	145	116	98	102	616	258	22	20
MIN	25	29	26	29	25	30	28	19	14	22	12	11
CFSM	4.10	2.93	2.98	2.06	2.88	2.13	2.03	1.49	3.62	2.35	.74	.58
IN.	4.73	3.27	3.44	2.38	3.11	2.46	2.26	1.72	4.04	2.72	.86	.65

CAL YR 1971 TOTAL 14,555.9 MEAN 39.9 MAX 558 MIN 3.9 CFSM 1.79 IN 24.28
WTR YR 1972 TOTAL 18,962.0 MEAN 51.8 MAX 616 MIN 11 CFSM 2.32 IN 31.63

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	2330	4.08	236	2-14	0230	3.80	180
10-24	2000	4.34	300	6-22	1930	7.03	1,020
10-26	1300	5.84	700	6-30	1630	3.83	186
11-25	1730	4.39	288	7-14	0400	4.41	318
12-08	0330	4.55	352				

01493500 Morgan Creek near Kennedyville, Md.

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, on right bank 200 ft upstream from highway bridge, 2 miles southwest of Kennedyville, and 4.5 miles upstream from mouth.

DRAINAGE AREA.--10.5 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 9.86 cfs (12.75 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,500 cfs June 22 (gage height, 13.07 ft) from rating curve extended as explained below; minimum, 4.1 cfs Oct. 1, 2 (gage height, 1.36 ft).
Period of record: Maximum discharge, 7,500 cfs June 22, 1972 (gage height, 13.07 ft), from rating curve extended above 590 cfs on basis of Type IV culvert and flow-over-road measurement of peak flow; minimum, 0.60 cfs Aug. 28, 29, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WRD Md. and Del. 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	7.8	22	7.2	7.5	13	10	7.8	7.5	14	8.0	6.0
2	23	7.8	10	13	9.7	12	9.7	7.5	6.5	10	7.5	15
3	32	22	8.2	13	26	30	9.0	13	6.2	45	7.5	12
4	8.4	21	8.3	9.7	48	24	13	13	6.8	90	7.5	8.0
5	5.7	9.7	7.9	25	13	15	12	8.6	10	21	7.7	7.2
6	21	7.2	8.2	19	9.0	11	9.7	7.1	7.5	14	7.1	6.9
7	7.8	11	70	9.7	9.9	11	13	6.8	7.9	12	7.2	6.5
8	4.9	9.7	70	8.4	6.5	10	17	6.9	6.1	11	8.0	6.4
9	4.5	7.3	18	12	6.0	9.0	11	16	5.9	17	6.9	6.3
10	317	7.2	11	33	6.3	9.0	8.8	14	5.6	11	6.2	5.7
11	79	7.1	10	18	7.1	9.0	8.4	8.2	5.3	8.9	6.2	5.8
12	20	6.7	9.0	13	7.5	9.7	8.2	7.0	5.5	8.6	6.3	6.7
13	7.2	7.0	8.8	10	81	9.7	27	6.4	5.7	222	24	7.5
14	6.7	6.7	8.4	12	50	13	22	11	9.8	97	17	7.9
15	6.2	6.8	8.5	8.4	14	13	19	29	7.1	25	8.1	14
16	5.7	7.0	9.0	5.6	10	13	21	51	6.1	13	6.9	7.7
17	5.7	6.7	8.4	5.3	9.0	59	55	16	7.3	17	7.4	6.7
18	5.7	6.8	7.9	6.8	11	27	17	9.8	20	9.7	10	6.7
19	5.7	6.9	7.4	9.8	50	13	9.6	9.2	33	8.5	7.7	7.3
20	5.3	7.2	13	10	29	11	8.9	11	8.8	8.5	6.8	6.3
21	5.3	6.7	12	11	12	10	8.1	9.9	10	8.0	6.4	6.9
22	5.7	6.2	8.4	10	16	16	21	9.4	2,810	7.5	6.3	7.9
23	5.7	5.7	7.3	9.6	14	18	28	8.4	211	7.0	6.3	6.8
24	42	7.3	8.4	9.9	14	11	15	7.3	47	7.0	6.2	6.7
25	29	147	8.4	9.3	23	10	11	6.9	51	7.0	6.1	7.3
26	258	42	7.8	7.6	111	10	8.8	6.6	21	6.5	6.1	6.9
27	40	15	7.8	7.0	36	9.7	7.9	6.5	12	6.5	6.0	6.7
28	15	13	7.8	8.0	16	9.7	7.8	6.6	11	8.0	11	7.3
29	9.0	69	7.2	8.6	14	9.0	7.8	6.6	12	7.9	7.0	7.1
30	8.4	113	7.8	9.0	------	9.7	7.8	6.8	24	8.0	6.4	12
31	7.8	------	7.8	7.8	------	10	------	7.1	------	8.4	6.1	------
TOTAL	1,001.5	604.5	414.7	346.7	666.5	444.5	432.5	341.4	3,387.6	745.0	247.9	232.2
MEAN	32.3	20.2	13.4	11.2	23.0	14.3	14.4	11.0	113	24.0	8.00	7.74
MAX	317	147	70	33	111	59	55	51	2,810	222	24	15
MIN	4.1	5.7	7.2	5.3	6.0	9.0	7.8	6.4	5.3	6.5	6.0	5.7
CFSM	3.08	1.92	1.28	1.07	2.19	1.36	1.37	1.05	10.8	2.29	.76	.74
IN.	3.55	2.14	1.47	1.23	2.36	1.57	1.53	1.21	12.00	2.64	.88	.82

CAL YR 1971 TOTAL 6,186.1 MEAN 16.9 MAX 397 MIN 2.2 CFSM 1.61 IN 21.92
WTR YR 1972 TOTAL 8,865.0 MEAN 24.2 MAX 2,810 MIN 4.1 CFSM 2.30 IN 31.41

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1215	6.70	690	6-22	1100	13.07	7,500
10-26	0415	6.13	528	7- 3	2345	4.63	274
11-25	0845	4.61	249	7-13	1600	6.33	669
11-29	2145	4.78	272				

01495000 Big Elk Creek at Elk Mills, Md.

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

DRAINAGE AREA.--52.6 sq mi.

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

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

AVERAGE DISCHARGE.--40 years, 67.4 cfs (17.40 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,720 cfs June 22 (gage height 13.46 ft), from rating curve extended above 500 cfs on basis of slope-area measurement of peak flow; minimum, 32 cfs Sept. 10-12, 23, 24; minimum gage height, 2.64 ft Jan. 16, result of freezeup; minimum daily, 32 cfs Sept. 11.
Period of record: Maximum discharge, 10,600 cfs July 5, 1937 (gage height, 14.5 ft, from floodmarks), from rating curve extended above 1,700 cfs on basis of velocity-area and conveyance studies; minimum, 4.5 cfs Jan. 21, 1955 (result of freezeup); minimum daily, 4.8 cfs Sept. 8-10, 1966; minimum gage height observed, 2.09 ft Sept. 19, 22-24, 1932.
Maximum stage known, about 19 ft in June 1884, from information by local residents.

REMARKS.--Records good except those for January and February, which are fair. Slight diurnal fluctuation caused by mills above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	84	107	72	71	199	86	91	75	184	61	35
2	232	144	93	136	68	202	88	89	64	147	55	70
3	115	274	88	104	149	217	84	151	62	158	54	54
4	78	119	87	85	290	142	95	199	60	144	54	40
5	73	94	83	137	80	117	91	112	84	164	52	39
6	70	89	86	96	75	105	85	95	64	155	50	37
7	65	102	150	82	79	99	88	90	64	139	50	36
8	62	87	136	77	69	98	91	85	57	139	59	35
9	61	84	101	86	69	90	84	130	55	144	50	36
10	1,210	84	95	142	69	89	81	178	54	131	45	34
11	172	91	90	99	69	87	84	100	53	125	45	32
12	107	79	86	88	69	89	81	89	52	123	45	35
13	93	79	84	87	747	89	155	84	69	430	49	39
14	88	76	81	96	193	107	123	97	85	123	47	49
15	84	77	82	91	114	118	242	150	65	86	43	66
16	80	78	83	62	106	101	247	122	61	79	40	39
17	78	75	81	87	95	326	390	91	91	81	42	36
18	76	75	80	94	92	136	135	88	74	75	47	35
19	74	75	76	81	201	106	114	83	99	86	43	39
20	72	76	93	75	125	97	107	84	70	70	39	36
21	73	74	86	78	120	95	104	84	151	68	37	35
22	72	71	79	77	109	171	145	80	3,070	64	37	37
23	73	69	74	83	99	149	147	75	511	62	37	35
24	214	74	79	93	98	107	162	71	258	61	37	34
25	132	382	77	78	103	99	119	69	226	59	36	36
26	167	122	76	70	213	96	104	66	184	57	36	36
27	98	97	75	67	151	93	98	65	164	57	59	40
28	89	93	75	73	134	90	94	64	153	57	61	39
29	85	302	72	72	167	89	92	63	172	55	42	35
30	82	208	77	70	------	99	89	64	223	57	37	40
31	92	------	81	68	------	89	------	73	------	62	36	------
TOTAL	4,119	3,426	2,710	2,696	4,015	3,771	3,705	2,982	6,470	3,442	1,425	1,189
MEAN	133	114	87.4	87.0	138	122	124	96.2	216	111	46.0	39.6
MAX	1,210	382	150	142	747	326	390	199	3,070	430	61	70
MIN	61	69	72	62	68	87	81	63	52	55	36	32
CFSM	2.53	2.17	1.66	1.65	2.62	2.32	2.36	1.83	4.11	2.11	.87	.75
IN.	2.91	2.42	1.92	1.91	2.84	2.67	2.62	2.11	4.58	2.43	1.01	.84

CAL YR 1971 TOTAL 35,227 MEAN 96.5 MAX 1,780 MIN 21 CFSM 1.83 IN 24.91
WTR YR 1972 TOTAL 39,950 MEAN 109 MAX 3,070 MIN 32 CFSM 2.07 IN 28.25

PEAK DISCHARGE (BASE, CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0915	8.30	3,800				
2-13	1700	6.39	1,980				
6-22	1715	13.46	8,720				

01495900 Elk River near Town Point, Md.

LOCATION.--Lat 39°30'09', long 75°54'58", Cecil County, at site of Old Town Point Wharf, at the Corps of Engineers substation, on left bank of Elk River, 1.8 miles downstream from Courthouse Point and mouth of Back Creek, 0.7 mile west of Port Herman, 5.8 miles southwest of Chesapeake City, and 1.1 miles northwest of Town Point.

PERIOD OF RECORD.--June 1966 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 12.99 ft below mean sea level (Corps of Engineers bench mark). Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Maximum	Elev								3.55	4.64	3.62	3.84	3.80
high tide	Date								31	23	7	7	4
Minimum	Elev								-1.20	-1.90	- .97	- .96	-1.39
low tide	Date								19	11	4	10	20
Mean high tide									2.35	2.57	2.38	2.34	2.32
Mean water level									1.23	1.49	1.17	1.16	1.18
Mean low tide									- .16	.44	.01	.01	.06

01496000 Northeast Creek at Leslie, Md.

LOCATION.--Lat 39°37'38", long 75°56'40", Cecil County, on left bank at downstream side of highway bridge, 0.7 mile northeast of Leslie, 1.5 miles southeast of Bay View, and 1.7 miles upstream from confluence with Little Northeast Creek.

DRAINAGE AREA.--24.3 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.0 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 33.2 cfs (18.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,800 cfs June 22 (gage height, 8.41 ft), from rating curve extended as explained below; minimum, 5.7 cfs Sept. 10, 11, 12, 23, 24, 25 (gage height, 1.66 ft); minimum daily, 5.7 cfs Sept. 11.
Period of record: Maximum discharge, 4,800 cfs June 22, 1972 (gage height, 8.41 ft), from rating curve extended above 2,300 cfs, on basis of contracted-opening measurement at gage height 7.74 ft; minimum, 1.2 cfs Sept. 8, 9, 10, 11, 12, 13, 14, 1966; minimum daily, 1.2 cfs Sept. 9, 10, 12, 13, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by powerplant above station.

REVISIONS (WATER YEARS).--WSP 1232: 1949-51.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	28	49	22	23	85	25	26	22	55	16	6.4
2	33	54	35	78	24	75	26	25	18	29	14	13
3	35	252	31	52	125	152	24	105	17	35	14	13
4	21	69	30	34	346	55	29	217	17	29	13	8.3
5	20	37	29	91	46	44	28	52	31	40	12	7.5
6	19	32	29	46	33	34	25	32	19	36	11	7.4
7	17	41	125	31	32	33	26	28	19	26	12	6.8
8	16	32	120	29	27	32	31	27	16	25	14	6.6
9	16	29	45	39	27	27	26	56	15	30	12	6.3
10	681	28	37	102	27	27	24	143	14	24	11	6.0
11	167	27	34	48	24	26	25	39	13	21	9.4	5.7
12	38	26	30	39	22	28	25	29	13	20	9.4	6.3
13	28	27	29	39	451	28	123	26	17	81	11	7.7
14	26	25	27	48	280	39	78	36	28	40	10	7.5
15	24	26	28	33	59	49	194	76	20	23	9.3	8.0
16	23	27	28	23	49	35	196	42	26	20	8.5	7.0
17	22	25	26	22	38	332	578	29	69	25	8.4	6.4
18	21	24	25	27	36	74	67	26	58	24	12	6.2
19	20	24	23	27	151	39	42	25	53	28	11	8.1
20	19	24	31	29	61	32	35	26	33	19	8.8	6.7
21	20	23	30	31	53	31	31	26	52	17	7.9	6.3
22	19	22	25	30	43	134	80	24	2,220	17	7.5	6.7
23	20	20	22	35	38	142	92	22	728	15	7.5	6.3
24	96	24	24	35	38	42	101	20	103	15	7.2	5.7
25	61	444	24	31	46	32	52	20	67	14	7.2	6.0
26	353	92	24	25	213	30	35	18	43	13	7.1	6.4
27	64	43	24	23	118	28	31	18	32	13	8.6	8.7
28	38	40	23	25	92	26	29	18	27	14	10	9.5
29	32	157	22	25	104	26	27	17	37	13	8.3	7.0
30	29	358	24	25	------	26	26	18	149	14	7.1	8.3
31	28	------	27	25	------	25	------	20	------	15	6.6	------
TOTAL	2,023	2,090	1,080	1,169	2,632	1,788	2,131	1,286	3,976	790	311.8	221.8
MEAN	65.3	69.7	34.8	37.7	90.8	57.7	71.0	41.5	133	25.5	10.1	7.39
MAX	681	444	125	102	451	332	578	217	2,220	81	16	13
MIN	16	20	22	22	22	25	24	17	13	13	6.6	5.7
CFSM	2.69	2.87	1.43	1.55	3.74	2.37	2.92	1.71	5.47	1.05	.42	.30
IN.	3.10	3.20	1.65	1.79	4.03	2.74	3.26	1.97	6.09	1.21	.48	.34

CAL YR 1971 TOTAL 19,809.2 MEAN 54.3 MAX 1,270 MIN 4.8 CFSM 2.23 IN 30.33
WTR YR 1972 TOTAL 19,498.6 MEAN 53.3 MAX 2,220 MIN 5.7 CFSM 2.19 IN 29.85

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1815	4.87	1,430	4-17	0645	4.19	984
2-13	2145	4.40	1,110	6-22	1700	8.41	4,800

01496200 Principio Creek near Principio Furnace, Md.

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

DRAINAGE AREA.--9.03 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 215 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 12.3 cfs (18.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,020 cfs June 22 (gage height 8.49 ft), from rating curve extended as explained below; minimum, 2.8 cfs Sept. 23, 24, 28, 89 (gage height, 1.73 ft).
Period of record: Maximum discharge, 7,060 cfs Aug. 4, 1969 (gage height, 9.26 ft), from rating curve extended above 170 cfs on basis of slope-area measurements at gage heights 8.89 and 9.26 ft; minimum, 1.6 cfs Oct. 4, 5, 1968, July 17, 18, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	12	17	9.2	8.8	28	12	13	8.8	19	8.0	4.2
2	27	27	14	26	9.1	25	13	12	7.7	13	7.4	7.4
3	12	52	13	14	61	44	12	42	7.4	32	7.1	4.7
4	7.6	18	13	12	42	20	15	41	11	16	6.8	4.2
5	7.2	14	12	29	13	19	13	17	9.6	23	6.5	4.2
6	6.7	13	13	14	12	15	12	14	7.9	15	6.3	4.2
7	6.1	14	49	12	13	15	14	13	7.7	13	6.3	4.2
8	5.8	12	26	11	11	15	15	12	6.7	21	6.8	4.0
9	5.9	11	17	19	10	13	12	29	6.4	15	6.0	4.0
10	143	11	16	26	9.4	13	11	28	6.1	12	5.5	3.7
11	22	11	15	16	9.1	13	12	15	5.9	11	5.5	3.6
12	13	11	13	13	9.6	13	11	13	5.9	11	5.5	3.7
13	10	11	13	15	130	13	39	12	7.1	14	6.8	4.0
14	9.7	9.8	12	15	31	18	19	16	7.9	11	5.8	4.0
15	8.9	11	12	12	20	17	51	22	6.7	10	5.2	3.6
16	8.4	11	12	9.4	17	15	79	15	17	10	5.0	3.4
17	8.1	9.9	11	9.4	15	80	76	12	18	18	5.2	3.4
18	8.0	9.8	11	9.6	16	23	22	12	26	11	6.0	3.7
19	7.7	9.9	11	11	50	17	18	11	17	10	5.2	4.7
20	7.5	9.7	13	11	24	15	16	13	11	9.8	4.5	3.6
21	7.5	9.3	12	11	20	15	15	12	35	9.5	4.5	3.2
22	7.5	8.6	11	11	18	49	34	11	933	8.9	4.2	3.6
23	7.6	8.3	10	12	16	26	24	9.7	101	8.6	4.2	3.2
24	39	12	11	12	15	18	31	9.1	30	8.3	4.2	3.1
25	19	107	10	11	20	16	19	8.7	24	8.0	4.2	3.4
26	102	20	10	9.3	61	15	16	8.3	17	7.7	4.2	3.4
27	20	16	10	8.9	31	14	14	8.2	14	7.7	4.5	3.2
28	15	15	10	9.8	33	13	14	8.1	13	7.7	4.7	3.2
29	13	81	9.4	9.4	30	13	13	7.9	21	7.4	4.2	3.1
30	12	31	11	9.4	------	13	13	8.0	37	7.4	4.2	3.9
31	12	------	10	8.8	------	13	------	8.9	------	8.3	4.2	------
TOTAL	584.8	596.3	427.4	406.2	755.0	636	665	461.9	1,426.8	384.3	168.7	115.8
MEAN	18.9	19.9	13.8	13.1	26.0	20.5	22.2	14.9	47.6	12.4	5.44	3.86
MAX	143	107	49	29	130	80	79	42	933	32	8.0	7.4
MIN	5.6	8.3	9.4	8.8	8.8	13	11	7.9	5.9	7.4	4.2	3.1
CFSM	2.09	2.20	1.53	1.45	2.88	2.27	2.46	1.65	5.27	1.37	.60	.43
IN.	2.41	2.46	1.76	1.67	3.11	2.62	2.74	1.90	5.88	1.58	.69	.48

CAL YR 1971 TOTAL 5,588.5 MEAN 15.3 MAX 215 MIN 2.4 CFSM 1.69 IN 23.02
WTR YR 1972 TOTAL 6,628.2 MEAN 18.1 MAX 933 MIN 3.1 CFSM 2.00 IN 27.31

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0830	6.00	570	2-13	1215	5.43	426
10-26	0600	4.76	304	4-16	2030	5.82	516
11-29	1815	5.08	356	6-22	0815	8.49	3,020

01578310 Susquehanna River at Conowingo, Md.

LOCATION.--Lat 39°39'31", long 76°10'28", Harford County, at downstream side of Conowingo Dam, 1 mile southwest of Conowingo, and 9.9 miles upstream from mouth.

DRAINAGE AREA.--27,100 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above mean sea level.

EXTREMES.--Maximum and minimum discharges for the water years 1968-72 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1968	Mar. 25, 1968	238,000	22.46	Oct. 8, 1967	147	6.29
1969	Nov. 20, 1968	160,000	20.14	Mar. 2, 1969	144	6.28
1970	Feb. 4, 1970	434,000	26.40	Nov. 30, 1969	320	6.70
1971	Feb. 22, 1971	243,000	22.58	Aug. 16, 1971	344	6.71
1972	June 24, 1972	1,130,000	36.83	Jan. 9, 30, 1972	650	7.15

Period of record: Maximum discharge, 1,130,000 cfs June 24, 1972 (gage height, 36.83 ft); minimum, 144 cfs Mar. 2, 1969 (gage height, 6.28 ft).

REMARKS.--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 above station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore Department of Public Works.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,100	38,800	46,600	12,100	54,400	30,000	67,600	26,600	129,000	64,400	13,600	363
2	41,900	43,800	39,700	23,600	78,400	3,720	66,500	28,800	135,000	65,800	14,100	2,700
3	21,200	48,000	28,100	27,000	89,000	529	59,600	25,800	121,000	39,300	2,360	15,700
4	21,200	58,900	50,200	21,700	100,000	19,600	65,200	12,300	90,300	32,900	882	7,170
5	22,900	83,400	52,100	15,600	119,000	16,700	65,200	5,220	85,400	34,900	9,150	6,490
6	20,300	86,500	54,600	8,710	93,800	18,300	57,800	32,400	78,600	28,400	9,080	10,200
7	9,290	79,300	57,600	511	81,600	18,800	43,200	22,900	65,600	23,100	12,400	1,830
8	2,310	70,600	56,200	21,800	74,800	20,700	53,200	22,100	50,900	31,500	11,000	1,830
9	14,300	60,900	49,700	22,500	59,900	1,970	40,500	23,700	42,400	24,400	10,600	19,200
10	13,500	47,800	34,400	18,600	52,100	338	43,700	26,600	46,600	20,100	695	17,200
11	13,700	33,200	53,500	15,100	25,600	21,800	51,900	15,900	35,100	21,200	427	52,600
12	10,900	26,900	61,900	12,000	35,900	26,500	40,200	10,500	41,700	18,400	6,120	35,000
13	14,500	41,600	70,300	2,580	30,500	33,100	36,100	37,400	48,200	9,460	7,640	32,100
14	9,590	30,400	73,800	1,440	27,300	31,100	31,600	52,600	52,100	2,520	11,500	24,100
15	480	39,000	76,000	32,200	18,700	30,100	38,600	57,100	60,200	27,800	8,940	32,400
16	10,600	27,400	75,500	25,600	17,800	6,980	33,500	65,900	53,500	16,400	9,570	34,400
17	10,600	34,900	65,500	28,300	18,100	13,500	28,100	66,100	60,000	16,300	633	23,700
18	10,500	20,300	63,100	34,100	12,200	56,700	27,700	41,400	55,400	15,000	403	21,300
19	21,700	16,600	64,700	30,600	27,900	66,500	32,200	46,000	49,200	9,900	4,420	19,300
20	31,600	30,700	59,600	17,600	19,600	85,500	10,400	49,800	36,800	2,610	11,200	16,900
21	26,400	33,500	55,300	6,810	22,100	93,200	9,570	53,500	32,400	1,400	10,200	3,850
22	23,900	35,600	43,700	30,200	17,600	90,500	25,000	63,400	33,000	20,400	10,800	540
23	40,200	24,100	43,000	33,200	19,900	99,100	24,800	64,100	27,900	17,500	7,840	10,500
24	36,300	36,900	40,200	32,000	7,090	143,000	26,300	74,500	37,800	8,010	641	11,900
25	29,000	33,400	33,400	30,400	758	203,000	26,700	61,000	32,400	8,750	423	9,750
26	40,800	41,600	43,100	30,100	21,600	170,000	26,200	53,500	27,200	10,400	1,960	9,500
27	51,900	55,800	33,800	12,700	27,700	125,000	19,700	60,300	23,600	1,670	1,820	11,100
28	69,700	60,200	38,200	9,220	20,700	102,000	10,200	64,800	32,000	688	3,140	494
29	73,700	53,000	34,300	32,200	23,800	82,400	31,600	102,000	39,200	14,800	5,280	472
30	59,100	41,800	27,100	27,100	------	72,600	30,400	113,000	62,300	7,330	7,740	5,660
31	50,100	------	20,000	41,300	------	74,500	------	137,000	------	13,800	367	------
TOTAL	814,270	1,334.9M	1,545.2M	656,871	1,197.8M	1,757.7M	1,123.3M	1,516.2M	1,684.8M	609,138	194,931	438,249
MEAN	26,270	44,500	49,850	21,190	41,310	56,700	37,440	48,910	56,160	19,650	6,288	14,610
MAX	73,700	86,500	76,000	41,300	119,000	203,000	67,600	137,000	135,000	65,800	14,100	52,600
MIN	480	16,600	20,000	511	758	338	9,570	5,220	23,600	688	367	363
CFSM	.97	1.64	1.84	.78	1.52	2.09	1.38	1.80	2.07	.73	.23	.54
IN.	1.12	1.83	2.12	.90	1.64	2.41	1.54	2.08	2.31	.84	.27	.60

WTR YR 1968 TOTAL 12,873,434 MEAN 35,170 MAX 203,000 MIN 338 CFSM 1.30 IN 17.67

01578310 Susquehanna River at Conowingo, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,570	18,300	28,100	50,600	44,500	9,410	61,400	53,200	8,580	19,100	34,100	775
2	4,470	4,370	46,900	57,100	36,900	287	49,900	48,700	27,400	14,500	31,600	12,200
3	7,600	303	47,400	48,100	61,300	19,300	50,500	39,600	25,200	15,200	23,700	12,700
4	8,180	12,400	49,900	25,000	71,800	17,800	38,800	18,700	20,400	1,040	43,100	15,200
5	552	12,600	56,000	22,000	62,400	21,500	41,700	43,300	20,000	8,560	43,700	12,100
6	485	13,800	67,200	23,100	52,100	19,900	47,300	31,400	19,800	2,770	36,400	5,110
7	15,600	12,900	74,200	29,400	46,200	25,300	78,300	30,100	14,800	25,700	33,400	738
8	9,670	23,400	73,600	25,000	30,900	2,990	99,700	34,600	10,100	10,600	28,500	17,100
9	8,320	14,500	59,800	24,100	28,600	446	105,000	32,600	21,600	7,050	23,500	12,200
10	8,400	18,700	65,900	20,000	36,400	20,700	84,900	28,800	17,600	9,510	4,570	10,200
11	8,260	40,400	44,900	12,700	29,100	14,800	72,900	21,600	18,500	10,700	28,600	11,700
12	629	48,000	35,100	6,320	27,600	16,400	73,400	47,600	22,400	3,010	19,700	13,700
13	503	43,700	38,600	14,200	27,500	14,800	61,900	49,100	13,300	269	17,000	894
14	4,650	36,600	27,900	17,200	23,200	15,300	56,300	47,600	5,050	13,300	21,200	899
15	15,700	41,400	22,000	22,700	9,750	453	61,200	45,400	622	12,000	22,900	4,720
16	8,490	23,000	30,100	21,600	1,480	386	52,900	49,300	30,900	12,100	3,870	5,330
17	6,780	29,600	30,300	19,000	20,800	10,500	50,000	19,800	41,800	30,900	853	8,460
18	6,400	61,400	27,300	10,400	24,200	12,400	46,400	14,500	42,600	6,390	24,000	8,130
19	425	83,700	27,200	7,630	25,100	15,600	41,600	43,200	45,700	383	16,800	8,660
20	318	122,000	28,300	24,200	19,400	17,400	27,300	47,000	32,800	276	16,400	742
21	8,420	132,000	13,400	22,300	20,700	23,800	49,300	28,500	15,600	2,310	8,950	730
22	11,400	105,000	9,250	23,900	9,720	7,850	53,200	46,000	10,400	11,800	17,900	4,470
23	11,500	79,100	40,500	26,600	6,400	417	59,300	50,600	27,100	23,300	18,800	5,310
24	12,400	71,100	29,100	26,200	19,200	51,800	58,600	55,100	22,700	32,000	5,970	6,660
25	16,300	61,600	7,420	16,000	21,700	55,600	73,600	35,100	24,800	28,300	24,900	6,430
26	1,530	60,000	25,400	13,200	25,900	81,600	71,400	41,800	27,500	17,700	19,100	8,150
27	295	51,700	20,800	30,000	26,400	90,000	74,800	29,400	22,200	6,220	8,870	635
28	10,000	29,700	5,160	21,400	27,100	91,400	68,700	28,300	14,800	47,000	8,720	505
29	14,500	49,000	887	36,500	------	85,200	62,800	36,500	5,200	40,800	13,100	4,330
30	15,600	40,700	42,400	36,700	------	75,900	58,200	14,100	32,600	49,300	5,270	4,440
31	14,400	------	48,500	42,600	------	58,600	------	13,300	------	38,900	692	------
TOTAL	237,347	1,341.0M	1,123.5M	775,750	836,350	677,839	1,831.3M	1,124.8M	642,052	500,988	606,165	203,218
MEAN	7,656	44,700	36,240	25,020	29,870	28,320	61,040	36,280	21,400	16,160	19,550	6,774
MAX	16,300	132,000	74,200	57,100	71,800	91,400	105,000	55,100	45,700	49,300	43,700	17,100
MIN	295	303	887	6,320	1,480	287	27,300	13,300	622	269	692	505
CFSM	.28	1.65	1.34	.92	1.10	1.05	2.25	1.34	.79	.60	.72	.25
IN.	.33	1.84	1.54	1.06	1.15	1.21	2.51	1.54	.88	.69	.83	.28

CAL YR 1968 TOTAL 11,880,901 MEAN 32,460 MAX 203,000 MIN 295 CFSM 1.20 IN 16.31
WTR YR 1969 TOTAL 10,100,299 MEAN 27,670 MAX 132,000 MIN 269 CFSM 1.02 IN 13.86

01578310 Susquehanna River at Conowingo, Md.--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,020	662	30,400	12,900	18,400	26,500	114,000	70,100	42,000	21,600	16,100	10,600
2	6,770	486	24,700	38,500	47,900	46,000	138,000	70,500	33,000	21,000	4,460	10,600
3	10,300	3,610	27,500	31,700	68,300	42,200	281,000	58,400	30,800	23,700	24,800	13,000
4	2,660	9,070	24,800	12,700	173,000	39,700	347,000	59,300	29,900	6,740	19,600	14,800
5	641	14,100	24,100	31,100	178,000	37,200	272,000	61,300	32,600	6,770	18,000	6,780
6	5,520	27,100	11,000	28,700	148,000	47,900	212,000	58,900	23,700	19,400	18,400	5,900
7	8,720	18,900	2,800	30,600	105,000	40,000	175,000	44,900	13,500	15,300	15,000	961
8	9,860	6,000	27,100	42,800	80,600	37,300	146,000	39,100	29,800	15,200	6,680	19,400
9	9,080	15,200	20,100	37,000	82,800	53,500	126,000	37,400	26,400	14,500	1,160	14,900
10	9,160	43,200	19,600	833	83,300	50,000	125,000	24,000	25,800	48,400	13,200	16,100
11	648	48,100	41,800	718	88,500	46,000	155,000	44,200	29,800	65,600	13,000	14,400
12	540	61,600	57,200	14,000	99,100	48,000	156,000	36,000	17,600	26,400	12,600	1,000
13	4,530	62,000	62,700	20,000	91,600	47,000	151,000	36,800	10,200	36,000	11,500	952
14	8,060	44,400	81,200	17,400	78,200	41,700	129,000	31,200	4,620	30,800	13,100	6,800
15	7,240	33,300	86,200	23,600	63,700	28,800	133,000	23,300	20,500	26,700	2,890	13,600
16	7,510	11,700	67,600	22,900	58,800	46,400	136,000	23,500	15,700	23,800	950	19,500
17	8,580	32,700	71,200	10,200	48,600	32,800	125,000	21,600	19,800	29,800	8,890	901
18	656	22,600	49,900	3,800	50,800	34,100	116,000	50,900	20,900	19,500	10,300	7,630
19	589	27,700	50,600	26,200	49,300	32,600	103,000	54,300	28,200	5,940	8,820	2,040
20	13,300	35,300	31,600	21,600	49,100	32,400	109,000	61,700	18,600	28,900	10,300	886
21	8,280	43,800	20,100	20,800	48,400	37,400	99,500	61,700	20,500	28,700	16,800	7,210
22	4,120	33,700	46,400	19,200	25,100	30,200	91,100	62,600	47,400	26,700	1,060	28,500
23	4,820	18,000	35,700	17,800	45,000	55,100	81,400	37,000	33,400	25,700	1,380	21,700
24	2,740	47,900	28,300	15,500	45,000	54,400	80,200	28,100	21,600	23,900	17,100	1,000
25	733	43,100	9,310	750	54,700	62,000	82,300	41,800	21,200	16,200	14,400	6,510
26	535	42,000	24,500	20,700	55,000	59,500	84,800	38,600	25,100	4,950	15,300	655
27	4,220	21,100	6,470	22,900	52,800	63,100	109,000	41,500	9,770	25,600	17,200	723
28	6,540	36,600	6,470	23,700	46,100	83,400	110,000	46,200	5,870	17,900	20,600	3,610
29	9,750	24,600	21,100	21,200	------	137,000	93,800	45,500	26,300	15,500	885	12,800
30	5,250	8,800	20,800	31,200	------	146,000	79,300	51,100	23,900	14,400	986	11,000
31	4,900	------	33,100	18,400	------	134,000	------	32,900	------	15,400	6,260	------
TOTAL	172,272	837,328	1,064.4M	639,401	2,035.1M	1,672.2M	4,160.4M	1,394.4M	708,460	701,000	341,721	274,458
MEAN	5,557	27,910	34,330	20,630	72,680	53,940	138,700	44,980	23,620	22,610	11,020	9,149
MAX	13,300	62,000	86,200	42,800	178,000	146,000	347,000	70,500	47,400	65,600	24,800	28,500
MIN	535	486	2,800	718	18,400	26,500	79,300	21,600	4,620	4,950	885	655
CFSM	.21	1.03	1.27	.76	2.68	1.99	5.12	1.66	.87	.83	.41	.34
IN.	.24	1.15	1.46	.88	2.79	2.30	5.71	1.91	.97	.96	.47	.38

CAL YR 1969 TOTAL 9,472,412 MEAN 25,950 MAX 105,000 MIN 269 CFSM .96 IN 13.00
WTR YR 1970 TOTAL 14,001,090 MEAN 38,360 MAX 347,000 MIN 486 CFSM 1.42 IN 19.22

01578310 Susquehanna River at Conowingo, Md.--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,400	13,900	41,700	31,900	30,700	206,000	51,400	32,900	38,700	13,900	3,810	8,910
2	10,800	31,100	42,100	22,200	18,900	225,000	51,000	35,100	28,700	10,100	31,000	11,100
3	4,050	28,700	42,000	14,500	16,400	188,000	50,000	48,100	29,800	3,560	40,700	14,400
4	596	43,400	42,800	38,300	13,200	158,000	53,900	39,500	28,400	711	40,700	4,760
5	8,180	53,600	31,600	48,700	14,400	125,000	77,000	43,100	9,900	684	42,600	830
6	11,200	49,700	29,000	50,200	10,600	99,600	82,600	42,300	12,800	14,900	35,600	752
7	11,000	43,600	45,600	61,200	3,700	83,300	84,900	52,200	27,300	12,900	20,400	10,300
8	10,800	28,700	45,600	51,900	40,100	92,600	82,300	46,200	19,600	11,800	13,600	9,590
9	11,500	47,200	41,300	37,900	41,000	86,100	70,700	43,800	24,200	11,400	25,700	12,100
10	4,950	31,900	44,200	32,300	27,700	84,100	69,800	58,200	12,700	3,470	15,800	7,410
11	1,250	31,800	35,900	51,200	24,600	76,900	72,100	54,400	15,800	842	15,900	4,170
12	4,910	37,400	32,100	47,200	23,700	68,700	70,400	62,700	8,230	7,140	14,900	2,410
13	9,450	49,800	26,900	47,600	35,700	63,000	85,800	59,200	4,580	8,690	13,500	12,100
14	12,000	78,000	49,400	38,900	81,200	59,500	91,700	63,100	20,500	11,400	3,170	9,040
15	18,800	90,300	50,400	37,300	82,400	67,900	96,200	73,400	33,000	10,600	641	18,600
16	33,200	149,000	54,300	26,300	82,900	84,500	107,000	81,100	21,000	13,000	8,750	20,400
17	14,500	135,000	55,700	14,800	85,700	135,000	93,100	73,200	19,900	912	11,500	13,300
18	8,470	126,000	55,700	31,000	82,300	204,000	79,800	64,200	20,500	732	8,660	5,700
19	23,700	99,900	56,800	26,500	79,600	176,000	76,400	60,000	11,500	6,830	9,410	935
20	21,300	80,600	36,700	24,000	81,100	141,000	63,800	49,100	8,570	9,200	11,700	20,000
21	19,900	68,700	51,900	20,000	90,900	107,000	53,000	48,800	20,300	8,630	1,700	19,200
22	32,700	74,200	54,300	19,100	138,000	107,000	55,400	38,800	16,600	8,500	647	21,600
23	39,700	70,100	55,100	14,500	175,000	95,000	49,900	30,800	14,800	8,710	4,410	19,800
24	44,900	69,000	54,700	5,190	197,000	83,300	42,500	45,500	12,400	3,220	8,320	23,900
25	30,100	63,800	61,200	29,300	177,000	76,800	31,600	43,700	15,300	756	6,650	10,200
26	50,900	50,300	56,100	28,500	151,000	67,900	51,000	33,800	4,000	4,000	8,690	5,840
27	41,200	48,100	56,700	28,100	133,000	59,600	36,200	34,500	944	10,600	29,900	17,200
28	35,900	40,300	54,400	22,700	151,000	44,000	36,300	34,100	12,100	8,160	6,640	16,800
29	29,000	24,300	48,500	18,400	------	52,900	38,200	21,000	10,500	9,060	995	15,900
30	28,200	40,900	40,400	12,900	------	50,500	39,300	22,800	9,900	16,800	14,500	17,400
31	13,000	------	38,500	1,280	------	52,500	------	28,700	------	7,840	8,570	------
TOTAL	599,556	1,799.3M	1,431.6M	933,870	2,088.8M	3,220.7M	1,943.3M	1,464.3M	512,524	239,047	459,063	354,647
MEAN	19,340	59,980	46,180	30,120	74,600	103,900	64,780	47,240	17,080	7,711	14,810	11,820
MAX	50,900	149,000	61,200	61,200	197,000	225,000	107,000	81,100	38,700	16,800	42,600	23,900
MIN	596	13,900	26,900	1,280	3,700	44,000	31,600	21,000	944	684	641	752
CFSM	.71	2.21	1.70	1.11	2.75	3.83	2.39	1.74	.63	.28	.55	.44
IN.	.82	2.47	1.97	1.28	2.87	4.42	2.67	2.01	.70	.33	.63	.49

CAL YR 1970 TOTAL 15,757,596 MEAN 43,170 MAX 347,000 MIN 596 CFSM 1.59 IN 21.63
WTR YR 1971 TOTAL 15,046,707 MEAN 41,220 MAX 225,000 MIN 596 CFSM 1.52 IN 20.65

01578310 Susquehanna River at Conowingo, Md.--Continued

DISCHARGE, IN THOUSANDS OF CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.9	20.8	49.7	29.8	30.1	50.5	54.2	51.6	52.2	141	25.7	12.7
2	8.84	28.7	39.1	49.1	37.5	67.2	55.4	49.9	61.4	126	21.1	1.12
3	.89	31.4	43.6	57.7	37.5	145	53.9	49.4	51.0	132	18.8	1.16
4	12.2	29.5	31.7	65.4	47.4	328	64.8	56.4	47.6	97.6	18.9	1.18
5	13.5	26.2	19.5	69.3	24.8	291	69.6	79.1	57.8	91.8	9.55	10.8
6	12.0	15.9	36.6	50.9	19.7	206	64.9	83.3	52.3	80.7	4.62	12.3
7	8.80	13.4	52.8	50.3	27.2	153	62.0	95.2	47.9	80.6	23.6	13.2
8	12.3	20.8	77.0	40.9	28.2	118	56.3	93.2	46.4	71.0	19.3	11.4
9	.92	21.0	100	28.0	26.5	94.8	49.9	82.0	44.6	59.6	22.2	1.20
10	7.76	19.6	144	46.2	21.6	82.9	54.0	86.3	32.0	66.6	17.2	1.14
11	14.2	21.2	135	41.1	19.4	81.1	53.5	110	24.1	67.2	19.0	3.75
12	13.6	18.6	112	42.7	20.5	72.1	51.6	137	35.5	64.1	14.1	9.90
13	14.0	8.78	108	47.0	20.9	63.0	57.2	114	33.9	63.5	3.66	9.85
14	12.3	1.15	90.1	48.1	47.5	72.3	58.2	93.6	34.0	52.3	24.5	12.6
15	12.3	18.4	80.4	47.6	51.5	61.7	76.3	87.0	34.2	43.6	19.7	9.10
16	6.48	19.5	68.4	47.3	55.6	64.2	80.0	81.1	33.4	36.9	20.2	1.16
17	.92	17.5	66.6	52.2	53.3	78.0	134	82.2	31.6	56.5	12.4	1.10
18	5.49	18.4	65.4	45.4	44.4	82.2	228	81.1	31.2	70.5	7.88	6.96
19	9.85	15.2	53.9	49.2	44.4	83.1	220	74.8	51.1	64.7	1.14	11.9
20	11.6	7.58	49.8	47.4	34.1	109	169	71.5	54.2	52.3	1.12	12.0
21	9.00	1.15	54.2	46.6	23.5	102	137	67.9	50.4	40.0	17.9	11.3
22	9.90	19.4	53.5	35.4	33.3	90.3	115	63.0	445	35.9	12.7	13.8
23	4.53	20.4	43.3	27.9	31.7	105	113	70.8	1,040	31.9	18.1	1.10
24	1.06	11.2	36.1	48.4	27.9	150	115	66.3	1,120	38.4	15.4	1.07
25	10.7	25.0	29.4	47.0	27.8	158	102	58.2	1,010	35.8	11.0	21.2
26	21.9	30.3	29.8	51.5	31.0	122	89.9	40.7	696	26.7	1.18	18.2
27	22.8	13.4	35.0	50.5	25.9	108	81.1	36.7	418	28.0	1.16	10.7
28	28.5	9.62	35.2	55.6	43.7	85.2	73.1	31.1	254	30.5	10.7	6.29
29	30.7	33.9	35.1	53.6	42.7	76.4	61.7	28.2	193	11.8	16.3	5.48
30	6.70	46.3	45.6	41.3	------	70.5	55.6	34.1	157	12.3	11.0	1.20
31	3.11	------	44.2	51.2	------	60.0	------	40.1	------	20.9	15.1	------
TOTAL	341.75	584.28	1,865.0	1,464.6	979.6	3,430.5	2,656.2	2,195.8	6,239.8	1,830.7	435.21	234.86
MEAN	11.0	19.5	60.2	47.2	33.8	111	88.5	70.8	208	59.1	14.0	7.83
MAX	30.7	46.3	144	69.3	55.6	328	228	137	1,120	141	25.7	21.2
MIN	.89	1.15	19.5	27.9	19.4	50.5	49.9	28.2	24.1	11.8	1.12	1.07
CFSM	.00041	.00072	.00222	.00174	.00125	.00410	.00327	.00261	.00768	.00218	.00052	.00029
IN.	.00047	.00080	.00256	.00201	.00134	.00471	.00364	.00301	.00856	.00251	.00060	.00032

CAL YR 1971 TOTAL 14,007.28 MEAN 38.4 MAX 225 MIN .64 CFSM .00142 IN .01922
WTR YR 1972 TOTAL 22,258.30 MEAN 60.8 MAX 1,120 MIN .89 CFSM .00224 IN .03054

NOTE.--All figures are in thousands.

01578500 Octoraro Creek near Rising Sun, Md.

LOCATION.--Lat 39°41'24", long 76°07'43", Cecil County, on right bank at downstream side of Porter Bridge, 300 ft downstream from Love Run, 3.5 miles west of Rising Sun, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--193 sq mi.

PERIOD OF RECORD.--April 1932 to September 1958, annual maximum, water years 1963-68, December 1968 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 73.77 ft above mean sea level.

AVERAGE DISCHARGE.--29 years (1932-58, 1969-72), 263 cfs (18.51 inches per year), adjusted for storage and diversion since October 1951.

EXTREMES.--Current year: Maximum discharge, 29,000 cfs June 22 (gage height, 18.92 ft) from rating curve extended above 5,000 cfs on basis of contracted-opening measurement of peak flow; minimum, 74 cfs Sept. 24, 27; minimum daily, 76 cfs Sept. 24, 29.
Period of record: Maximum discharge, 35,000 cfs Aug. 9, 1942 (gage height, 17.57 ft), from rating curve extended above 5,000 cfs on basis of velocity-area studies; maximum gage height, 18.92 ft June 22, 1972; minimum, 18 cfs July 30, 31, Aug. 2, 1954; minimum daily, 22 cfs Aug. 2, 1954.
Floods of 1884 and 1918 reached stages of 24.3 and 16.5 ft, respectively, from floodmarks.

REMARKS.--Records good. Slight diurnal fluctuation caused by mills above station. Flow regulated by Chester-Octoraro Reservoir, (formerly Pine Grove Reservoir) beginning Feb. 22, 1951 (capacity, 2,800,000,000 gal). Diversion above station by Octoraro Water Co., and from Chester-Octoraro Reservoir beginning November 1951 by Chester Municipal Authority for municipal supply of Chester and surrounding boroughs.

REVISIONS (WATER YEARS).--WSP 1051: Drainage area. WSP 1432: 1933, 1935, 1936(M), 1937-38, 1939(M), 1944-45, 1947(M), 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	197	422	190	155	629	272	263	778	660	239	105
2	190	236	299	256	169	844	273	262	380	501	225	112
3	251	391	263	336	267	786	266	443	275	449	218	118
4	201	325	251	254	660	554	266	778	283	427	211	116
5	177	239	237	292	310	440	270	551	1,150	460	207	107
6	168	209	233	280	210	386	256	361	458	477	194	101
7	158	213	324	234	222	348	256	314	320	405	191	97
8	149	210	428	214	190	349	264	296	263	416	228	94
9	143	193	332	212	175	315	245	365	241	507	200	90
10	1,330	189	284	297	175	292	231	577	230	395	185	90
11	767	188	269	279	175	282	236	402	214	351	173	86
12	339	182	251	250	170	280	237	326	203	320	165	96
13	251	182	246	235	1,190	285	345	294	244	1,460	170	92
14	225	176	230	248	1,220	297	408	295	312	1,230	173	94
15	213	176	228	227	470	333	519	338	292	501	165	118
16	200	181	232	190	348	304	691	316	338	390	158	105
17	193	177	225	175	297	915	899	291	426	426	153	92
18	188	172	222	180	278	620	494	440	291	351	163	86
19	182	170	204	202	408	399	375	377	315	329	160	92
20	176	172	217	198	330	340	333	308	285	307	153	90
21	174	170	226	202	296	320	316	290	366	291	145	95
22	172	170	215	199	319	434	358	275	15,000	283	138	81
23	170	156	199	207	278	537	422	264	6,300	275	135	77
24	277	157	196	216	274	385	422	247	1,340	263	130	76
25	340	997	202	206	271	328	380	238	1,110	251	128	77
26	424	648	197	189	423	311	322	233	860	247	123	77
27	256	333	197	176	444	297	294	218	676	239	145	77
28	220	275	195	178	400	290	276	214	577	239	191	79
29	204	526	189	178	443	280	271	211	577	232	138	76
30	198	933	190	173	------	275	266	212	740	228	120	79
31	190	------	206	173	------	274	------	351	------	239	112	------
TOTAL	8,286	8,543	7,609	6,846	10,567	12,729	10,463	10,350	34,844	13,149	5,236	2,755
MEAN	267	285	245	221	364	411	349	334	1,161	424	169	91.8
MAX	1,330	997	428	336	1,220	915	899	778	15,000	1,460	239	118
MIN	143	156	189	173	155	274	231	211	203	228	112	76
(†)	+46.0	+56.7	+37.5	+46.3	+50.0	+42.8	+42.3	+46.5	+49.0	+40.2	+49.1	+43.0
MEAN‡	313	342	282	267	414	454	391	380	1,210	464	218	135
CFSM‡	1.62	1.77	1.46	1.38	2.15	2.35	2.03	1.97	6.27	2.40	1.13	.70
IN‡	1.87	1.97	1.69	1.60	2.32	2.71	2.26	2.27	7.00	2.77	1.30	.78

CAL YR 1971 TOTAL 108,514 MEAN 297 MAX 4,000 MIN 53 MEAN‡ 343 CFSM‡ 1.78 IN‡ 24.12
WTR YR 1972 TOTAL 131,377 MEAN 359 MAX 15,000 MIN 76 MEAN‡ 405 CFSM‡ 2.10 IN‡ 28.54

† Diversion above station and diversion from and change in contents in Chester-Octoraro Reservoir, equivalent in cubic feet per second; furnished by Octoraro Water Co. and Chester Municipal Authority, respectively.
‡ Adjusted for diversion and change in reservoir contents.

01580000 Deer Creek at Rocks, Md.

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

DRAINAGE AREA.--94.4 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above mean sea level (city of Baltimore bench mark).

AVERAGE DISCHARGE.--46 years, 120 cfs (17.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs June 22 (gage height, 17.09 ft), from rating curve extended as explained below; minimum, 77 cfs Sept. 17.
Period of record: Maximum discharge, 13,600 cfs Aug. 23, 1933 (gage height, 17.7 ft, from floodmarks), from rating curve extended above 3,000 cfs on basis of slope-area measurements at gage heights 13.3 and 17.7 ft; minimum, 8 cfs Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily, 8.6 cfs Sept. 11, 12, 1966.
Maximum stage known since at least 1888, that of Aug. 23, 1933.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	161	300	145	130	304	179	182	255	372	178	99
2	174	205	249	224	130	322	179	179	171	328	168	101
3	209	294	226	195	230	350	173	247	154	307	165	101
4	151	194	213	169	415	264	184	453	304	289	164	98
5	143	170	204	208	180	249	175	258	301	346	161	95
6	138	160	200	178	160	224	170	223	174	300	153	92
7	130	164	252	163	150	219	176	209	162	276	153	90
8	125	152	261	156	140	213	183	201	147	627	174	88
9	124	146	221	162	140	197	172	235	140	363	141	88
10	463	147	213	224	130	194	165	241	135	277	132	84
11	237	144	207	185	130	187	166	203	131	255	130	83
12	177	140	196	172	130	189	161	191	127	246	128	89
13	159	138	192	166	892	188	288	185	130	574	162	92
14	153	136	194	166	341	202	229	190	162	280	144	88
15	144	135	183	155	238	208	319	197	140	245	132	93
16	138	135	182	130	214	196	265	215	196	342	130	85
17	135	131	177	140	196	421	351	186	263	336	135	82
18	135	130	173	150	190	247	239	179	153	308	145	322
19	132	131	166	147	272	217	219	173	248	239	133	171
20	128	134	174	144	223	203	209	185	157	224	125	100
21	128	132	171	148	210	199	197	181	678	215	121	95
22	128	126	163	146	195	290	265	173	6,610	207	120	96
23	128	121	155	156	181	264	251	163	2,010	201	119	94
24	195	125	159	161	183	221	240	156	968	195	116	96
25	192	818	159	147	183	207	217	151	765	191	113	97
26	206	325	156	133	291	202	204	145	507	184	111	95
27	164	246	157	130	263	196	196	142	423	183	111	95
28	151	232	154	136	249	191	189	139	374	187	116	106
29	143	606	149	135	278	187	185	138	626	180	109	94
30	139	535	135	133	------	186	182	139	680	179	104	112
31	144	------	154	128	------	183	------	316	------	181	100	------
TOTAL	5,046	6,413	5,885	4,932	6,664	7,120	6,328	6,175	17,291	8,637	4,193	3,120
MEAN	163	214	190	159	230	230	211	199	576	279	135	104
MAX	463	818	300	224	892	421	351	453	6,610	627	178	322
MIN	124	121	135	128	130	183	161	138	127	179	100	82
CFSM	1.73	2.27	2.01	1.68	2.44	2.44	2.24	2.11	6.10	2.96	1.43	1.10
IN.	1.99	2.53	2.32	1.94	2.63	2.81	2.49	2.43	6.81	3.40	1.65	1.23

CAL YR 1971 TOTAL 69,753 MEAN 191 MAX 1,760 MIN 63 CFSM 2.02 IN 27.49
WTR YR 1972 TOTAL 81,804 MEAN 224 MAX 6,610 MIN 82 CFSM 2.37 IN 32.24

PEAK DISCHARGE (BASE, 1,900 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-29	2030	6.49	2,230	7-13	0930	6.94	2,500
2-13	1400	6.88	2,470	9-18	2000	6.03	1,960
6-22	1230	17.09	12,200				

01580200 Deer Creek near Kalmia, Md.

LOCATION.--Lat 39°37'16", long 76°17'57", Harford County, on left bank 50 ft upstream from bridge on U. S. Highway 1, 1 mile north of Kalmia, 6.5 miles northeast of Bel Air, and 12.5 miles upstream from mouth.

DRAINAGE AREA.--125 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 145 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 182 cfs (19.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 16,800 cfs June 22 (gage height, 16.08 ft); minimum, 113 cfs (gage height, 2.69 ft) Sept. 10, 11, 12, 18.
Period of record: Maximum discharge, 16,800 cfs June 22, 1972 (gage height, 16.08 ft); minimum 29 cfs Dec. 7, 1969, result of freezeup.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	215	380	176	160	363	214	227	369	507	231	134
2	197	216	303	262	165	402	214	220	220	427	220	138
3	271	414	273	265	263	429	206	328	198	395	217	139
4	185	254	257	205	593	329	222	567	252	367	215	135
5	174	210	243	259	240	305	213	338	499	451	212	131
6	169	199	239	225	220	272	204	281	220	395	204	129
7	160	206	322	198	202	261	213	259	207	351	198	124
8	153	194	342	190	180	256	227	246	187	782	234	123
9	151	188	273	197	180	236	211	292	179	635	203	121
10	644	188	258	286	170	233	200	320	174	372	186	115
11	345	185	251	229	160	224	201	256	168	333	176	113
12	225	182	235	210	160	227	197	240	163	314	170	114
13	198	182	230	204	1,160	226	381	230	165	955	212	122
14	189	176	219	205	515	242	313	233	200	401	203	121
15	179	175	220	189	317	258	391	249	181	333	182	120
16	173	176	219	165	275	235	397	267	335	438	174	118
17	170	170	210	170	247	607	516	233	415	521	175	115
18	168	166	205	180	237	327	314	220	202	392	187	204
19	164	168	198	180	371	273	275	212	394	315	177	325
20	159	172	207	180	290	250	262	227	217	291	165	144
21	158	169	206	183	260	241	246	227	824	278	158	124
22	158	162	196	181	252	364	345	214	10,100	268	155	134
23	158	153	185	195	226	363	354	204	2,780	260	155	121
24	244	158	191	197	234	275	314	195	1,080	254	151	123
25	251	1,170	192	184	236	254	278	190	895	247	147	124
26	477	461	188	167	391	246	256	184	644	239	146	123
27	230	311	188	162	368	236	243	180	538	234	151	122
28	209	287	186	170	320	230	233	179	470	241	165	136
29	202	616	179	165	345	224	230	177	774	232	148	121
30	197	767	177	165	------	222	224	177	924	231	142	137
31	199	------	178	160	------	219	------	422	------	235	135	------
TOTAL	6,712	8,290	7,150	6,104	8,737	8,829	8,094	7,794	23,974	11,694	5,594	4,050
MEAN	217	276	231	197	301	285	270	251	799	377	180	135
MAX	644	1,170	380	286	1,160	607	516	567	10,100	955	234	325
MIN	151	153	177	160	160	219	197	177	163	231	135	113
CFSM	1.74	2.21	1.85	1.58	2.41	2.28	2.16	2.01	6.39	3.02	1.44	1.08
IN.	2.00	2.47	2.13	1.82	2.60	2.63	2.41	2.32	7.13	3.48	1.66	1.21

CAL YR 1971 TOTAL 89,986 MEAN 247 MAX 2,200 MIN 86 CFSM 1.98 IN 26.78
WTR YR 1972 TOTAL 107,022 MEAN 292 MAX 10,100 MIN 113 CFSM 2.34 IN 31.85

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	1630	7.26	2,790	7-13	1130	7.48	2,970
6-22	1500	16.08	16,800				

01581700 Winters Run near Benson, Md.

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

DRAINAGE AREA.--34.8 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 195 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 51.7 cfs (20.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,600 cfs June 22 (gage height, 11.60 ft); minimum, 32 cfs Sept. 22, 23.
Period of record: Maximum discharge, 7,600 cfs June 22, 1972 (gage height, 11.60 ft); minimum, 7.2 cfs July 5, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	65	78	52	49	85	61	68	79	104	67	40
2	91	67	69	80	50	82	61	65	57	85	67	44
3	82	90	66	70	173	96	60	123	54	88	68	44
4	64	67	64	60	151	74	69	169	113	83	65	42
5	62	61	61	70	67	71	67	88	89	113	64	40
6	60	59	63	65	63	65	62	72	57	89	61	40
7	56	65	119	60	59	66	65	68	53	80	64	38
8	54	58	85	55	53	63	73	66	49	302	66	37
9	55	58	72	70	55	59	64	97	48	134	58	37
10	338	59	69	89	55	59	59	86	48	98	52	36
11	87	57	66	69	50	58	60	69	47	88	51	36
12	65	56	64	63	50	60	57	64	46	83	52	38
13	59	55	61	62	471	60	180	62	47	263	126	38
14	58	54	60	62	109	69	90	63	53	86	66	37
15	55	55	61	56	75	68	117	74	49	73	58	36
16	54	55	60	50	70	67	199	70	84	221	55	34
17	53	54	59	60	64	257	184	66	92	144	51	33
18	50	54	59	60	62	88	88	63	54	101	60	50
19	51	54	58	55	127	74	78	60	132	91	52	43
20	51	54	62	55	79	69	75	67	63	81	49	36
21	51	53	60	55	75	67	68	64	339	79	48	35
22	50	52	58	57	69	134	149	61	3,000	77	47	38
23	52	51	56	61	63	97	103	58	380	74	46	34
24	88	62	56	59	65	77	99	55	164	70	46	34
25	82	534	56	55	72	70	81	54	136	69	46	34
26	623	103	56	52	164	70	74	53	117	65	47	34
27	89	83	56	48	99	67	71	53	101	64	60	36
28	71	75	56	52	95	66	68	52	93	66	61	38
29	67	249	54	50	89	66	68	52	222	64	46	36
30	62	126	54	50	------	66	64	52	256	66	43	42
31	64	------	54	48	------	64	------	153	------	69	42	------
TOTAL	2,803	2,585	1,972	1,850	2,723	2,434	2,614	2,267	6,122	3,170	1,784	1,140
MEAN	90.4	86.2	63.6	59.7	93.9	78.5	87.1	73.1	204	102	57.5	38.0
MAX	623	534	119	89	471	257	199	169	3,000	302	126	50
MIN	50	51	54	48	49	58	57	52	46	64	42	33
CFSM	2.60	2.48	1.83	1.72	2.70	2.26	2.50	2.10	5.86	2.93	1.65	1.09
IN.	3.00	2.76	2.11	1.98	2.91	2.60	2.79	2.42	6.54	3.39	1.91	1.22

CAL YR 1971 TOTAL 27,627 MEAN 75.7 MAX 798 MIN 25 CFSM 2.18 IN 29.53
WTR YR 1972 TOTAL 31,464 MEAN 86.0 MAX 3,000 MIN 33 CFSM 2.47 IN 33.63

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0745	4.92	1,480	10-26	0645	7.94	4,130

01582000 Little Falls at Blue Mount, Md.

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

DRAINAGE AREA.--52.9 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 305 ft (from topographic map).

AVERAGE DISCHARGE.--28 years, 65.5 cfs (16.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,280 cfs June 22 (gage height, 18.54 ft), from rating curve extended as explained below; minimum, 45 cfs part of many days in September.
Period of record: Maximum discharge, 8,280 cfs June 22, 1972 (gage height, 18.54 ft), from rating curve extended above 1,300 cfs on basis of contracted-opening measurement of peak flow; minimum, 1.9 cfs Aug. 29, 1966; minimum daily, 4.5 cfs Sept. 11, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Slight diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 1111: 1944(M), 1945-47(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	110	160	92	80	182	102	104	147	231	99	57
2	135	110	140	147	84	178	104	104	100	205	94	58
3	118	120	130	110	180	197	100	147	92	194	94	58
4	92	110	120	104	209	147	106	262	166	181	93	57
5	88	100	120	125	104	141	100	145	130	227	90	56
6	84	100	120	104	95	127	98	127	94	187	87	54
7	80	100	160	98	92	125	104	119	89	172	96	53
8	76	95	147	94	86	119	104	116	84	282	100	52
9	76	95	130	106	80	110	98	141	82	182	87	51
10	284	95	125	127	80	110	96	132	79	159	81	49
11	132	95	121	108	80	106	96	114	78	149	78	49
12	108	95	116	102	81	108	94	108	78	145	78	52
13	100	95	114	100	381	108	190	106	79	161	172	53
14	96	90	110	100	154	119	127	110	92	141	87	55
15	90	90	110	94	125	116	185	125	82	133	79	60
16	89	90	110	82	114	114	147	123	96	382	76	50
17	87	90	106	90	108	194	204	108	89	191	79	48
18	86	90	104	95	106	130	136	104	86	149	82	84
19	84	90	102	90	158	116	125	102	82	134	75	66
20	82	90	108	90	123	110	121	108	79	126	71	52
21	80	90	104	92	110	110	112	104	345	120	69	51
22	80	85	100	92	108	175	163	100	4,730	115	68	51
23	80	85	96	96	102	138	136	96	1,120	111	67	47
24	110	90	100	98	104	123	134	92	496	108	66	47
25	140	550	98	92	108	116	121	90	434	105	65	48
26	200	200	98	86	178	112	114	89	317	101	65	48
27	150	160	98	84	147	108	110	87	271	102	65	49
28	120	150	96	89	147	106	106	86	244	103	66	82
29	110	300	94	86	158	104	104	86	341	101	62	51
30	110	220	98	86	------	104	104	87	391	102	59	65
31	110	------	96	84	------	104	------	192	------	102	57	------
TOTAL	3,355	3,880	3,531	3,043	3,682	3,957	3,641	3,614	10,593	4,901	2,507	1,653
MEAN	108	129	114	98.2	127	128	121	117	353	158	80.9	55.1
MAX	284	550	160	147	381	197	204	262	4,730	382	172	84
MIN	76	85	94	82	80	104	94	86	78	101	57	47
CFSM	2.04	2.44	2.16	1.86	2.40	2.42	2.29	2.21	6.67	2.99	1.53	1.04
IN.	2.36	2.73	2.48	2.14	2.59	2.78	2.56	2.54	7.45	3.45	1.76	1.16

CAL YR 1971 TOTAL 37,628 MEAN 103 MAX 945 MIN 36 CFSM 1.95 IN 26.46
WTR YR 1972 TOTAL 48,357 MEAN 132 MAX 4,730 MIN 47 CFSM 2.50 IN 34.01

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-25	Unknown	5.02	1,460	6-30	0030	4.49	1,220
2-13	1300	4.35	1,160	7-16	1830	5.21	1,560
6-22	0830	18.54	8,280				

NOTE.--No gage-height record Oct. 20 to Dec. 7.

01583000 Slade Run near Glyndon, Md.

LOCATION.--Lat 39°29'40", long 76°47'45", Baltimore County, on left bank at downstream side of bridge on Longnecker Road, 1.1 miles upstream from mouth, 1.6 miles northeast of Glyndon, and 2.6 miles northeast of Reisterstown.

DRAINAGE AREA.--2.09 sq mi.

PERIOD OF RECORD.--September 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 420 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 2.18 cfs (14.16 inches per year).

EXTREMES.--Current year: Maximum discharge, 515 cfs June 22 (gage height, 4.80 ft), from rating curve extended as explained below; minimum, 2.0 cfs Oct. 8, 9.
Period of record: Maximum discharge, 515 cfs June 22, 1972 (gage height, 4.80 ft), from rating curve extended above 92 cfs on basis of slope-area measurement at gage height 3.96 ft; no flow many days in August and September 1966.

REMARKS.--Records fair.

REVISIONS.--WSP 1502: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.0	4.4	2.9	2.6	6.1	4.5	4.8	5.3	8.0	4.5	2.4
2	4.7	3.4	4.0	4.7	2.8	5.4	4.5	4.8	4.4	6.9	4.4	2.7
3	3.8	4.4	3.9	3.2	6.2	6.2	4.5	6.2	4.4	9.5	6.2	2.5
4	3.2	3.0	3.8	3.6	9.8	5.0	4.6	14	4.3	7.5	5.0	2.7
5	3.0	3.0	3.7	3.8	4.1	4.9	4.5	5.1	4.3	10	4.3	2.6
6	2.7	2.8	3.9	3.2	3.7	4.7	4.5	4.8	4.3	8.8	4.1	2.7
7	2.3	2.8	5.4	3.1	3.7	4.7	4.6	4.8	4.3	7.6	4.5	2.5
8	2.1	2.6	4.6	2.9	3.2	4.7	4.6	4.8	4.1	6.6	4.3	2.5
9	2.2	2.6	4.2	4.1	3.0	4.7	4.5	5.8	4.0	6.3	4.0	2.4
10	9.0	2.6	4.1	4.1	3.0	4.6	4.5	4.9	4.0	6.1	3.8	2.3
11	5.0	2.4	3.9	3.9	3.1	4.6	4.5	4.8	4.0	6.0	3.7	2.3
12	3.6	2.4	3.8	3.8	3.1	4.7	4.5	4.8	4.0	6.0	3.6	2.5
13	3.0	2.4	3.8	3.7	15	4.6	9.5	4.8	4.0	6.4	3.9	2.5
14	2.8	2.4	3.6	3.6	5.6	4.6	4.7	4.8	4.0	6.0	3.8	2.6
15	2.8	2.4	3.6	3.3	4.7	4.7	6.7	4.8	4.0	5.7	3.6	2.8
16	2.6	2.4	3.6	2.7	4.6	5.0	6.3	4.8	4.1	11	3.4	2.5
17	2.6	2.4	3.6	2.9	4.5	8.9	7.3	4.8	4.1	7.8	4.7	2.4
18	2.6	2.4	3.4	3.0	4.5	4.7	4.8	4.7	4.0	6.6	4.3	3.1
19	2.6	2.4	3.3	3.2	11	4.7	4.8	4.7	4.1	6.0	3.7	2.9
20	2.6	2.4	3.6	3.2	4.9	4.7	4.8	5.3	4.0	5.7	3.5	2.6
21	2.6	2.4	3.4	3.4	4.6	4.7	4.8	4.5	11	5.5	3.5	2.6
22	2.6	2.2	3.1	3.3	4.6	7.6	8.4	4.4	109	5.3	3.4	2.6
23	2.6	2.2	3.0	3.5	4.5	4.9	5.2	4.4	31	5.3	3.3	2.4
24	3.0	2.4	3.2	3.6	4.5	4.7	5.1	4.3	17	5.3	3.5	2.4
25	8.0	10	3.1	3.1	4.7	4.7	4.8	4.3	14	5.0	3.4	2.4
26	4.6	5.5	3.1	2.8	8.8	4.7	4.8	4.1	12	4.6	3.4	2.4
27	3.4	5.0	3.1	2.7	5.3	4.6	4.8	4.1	10	4.7	3.4	3.2
28	3.2	6.0	2.9	3.0	5.6	4.5	4.8	4.1	9.2	4.7	3.5	3.2
29	3.0	15	2.9	2.7	6.0	4.5	4.8	4.1	17	4.7	2.9	2.8
30	2.8	6.0	3.2	2.7	------	4.5	4.8	5.0	13	4.7	2.7	3.4
31	3.2	------	2.8	2.6	------	4.5	------	13	------	4.8	2.5	------
TOTAL	104.9	110.9	112.0	102.3	151.7	156.1	155.5	164.6	326.9	199.1	118.8	78.9
MEAN	3.38	3.70	3.61	3.30	5.23	5.04	5.18	5.31	10.9	6.42	3.83	2.63
MAX	9.0	15	5.4	4.7	15	8.9	9.5	14	109	11	6.2	3.4
MIN	2.1	2.2	2.8	2.6	2.6	4.5	4.5	4.1	4.0	4.6	2.5	2.3
CFSM	1.62	1.77	1.73	1.58	2.50	2.41	2.49	2.54	5.22	3.07	1.83	1.26
IN.	1.87	1.97	1.99	1.82	2.70	2.78	2.77	2.93	5.82	3.54	2.11	1.40

CAL YR 1971 TOTAL 1,180.80 MEAN 3.24 MAX 30 MIN .90 CFSM 1.55 IN 21.02
WTR YR 1972 TOTAL 1,781.70 MEAN 4.87 MAX 109 MIN 2.1 CFSM 2.33 IN 31.71

PEAK DISCHARGE (BASE, 90 CFS).--June 22 (0045) 515 cfs (4.80 ft).

NOTE.--No gage-height record Oct. 9 to Dec. 2.

01583500 Western Run at Western Run, Md.

LOCATION.--Lat 39°30'38", long 76°40'37", Baltimore County, on right bank 100 ft downstream from bridge on Western Run Road, 0.3 mile southeast of Western Run, 2.5 miles northwest of Cockeysville, 3.2 miles upstream from Beaverdam Run, and 5 miles upstream from mouth.

DRAINAGE AREA.--59.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft (Baltimore County bench mark).

AVERAGE DISCHARGE.--28 years, 64.3 cfs (14.60 inches per year).

EXTREMES.--Current year: Maximum discharge, 38,000 cfs June 22 (gage height, 26.0 ft, from floodmarks), from rating curve extended as explained below; minimum, 47 cfs Sept. 10.
Period of record: Maximum discharge, 38,000 cfs June 22, 1972 (gage height, 26.0 ft, from floodmarks); from rating curve extended above 3,200 cfs on basis of slope-area measurements at gage heights 8.55, 9.88 and 26.0 ft, and contracted-opening measurement at gage height 26.0 ft; minimum, 2.4 cfs Sept. 12, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

REVISIONS (WATER YEARS).--WSP 1502: 1945-46, 1948(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	106	141	78	70	169	98	107	148	245	109	63
2	172	99	124	135	77	168	99	105	102	225	103	65
3	126	109	113	102	166	188	95	158	93	248	109	61
4	90	97	109	95	311	140	103	360	90	218	117	65
5	85	91	104	122	109	132	96	161	97	210	102	61
6	81	88	107	98	97	116	94	136	89	190	96	58
7	75	90	155	91	96	116	102	125	87	175	99	58
8	71	85	132	87	84	110	108	121	80	170	111	56
9	71	83	115	98	75	104	100	161	78	180	94	51
10	476	84	109	130	75	104	95	145	75	170	87	50
11	146	83	106	104	78	102	94	122	73	170	84	55
12	97	81	102	97	78	104	91	113	73	170	84	61
13	89	81	99	95	437	102	280	108	74	200	208	61
14	82	78	96	93	162	113	150	114	83	168	102	65
15	81	78	96	87	124	110	171	122	77	160	88	65
16	80	78	96	76	113	109	156	121	83	265	81	59
17	80	77	94	84	105	231	238	109	85	195	84	58
18	80	76	91	87	104	136	140	104	80	158	109	98
19	76	76	89	84	202	118	126	101	80	145	90	70
20	74	77	94	84	138	110	121	127	77	138	81	56
21	74	76	91	87	120	108	112	110	193	132	77	56
22	74	73	86	86	121	188	209	104	7,000	128	77	58
23	74	72	84	91	109	149	161	98	700	122	74	51
24	105	76	88	90	110	124	157	94	380	118	72	51
25	164	639	85	85	115	115	135	92	280	115	68	53
26	327	177	84	77	220	111	123	89	238	108	75	51
27	131	144	84	76	168	107	116	87	205	110	70	83
28	109	131	83	81	157	104	111	86	188	112	84	94
29	101	410	80	77	161	102	109	84	337	111	74	59
30	96	220	84	77	------	101	107	88	606	111	63	72
31	100	------	81	75	------	100	------	203	------	113	63	------
TOTAL	3,558	3,735	3,102	2,829	3,982	3,891	3,897	3,855	11,851	5,080	2,835	1,864
MEAN	115	125	100	91.3	137	126	130	124	395	164	91.5	62.1
MAX	476	639	155	135	437	231	280	360	7,000	265	208	98
MIN	71	72	80	75	70	100	91	84	73	108	63	50
CFSM	1.92	2.09	1.67	1.53	2.29	2.11	2.17	2.07	6.61	2.74	1.53	1.04
IN.	2.21	2.32	1.93	1.76	2.48	2.42	2.42	2.40	7.37	3.16	1.76	1.16

CAL YR 1971 TOTAL 36,602 MEAN 100 MAX 1,160 MIN 31 CFSM 1.67 IN 22.77
WTR YR 1972 TOTAL 50,479 MEAN 138 MAX 7,000 MIN 50 CFSM 2.31 IN 31.40

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1100	5.52	1,470	5- 4	0800	4.56	1,040
11-25	0930	5.24	1,340	6-22	*0430	†26.0	38,000
11-29	2130	5.58	1,500	6-30	0230	6.72	2,080
2- 4	0130	5.00	1,240	7-16	2115	4.94	1,220
2-13	1430	5.22	1,330				

* About.
† From floodmarks.
NOTE.--No gage height record June 22-25.

01585100 Whitemarsh Run at White Marsh, Md.

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, on left bank at upstream side of bridge on State Highway 7, 1 mile southwest of White Marsh, and 3 miles upstream from mouth.

DRAINAGE AREA.--7.61 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 10.0 cfs (17.84 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,170 cfs June 22 (gage height, 10.04 ft), from rating curve extended as explained below; minimum, 1.4 cfs Sept. 10, 11 (gage height, 1.31 ft).
Period of record: Maximum discharge, 8,000 cfs Aug. 1, 1971 (gage height, 14.05 ft), from rating curve extended above 1,300 cfs 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, 0.10 cfs Sept. 11, 1966.

REMARKS.--Records good. Low flow affected by operations of sand and gravel plant in vicinity of gage, water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1967: 1960(M)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	8.3	11	4.9	6.6	11	6.9	7.9	8.6	13	3.8	2.0
2	46	8.2	8.9	33	8.1	11	8.7	7.6	5.2	9.2	3.4	2.4
3	12	48	7.8	10	86	24	6.5	57	4.7	63	3.3	2.5
4	7.0	11	7.7	13	30	12	11	71	8.1	16	3.3	2.2
5	6.2	7.7	7.0	43	13	11	7.0	15	7.2	10	2.8	2.2
6	5.8	7.0	7.3	12	11	8.5	6.7	11	5.0	8.0	2.7	1.9
7	4.7	13	57	8.9	9.0	8.3	14	9.3	4.4	6.5	8.4	1.7
8	4.3	6.6	18	6.9	8.0	7.6	18	8.7	3.9	15	8.5	1.6
9	4.2	6.3	11	26	7.0	7.0	9.5	33	3.7	9.2	3.2	1.7
10	213	6.4	9.5	22	6.5	6.9	7.9	13	3.4	6.5	2.9	1.5
11	19	6.0	8.5	12	6.0	7.0	7.4	9.2	3.2	5.6	2.3	1.4
12	9.4	5.9	7.6	9.3	5.8	7.0	6.8	7.8	3.2	5.2	2.5	1.6
13	7.0	6.0	6.9	11	117	7.1	90	7.4	3.6	33	2.8	1.9
14	6.6	5.4	6.6	11	21	15	17	12	4.5	8.0	2.9	3.0
15	6.2	5.7	6.8	6.9	12	10	39	11	3.6	5.6	2.3	2.4
16	5.7	5.4	6.5	9.7	9.6	14	43	9.4	5.9	33	2.1	1.9
17	5.4	5.1	7.2	11	8.8	85	52	9.2	9.1	19	2.8	1.9
18	5.3	5.2	6.8	8.7	12	14	13	11	5.4	32	6.0	20
19	4.8	5.5	5.4	8.0	86	10	11	7.6	19	12	3.2	3.9
20	4.6	5.2	12	8.4	26	9.1	9.9	21	6.0	8.0	2.4	2.4
21	4.6	4.8	9.6	8.3	16	8.6	8.4	9.4	57	6.0	2.3	2.4
22	4.7	4.2	8.2	8.8	17	41	84	8.0	820	5.2	2.1	2.5
23	4.8	4.0	6.9	10	16	16	22	6.8	104	4.8	2.1	2.0
24	33	16	6.0	9.4	15	9.8	31	6.5	25	4.5	2.1	2.2
25	52	281	5.5	9.3	32	9.4	13	5.6	21	4.2	2.1	2.3
26	300	20	5.8	6.0	69	8.1	10	5.2	13	3.4	2.6	2.2
27	20	14	5.5	6.0	17	7.7	8.9	5.0	10	3.4	5.8	25
28	13	11	8.1	7.0	14	7.3	8.5	4.9	9.2	3.8	8.0	23
29	10	97	8.5	6.5	12	7.0	8.2	4.8	93	3.8	3.5	4.9
30	9.2	26	9.6	6.2	------	7.0	8.1	5.0	64	3.8	2.6	6.5
31	8.9	------	7.0	6.0	------	7.0	------	21	------	4.2	2.1	------
TOTAL	843.4	655.9	300.2	359.2	697.4	414.4	587.4	421.3	1,333.9	364.9	106.9	133.0
MEAN	27.2	21.9	9.68	11.6	24.0	13.4	19.6	13.6	44.5	11.8	3.45	4.43
MAX	300	281	57	43	117	85	90	71	820	63	8.5	25
MIN	4.2	4.0	5.4	4.9	5.8	6.9	6.5	4.8	3.2	3.4	2.1	1.4
CFSM	3.57	2.88	1.27	1.52	3.15	1.76	2.58	1.79	5.85	1.55	.45	.58
IN.	4.12	3.21	1.47	1.76	3.41	2.03	2.87	2.06	6.52	1.78	.52	.65

CAL YR 1971 TOTAL 8,728.2 MEAN 23.9 MAX 770 MIN 1.3 CFSM 3.14 IN 42.67
WTR YR 1972 TOTAL 6,217.9 MEAN 17.0 MAX 820 MIN 1.4 CFSM 2.23 IN 30.39

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0800	6.22	1,180	5- 4	0645	3.59	506
10-26	0500	8.00	1,540	6-22	0645	10.04	2,170
11-25	0345	4.97	918	6-29	2330	5.16	965
11-29	1745	3.76	566	7- 3	1830	4.77	868

01585200 West Branch Herring Run at Idlewylde, Md.

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

DRAINAGE AREA.--2.13 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Prior to May 31, 1965, at site 40 ft upstream at datum 3.24 ft higher. Altitude of gage is 285 ft (from topographic map).

AVERAGE DISCHARGE.--13 years (1957-64, 1966 to current year), 2.43 cfs (15.49 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,560 cfs June 29 (gage height, 6.50 ft), from rating curve extended as explained below; minimum, 0.39 cfs Sept. 14, 23, 26.
Period of record: Maximum discharge, 1,740 cfs Sept. 11, 1971 (gage height, 6.80 ft), from rating curve extended above 90 cfs on basis of slope-area measurement at gage height 6.37 ft; no flow Aug. 14-24, 1957.

REMARKS.--Records good. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.2	2.6	1.4	1.4	2.7	1.8	2.0	2.0	3.4	1.5	.95
2	20	2.1	2.4	11	2.5	2.5	2.8	2.1	1.5	3.2	1.6	.97
3	2.6	9.1	2.3	1.7	25	5.4	1.6	11	1.4	17	1.5	.90
4	2.0	2.2	2.2	4.2	3.8	2.4	3.9	17	5.3	3.5	1.5	1.6
5	1.8	2.0	2.1	8.1	2.1	2.2	1.7	2.7	1.8	4.1	1.3	1.1
6	1.8	2.0	2.2	2.0	2.4	2.1	1.7	2.4	1.4	2.8	1.3	.78
7	1.5	4.9	13	1.8	1.9	2.0	5.1	2.1	1.3	2.6	6.4	.78
8	1.6	1.9	2.6	1.6	1.6	2.0	4.8	2.5	1.3	4.7	1.7	.78
9	1.8	1.9	2.3	8.5	1.5	1.9	1.8	13	1.3	2.4	1.3	.81
10	37	2.0	2.2	2.8	1.5	1.9	1.6	2.7	1.3	2.2	1.2	.75
11	2.9	1.9	2.1	2.4	1.5	1.8	1.6	2.2	1.2	2.1	1.2	.73
12	2.2	1.9	2.1	1.8	1.5	2.0	1.6	2.0	1.2	2.1	1.2	.77
13	2.1	1.9	2.0	2.4	31	2.4	25	2.0	1.7	52	1.5	.76
14	2.0	1.6	1.9	2.6	3.3	5.7	3.0	4.4	1.4	3.4	1.2	2.3
15	1.8	1.7	1.9	1.6	2.3	2.0	8.7	3.6	1.2	2.6	1.1	.76
16	1.8	1.6	1.9	1.7	2.1	7.3	12	2.1	2.5	3.8	1.1	.82
17	1.6	1.6	1.8	1.5	2.4	19	5.7	2.1	2.3	2.5	6.0	1.1
18	1.6	1.6	1.7	1.4	4.4	2.6	2.6	1.8	3.3	2.4	4.3	9.4
19	1.5	1.6	1.7	1.6	17	2.2	2.4	3.6	4.1	2.2	1.2	.98
20	1.5	1.4	3.4	2.4	4.1	2.1	2.4	5.9	2.9	2.1	1.1	.75
21	1.5	1.3	1.8	1.7	3.3	2.1	2.2	3.2	25	2.0	1.1	.76
22	1.5	1.2	1.6	2.8	4.2	16	23	3.6	137	1.9	1.0	.73
23	2.5	1.2	1.6	2.3	2.3	2.7	3.8	1.9	19	1.8	1.0	.70
24	12	14	1.6	2.2	5.2	2.3	6.9	2.6	4.4	1.8	4.9	.69
25	9.5	51	1.5	2.3	6.3	2.1	2.8	5.5	4.8	1.7	1.2	.71
26	46	3.4	1.6	1.4	15	2.8	2.6	2.3	3.0	1.6	2.8	.68
27	3.4	3.2	1.5	1.4	3.3	2.0	2.4	1.6	2.6	1.6	3.1	13
28	2.7	2.4	1.5	2.7	3.1	1.9	2.2	1.6	2.4	1.6	2.8	1.8
29	2.4	18	1.4	1.8	2.8	1.8	2.6	1.5	42	1.5	1.3	.76
30	2.3	3.5	2.2	1.5	------	1.8	2.6	1.7	7.7	1.4	.96	3.0
31	2.3	------	1.4	1.3	------	1.8	------	15	------	1.5	.96	------
TOTAL	177.9	146.3	72.1	83.9	158.8	109.5	142.9	127.7	288.3	139.5	60.32	50.62
MEAN	5.74	4.88	2.33	2.71	5.48	3.53	4.76	4.12	9.61	4.50	1.95	1.69
MAX	46	51	13	11	31	19	25	17	137	52	6.4	13
MIN	1.5	1.2	1.4	1.3	1.4	1.8	1.6	1.5	1.2	1.4	.96	.68
CFSM	2.69	2.29	1.09	1.27	2.57	1.66	2.23	1.93	4.51	2.11	.92	.79
IN.	3.11	2.56	1.26	1.47	2.77	1.91	2.50	2.23	5.04	2.44	1.05	.88

CAL YR 1971 TOTAL 1,620.83 MEAN 4.44 MAX 102 MIN .44 CFSM 2.08 IN 28.31
WTR YR 1972 TOTAL 1,557.84 MEAN 4.26 MAX 137 MIN .68 CFSM 2.00 IN 27.21

PEAK DISCHARGE (BASE, 290 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 2	1145	3.81	383	6-29	2200	6.50	1,560
10-26	0400	3.98	434	7- 3	1630	5.35	940
5- 4	0515	3.73	362	7-13	0800	4.52	608
6-22	0400	5.30	920	9-27	2130	3.68	350
6-22	1030	3.82	386				

01585300 Stemmers Run at Rossville, Md.

LOCATION.--Lat 39°20'20", long 76°29'15", Baltimore County, on left bank at downstream side of bridge on State Highway 7, at Rossville, 0.8 mile upstream from Brien Run, and 2 miles upstream from mouth.

DRAINAGE AREA.--4.94 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 19.24 ft above mean sea level (Baltimore County bench mark).

AVERAGE DISCHARGE --13 years (1959-72), 6.35 cfs (17.46 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,530 cfs June 22 (gage height, 7.55 ft); minimum daily, 0.70 cfs Sept. 23, 24.
Period of record: Maximum discharge, 5,950 cfs Aug. 1, 1971 (gage height, 11.34 ft, from high-water mark in well), from rating curve extended above 1,100 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily, 0.10 cfs many days in 1962, 1964, and 1966.

REMARKS.--Records good prior to March 1 and fair thereafter. Slight diurnal fluctuation at times from unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.6	5.0	2.6	2.6	4.8	3.6	3.2	2.4	4.0	1.5	.90
2	37	3.8	4.2	18	4.6	4.4	4.8	3.4	1.6	2.7	1.5	.90
3	7.3	26	4.0	4.6	60	12	3.4	35	1.5	16	1.5	.90
4	4.7	4.8	3.8	6.2	14	5.2	4.6	46	3.4	4.0	1.5	.90
5	4.3	3.6	3.6	24	4.4	4.8	3.4	6.8	2.6	3.3	1.4	.90
6	4.0	3.2	4.0	5.2	4.4	4.0	2.6	3.8	1.5	2.4	1.4	.90
7	3.5	6.1	35	4.0	4.0	4.0	7.5	3.4	1.5	2.2	3.9	.90
8	3.3	3.0	8.2	3.4	2.8	3.8	12	3.2	1.3	4.8	2.4	.80
9	3.3	3.0	5.3	17	2.6	3.4	5.5	22	1.4	2.4	1.2	.80
10	165	3.0	4.6	10	2.6	3.2	3.8	6.8	1.3	2.2	1.1	.80
11	7.8	2.8	4.2	6.0	2.6	3.0	3.2	3.4	1.2	2.1	1.1	.80
12	4.4	2.7	3.8	4.4	2.6	3.2	3.0	2.8	1.2	2.1	1.1	.80
13	3.2	2.7	3.6	6.2	71	2.8	90	2.7	1.3	17	1.1	.80
14	3.0	2.7	3.4	6.2	11	6.0	11	6.2	1.8	2.7	1.1	1.6
15	2.8	2.7	3.4	3.6	6.0	3.6	27	4.6	1.3	2.2	1.0	1.2
16	2.6	2.7	3.4	2.6	4.8	15	38	3.4	5.2	6.0	1.0	.90
17	2.6	2.6	3.2	2.8	4.8	70	27	2.6	5.5	5.0	2.9	.90
18	2.4	2.6	3.0	3.0	7.2	6.0	6.8	2.8	2.0	4.6	6.3	7.3
19	2.2	2.6	3.0	3.2	52	4.4	5.2	3.2	12	2.4	1.1	1.5
20	2.2	2.7	5.5	3.8	12	3.8	5.0	11	2.4	2.1	1.1	.90
21	2.2	2.6	3.4	4.0	8.9	3.6	3.8	3.0	32	2.0	1.1	.80
22	2.1	2.4	2.8	4.8	10	20	59	2.6	523	1.8	1.1	.80
23	2.1	2.2	2.8	5.2	5.2	6.0	11	2.1	51	1.8	1.0	.70
24	20	13	3.0	5.0	7.2	3.8	15	2.0	8.7	1.8	1.0	.70
25	14	159	2.8	5.0	18	3.2	6.2	1.8	11	1.6	1.0	1.0
26	196	7.8	2.8	3.2	38	3.2	4.6	1.6	4.6	1.6	1.1	1.0
27	7.5	6.2	2.8	3.0	7.8	3.0	3.6	1.8	3.2	1.6	4.1	18
28	4.8	5.0	2.8	4.6	6.2	2.6	3.4	1.8	3.4	1.5	4.4	6.0
29	4.2	51	2.7	3.6	5.2	4.4	3.2	1.6	67	1.5	1.0	1.0
30	3.6	10	3.4	3.2	------	3.6	3.2	1.8	27	1.5	1.0	2.6
31	3.6	------	2.7	2.6	------	3.2	------	11	------	1.5	.90	------
TOTAL	530.5	346.1	146.2	181.0	382.5	224.0	380.4	207.4	783.3	108.4	52.90	58.00
MEAN	17.1	11.5	4.72	5.84	13.2	7.23	12.7	6.69	26.1	3.50	1.71	1.93
MAX	196	159	35	24	71	70	90	46	523	17	6.3	18
MIN	2.1	2.2	2.7	2.6	2.6	2.6	2.6	1.6	1.2	1.5	.90	.70
CFSM	3.46	2.33	.96	1.18	2.67	1.46	2.57	1.35	5.28	.71	.35	.39
IN.	3.99	2.61	1.10	1.36	2.88	1.69	2.86	1.56	5.90	.82	.40	.44

CAL YR 1971 TOTAL 4,913.79 MEAN 13.5 MAX 600 MIN .64 CFSM 2.73 IN 37.00
WTR YR 1972 TOTAL 3,400.70 MEAN 9.29 MAX 523 MIN .70 CFSM 1.88 IN 25.61

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0745	6.46	1,030	6-22	0500	7.55	1,530
10-26	0500	7.21	1,330	6-29	2300	4.78	583
11-25	0330	5.50	770				

01585400 Brien Run at Stemmers Run, Md.

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

DRAINAGE AREA.--1.97 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 2.33 cfs (16.06 inches per year).

EXTREMES.--Current year: Maximum discharge, 632 cfs June 22 (gage height, 5.66 ft), from rating curve extended as explained below; minimum, 0.43 cfs Sept. 20.
Period of record: Maximum discharge, 3,500 cfs Aug. 1, 1971 (gage height, 10.75 ft, from high-water mark in well), from rating curve extended above 180 cfs on basis of computation of peak flow through culvert and over road at site 0.8 mile upstream, adjusted for flow from intervening area; no flow at times many years.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.1	1.4	.67	.76	1.2	.72	.85	.80	1.5	.67	.59
2	12	1.1	1.1	8.1	1.4	1.1	.99	.85	.67	.88	.67	1.2
3	1.8	8.4	.92	1.7	26	6.6	.68	8.2	.64	2.0	.68	.65
4	.92	1.7	.92	2.6	7.8	1.7	1.4	8.0	1.3	.94	.67	.60
5	.93	1.0	.85	14	1.1	1.4	.85	1.8	.79	.93	.65	.58
6	.95	.95	.90	1.8	.95	1.0	.85	1.1	.64	.81	.67	.58
7	.76	1.5	17	1.2	1.4	.95	3.9	.90	.62	.76	1.2	.58
8	.76	.94	3.9	.95	.66	.91	2.9	.91	.58	.84	.84	.58
9	.69	.90	1.6	8.2	.67	.80	1.2	8.0	.58	.76	.72	.58
10	65	.99	1.3	4.9	.72	.82	.90	2.1	.58	.91	.67	.58
11	3.8	.96	1.1	2.2	.69	.80	.90	1.0	.56	.71	.66	.58
12	1.4	.94	.95	1.4	.71	.82	.89	.81	.56	.67	.58	.65
13	.85	.94	.88	2.3	35	.96	33	.76	.60	3.6	.58	.63
14	.76	.85	.85	2.4	5.0	2.9	3.7	1.9	.61	.81	.58	.82
15	.67	.90	.85	1.1	1.8	1.5	12	2.6	.57	.74	.58	.63
16	.58	.90	.87	.67	1.3	4.7	14	1.8	.73	20	.58	.63
17	.58	.85	.85	.58	1.2	22	12	3.0	.89	5.8	.93	.63
18	.58	.90	.85	.62	2.8	2.3	1.9	1.2	.88	22	2.5	1.7
19	.58	.90	.90	.75	32	1.1	1.3	2.5	1.2	2.6	.71	.58
20	.58	.80	1.6	.90	6.2	.88	1.2	4.4	.61	1.3	.68	.50
21	.58	.70	1.0	1.5	2.6	.85	1.1	1.2	13	.95	.64	.50
22	.58	.60	.80	1.5	3.6	8.7	27	.95	234	.72	.61	.50
23	.58	.60	.80	1.7	1.4	2.3	4.8	.81	23	.70	.63	.50
24	6.8	3.0	.80	1.6	3.8	1.1	5.9	.78	3.9	.68	.63	.50
25	6.4	60	.80	1.5	8.6	.89	1.8	.76	4.3	.65	.61	.58
26	95	2.4	.80	.85	20	.85	1.4	.68	1.4	.62	.58	.50
27	3.1	1.8	.80	.76	2.7	.82	1.2	.68	1.1	.65	1.6	3.5
28	1.6	1.4	.80	1.4	1.7	.89	1.0	.70	.85	.67	2.7	1.6
29	1.4	20	.70	1.1	1.6	.87	.91	.68	30	.65	.63	.58
30	1.1	3.0	.90	1.1	------	.76	.85	.68	14	.67	.59	.95
31	1.1	------	.76	.85	------	.76	------	1.1	------	.67	.58	------
TOTAL	213.25	121.02	48.55	70.90	174.16	73.23	141.24	61.70	339.96	76.19	25.62	23.58
MEAN	6.88	4.03	1.57	2.29	6.01	2.36	4.71	1.99	11.3	2.46	.83	.79
MAX	95	60	17	14	35	22	33	8.2	234	22	2.7	3.5
MIN	.58	.60	.70	.58	.66	.76	.68	.68	.56	.62	.58	.50
CFSM	3.49	2.05	.80	1.16	3.05	1.20	2.39	1.01	5.74	1.25	.42	.40
IN.	4.03	2.29	.92	1.34	3.29	1.38	2.67	1.17	6.42	1.44	.48	.45

CAL YR 1971 TOTAL 1,969.12 MEAN 5.39 MAX 360 MIN .30 CFSM 2.74 IN 37.18
WTR YR 1972 TOTAL 1,369.40 MEAN 3.74 MAX 234 MIN .50 CFSM 1.90 IN 25.86

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0930	3.64	276	6-22	1100	5.66	632
10-26	0515	4.56	425	6-29	2300	2.94	183
11-25	*0300	3.33	233	7-16	1900	3.00	190
4-13	0945	2.46	125	7-18	1330	2.77	162

* About.

01585500 Cranberry Branch near Westminster, Md.

LOCATION.--Lat 39°35'35", long 76°58'05", Carroll County, on left bank 80 ft upstream from small wooden bridge, 0.7 mile upstream from mouth, and 1.8 miles northeast of Westminster.

DRAINAGE AREA.--3.29 sq mi.

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

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

AVERAGE DISCHARGE.--22 years, 3.46 cfs (14.28 inces per year, unadjusted for storage).

EXTREMES.--Current year: Maximum discharge, 1,510 cfs June 22 (gage height, 5.85 ft); minimum daily, 0.80 cfs Oct. 15.
Period of record: Maximum discharge, 1,510 cfs June 22, 1972 (gage height, 5.85 ft), from rating curve extended above 200 cfs on the basis of computation of flow through culvert at gage height 5.54 ft; minimum daily, 0.27 cfs Dec. 3, 1969.

REMARKS.--Records good. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mile above station since August 1957 (capacity, 113,700,000 gal).

REVISIONS (WATER YEARS).--WSP 1432: Drainage area, 1954-55.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.5	3.4	3.3	3.1	17	5.5	5.9	9.4	19	6.3	3.5
2	3.5	4.0	2.4	9.5	3.4	13	6.1	5.7	5.5	16	5.8	3.5
3	3.2	5.2	2.8	4.4	18	13	5.4	9.5	4.7	18	5.9	3.4
4	2.8	3.5	4.6	4.3	10	8.1	5.8	11	4.6	14	5.8	3.4
5	2.8	3.4	4.3	6.5	4.6	7.6	5.2	6.9	4.7	23	5.3	3.4
6	2.8	3.2	5.9	4.1	4.3	6.5	5.0	5.8	4.4	15	5.0	3.5
7	2.7	3.2	12	3.8	4.3	6.5	5.9	5.6	4.2	13	7.3	3.5
8	2.5	3.0	6.9	3.6	3.6	6.0	6.2	5.6	3.9	12	6.3	3.5
9	2.7	3.0	5.7	6.3	3.5	5.6	5.5	9.8	3.8	11	5.1	3.4
10	12	3.0	5.3	6.0	3.4	5.5	5.2	8.0	3.7	11	4.6	3.2
11	4.2	2.8	4.9	4.6	3.5	5.3	5.3	5.9	3.6	10	4.4	3.3
12	2.3	2.8	4.6	4.3	3.6	5.5	4.9	5.4	3.4	10	4.6	3.6
13	.89	2.8	4.4	4.2	25	5.6	22	5.0	4.7	19	8.5	3.5
14	.89	2.7	4.2	4.2	10	7.1	8.1	5.7	5.2	10	4.9	3.7
15	.80	2.8	4.3	3.6	6.8	6.2	12	5.7	4.1	9.2	4.5	3.6
16	1.8	2.7	4.2	3.2	5.9	8.0	11	5.7	4.2	18	4.3	3.3
17	2.8	2.7	4.0	3.0	5.0	12	13	5.3	4.0	15	7.6	3.2
18	2.8	2.7	3.9	3.3	5.4	3.1	7.4	6.2	4.3	9.6	6.0	3.7
19	2.8	2.8	3.8	3.6	7.9	2.5	6.7	6.1	4.0	8.5	4.8	3.4
20	2.7	2.8	4.1	3.7	5.6	3.1	6.6	8.8	3.9	8.0	4.4	3.1
21	2.7	2.7	3.9	3.8	6.6	6.0	5.9	5.9	73	7.7	4.2	2.8
22	2.7	2.5	3.6	3.9	5.7	15	15	5.2	440	7.4	4.1	2.8
23	2.7	2.5	3.5	4.1	5.0	8.2	8.6	4.8	77	7.1	4.0	2.7
24	4.0	2.8	3.8	4.4	5.1	6.7	9.0	4.4	42	6.9	3.9	2.7
25	12	15	3.6	3.8	6.1	6.3	7.3	4.3	30	6.6	4.4	2.4
26	5.6	6.1	3.6	3.3	14	6.0	6.5	4.1	23	6.3	4.1	1.6
27	3.9	5.9	3.6	3.2	8.7	5.8	6.1	4.1	20	6.5	5.3	4.2
28	3.5	6.9	3.5	3.5	9.5	5.6	5.9	4.1	17	6.6	4.3	3.8
29	3.4	26	3.4	3.3	12	5.6	5.8	4.0	47	6.3	3.9	3.0
30	3.2	9.3	3.8	3.4	------	5.5	5.8	4.9	26	6.4	3.6	4.1
31	3.7	------	3.4	3.1	------	5.6	------	21	------	6.4	3.5	------
TOTAL	107.18	142.3	135.4	129.3	209.6	223.5	228.7	200.4	885.3	343.5	156.7	98.8
MEAN	3.46	4.74	4.37	4.17	7.23	7.21	7.62	6.46	29.5	11.1	5.05	3.29
MAX	12	26	12	9.5	25	17	22	21	440	23	8.5	4.2
MIN	.80	2.5	2.4	3.0	3.1	2.5	4.9	4.0	3.4	6.3	3.5	1.6
CFSM	1.05	1.44	1.33	1.27	2.20	2.19	2.32	1.96	8.97	3.37	1.54	1.00
IN.	1.21	1.61	1.53	1.46	2.37	2.53	2.59	2.27	10.01	3.88	1.77	1.12

CAL YR 1971 TOTAL 1,511.34 MEAN 4.14 MAX 50 MIN .80 CFSM 1.26 IN 17.09
WTR YR 1972 TOTAL 2,860.68 MEAN 7.82 MAX 440 MIN .80 CFSM 2.38 IN 32.35

PEAK DISCHARGE (BASE, 80 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-29	1730	3.17	101	6-29	2100	3.90	178
2- 3	2145	2.86	82	7-16	1815	2.90	85
6-22	0315	5.85	1,510				

01586000 North Branch Patapsco River at Cedarhurst, Md.

LOCATION.--39°30'00", long 76°53'00", Carroll County, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mile downstream from Roaring Run, 8 miles southeast of Westminster, and 16.5 miles upstream from mouth.

DRAINAGE AREA.--56.6 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 425 ft (from topographic map).

AVERAGE DISCHARGE.--27 years, 60.6 cfs (14.54 inches per year).

EXTREMES.--Current year: Maximum discharge, 27,800 cfs June 22 (gage height, 20.75 ft, from high-water mark in well), from rating curve extended as explained below; minimum, 27 cfs Jan. 16, result of freezeup.
Period of record: Maximum discharge, 27,800 cfs June 22, 1972 (gage height, 20.75 ft, from high-water mark in well), from rating curve extended above 2,800 cfs on basis of contracted-opening measurement of peak flow; minimum, 1.9 cfs Sept. 10, 1966, result of filling pond above station; minimum daily, 3.1 cfs Sept. 10, 12, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Slight diurnal fluctuation at low and medium flow caused by mill above station. Low flow affected slightly by Cranberry Reservoir since August 1957 (capacity, 113,700,000 gal). Records do not include a mean discharge of 1.50 cfs diverted above station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin.

REVISIONS (WATER YEARS).--WSP 1903: 1959-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	78	130	64	56	231	87	101	180	257	94	50
2	100	79	110	131	62	211	94	99	82	218	91	53
3	75	90	101	84	127	237	84	124	74	220	93	50
4	60	72	99	77	311	164	87	167	70	192	92	51
5	55	64	94	104	91	153	82	110	73	267	88	50
6	50	63	98	78	85	135	80	98	69	189	84	47
7	46	66	165	72	83	134	86	94	68	167	90	44
8	44	60	125	69	69	125	90	92	63	155	104	43
9	44	60	103	90	66	110	83	130	61	145	84	42
10	200	60	98	107	65	103	79	117	60	136	75	40
11	100	60	96	87	67	99	79	97	57	127	66	39
12	65	55	90	80	67	101	76	95	56	123	66	43
13	60	55	89	77	391	101	323	98	60	194	93	45
14	55	55	87	79	161	121	131	100	77	128	73	45
15	50	55	87	71	115	110	156	108	65	123	65	53
16	50	55	83	50	105	114	132	96	69	198	62	41
17	50	50	80	59	97	211	239	81	65	229	92	37
18	48	50	78	68	95	128	124	115	74	193	82	43
19	48	50	76	71	152	107	112	118	66	129	69	47
20	46	50	78	69	108	98	108	124	62	119	64	37
21	46	50	74	72	111	98	99	90	300	115	61	37
22	44	48	70	72	102	204	202	84	6,000	112	58	41
23	46	46	68	77	93	128	135	77	900	109	58	34
24	72	46	72	80	94	108	134	73	600	102	56	37
25	183	600	70	72	101	101	114	71	450	100	62	35
26	137	140	70	64	202	98	109	68	340	96	67	34
27	84	110	69	61	137	95	106	67	280	97	76	32
28	72	110	68	66	147	92	102	65	242	99	77	90
29	67	400	65	63	166	90	100	65	521	97	59	43
30	63	260	68	63	------	89	99	68	601	96	54	65
31	74	------	66	61	------	88	------	162	------	97	52	------
TOTAL	2,180	3,037	2,727	2,338	3,526	3,984	3,532	3,054	11,685	4,629	2,307	1,348
MEAN	70.3	101	88.0	75.4	122	129	118	98.5	390	149	74.4	44.9
MAX	200	600	165	131	391	237	323	167	6,000	267	104	90
MIN	44	46	65	50	56	88	76	65	56	96	52	32
CFSM	1.24	1.78	1.55	1.33	2.16	2.28	2.08	1.74	6.89	2.63	1.31	.79
IN.	1.43	2.00	1.79	1.54	2.32	2.62	2.32	2.01	7.68	3.04	1.52	.89

CAL YR 1971 TOTAL 30,429 MEAN 83.4 MAX 1,110 MIN 20 CFSM 1.47 IN 20.00
WTR YR 1972 TOTAL 44,347 MEAN 121 MAX 6,000 MIN 32 CFSM 2.14 IN 29.15

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2- 4	0130	5.07	1,050	6-22	*0300	†20.75	27,800
2-13	1330	4.95	1,000	6-30	0030	8.64	2,500

* About.
† From high-water mark in well.
NOTE.--No gage-height record June 21-25.

01587500 South Branch Patapsco River at Henryton, Md.

LOCATION.--Lat 39°21'05", long 76°54'50", Howard County, on right bank at downstream side of bridge on Henryton Road at Henryton, 1.3 miles upstream from Piney Run, 2.5 miles upstream from confluence with North Branch, and 3.2 miles southeast of Sykesville.

DRAINAGE AREA.--64.4 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 289.15 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 68.5 cfs (14.44 inches per year).

EXTREMES.--Current year: Maximum discharge, 26,900 cfs June 22 (gage height, 28.14 ft, from floodmarks), from rating curve extended as explained below; minimum, 30 cfs Aug. 31; minimum daily, 40 cfs Sept. 27.
Period of record: Maximum discharge, 26,900 cfs June 22, 1972 (gage height, 28.14 ft, from floodmarks), from rating curve extended above 1,900 cfs on basis of slope-area measurements at gage heights 7.88 and 28.14 ft, and contracted-opening measurements at gage heights 10.12 and 19.40 ft; minimum, 0.40 cfs Sept. 9-12, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	106	184	85	83	273	117	130	346	256	100	51
2	124	100	154	151	86	283	125	127	132	220	92	53
3	103	115	139	112	237	331	115	187	116	324	92	51
4	85	106	133	103	383	204	121	297	115	240	95	53
5	82	92	127	142	131	177	113	181	150	262	90	51
6	80	87	130	109	120	154	109	154	110	200	85	50
7	73	90	280	100	114	152	120	141	107	172	95	46
8	71	85	172	95	100	143	133	131	96	160	115	46
9	71	92	142	118	95	132	125	192	92	160	87	46
10	464	82	136	180	85	131	115	187	89	151	80	41
11	148	92	130	127	85	125	109	156	85	145	77	43
12	109	80	124	115	75	127	104	141	84	142	77	45
13	95	80	121	109	507	127	503	128	83	196	85	45
14	90	77	115	109	205	142	206	122	94	142	80	54
15	87	75	115	100	146	136	209	121	90	130	75	53
16	82	75	112	72	132	137	278	119	92	136	71	43
17	82	73	109	80	121	347	439	114	93	145	80	41
18	80	73	103	95	119	165	197	110	93	220	87	51
19	75	73	100	95	277	145	166	105	94	133	77	50
20	73	73	109	95	166	137	155	380	86	124	73	41
21	75	73	103	100	163	134	145	172	1,200	118	67	41
22	73	69	97	97	145	252	390	145	8,000	115	67	50
23	75	67	92	103	132	183	244	134	1,100	109	65	41
24	100	67	97	103	134	148	234	120	600	103	56	41
25	532	790	95	95	149	139	178	113	400	100	60	41
26	304	200	95	85	355	135	158	107	326	96	58	41
27	142	157	95	82	221	130	148	104	272	97	60	40
28	121	157	92	90	208	127	140	101	244	100	60	45
29	109	550	90	86	246	124	136	100	506	97	56	43
30	103	345	92	87	------	121	132	114	730	100	54	54
31	103	------	90	82	------	120	------	306	------	103	53	------
TOTAL	3,891	4,181	3,773	3,202	5,020	5,181	5,464	4,739	15,625	4,796	2,369	1,391
MEAN	126	139	122	103	173	167	182	153	521	155	76.4	46.4
MAX	532	790	280	180	507	347	503	380	8,000	324	115	54
MIN	71	67	90	72	75	120	104	100	83	96	53	40
CFSM	1.96	2.16	1.89	1.60	2.69	2.59	2.83	2.38	8.09	2.41	1.19	.72
IN.	2.25	2.42	2.18	1.85	2.90	2.99	3.16	2.74	9.03	2.77	1.37	.80

CAL YR 1971 TOTAL 43,421 MEAN 119 MAX 2,580 MIN 24 CFSM 1.85 IN 25.08
WTR YR 1972 TOTAL 59,632 MEAN 163 MAX 8,000 MIN 40 CFSM 2.53 IN 34.45

PEAK DISCHARGE (BASE, 950 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0830	4.10	1,035	2-13	1230	4.47	1,200
10-25	2030	5.33	1,590	4-13	1330	4.52	1,220
11-25	0630	6.25	1,960	6- 1	0100	4.39	1,170
11-29	2000	5.68	1,730	6-22	*0100	†28.14	26,900
2- 3	2400	4.78	1,340	6-29	2345	6.82	2,240

* About.
† From floodmarks.
NOTE.--No gage-height record June 22-25.

01589000 Patapsco River at Hollofield, Md.

LOCATION.--Lat 39°18'36", long 76°47'39", Howard County, on right bank at downstream side of highway bridge, at Hollofield, 0.3 mile downstream from Dogwood Run, 3.0 miles north of Ellicott City, and 28 miles upstream from mouth.

DRAINAGE AREA.--285 sq mi.

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

GAGE.--Nonrecording gage. Altitude of gage is 190 ft (from topographic map). Prior to June 22, 1972, water-stage recorder at same site and datum. Gage destroyed by flood of June 22, 1972.

EXTREMES.--Current year: Maximum discharge, 80,600 cfs June 22 (gage height 31.3 ft, from floodmarks), from rating curve extended as explained below; minimum daily, 75 cfs many days in September.
Period of record: Maximum discharge, 80,600 cfs June 22, 1972 (gage height, 31.3 ft, from floodmarks), from rating curve extended above 13,000 cfs on basis of slope-area measurement of peak flow; minimum, 6 cfs Sept. 6, 1944; minimum daily, 9.6 cfs Aug. 12, 1963.

REMARKS.--Records good prior to June 22 and fair thereafter. Flow regulated by Liberty Reservoir 11 miles upstream beginning July 22, 1954 (usable capacity, 42,070,000,000 gal; dead storage, 1,260,000,000 gal). Diversions above 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 of part of Carroll County. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	301	914	169	178	868	284	366	1,130	1,500	260	100
2	272	292	597	320	196	1,000	304	356	536	1,100	240	100
3	305	340	450	318	415	1,160	286	583	368	1,100	220	100
4	224	310	393	270	1,350	837	313	1,240	326	1,100	240	100
5	200	253	342	400	632	680	303	848	450	950	220	95
6	185	222	325	302	416	533	284	570	287	900	200	90
7	166	233	687	254	390	464	314	454	279	750	220	85
8	147	190	653	226	289	440	393	404	238	650	300	85
9	132	169	476	239	250	371	340	620	213	600	220	85
10	1,130	163	408	466	232	346	296	674	211	550	200	80
11	675	163	378	341	221	322	281	488	194	550	190	80
12	476	158	325	301	217	323	261	410	179	500	160	80
13	320	155	310	271	1,220	325	1,160	357	173	700	170	80
14	261	152	278	284	1,100	364	1,020	345	197	550	200	100
15	229	150	270	252	711	397	859	370	201	500	160	110
16	200	150	270	170	536	369	1,000	361	213	460	150	80
17	187	150	257	180	413	1,150	1,570	337	251	550	160	75
18	184	148	259	200	365	675	914	312	234	1,000	200	95
19	172	152	208	211	1,040	497	673	340	267	600	170	95
20	160	142	229	220	719	406	568	839	241	460	150	75
21	152	145	229	241	472	366	487	536	1,420	400	130	75
22	152	145	225	237	463	672	1,030	418	30,000	360	130	90
23	152	140	190	261	367	760	1,020	360	6,500	300	120	75
24	253	155	194	280	377	541	917	300	4,400	280	105	75
25	700	2,050	200	276	432	424	707	269	2,800	260	105	75
26	1,510	1,040	190	226	1,030	383	582	240	1,800	240	110	75
27	615	680	194	209	911	348	497	218	1,300	220	110	75
28	420	554	197	221	760	332	438	205	1,100	240	110	80
29	335	980	194	214	811	307	404	195	1,600	240	100	80
30	288	1,610	184	208	------	302	373	206	3,600	240	100	100
31	270	------	197	206	------	295	------	657	------	260	100	------
TOTAL	10,839	11,492	10,223	7,973	16,513	16,257	17,878	13,878	60,708	18,110	5,250	2,590
MEAN	350	383	330	257	569	524	596	448	2,024	584	169	86.3
MAX	1,510	2,050	914	466	1,350	1,160	1,570	1,240	30,000	1,500	300	110
MIN	132	140	184	169	178	295	261	195	173	220	100	75
(†)	43,420	43,730	43,310	43,400	43,640	43,420	43,440	43,690	44,010	43,370	43,170	42,390
(‡)	145	194	206	174	165	201	191	195	180	185	193	181

CAL YR 1971 TOTAL 101,972 MEAN 279 MAX 5,220 MIN 45 ‡ 168
WTR YR 1972 TOTAL 191,711 MEAN 524 MAX 30,000 MIN 75 ‡ 184

† Month-end contents, in millions of gallons in Liberty Reservoir (contents on Sept. 30, 1971, 43,280 million gallons); 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.
NOTE.--No gage-height record June 22-26.

01589100 East Branch Herbert Run at Arbutus, Md.

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, on right bank at downstream side of highway bridge on Tom Day Boulevard at U. S. Route 1 in Arbutus, 0.5 mile upstream from mouth, and 2 miles south of Baltimore city limits.

DRAINAGE AREA.--2.47 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 45 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 3.10 cfs (17.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,340 cfs June 22 (gage height, 6.35 ft), from rating curve extended as explained below; minimum, 1.1 cfs Sept. 17, 18.
Period of record: Maximum discharge, 1,340 cfs June 22, 1972 (gage height, 6.35 ft), from rating curve extended above 250 cfs on basis of slope-area measurement of flood of July 20, 1956 (prior to establishment of station) at gage height 5.7 ft, from floodmarks (discharge, 1,090 cfs); minimum daily, 0.30 cfs July 24, Sept. 4, 11, 1966.

REMARKS.--Records good except those for period of fragmentary or no gage-height record, which are fair. Slight regulation at low flow from unknown source above station. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	2.7	3.2	1.4	2.0	3.8	2.7	3.0	3.5	5.0	2.0	2.0
2	11	3.2	3.0	10	4.2	3.6	2.8	3.3	2.5	4.2	2.0	1.8
3	1.9	14	2.7	2.2	30	8.3	2.0	15	2.0	7.5	2.0	1.5
4	1.9	3.2	2.5	6.7	5.8	3.4	4.3	14	7.5	4.2	2.6	1.8
5	2.1	2.7	2.1	11	3.0	3.0	2.3	3.6	2.5	6.0	2.4	1.8
6	3.0	2.3	2.5	2.9	3.2	3.0	2.3	2.9	2.5	3.6	2.0	1.8
7	1.9	4.6	20	2.6	2.7	3.0	7.5	2.6	2.1	3.6	3.0	1.8
8	1.8	2.3	4.3	2.2	2.4	3.0	5.0	3.3	2.0	6.0	2.2	1.8
9	1.7	2.3	3.4	9.8	2.2	2.7	2.1	16	1.9	4.0	2.0	1.6
10	69	2.3	3.2	4.5	2.2	2.7	2.2	3.7	1.7	3.4	2.4	1.3
11	4.3	2.3	2.7	3.6	2.2	2.3	2.2	3.0	1.5	3.4	2.4	1.5
12	3.0	2.3	2.3	2.8	2.1	2.1	2.1	2.8	1.7	3.4	1.7	1.8
13	2.7	1.9	2.5	3.8	39	2.5	38	2.5	2.4	9.0	3.0	1.8
14	2.5	1.7	2.5	3.7	5.2	6.2	4.3	5.3	2.0	4.0	1.7	3.7
15	2.3	1.9	2.5	2.3	3.7	2.7	7.3	4.3	1.8	3.4	1.7	1.8
16	2.1	1.9	2.5	1.4	3.2	9.3	34	2.9	2.8	20	1.5	1.5
17	1.7	2.1	2.4	2.0	4.2	18	12	2.5	2.6	3.6	10	1.3
18	1.9	2.1	2.1	2.1	12	3.3	4.5	2.4	3.8	3.0	3.0	4.6
19	1.9	2.1	1.8	2.3	40	2.7	3.8	7.4	3.7	2.8	2.0	1.8
20	1.9	1.8	5.1	2.6	7.6	2.7	3.6	33	4.7	2.6	1.7	1.7
21	1.9	1.8	2.4	2.4	5.8	2.9	3.3	3.9	39	2.4	1.7	1.7
22	2.1	1.8	2.1	3.1	7.0	17	31	3.2	200	2.4	1.7	1.7
23	2.7	1.9	2.1	2.8	3.9	3.7	5.5	2.9	17	2.4	1.7	1.5
24	13	18	1.9	3.7	9.6	3.1	6.4	2.7	6.5	1.9	25	1.3
25	24	73	1.8	3.2	8.7	2.5	3.8	2.5	4.6	1.9	2.7	1.5
26	53	4.3	1.8	2.2	20	2.2	3.5	2.3	3.2	1.9	1.9	1.6
27	4.9	3.8	1.9	2.0	4.9	2.6	3.4	2.0	3.2	2.4	11	2.3
28	3.8	2.7	2.1	4.5	4.2	2.6	3.3	1.9	4.2	2.6	8.1	1.7
29	3.4	26	2.1	2.3	4.0	2.5	2.9	1.8	55	2.0	2.0	1.7
30	3.0	4.6	2.6	2.0	------	2.4	2.8	2.2	18	2.0	2.0	2.8
31	2.5	------	1.7	2.0	------	2.3	------	27	------	2.0	2.0	------
TOTAL	236.3	197.6	95.8	110.1	245.0	132.1	210.9	185.9	405.9	126.6	111.1	56.5
MEAN	7.62	6.59	3.09	3.55	8.45	4.26	7.03	6.00	13.5	4.08	3.58	1.88
MAX	69	73	20	11	40	18	38	33	200	20	25	4.6
MIN	1.7	1.7	1.7	1.4	2.0	2.1	2.0	1.8	1.5	1.9	1.5	1.3
CFSM	3.09	2.67	1.25	1.44	3.42	1.72	2.85	2.43	5.47	1.65	1.45	.76
IN.	3.56	2.98	1.44	1.66	3.69	1.99	3.18	2.80	6.11	1.91	1.67	.85

CAL YR 1971 TOTAL 1,983.94 MEAN 5.44 MAX 152 MIN .70 CFSM 2.20 IN 29.88
WTR YR 1972 TOTAL 2,113.80 MEAN 5.78 MAX 200 MIN 1.3 CFSM 2.34 IN 31.84

PEAK DISCHARGE (BASE, 330 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0615	3.77	506	6-22	0115	6.35	1,340
10-26	0400	3.24	344	6-29	2130	4.23	644
4-16	2115	3.59	452	7-16	1730	3.26	360
5-20	0645	3.39	392	8-24	1715	3.95	585
5-31	1645	3.78	509				

NOTE.--Fragmentary or no gage-height record July 8 to Aug. 23.

01589200 Gwynns Falls near Owings Mills, Md.

LOCATION.--Lat 39°26'16", long 76°46'57", Baltimore County, on left bank at downstream side of bridge on railroad sideing, 0.4 mile upstream from small right bank tributary, 1.2 miles north of Owings Mills, and 21 miles upstream from mouth.

DRAINAGE AREA.--4.90 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 520 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 4.71 cfs (13.05 inches per year).

EXTREMES.--Current year: Maximum discharge, about 5,500 cfs June 22 (gage height, 5.70 ft, from floodmarks), determined as explained below; minimum daily, 3.8 cfs many days in October.
Period of record: Maximum discharge, about 5,500 cfs June 22, 1972 (gage height, 5.70 ft, from floodmarks), by contracted-opening and flow-over-road computation of peak flow at road crossing 0.5 mile downstream, adjusted for flow from intervening area; minimum daily, 0.5 cfs Sept. 5, 8, 1966.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.6	7.3	5.4	4.8	11	6.3	6.3	12	12	7.0	5.0
2	13	7.3	6.6	15	5.4	8.8	7.0	6.3	7.0	11	6.3	5.0
3	5.7	10	6.0	6.6	37	17	6.3	18	6.0	23	6.6	5.0
4	4.3	6.0	6.0	6.9	18	8.0	8.3	46	9.6	14	6.3	5.5
5	4.0	5.7	5.4	12	6.6	7.3	6.3	8.4	7.5	20	6.0	5.0
6	4.0	5.7	6.0	6.6	6.6	6.6	6.0	6.6	6.3	15	5.4	5.0
7	4.0	7.0	18	6.0	6.6	6.6	8.6	6.0	6.0	13	7.0	5.0
8	3.8	5.7	8.4	5.7	6.0	6.3	10	6.0	5.4	11	7.0	4.6
9	3.8	5.4	6.6	11	5.5	6.0	7.3	15	5.4	11	6.0	4.6
10	69	5.1	6.3	9.5	5.0	5.7	6.6	8.4	5.2	10	6.0	4.6
11	7.3	5.1	6.0	7.0	5.0	5.7	6.3	6.3	4.6	9.1	6.0	4.6
12	4.8	5.1	5.4	6.0	5.0	5.7	6.0	5.7	4.6	9.1	6.0	5.0
13	4.6	4.8	5.4	6.0	43	5.7	37	5.4	5.2	13	6.0	5.5
14	4.6	4.8	5.4	6.0	11	9.1	9.7	7.0	6.0	8.8	6.0	5.0
15	3.8	4.6	5.4	5.1	8.0	7.6	18	7.7	4.8	8.4	6.0	5.0
16	3.8	4.6	5.4	4.6	7.0	11	19	6.6	6.6	16	5.7	4.4
17	3.8	4.6	5.4	4.3	6.6	30	22	5.4	6.7	13	15	4.4
18	3.8	4.3	5.4	4.3	8.3	8.4	7.6	5.4	6.0	10	8.8	8.5
19	3.8	4.3	5.4	4.6	28	7.0	6.8	6.2	5.7	8.0	7.3	4.6
20	3.8	4.3	5.8	5.7	9.8	6.6	6.6	14	6.6	7.5	6.0	4.4
21	3.8	4.3	5.4	6.0	8.8	6.6	6.3	7.0	39	7.5	5.7	4.4
22	3.8	4.3	5.4	6.3	9.1	23	31	6.0	750	7.0	5.7	4.6
23	3.8	4.3	5.4	6.6	7.3	9.5	12	5.1	65	7.0	5.7	4.2
24	11	6.0	5.4	7.2	7.7	7.6	13	5.4	17	6.5	5.4	4.2
25	22	83	5.4	6.0	12	6.6	9.1	5.4	15	6.6	5.4	4.2
26	41	11	5.4	5.1	28	6.3	8.0	5.4	13	6.3	5.4	4.2
27	8.0	9.5	5.4	5.1	12	6.3	7.3	5.2	11	6.6	7.5	10
28	6.3	8.0	5.4	5.4	13	6.3	6.6	5.2	11	7.3	6.6	7.5
29	6.0	44	5.4	5.1	12	6.3	6.3	5.2	42	7.3	5.4	4.8
30	6.0	12	5.4	5.4	------	6.3	6.3	12	24	7.3	5.0	10
31	6.9	------	5.4	4.8	------	6.3	------	44	------	7.6	5.0	------
TOTAL	279.3	297.4	191.0	201.3	343.1	271.2	317.6	302.6	1,114.2	319.9	199.2	158.8
MEAN	9.01	9.91	6.16	6.49	11.8	8.75	10.6	9.76	37.1	10.3	6.43	5.29
MAX	69	83	18	15	43	30	37	46	750	23	15	10
MIN	3.8	4.3	5.4	4.3	4.8	5.7	6.0	5.1	4.6	6.3	5.0	4.2
CFSM	1.84	2.02	1.26	1.32	2.41	1.79	2.16	1.99	7.57	2.10	1.31	1.08
IN.	2.12	2.26	1.45	1.53	2.60	2.06	2.41	2.30	8.46	2.43	1.51	1.21

CAL YR 1971 TOTAL 2,827.0 MEAN 7.75 MAX 118 MIN 2.0 CFSM 1.58 IN 21.46
WTR YR 1972 TOTAL 3,995.6 MEAN 10.9 MAX 750 MIN 3.8 CFSM 2.22 IN 30.33

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0900	2.80	310	2-13	1130	2.22	135
10-26	0630	2.54	221	5- 4	0530	2.54	221
11-25	0700	2.52	214	5-31	1700	2.51	211
11-29	1830	2.50	208	6-22	0200	*5.70	†5,500
2- 3	2200	2.46	196	6-29	2300	2.48	202

* From floodmarks.
† About.

01589300 Gwynns Falls at Villa Nova, Md.

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, 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 miles west of Baltimore city limits, and 11.5 miles upstream from mouth.

DRAINAGE AREA.--32.5 sq mi.

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

GAGE.--Nonrecording gage. Datum of gage is 361.32 ft above mean sea level (Baltimore County benchmark). Prior to Aug. 27, 1963, water-stage recorder at same site and datum. Aug. 27, 1963 to June 22, 1972, water-stage recorder at site 300 ft downstream at same datum. Gage destroyed by flood of June 22, 1972.

AVERAGE DISCHARGE.--15 years, 33.2 cfs (13.87 inches per year).

EXTREMES.--Current year: Maximum discharge, 16,200 cfs June 22 (gage height 21.5 ft, from floodmarks), from rating curve extended as explained below; minimum, 18 cfs Jan. 16, result of freezeup.
Period of record: Maximum discharge, 16,200 cfs June 22, 1972 (gage height, 21.5 ft, from floodmarks), from rating curve extended above 1,900 cfs on basis of contracted-opening measurement of peak flow; minimum, 1.7 cfs Sept. 7, 8, 1966 (gage height, 0.50 ft).
Flood of July 21, 1956, reached a stage of 12.6 ft (discharge, 5,270 cfs) on basis of contracted-opening measurement.

REMARKS.--Records good prior to June 22, and fair thereafter. Slight diurnal fluctuation at times from unknown source above station. Small diversion for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	46	55	31	30	66	44	46	83	80	36	22
2	83	42	46	114	37	59	47	47	43	70	34	22
3	44	75	41	47	211	137	42	145	36	200	36	22
4	28	46	41	46	203	61	60	335	72	110	36	24
5	26	38	38	108	47	53	46	81	73	130	36	22
6	24	34	40	46	44	45	43	58	40	90	34	22
7	22	46	168	39	40	45	61	51	36	75	38	22
8	20	35	77	37	30	42	78	47	31	65	38	20
9	21	34	52	75	30	39	55	130	28	60	34	20
10	466	34	47	89	30	39	48	75	27	55	30	20
11	72	34	46	46	28	38	45	52	26	50	28	20
12	41	31	42	42	28	39	42	46	25	50	28	22
13	33	31	41	43	370	38	331	43	26	110	28	24
14	31	28	38	49	99	55	85	53	31	60	28	22
15	28	29	38	37	60	48	127	54	27	50	28	22
16	26	28	39	26	52	68	248	49	49	100	26	19
17	25	28	37	22	46	334	296	41	40	90	90	19
18	25	27	35	30	55	74	81	38	33	65	40	85
19	24	28	34	35	272	55	64	43	34	46	32	30
20	24	28	42	38	90	49	57	130	33	44	28	19
21	25	28	38	43	65	48	51	55	360	42	26	19
22	24	27	34	41	60	202	290	46	5,000	42	26	20
23	25	26	31	46	46	88	110	40	200	38	24	18
24	89	63	34	46	55	59	117	36	140	36	60	18
25	167	752	34	41	100	52	69	35	120	36	28	19
26	571	92	33	33	258	50	58	32	100	36	24	19
27	79	65	33	31	94	48	52	31	85	36	40	40
28	52	55	32	38	79	47	50	31	80	36	55	70
29	43	253	31	34	77	46	48	30	200	36	26	20
30	40	116	34	34	------	46	46	41	240	36	24	50
31	47	------	34	31	------	46	------	213	------	40	22	------
TOTAL	2,254	2,199	1,365	1,418	2,636	2,116	2,791	2,154	7,318	2,014	1,063	791
MEAN	72.7	73.3	44.0	45.7	90.9	68.3	93.0	69.5	244	65.0	34.3	26.4
MAX	571	752	168	114	370	334	331	335	5,000	200	90	85
MIN	20	26	31	22	28	38	42	30	25	36	22	18
CFSM	2.24	2.26	1.35	1.41	2.80	2.10	2.86	2.14	7.51	2.00	1.06	.81
IN.	2.58	2.52	1.56	1.62	3.02	2.42	3.19	2.47	8.38	2.31	1.22	.91

CAL YR 1971 TOTAL 19,959 MEAN 54.7 MAX 893 MIN 11 CFSM 1.68 IN 22.85
WTR YR 1972 TOTAL 28,119 MEAN 76.8 MAX 5,000 MIN 18 CFSM 2.36 IN 32.19

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1300	5.83	939	3-17	0500	4.84	670
10-26	0730	7.55	1,470	4-13	0930	5.07	728
11-25	0600	7.65	1,500	4-16	2300	6.40	1,110
11-29	1930	4.80	660	5- 4	1030	5.35	798
2- 3	2300	5.05	722	6-22	*0400	†21.5	16,200
2-13	1400	5.13	742	7- 3	1800	‡ 5.65	670

* About.
† From floodmarks.
‡ Observed.
NOTE.--No gage-height record June 22-26.

01589330 Dead Run at Franklintown, Md.

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

DRAINAGE AREA.--5.52 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 310 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 6.59 cfs (16.21 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,400 cfs June 22 (gage height, 12.5 ft, from floodmarks), from rating curve extended as explained below; minimum, 0.84 cfs Jan. 15 (gage height, 0.73 ft), result of freezeup.
Period of record: Maximum discharge, 7,400 cfs June 22, 1972 (gage height, 12.5 ft, from floodmarks), from rating curve extended above 1,600 cfs on basis of contracted-opening measurement of peak flow at bridge 0.6 mile downstream, adjusted for flow from intervening area; minimum, 0.10 cfs Sept. 11-12, 1966 (gage height, 0.57 ft).

REMARKS.--Records good except for period of no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	3.4	4.0	1.9	2.0	5.5	3.0	3.2	5.2	9.5	1.6	1.6
2	33	3.1	3.3	27	4.4	4.9	3.6	3.7	3.6	6.3	1.6	1.6
3	3.7	19	3.0	3.5	122	20	3.0	30	3.2	13	1.6	1.6
4	2.7	3.3	2.8	9.5	16	4.9	6.3	41	22	5.5	2.2	2.6
5	2.5	2.6	2.6	35	4.5	4.4	3.2	5.5	4.9	6.3	2.0	1.6
6	2.4	2.6	2.9	4.0	4.4	3.6	3.2	4.0	3.6	4.4	1.6	1.4
7	2.0	7.6	41	3.1	3.5	3.6	9.5	4.0	3.2	4.4	6.4	1.4
8	2.0	2.6	5.9	2.6	2.0	3.2	7.1	3.6	2.9	13	2.6	1.4
9	2.0	2.6	4.0	25	2.0	2.9	3.6	17	2.6	4.4	1.6	1.4
10	156	2.6	3.6	12	2.0	2.9	3.2	6.3	2.6	4.0	2.0	1.2
11	6.8	2.2	3.4	5.0	2.0	2.9	3.2	4.0	2.2	4.0	2.0	1.2
12	3.4	2.2	2.9	3.6	2.2	3.2	2.9	3.6	2.2	4.0	1.4	1.4
13	2.8	2.2	2.8	4.3	143	3.6	101	2.9	2.9	35	1.6	1.6
14	2.5	2.2	2.6	6.1	12	16	7.8	7.1	3.2	4.9	1.4	6.5
15	2.9	2.2	2.7	2.7	5.3	4.4	29	5.5	2.6	4.0	1.4	2.2
16	2.2	2.2	2.6	1.8	4.3	61	54	4.0	4.7	11	1.2	1.4
17	2.2	2.2	2.6	2.0	4.5	66	40	2.9	6.1	4.0	12	1.4
18	2.2	2.2	2.2	2.1	21	6.3	5.7	2.9	5.5	3.2	2.9	26
19	2.2	2.2	2.2	2.5	107	4.4	4.4	11	3.2	2.9	1.6	2.6
20	2.2	2.0	5.9	3.4	18	4.0	4.0	45	6.5	2.6	1.4	2.0
21	2.2	2.2	2.6	3.1	12	3.6	3.4	7.1	112	2.2	1.4	1.6
22	2.6	2.0	2.1	4.0	16	45	78	4.9	360	2.0	1.4	1.4
23	3.2	2.0	2.0	4.9	5.5	5.5	12	4.4	70	2.0	1.4	.98
24	29	41	2.2	5.7	15	4.0	29	3.6	18	1.6	11	.98
25	54	227	2.1	4.1	39	3.2	5.8	2.9	8.0	1.6	3.1	.98
26	180	6.3	2.2	2.3	77	3.0	4.2	2.9	3.6	1.6	3.8	1.2
27	6.3	4.9	2.2	2.2	11	2.8	3.7	2.6	3.6	2.0	4.3	3.2
28	4.3	3.6	2.1	5.0	9.5	2.8	3.4	2.6	12	2.2	9.6	1.6
29	3.6	71	2.0	2.7	7.1	2.8	3.3	2.6	141	1.6	1.6	1.2
30	3.2	9.4	3.0	2.6	------	2.8	3.3	3.6	32	1.6	1.4	4.4
31	3.6	------	2.0	2.3	------	2.8	------	13	------	1.6	2.2	------
TOTAL	533.0	440.6	127.5	196.0	674.2	306.0	443.8	257.4	853.1	166.4	91.3	79.64
MEAN	17.2	14.7	4.11	6.32	23.2	9.87	14.8	8.30	28.4	5.37	2.95	2.65
MAX	180	227	41	35	143	66	101	45	360	35	12	26
MIN	2.0	2.0	2.0	1.8	2.0	2.8	2.9	2.6	2.2	1.6	1.2	.98
CFSM	3.12	2.66	.74	1.14	4.20	1.79	2.68	1.50	5.14	.97	.53	.48
IN.	3.59	2.97	.86	1.32	4.54	2.06	2.99	1.73	5.75	1.12	.62	.54

CAL YR 1971 TOTAL 4,446.85 MEAN 12.2 MAX 375 MIN .70 CFSM 2.21 IN 29.97
WTR YR 1972 TOTAL 4,168.94 MEAN 11.4 MAX 360 MIN .98 CFSM 2.07 IN 28.10

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0700	4.95	832	6-22	*0130	†12.5	7,400
10-26	0500	5.80	1,060	6-29	2200	6.85	1,640
11-25	0530	5.38	940				

* About.
† From floodmarks.
NOTE.--No gage-height record June 22-25.

01589440 Jones Falls at Sorrento, Md.

LOCATION.--Lat 39°23'30", long 76°39'42", Baltimore County, on right bank 0.3 mile downstream from bridge on State Highway 25 (Falls Road), 0.4 mile downstream from Slaughterhouse Branch and Sorrento, and 18 miles upstream from mouth.

DRAINAGE AREA.--25.2 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (from topographic map). January 1958 to April 1966, nonrecording gage at site 450 ft upstream at same datum.

AVERAGE DISCHARGE.--6 years, 30.3 cfs (16.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 13,800 cfs June 22 (gage height, 18.11 ft, from floodmarks), from rating curve extended as explained below; minimum, 16 cfs Sept. 17.
Period of record: Maximum discharge, 13,800 cfs June 22, 1972 (gage height, 18.11 ft, from floodmarks), from rating curve extended above 1,400 cfs on basis of slope-area measurement of peak flow; minimum, 1.8 cfs Sept. 7, 8, 1966 (gage height, 1.16 ft).

REMARKS.--Records good except those for period of no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	46	61	28	32	63	42	46	43	88	40	25
2	113	41	51	73	35	58	43	49	35	75	38	26
3	59	59	43	39	134	99	40	101	33	202	39	26
4	42	43	40	37	136	61	49	162	42	96	38	26
5	36	38	35	65	49	57	41	69	49	92	37	24
6	31	36	35	39	43	49	39	56	34	78	36	23
7	27	42	111	35	42	48	49	51	33	72	39	22
8	25	34	62	34	36	46	55	48	30	68	40	20
9	26	33	49	55	35	43	46	93	29	64	34	20
10	320	32	46	66	32	43	41	62	28	60	31	19
11	87	31	43	48	32	43	40	49	27	60	30	19
12	64	30	40	44	35	44	38	45	26	60	31	20
13	52	30	38	45	244	43	193	43	26	220	32	20
14	45	29	37	46	89	53	69	49	30	70	31	18
15	38	29	38	40	60	48	84	50	28	60	29	18
16	34	28	37	30	51	59	191	48	30	65	28	18
17	33	27	37	34	47	234	232	43	40	68	47	18
18	31	27	36	36	48	72	84	46	31	56	42	29
19	29	27	35	37	159	57	70	41	32	52	34	25
20	27	27	41	38	79	51	64	71	31	49	31	21
21	27	27	38	39	60	50	58	49	101	48	30	20
22	27	26	34	40	60	144	197	44	2,600	45	28	21
23	28	25	33	42	52	81	95	40	200	43	28	20
24	75	36	35	40	56	60	94	38	130	42	35	20
25	120	467	33	38	76	54	68	36	100	40	29	20
26	478	95	33	34	176	51	59	35	92	39	28	18
27	90	75	31	34	90	47	53	35	82	40	33	38
28	63	61	31	37	79	45	50	34	77	42	42	44
29	50	171	29	35	71	45	49	34	188	41	28	23
30	44	103	31	35	------	45	48	35	258	41	26	29
31	47	------	29	33	------	43	------	73	------	42	25	------
TOTAL	2,193	1,775	1,272	1,276	2,138	1,936	2,281	1,675	4,485	2,118	1,039	690
MEAN	70.7	59.2	41.0	41.2	73.7	62.5	76.0	54.0	150	68.3	33.5	23.0
MAX	478	467	111	73	244	234	232	162	2,600	220	47	44
MIN	25	25	29	28	32	43	38	34	26	39	25	18
CFSM	2.81	2.35	1.63	1.63	2.92	2.48	3.02	2.14	5.95	2.71	1.33	.91
IN.	3.24	2.62	1.88	1.88	3.16	2.86	3.37	2.47	6.62	3.13	1.53	1.02

CAL YR 1971 TOTAL 15,125.3 MEAN 41.4 MAX 543 MIN 9.4 CFSM 1.64 IN 22.33
WTR YR 1972 TOTAL 22,878.0 MEAN 62.5 MAX 2,600 MIN 18 CFSM 2.48 IN 33.77

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0800	6.52	800	6-22	*0500	†18.11	13,800
10-26	0700	8.20	1,220	6-29	2300	6.67	752
11-25	0615	7.25	982	7- 3	1800	6.88	805
4-16	2300	6.35	758	7-13	‡	7.30	910

* About.
† From floodmarks.
‡ Unknown.
NOTE.--No gage-height record June 22-25.

01590000 North River near Annapolis, Md.

LOCATION.--Lat 38°59'09", long 76°37'21", Anne Arundel County, on left bank 500 ft downstream from bridge on State Highway 450, 0.8 mile upstream from mouth, and 7 miles west of Annapolis.

DRAINAGE AREA.--8.5 sq mi, approximately.

PERIOD OF RECORD.--December 1931 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 6.73 ft above mean sea level. Prior to Nov. 2, 1933, staff gage at same site and datum.

AVERAGE DISCHARGE.--40 years (1932-72), 10.1 cfs (16.14 inches per year).

EXTREMES.--Current year: Maximum discharge, 122 cfs June 22 (gage height, 2.36 ft); minimum, 5.2 cfs Sept. 1, 10, 11 (gage height, 1.04 ft).
Period of record: Maximum discharge, 5,000 cfs Aug. 2, 1944 (gage height, 6.22 ft), from rating curve extended above 260 cfs on basis of velocity-area studies; minimum, 0.90 cfs Sept. 12, 1966 (gage height, 0.78 ft).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: 1932-38, 1939(M), 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	11	18	10	11	17	13	14	12	25	9.5	5.9
2	10	11	14	15	12	16	13	13	10	17	8.6	7.4
3	9.4	18	13	14	19	23	12	25	9.9	14	8.5	8.1
4	7.5	13	13	13	30	22	14	29	9.8	14	8.6	7.1
5	7.1	11	12	24	15	17	13	20	21	15	9.9	7.1
6	7.5	10	12	17	15	15	12	15	13	15	8.6	6.9
7	6.6	12	50	13	15	15	15	14	20	13	8.3	6.4
8	5.9	11	39	12	13	15	19	14	12	12	16	6.1
9	6.0	10	22	13	12	14	16	29	10	12	9.1	6.1
10	57	9.9	18	20	12	14	14	23	9.5	11	7.8	5.7
11	27	9.8	16	16	13	13	13	16	8.9	10	7.6	5.6
12	12	9.5	14	14	14	14	13	14	8.8	10	7.5	6.0
13	9.8	9.6	14	14	41	13	34	14	8.8	29	7.7	6.4
14	9.0	9.4	13	15	31	16	26	16	10	18	7.8	6.4
15	8.4	9.2	13	13	18	16	18	19	9.7	12	7.4	9.5
16	8.0	9.4	13	9.5	15	15	17	17	8.9	11	7.0	7.0
17	7.9	9.1	13	9.0	14	36	33	14	9.2	14	8.6	6.3
18	7.7	9.1	12	9.5	15	21	20	14	10	11	11	6.4
19	7.5	9.2	11	13	48	16	16	14	11	11	8.8	6.8
20	7.3	9.5	17	13	31	15	16	30	11	10	7.7	6.1
21	7.3	9.1	15	14	21	15	15	22	17	13	7.1	6.9
22	7.3	8.7	12	13	18	19	37	17	100	10	7.0	8.6
23	8.0	8.4	11	13	17	19	36	15	70	9.2	6.9	6.8
24	24	9.5	12	14	21	15	25	13	35	8.6	6.8	6.4
25	26	74	11	12	27	14	20	12	24	8.4	6.7	6.6
26	54	26	11	11	37	14	17	11	18	8.0	6.6	6.5
27	28	18	11	10	26	14	15	11	15	7.9	6.9	6.6
28	17	15	11	12	21	13	14	11	15	8.7	7.3	7.4
29	14	21	11	12	19	13	14	11	23	9.0	6.6	7.0
30	12	32	11	12	------	13	14	11	49	9.5	6.3	12
31	12	------	11	11	------	13	------	11	------	10	6.0	------
TOTAL	438.4	432.4	474	411.0	601	505	554	509	589.5	396.3	250.2	208.1
MEAN	14.1	14.4	15.3	13.3	20.7	16.3	18.5	16.4	19.7	12.5	8.07	6.94
MAX	57	74	50	24	48	36	37	30	100	29	16	12
MIN	5.9	8.4	11	9.0	11	13	12	11	8.8	7.9	6.0	5.6
CFSM	1.66	1.69	1.80	1.56	2.44	1.92	2.18	1.93	2.32	1.47	.95	.82
IN.	1.92	1.89	2.07	1.80	2.63	2.21	2.42	2.23	2.58	1.69	1.09	.91

CAL YR 1971 TOTAL 4,382.7 MEAN 12.0 MAX 74 MIN 3.4 CFSM 1.41 IN 19.18
WTR YR 1972 TOTAL 5,358.9 MEAN 14.6 MAX 100 MIN 5.6 CFSM 1.72 IN 23.45

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1230	2.24	102	12- 7	1600	2.09	84
11-25	0730	2.24	102	6-22	0700	2.36	122

01591000 Patuxent River near Unity, Md.

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

DRAINAGE AREA.--34.8 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 364.76 ft above mean sea level (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, wire-weight gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 37.2 cfs (14.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,500 cfs June 22 (gage height, 16.1 ft, from high-water mark in well), from rating curve extended as explained below; minimum, 16 cfs part of several days in Sept. (gage height, 2.19 ft).
Period of record: Maximum discharge, 21,800 cfs Sept. 11, 1971 (gage height, 18.60 ft), from rating curve extended above 870 cfs on basis of slope-area measurement at gage height 13.58 ft; minimum, 0.20 cfs Sept. 10, 11, 12, 1966 (gage height, 1.66 ft).

REMARKS.--Records good except those for period of no gage-height record, which are fair.

REVISIONS (WATER YEARS).--WSP 1111: 1947. WSP 1432: 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	67	108	48	42	144	61	76	70	141	45	26
2	69	64	90	87	46	141	65	74	60	123	42	26
3	59	78	82	62	118	162	59	109	55	121	42	27
4	50	65	79	59	173	110	62	158	55	106	42	27
5	49	59	73	85	69	101	57	91	60	116	42	27
6	47	57	75	63	62	88	56	78	55	105	39	26
7	43	61	170	56	60	86	64	73	55	96	42	24
8	42	55	109	54	50	81	68	71	50	90	53	24
9	42	54	90	68	48	75	63	124	50	86	39	23
10	228	54	84	98	48	73	58	92	48	81	36	22
11	82	53	79	70	47	70	56	76	46	77	34	22
12	61	52	74	63	48	70	54	70	46	78	34	23
13	55	51	71	61	229	72	292	65	46	88	35	24
14	53	50	67	60	113	82	121	75	50	67	34	21
15	50	49	67	54	82	74	118	85	48	64	32	18
16	49	49	66	46	74	79	171	75	46	82	30	17
17	48	48	63	48	68	193	322	65	50	71	34	17
18	47	47	59	50	68	94	129	60	48	77	36	17
19	44	48	58	53	131	81	107	65	50	61	32	18
20	44	48	63	53	89	74	98	180	46	57	30	16
21	44	46	60	55	82	72	87	90	650	55	28	17
22	44	44	55	53	78	131	227	80	2,400	52	28	19
23	44	43	53	57	70	100	139	70	650	50	28	17
24	60	49	56	58	72	81	136	60	200	47	28	17
25	405	349	54	54	87	76	106	55	148	46	27	17
26	195	114	54	48	195	72	94	55	117	44	27	17
27	98	96	53	46	127	70	88	55	98	44	27	16
28	82	98	52	50	121	67	84	55	87	46	28	17
29	73	260	50	47	137	65	80	55	272	46	27	17
30	69	172	52	47	------	64	78	55	518	46	26	23
31	68	------	50	45	------	63	------	120	------	48	26	------
TOTAL	2,394	2,380	2,216	1,798	2,634	2,811	3,200	2,512	6,174	2,311	1,053	622
MEAN	77.2	79.3	71.5	58.0	90.8	90.7	107	81.0	206	74.5	34.0	20.7
MAX	405	349	170	98	229	193	322	180	2,400	141	53	27
MIN	42	43	50	45	42	63	54	55	46	44	26	16
CFSM	2.22	2.28	2.05	1.67	2.61	2.61	3.07	2.33	5.92	2.14	.98	.59
IN.	2.56	2.54	2.37	1.92	2.82	3.00	3.42	2.69	6.60	2.47	1.13	.66

CAL YR 1971 TOTAL 28,609 MEAN 78.4 MAX 2,580 MIN 17 CFSM 2.25 IN 30.58
WTR YR 1972 TOTAL 30,105 MEAN 82.3 MAX 2,400 MIN 16 CFSM 2.36 IN 32.18

PEAK DISCHARGE (BASE, 770 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	2230	5.95	942	6-22	*0100	†16.1	14,500
11-29	2200	5.56	784	6-30	0300	7.91	2,080

* About.
† From high-water mark in well.
NOTE.--No gage-height record May 12 to June 24.

01592500 Patuxent River near Laurel, Md.

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

DRAINAGE AREA.--132 sq mi.

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

GAGE.--Water-stage recorder and concrete control until May 3, 1972; nonrecording gage thereafter. Datum of gage is 153.5 ft mean sea level, levels by Washington Suburban Sanitary Commission. Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mile 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. Station and water-stage recorder destroyed by flood of June 22, 1972.

EXTREMES.--Current year: Maximum discharge, about 26,000 cfs June 22 (gage height, about 25 ft, from floodmarks), from rating curve extended as explained below; minimum daily discharge, 15 cfs Aug. 8.
Period of record: Maximum discharge, about 26,000 cfs June 22, 1972 (gage height, about 25 ft, from floodmarks), from rating curve extended above 6,600 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.10 cfs Sept. 25, 1964 (valve closed for repair); minimum daily, 1.1 cfs June 26, 1956.

REMARKS.--Records fair. 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, 12,500,000,000 gal; dead storage, 80,000,000 gal).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	233	245	133	116	275	166	168	460	920	120	19
2	133	219	161	139	136	374	166	217	170	600	100	19
3	170	211	159	143	183	466	166	202	170	750	170	19
4	80	156	159	143	368	407	166	520	200	340	190	19
5	28	75	159	143	345	404	126	600	260	170	160	19
6	72	46	156	162	392	223	91	340	170	260	110	19
7	74	40	268	175	307	119	94	170	110	520	38	19
8	40	90	347	171	175	149	171	170	80	520	15	19
9	28	107	347	175	122	166	171	240	90	300	22	19
10	628	95	210	175	27	168	173	330	120	170	95	19
11	407	102	154	175	64	168	173	380	150	170	85	19
12	282	94	179	144	125	168	173	270	150	170	120	20
13	169	75	136	260	570	168	364	170	110	170	80	21
14	59	75	79	175	731	168	468	170	80	170	17	21
15	74	79	58	175	340	185	468	170	80	170	19	21
16	74	81	82	166	238	261	468	170	80	220	19	21
17	74	94	118	49	228	439	550	170	80	450	19	21
18	74	104	120	28	272	458	598	170	90	240	19	21
19	74	72	122	56	646	458	628	180	260	130	19	21
20	59	58	119	98	486	382	628	500	170	170	19	18
21	28	58	119	136	529	186	309	460	400	170	19	19
22	48	58	119	166	266	182	464	170	13,000	170	19	19
23	75	58	120	168	171	368	660	170	3,400	130	19	19
24	141	70	115	140	276	397	497	170	1,050	110	19	19
25	217	554	119	139	385	166	311	170	460	80	19	19
26	695	705	123	150	410	172	319	100	560	80	19	19
27	356	569	85	102	512	139	159	32	170	110	19	19
28	279	730	64	78	491	148	163	55	320	120	19	19
29	244	385	58	78	467	166	168	80	560	110	19	19
30	258	556	107	78	------	166	168	100	1,650	90	19	19
31	300	------	133	78	------	166	------	280	------	50	19	------
TOTAL	5,285	5,849	4,540	4,198	9,378	7,862	9,226	7,094	24,650	7,830	1,645	584
MEAN	170	195	146	135	323	254	308	229	822	253	53.1	19.5
MAX	695	730	347	260	731	466	660	600	13,000	920	190	21
MIN	28	40	58	28	27	119	91	32	80	50	15	18
(†)	12,520	12,410	12,340	12,320	12,340	12,290	12,370	12,650	12,670	11,800	11,790	11,290
(‡)	82.7	82.0	85.4	71.2	67.8	69.4	77.1	83.2	84.2	81.3	83.3	83.8

CAL YR 1971 TOTAL 58,912 MEAN 161 MAX 6,010 MIN 12 ‡ 85.3
WTR YR 1972 TOTAL 88,141 MEAN 241 MAX 13,000 MIN 15 ‡ 79.3

† Combined month-end total contents, in million of gallons, in Triadelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1971: 12,240 million gallons); furnished by Washington Suburban Sanitary Commission.
‡ Diversion, 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, on left bank 75 ft upstream from bridge on State Highway 32, 1 mile west of Guilford, 3 miles upstream from Middle Patuxent River, 4 miles north of Laurel, and 20.1 miles upstream from mouth.

DRAINAGE AREA.--38.0 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Altitude of gage is 260 ft (from topographic map). Prior to June 25, 1946, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--40 years, 40.6 cfs (14.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,400 cfs June 22 (gage height, 18.38 ft, from high-water mark in well), from rating curve extended as explained below; minimum, 18 cfs Sept. 10, 11, 17 (gage height, 2.77 ft). Period of record: Maximum discharge, 12,400 cfs June 22, 1972 (gage height, 18.38 ft, from high-water mark in well), from rating curve extended above 1,800 cfs 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.

REMARKS.--Records good. Low flow affected by regulation from unknown source.

REVISIONS (WATER YEARS).--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	54	79	39	40	71	52	61	84	105	38	23
2	124	49	57	97	44	68	59	60	57	105	36	24
3	66	84	53	60	175	104	51	148	51	113	36	25
4	41	62	52	62	340	73	60	443	48	94	36	26
5	38	49	49	169	70	67	55	107	63	85	37	25
6	70	47	51	67	60	59	51	75	51	83	34	24
7	38	60	194	54	55	60	65	68	51	77	39	23
8	33	47	98	49	46	58	79	66	45	90	48	22
9	32	45	69	73	46	55	66	149	44	79	35	21
10	557	45	63	122	42	53	56	98	43	70	31	20
11	110	44	58	65	41	51	53	69	40	65	29	20
12	57	43	54	57	42	53	51	62	40	65	29	20
13	48	43	53	55	500	55	447	57	39	123	60	21
14	46	41	50	61	192	65	151	67	47	73	68	21
15	43	41	51	50	81	63	103	93	43	62	34	27
16	39	41	51	40	70	71	115	84	40	95	29	20
17	38	40	50	42	64	529	494	62	49	154	37	19
18	38	40	45	43	67	109	95	57	47	68	45	43
19	37	40	43	46	534	82	77	58	49	59	33	61
20	35	41	60	47	112	65	72	254	44	59	28	24
21	35	40	52	51	89	64	65	90	219	55	26	22
22	35	39	47	54	87	162	351	75	4,680	50	26	22
23	36	48	42	59	75	109	171	65	768	48	25	20
24	90	74	45	60	77	67	113	57	146	44	25	20
25	209	1,130	44	52	150	60	85	53	101	39	24	21
26	745	139	43	43	406	58	73	50	81	37	24	20
27	115	88	44	43	118	56	67	49	70	36	31	19
28	67	77	44	49	83	56	64	49	74	39	100	22
29	57	213	41	48	78	53	62	49	234	38	32	20
30	52	222	44	46	------	53	60	50	615	39	26	28
31	51	------	42	43	------	52	------	174	------	40	24	------
TOTAL	3,017	3,026	1,768	1,846	3,784	2,601	3,363	2,899	7,963	2,189	1,125	723
MEAN	97.3	101	57.0	59.5	130	83.9	112	93.5	265	70.6	36.3	24.1
MAX	745	1,130	194	169	534	529	494	443	4,680	154	100	61
MIN	32	39	41	39	40	51	51	49	39	36	24	19
CFSM	2.56	2.66	1.50	1.57	3.42	2.21	2.95	2.46	6.97	1.86	.96	.63
IN.	2.95	2.96	1.73	1.81	3.70	2.55	3.29	2.84	7.80	2.14	1.10	.71

CAL YR 1971 TOTAL 27,072 MEAN 74.2 MAX 1,130 MIN 12 CFSM 1.95 IN 26.50
WTR YR 1972 TOTAL 34,304 MEAN 93.7 MAX 4,680 MIN 19 CFSM 2.47 IN 33.58

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1200	7.92	917	3-17	0900	7.47	836
10-26	1200	8.15	961	4-13	1830	7.25	796
11-25	1330	9.74	1,640	4-17	0500	7.66	870
2- 4	0130	6.94	740	4-22	2000	6.59	677
2-13	1600	7.61	861	5- 4	1130	6.70	697
2-19	0930	7.50	841	6-22	*0630	†18.38	12,400
2-26	0730	6.29	623	6-30	0200	8.89	1,180

* About.
† From high-water mark in well.
NOTE.--No gage-height record 0600 hours to 0700 hours June 22.

01594500 Western Branch near Largo, Md.

LOCATION.--Lat 38°52'24", long 76°47'54", Prince Georges County, on right bank 200 ft upstream from culvert on State Highway 202, 200 ft downstream from small tributary, 0.1 mile upstream from Southwest Branch, 2.3 miles southeast of Largo, 4.8 miles northwest of Upper Marlboro, and 11 miles upstream from mouth.

DRAINAGE AREA.--30.2 sq mi.

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 46.50 ft above mean sea level (levels by private consultant engineers).

AVERAGE DISCHARGE.--23 years, 31.0 cfs (13.94 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,540 cfs June 22 (gage height, 8.54 ft), from rating curve extended above 400 cfs; minimum, 2.9 cfs Sept. 11 (gage height, 1.52 ft).
Period of record: Maximum discharge, 1,760 cfs Aug. 27, 1971 (gage height, 8.97 ft) from rating curve extended above 400 cfs; no flow Sept. 8-13, 1966.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	33	64	74	79	51	27	32	24	140	22	5.3
2	44	26	47	43	33	47	29	32	24	53	18	8.8
3	38	50	41	37	115	113	26	75	21	45	19	8.2
4	24	38	39	42	200	85	35	87	20	28	20	7.0
5	19	29	35	124	73	59	31	51	36	45	24	7.0
6	38	27	35	84	55	47	27	35	32	40	20	6.4
7	29	34	258	55	44	43	45	29	38	33	19	5.4
8	19	30	260	45	34	42	76	28	25	29	42	4.4
9	15	26	77	50	35	33	65	122	20	27	22	4.3
10	478	36	55	88	29	33	50	73	17	24	17	3.4
11	253	28	43	74	28	31	42	44	15	22	15	3.4
12	67	23	44	61	28	32	36	33	14	23	15	4.5
13	47	22	41	59	338	32	212	28	14	243	15	5.0
14	40	21	33	65	249	40	150	37	19	61	17	41
15	36	21	27	51	86	39	71	47	17	33	12	40
16	32	21	26	35	60	42	59	52	14	35	9.9	13
17	31	20	24	31	62	207	190	45	15	130	16	8.9
18	30	20	32	34	77	106	88	47	23	51	23	8.4
19	30	20	31	39	575	63	57	68	20	33	14	7.9
20	27	21	51	43	299	50	55	367	18	95	11	7.0
21	26	19	43	40	95	44	57	206	150	122	9.4	9.9
22	24	18	35	38	87	60	266	73	1,100	33	8.7	9.7
23	23	18	31	42	64	69	223	50	670	26	8.2	7.3
24	59	34	32	47	131	50	94	41	226	22	7.7	7.1
25	354	512	31	43	166	40	59	36	67	20	9.8	7.0
26	631	255	31	35	254	36	46	30	47	18	7.3	6.6
27	274	75	30	31	157	34	41	28	36	18	6.7	7.2
28	75	56	29	42	70	31	36	28	140	19	11	7.9
29	49	148	28	49	58	29	34	27	93	19	7.6	7.3
30	39	149	28	36	------	28	32	26	399	23	6.3	31
31	33	------	27	31	------	28	------	27	------	23	5.8	------
TOTAL	2,906	1,944	1,749	1,526	3,485	1,653	2,259	1,904	3,356	1,543	459.4	300.3
MEAN	93.7	64.8	56.4	49.2	120	53.3	75.3	61.4	112	49.8	14.8	10.0
MAX	631	512	260	124	579	207	266	367	1,100	243	42	41
MIN	19	18	27	26	28	28	26	26	14	18	5.8	3.4
CFSM	3.10	2.15	1.87	1.63	3.97	1.76	2.49	2.03	3.71	1.65	.49	.33
IN.	3.58	2.39	2.15	1.88	4.29	2.04	2.78	2.35	4.13	1.90	.57	.37

CAL YR 1971 TOTAL 21,974.7 MEAN 60.2 MAX 812 MIN 4.5 CFSM 1.99 IN 27.07
WTR YR 1972 TOTAL 23,093.7 MEAN 63.1 MAX 1,100 MIN 3.4 CFSM 2.09 IN 28.43

PEAK DISCHARGE (BASE, 550 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1230	6.72	831	2- 13	1400	5.94	605
10-25	2130	7.15	978	2-19	1030	6.80	855
11-25	0730	6.72	831	6-22	0630	8.54	1,540
12- 7	1430	5.90	595	6-30	1930	6.10	645

01594600 Cocktown Creek near Huntingtown, Md.

LOCATION.--Lat 38°38'27", long 76°38'07", Calvert County, on right bank at downstream side of bridge 2 miles northwest of Huntingtown, 2.8 miles southeast of Lower Marlboro, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--3.85 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map).

AVERAGE DISCHARGE.--15 years (1957-72), 4.13 cfs (14.57 inches per year).

EXTREMES.--Current year: Maximum discharge, 243 cfs Oct. 25 (gage height, 6.09 ft), from rating curve extended as explained below; minimum daily, 0.93 cfs Oct. 8, Sept. 20.
Period of record: Maximum discharge, 1,120 cfs June 14, 1960 (gage height, 7.96 ft), from rating curve extended above 150 cfs on basis of contracted-opening measurement of peak flow; no flow many days in July and August 1957, September 1963, July, August, and September 1964.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	6.5	6.7	4.7	4.3	12	7.7	6.9	9.0	8.4	3.7	1.0
2	2.1	6.5	6.6	6.2	5.0	12	7.9	6.8	8.0	7.3	3.4	3.0
3	1.4	8.1	6.5	5.2	11	14	7.4	9.5	7.5	9.3	3.3	1.6
4	1.1	6.4	6.2	6.2	8.5	12	7.7	9.5	7.0	8.0	3.2	1.4
5	1.2	5.8	6.0	10	6.0	12	7.3	7.3	8.0	8.3	4.4	1.4
6	1.3	5.8	6.1	6.1	6.0	11	7.3	6.8	9.0	7.0	3.1	1.4
7	1.0	7.2	20	5.6	5.8	11	8.5	6.6	8.0	6.5	2.9	1.2
8	.93	5.9	9.0	5.3	5.2	11	9.2	6.7	6.0	6.5	2.7	1.2
9	.97	5.7	8.0	5.8	5.2	10	8.4	8.5	5.6	6.0	2.6	1.1
10	15	5.6	7.6	6.1	5.2	9.9	7.9	6.8	5.4	6.0	2.4	.99
11	3.5	5.5	7.2	5.7	5.0	9.6	7.5	6.3	5.2	6.0	2.3	1.0
12	2.6	5.3	7.0	5.3	5.1	9.4	7.2	5.9	5.1	6.0	2.3	1.0
13	2.4	5.2	6.7	5.4	19	9.2	13	5.8	5.0	9.0	2.4	1.1
14	2.2	5.0	6.5	6.6	9.1	9.9	9.0	9.2	5.5	7.0	2.2	1.1
15	2.1	5.1	6.5	5.5	8.0	9.1	8.2	7.9	4.9	6.0	2.2	1.2
16	2.1	5.0	6.2	5.4	8.0	10	8.1	6.7	5.5	6.0	2.0	1.1
17	2.0	4.9	6.0	5.4	8.0	19	8.6	6.0	6.4	7.5	2.4	.99
18	2.0	5.0	5.7	5.2	8.1	12	7.3	5.8	19	6.0	3.0	1.0
19	2.0	5.2	5.8	5.4	26	10	7.0	11	8.6	5.5	2.1	1.0
20	1.9	5.0	7.8	5.2	14	9.6	6.9	16	7.9	5.5	1.8	.93
21	1.9	4.9	6.2	5.2	13	9.6	6.6	10	13	6.5	1.8	1.7
22	1.9	4.7	5.8	5.0	13	11	17	8.5	69	5.5	1.6	1.4
23	2.7	4.6	5.7	5.2	12	9.8	10	8.0	16	5.0	1.5	1.2
24	8.3	11	5.8	5.2	15	9.2	9.0	7.5	9.0	4.6	1.5	1.1
25	46	24	5.5	5.1	14	8.9	8.5	7.5	8.9	4.2	1.4	1.1
26	20	8.4	5.4	4.7	18	8.6	8.2	7.5	7.5	4.0	1.3	1.0
27	10	8.8	5.3	4.6	14	8.5	8.0	7.0	6.8	3.8	1.1	1.2
28	8.5	7.5	5.2	5.3	13	9.2	7.6	7.0	11	3.7	1.6	1.4
29	7.6	9.9	5.1	4.7	13	8.0	7.2	7.0	9.9	3.7	1.3	1.3
30	7.1	7.9	5.2	4.6	------	8.0	7.0	6.5	16	4.4	1.2	2.0
31	6.9	------	4.8	4.4	------	7.8	------	6.5	------	4.2	1.1	------
TOTAL	169.90	206.4	208.1	170.3	297.5	319.2	251.2	239.0	313.7	187.4	69.8	38.11
MEAN	5.48	6.88	6.71	5.49	10.3	10.3	8.37	7.71	10.5	6.05	2.25	1.27
MAX	46	24	20	10	26	18	17	16	69	9.3	4.4	3.0
MIN	.93	4.6	4.8	4.4	4.3	7.8	6.6	5.8	4.9	3.7	1.1	.93
CFSM	1.42	1.79	1.74	1.43	2.68	2.68	2.17	2.00	2.73	1.57	.58	.33
IN.	1.64	1.99	2.01	1.65	2.87	3.08	2.43	2.31	3.03	1.81	.67	.37

CAL YR 1971 TOTAL 1,960.48 MEAN 5.37 MAX 46 MIN .61 CFSM 1.39 IN 18.94
WTR YR 1972 TOTAL 2,470.61 MEAN 6.75 MAX 69 MIN .93 CFSM 1.75 IN 23.87

PEAK DISCHARGE (BASE, 80 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1815	6.09	243	6-22	0930	5.63	165

01595000 North Branch Potomac River at Steyer, Md.

LOCATION.--Lat 39°18'07", long 79°18'26", Garrett County, on left bank 0.3 mile southeast of Steyer, 0.4 mile downstream from Steyer Run, 2 miles northeast of Gorman, and at mile 81.8.

DRAINAGE AREA.--73.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 165 cfs (30.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,390 cfs June 23 (gage height, 6.16 ft); minimum daily, 9.0 cfs Sept. 24.
Period of record: Maximum discharge, 6,240 cfs Mar. 5, 1963 (gage height, 9.13 ft), from rating curve extended above 3,000 cfs; minimum, 2.9 cfs Sept. 10, 1965 (gage height, 2.03 ft).
Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks.

REMARKS.--Records fair except those for winter periods and periods of no gage-height record, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	99	450	92	120	1,530	183	180	70	233	66	22
2	109	160	240	227	114	1,880	194	154	60	167	42	19
3	129	165	160	261	112	1,520	176	505	55	142	46	20
4	102	130	130	205	138	732	628	765	44	148	104	20
5	93	110	110	480	105	506	490	536	39	893	167	18
6	76	92	450	354	105	379	318	354	33	558	78	16
7	66	80	1,300	264	110	334	455	280	32	391	62	14
8	63	70	1,200	211	94	431	465	248	30	256	54	12
9	56	66	900	298	88	312	368	372	29	190	44	11
10	52	62	640	671	82	263	345	345	44	142	38	11
11	50	56	460	485	82	223	310	268	35	112	29	11
12	43	52	290	448	82	225	260	215	29	94	27	10
13	40	50	200	338	100	974	646	186	28	85	27	10
14	39	46	170	281	98	635	490	173	60	72	25	11
15	37	42	151	219	100	485	547	204	64	54	24	16
16	34	39	133	150	120	523	515	237	63	68	24	13
17	34	35	118	130	110	442	616	218	59	66	36	10
18	30	34	117	135	100	377	406	183	88	51	42	14
19	27	35	127	135	98	306	310	159	112	46	29	11
20	27	43	224	177	84	252	268	174	52	42	42	10
21	25	48	198	268	105	225	222	160	115	39	27	9.4
22	25	44	146	205	180	262	628	133	200	36	24	9.2
23	34	44	128	188	320	256	475	127	1,840	34	23	9.2
24	145	45	117	272	460	218	547	103	1,020	33	26	9.0
25	232	48	106	297	1,120	197	396	89	485	58	34	9.6
26	294	60	100	200	1,640	180	310	77	322	38	76	10
27	167	68	102	160	914	176	244	67	272	54	140	9.2
28	118	110	106	160	713	167	204	62	187	64	56	22
29	94	450	107	150	1,310	186	176	60	558	39	41	28
30	85	900	107	140	------	244	154	60	288	49	29	32
31	85	------	109	120	------	200	------	113	------	68	26	------
TOTAL	2,504	3,283	8,896	7,721	8,804	14,640	11,346	6,807	6,313	4,322	1,508	426.6
MEAN	80.8	109	287	249	304	472	378	220	210	139	48.6	14.2
MAX	294	900	1,300	671	1,640	1,880	646	765	1,840	893	167	32
MIN	25	34	100	92	82	167	154	60	28	33	23	9.0
CFSM	1.11	1.49	3.93	3.41	4.16	6.47	5.18	3.01	2.88	1.90	.67	.19
IN.	1.28	1.67	4.53	3.93	4.49	7.46	5.78	3.47	3.22	2.20	.77	.22

CAL YR 1971 TOTAL 66,794.0 MEAN 183 MAX 1,600 MIN 13 CFSM 2.51 IN 34.04
WTR YR 1972 TOTAL 76,570.6 MEAN 209 MAX 1,880 MIN 9.0 CFSM 2.86 IN 39.02

PEAK DISCHARGE (BASE, 2,200 CFS).--June 23 (0545) 2,390 cfs (6.16 ft).

NOTE.--No gage-height record Nov. 3 to Dec. 14.

01595200 Stony River near Mt. Storm, W. Va.

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

DRAINAGE AREA.--48.8 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 91.2 cfs (25.38 inches per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,860 cfs Mar. 3 (gage height, 8.01 ft); minimum daily, 24 cfs June 19.
Period of record: Maximum discharge, 3,120 cfs Mar. 19, 1963, from rating curve extended above 1,000 cfs; maximum gage height, 8.41 ft Mar. 5, 1963 (ice jam); minimum discharge, 1.8 cfs July 13, 1968 (gage height, 1.98 ft).

REMARKS.--Records fair. Flow regulated by Stony River Reservoir, 14.0 miles upstream from station (capacity, 1,948,000,000 gal, of which 1,681,000,000 gal is controlled above minimum pool). Since 1963, minor regulation by Virginia Electric and Power Company dam 4.0 miles upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	185	130	49	93	542	80	69	70	102	56	38
2	95	170	111	102	91	700	84	69	65	91	52	33
3	111	167	106	93	97	2,020	84	173	58	85	56	31
4	93	149	102	85	102	1,200	170	369	55	78	80	29
5	89	133	102	138	95	133	143	333	50	260	100	29
6	84	120	197	118	85	95	128	298	49	242	93	29
7	80	111	542	106	82	91	176	274	47	211	93	29
8	76	102	610	100	82	106	191	256	44	188	87	29
9	72	95	483	133	70	85	191	305	41	155	84	31
10	70	89	409	197	67	84	214	291	46	106	76	31
11	69	85	349	170	63	89	235	246	40	89	67	32
12	63	80	305	179	61	100	239	135	36	82	56	33
13	60	74	270	164	74	409	337	106	33	82	50	36
14	56	70	242	152	74	397	349	115	38	74	44	40
15	52	67	214	140	72	409	333	138	33	69	40	41
16	49	52	185	125	72	385	309	149	35	63	36	38
17	46	50	138	118	69	341	369	135	32	56	40	38
18	41	50	46	111	65	133	298	125	26	53	36	40
19	38	52	44	108	69	102	256	118	24	49	36	41
20	35	55	74	115	87	102	218	146	25	44	35	40
21	33	58	72	138	97	106	185	128	69	41	29	43
22	31	58	60	128	138	149	143	115	95	38	29	44
23	40	56	56	123	128	188	118	125	560	35	31	43
24	288	61	56	135	349	182	164	108	546	32	29	46
25	325	61	53	143	333	173	158	102	457	36	29	46
26	357	60	53	123	515	161	185	74	277	32	36	47
27	298	65	52	111	349	149	161	69	65	50	56	52
28	263	78	53	118	329	143	140	65	56	37	60	53
29	235	211	50	111	488	140	115	61	135	35	56	63
30	221	232	52	104	------	140	63	61	102	50	50	67
31	204	------	52	100	------	84	------	82	------	61	44	------
TOTAL	3,637	2,896	5,268	3,837	4,296	9,138	5,836	4,840	3,209	2,626	1,666	1,192
MEAN	117	96.5	170	124	148	295	195	156	107	84.7	53.7	39.7
MAX	357	232	610	197	515	2,020	369	369	560	260	100	67
MIN	31	50	44	49	61	84	63	61	24	32	29	29
(†)	1,258	1,219	1,170	1,170	1,463	1,180	1,387	1,304	1,375	1,144	924	1,004

CAL YR 1971 TOTAL 42,314 MEAN 116 MAX 695 MIN 11 CFSM 2.38 IN 32.25
WTR YR 1972 TOTAL 48,441 MEAN 132 MAX 2,020 MIN 24 CFSM 2.70 IN 36.92

† Month-end contents, in millions of gallons, in Stony River Reservoir, furnished by West Virginia Pulp and Paper Co.

01595500 North Branch Potomac River at Kitzmiller, Md.

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

DRAINAGE AREA.--225 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft above mean sea level. Prior to Oct. 15, 1954, at site 0.3 mile upstream at datum 7.58 ft higher. Oct. 15, 1954, to Nov. 20, 1955, nonrecording gage at bridge 0.5 mile upstream at datum 21.51 ft higher.

AVERAGE DISCHARGE.--23 years, 432 cfs (26.07 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 7,060 cfs Mar. 3 (gage height, 7.74 ft); minimum, 47 cfs Sept. 27 (gage height, 2.57 ft).
Period of record: Maximum discharge, 33,400 cfs Oct. 15, 1954 (gage height, 13.73 ft, from floodmarks, present site and datum); minimum, 4.6 cfs Oct. 3-7, 1953.

REMARKS.--Records good except those for winter months, which are fair. Regulation at low flow by Stony River Reservoir, 30 miles above station (see station 01595200). Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	455	1,140	238	340	3,980	446	527	243	865	197	88
2	371	544	821	491	330	4,600	469	467	208	656	140	81
3	495	578	662	609	320	5,150	444	1,190	185	554	140	74
4	379	469	566	470	380	2,890	989	1,800	164	519	223	77
5	345	395	490	903	290	1,390	924	1,520	151	1,710	445	77
6	300	354	941	756	290	942	715	1,150	136	1,460	233	71
7	274	334	3,450	603	317	828	976	953	131	992	205	65
8	258	292	3,280	512	263	994	1,120	843	117	790	181	62
9	233	265	2,000	577	250	759	919	1,180	111	644	159	60
10	221	253	1,500	1,340	230	657	968	1,120	136	505	140	59
11	210	232	1,190	1,050	230	571	923	880	123	410	123	57
12	187	214	975	1,080	230	588	846	708	104	350	114	54
13	172	197	831	863	281	2,580	1,790	574	97	318	105	56
14	163	180	721	753	277	1,390	1,590	567	139	263	97	60
15	154	170	651	610	285	1,570	1,630	672	166	223	86	88
16	142	156	574	403	338	1,660	1,460	731	139	217	84	66
17	136	143	498	360	306	1,440	1,750	675	153	194	99	55
18	128	137	347	370	287	1,060	1,310	572	129	175	148	80
19	119	139	312	370	276	860	1,070	503	208	162	122	62
20	109	171	509	480	236	730	932	600	129	143	150	56
21	101	193	543	705	287	672	798	548	348	129	100	52
22	100	175	396	581	500	745	1,540	473	485	116	81	51
23	125	175	337	549	835	809	1,280	470	3,240	106	78	50
24	1,080	180	330	713	1,200	713	1,420	390	2,280	94	98	49
25	1,390	190	306	750	2,470	652	1,100	341	1,460	134	129	53
26	1,660	229	287	540	3,850	594	952	288	1,060	118	263	55
27	1,040	257	284	450	2,340	572	804	248	666	112	367	51
28	817	413	283	460	1,850	530	693	231	500	165	185	76
29	686	1,290	279	420	3,330	545	608	213	2,020	108	149	105
30	590	2,210	268	400	------	628	490	205	1,160	125	120	115
31	490	------	277	340	------	503	------	310	------	200	101	------
TOTAL	12,731	10,990	25,048	18,746	22,418	42,102	30,956	20,949	16,188	12,557	4,862	2,005
MEAN	411	366	808	605	773	1,358	1,032	676	540	405	157	66.8
MAX	1,660	2,210	3,450	1,340	3,850	5,150	1,790	1,800	3,240	1,710	445	115
MIN	100	137	268	238	230	503	444	205	97	94	78	49

CAL YR 1971 TOTAL 195,004 MEAN 534 MAX 3,450 MIN 37 CFSM 2.37 IN 32.21
WTR YR 1972 TOTAL 219,552 MEAN 600 MAX 5,150 MIN 49 CFSM 2.67 IN 36.30

PEAK DISCHARGE (BASE, 3,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 7	2030	7.03	4,570	3- 3	0500	7.74	7,060
2- 6	1115	6.96	4,390	6-23	0815	7.07	4,680
2-29	2030	7.24	5,190				

01595800 North Branch Potomac River at Barnum, W. Va.

LOCATION.--Lat 39°26'44", long 79°06'39", Garrett County, Md., on left bank at bridge at Barnum, W. Va., 0.4 mile upstream from Folly Run, and 4 miles southwest of Piedmont, W. Va.

DRAINAGE AREA.--266 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,151.93 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 499 cfs (25.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 6,930 cfs Mar. 3 (gage height, 8.09 ft); minimum, 52 cfs Sept. 24 (gage height, 2.27 ft).
Period of record: Maximum discharge, 12,200 cfs Mar. 7, 1967 (gage height, 9.70 ft); minimum, 10 cfs Oct. 2, 3, 1968 (gage height, 1.69 ft).

REMARKS.--Records good. Regulation at low flow by Stony River Reservoir, 39 miles above station (see station 01595200). Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	482	1,260	271	390	4,300	480	589	302	1,030	234	97
2	374	588	895	422	370	4,910	496	532	246	714	163	86
3	546	611	715	715	360	5,300	481	1,260	219	622	152	79
4	415	501	615	514	430	3,090	953	1,970	191	587	191	77
5	368	429	526	872	330	1,600	1,030	1,720	175	1,870	512	79
6	324	388	910	850	330	1,050	775	1,270	158	1,740	258	77
7	292	358	3,670	664	360	903	1,010	1,030	150	1,160	219	72
8	280	327	3,650	563	300	1,070	1,250	888	136	917	194	67
9	252	300	2,270	514	290	837	1,000	1,200	129	753	166	64
10	239	290	1,670	1,340	260	722	1,070	1,200	144	594	147	62
11	226	268	1,310	1,120	260	617	1,010	931	144	474	129	59
12	204	248	1,060	1,200	270	629	923	760	122	409	119	59
13	185	229	902	952	322	2,740	2,080	594	108	376	112	56
14	176	211	775	835	319	2,170	1,890	594	129	310	103	62
15	167	198	698	685	317	1,760	1,870	691	199	266	92	86
16	156	136	618	458	383	1,830	1,660	768	152	246	88	77
17	148	170	538	410	353	1,570	1,930	716	172	230	97	59
18	142	163	403	420	328	1,180	1,430	602	134	205	158	85
19	132	164	342	420	322	938	1,150	532	238	188	119	72
20	123	197	495	550	268	784	997	636	147	166	163	61
21	114	222	609	780	298	716	849	608	345	155	112	56
22	112	200	441	660	580	757	1,640	519	580	136	88	55
23	138	200	374	620	917	867	1,430	506	3,430	126	81	53
24	1,350	210	360	800	1,500	760	1,500	420	2,540	114	97	52
25	1,740	220	342	860	2,690	684	1,190	365	1,610	141	136	53
26	1,760	259	320	620	4,120	626	1,010	330	1,190	155	306	56
27	1,140	290	316	520	2,590	606	844	292	749	112	420	58
28	888	446	308	540	2,040	558	730	270	559	198	208	77
29	730	1,540	316	490	3,560	571	650	250	2,570	131	163	117
30	625	2,360	291	450	------	650	532	246	1,480	131	131	134
31	507	------	312	390	------	548	------	355	------	230	110	------
TOTAL	14,127	12,265	27,311	20,505	24,857	45,343	33,860	22,644	18,447	14,486	5,268	2,147
MEAN	456	409	881	661	857	1,463	1,129	730	615	467	170	71.6
MAX	1,760	2,360	3,670	1,340	4,120	5,300	2,080	1,970	3,430	1,870	512	134
MIN	112	163	291	271	260	548	480	246	108	112	81	52

CAL YR 1971 TOTAL 211,466 MEAN 579 MAX 3,670 MIN 40 CFSM 2.18 IN 29.55
WTR YR 1972 TOTAL 241,260 MEAN 659 MAX 5,300 MIN 52 CFSM 2.48 IN 33.72

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 7	2045	7.20	4,860	3-13	1200	7.08	4,650
2-26	1145	7.09	4,670	6-23	0945	7.47	5,440
2-29	2115	7.51	5,520	6-29	0700	6.76	4,070
3- 3	0615	8.09	6,930				

01596500 Savage River near Barton, Md.

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, on right bank 0.9 mile upstream from Bear Pen Run, 1.5 miles downstream from Popular Lick Run, 5.4 miles northwest of Barton, and 10 miles upstream from mouth.

DRAINAGE AREA.--49.1 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,605 ft (from topographic map).

AVERAGE DISCHARGE.--24 years, 72.2 cfs (19.97 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,930 cfs Mar. 13 (gage height, 4.50 ft); minimum, 2.8 cfs Sept. 10, 11, 12 (gage height, 1.14 ft).
Period of record: Maximum discharge, 7,510 cfs Oct. 15, 1954 (gage height, 8.45 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum, 0.40 cfs Sept. 3, 4, 1966 (gage height, 0.96 ft).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	48	213	71	38	930	59	58	54	275	13	5.0
2	22	70	139	54	35	1,160	60	55	44	154	11	4.5
3	24	84	104	78	33	896	55	102	37	107	14	4.1
4	20	82	85	92	31	403	89	161	31	84	66	6.5
5	19	68	70	100	31	242	122	209	28	96	41	5.5
6	17	59	96	96	30	154	128	174	24	98	24	4.5
7	17	50	655	93	29	125	131	136	23	84	43	3.6
8	16	42	1,050	82	29	144	117	111	20	75	34	3.5
9	15	37	596	75	26	136	117	145	18	62	25	3.2
10	14	34	376	78	28	111	122	205	20	60	20	3.0
11	14	32	255	80	26	93	122	190	17	48	17	2.8
12	13	28	167	100	28	96	111	148	15	40	15	3.0
13	11	25	125	107	31	1,370	487	117	16	36	14	3.6
14	11	23	98	102	35	655	470	111	21	31	12	4.1
15	10	21	85	78	33	332	364	114	20	27	10	7.0
16	10	20	75	40	30	305	372	125	17	28	9.4	5.0
17	8.8	18	65	50	30	285	574	122	15	24	11	3.6
18	9.2	17	58	70	28	234	381	114	14	24	12	14
19	7.6	17	46	60	31	174	234	98	13	24	10	8.8
20	7.0	17	59	51	37	139	167	87	12	20	8.2	5.5
21	6.5	20	62	56	50	119	117	78	38	17	7.0	4.5
22	6.5	20	55	51	90	139	170	66	49	16	6.0	4.5
23	9.8	19	43	54	150	122	190	58	596	15	5.5	3.6
24	75	17	49	64	200	104	182	50	421	13	5.5	3.2
25	102	22	48	71	270	96	148	44	238	13	11	3.6
26	145	25	45	68	488	89	119	38	151	11	24	3.6
27	107	29	43	66	354	84	98	34	104	11	14	4.1
28	80	41	41	66	250	90	80	31	76	11	10	7.0
29	65	133	37	56	662	73	68	28	410	11	7.6	16
30	49	342	36	50	------	70	62	36	527	11	6.5	14
31	42	------	35	45	------	64	------	80	------	13	5.5	------
TOTAL	973.4	1,459	4,911	2,154	3,135	9,095	5,516	3,125	3,070	1,539	512.2	165.0
MEAN	31.4	48.6	158	69.5	108	293	184	101	102	49.6	16.5	5.50
MAX	145	342	1,050	107	662	1,370	574	209	596	275	66	16
MIN	6.5	17	35	31	26	64	55	28	13	11	5.5	2.9
CFSM	.64	.99	3.22	1.42	2.20	5.97	3.75	2.06	2.08	1.01	.34	.11
IN.	.74	1.11	3.72	1.63	2.39	6.89	4.18	2.37	2.33	1.17	.39	.13

CAL YR 1971 TOTAL 32,973.9 MEAN 90.3 MAX 1,050 MIN 3.0 CFSM 1.84 IN 24.98
WTR YR 1972 TOTAL 35,654.6 MEAN 97.4 MAX 1,370 MIN 2.8 CFSM 1.98 IN 27.01

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0315	3.79	1,190	3-13	1000	4.50	1,930
2-29	2015	3.80	1,200	6-23	0845	3.39	854
3- 2	1815	3.95	1,350	6-29	2230	3.33	805

01597000 Crabtree Creek near Swanton, Md.

LOCATION.--Lat 39°30'00", long 79°09'35", Garrett County, on left bank 0.5 mile upstream from mouth, 1.0 mile downstream from Springlick Run, and 5 miles northeast of Swanton.

DRAINAGE AREA.--16.7 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,529.06 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--24 years, 28.0 cfs (22.77 inches per year).

EXTREMES.--Current year: Maximum discharge, 395 cfs Dec. 7 (gage height, 2.55 ft); minimum, 1.8 cfs Sept. 10, 11 (gage height, 0.73 ft).
Period of record: Maximum discharge, 3,260 cfs July 12, 1949 (gage height, 5.01 ft), from rating curve extended above 210 cfs on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.1 cfs Dec. 3, 1953 (gage height, 0.56 ft); minimum daily, 0.8 cfs Nov. 6, 1953.

REMARKS.--Records good except those for the winter months, which are fair. Small diversion above station by Baltimore and Ohio Railroad.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	27	99	13	20	289	26	28	13	70	5.6	2.1
2	14	33	60	28	16	320	26	27	12	48	4.7	2.1
3	13	34	48	38	15	266	24	34	10	36	6.0	2.1
4	12	33	40	42	13	148	36	46	9.9	29	7.5	2.3
5	11	31	33	50	13	98	50	71	9.5	44	7.5	2.1
6	11	28	43	50	12	70	53	71	8.8	49	5.0	2.1
7	11	24	241	49	12	58	64	57	8.4	48	6.0	2.0
8	10	21	325	41	12	69	74	48	7.8	40	4.7	1.9
9	9.5	18	185	39	12	60	74	50	7.5	32	4.0	1.9
10	9.5	16	116	44	12	50	69	47	9.2	26	3.6	1.9
11	9.4	15	82	50	11	43	64	46	7.2	20	3.4	1.8
12	7.9	14	60	65	11	43	54	43	6.6	16	3.4	2.0
13	7.2	13	49	68	12	158	219	38	6.6	14	3.4	2.1
14	6.9	12	40	56	14	152	200	37	7.8	12	3.2	2.3
15	6.6	11	35	43	13	106	207	36	6.9	11	3.4	3.6
16	6.0	10	30	20	12	98	180	37	6.4	10	3.0	2.1
17	6.0	9.6	26	25	12	95	151	37	5.8	9.2	6.0	1.9
18	5.8	9.5	23	30	11	83	116	38	5.6	9.2	4.7	3.0
19	5.2	9.5	20	27	12	64	86	36	7.5	10	3.6	2.4
20	5.0	9.5	25	25	14	54	64	36	6.4	7.8	3.4	2.1
21	4.7	11	25	25	19	47	49	33	14	7.2	3.0	2.1
22	4.7	9.6	21	24	35	50	84	30	13	6.6	2.8	2.1
23	6.4	8.8	20	27	40	45	105	27	115	6.0	2.7	2.0
24	31	7.8	20	32	75	40	100	25	109	5.6	2.7	2.0
25	87	9.0	19	37	116	37	87	23	77	7.2	2.5	2.1
26	131	9.0	18	26	216	35	69	19	54	5.6	2.8	2.1
27	80	11	17	35	143	34	54	16	40	5.2	3.0	2.1
28	54	16	16	35	102	32	44	14	32	5.6	2.7	3.8
29	42	70	14	30	203	30	36	13	188	5.0	2.5	5.2
30	34	146	14	26	------	30	32	13	119	5.6	2.3	3.6
31	29	------	14	22	------	26	------	17	------	6.4	2.1	------
TOTAL	691.7	677.8	1,768	1,132	1,208	2,730	2,497	1,093	923.9	607.2	121.2	70.9
MEAN	22.0	22.6	57.0	36.5	41.7	88.1	83.2	35.3	30.8	19.6	3.91	2.36
MAX	131	146	325	68	216	320	219	71	188	70	7.5	5.2
MIN	4.7	7.8	14	13	11	26	24	13	5.6	5.0	2.1	1.8
CFSM	1.32	1.35	3.41	2.19	2.50	5.28	4.98	2.11	1.84	1.17	.23	.14
IN.	1.52	1.51	3.94	2.52	2.69	6.09	5.56	2.43	2.06	1.35	.27	.16

CAL YR 1971 TOTAL 12,476.3 MEAN 34.2 MAX 325 MIN 2.1 CFSM 2.05 IN 27.79
WTR YR 1972 TOTAL 13,510.7 MEAN 36.9 MAX 325 MIN 1.8 CFSM 2.21 IN 30.10

PEAK DISCHARGE (BASE, 330 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 7	2145	2.55	395	3- 2	1645	2.47	356
2-29	2130	2.42	334				

01597500 Savage River, below Savage River Dam, near Bloomington, Md.

LOCATION.--Lat 39°30'05", long 79°07'25", Garrett County, on left bank 0.7 mile downstream from Savage River Dam, 1.1 miles downstream from Crabtree Creek, 3.2 miles northwest of Bloomington, and 3.7 miles upstream from mouth.

DRAINAGE AREA.--106 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--24 years, 160 cfs (20.50 inches per year), adjusted for storage since December 1950.

EXTREMES.--Current year: Maximum discharge, 2,760 cfs Dec. 8 (gage height, 5.39 ft); minimum, 1.5 cfs Nov. 23 (gage height, 0.68 ft).
Period of record: Maximum discharge, 6,530 cfs Oct. 16, 1954 (gage height, 7.70 ft); minimum, 0.35 cfs Oct. 27, 1966 (gage height, 0.57 ft); minimum daily, 0.6 cfs July 27-31, Aug. 5, 6, 9, 10, 1951.

REMARKS.--Records good. Diversions above station by Baltimore & 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).

REVISIONS (WATER YEARS).--WSP 1432: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	106	575	98	94	1,520	15	18	105	574	27	44
2	111	107	571	100	142	1,320	15	61	84	344	27	268
3	111	398	563	100	94	588	15	233	72	240	28	321
4	111	584	555	390	93	1,760	15	27	62	187	28	50
5	111	275	546	526	92	2,120	15	374	54	212	28	50
6	111	354	538	349	92	1,240	16	412	51	232	28	50
7	108	246	558	97	92	332	17	335	46	207	28	50
8	107	102	1,690	98	92	225	18	273	37	182	28	63
9	263	102	2,480	99	73	102	18	308	36	152	28	72
10	56	102	1,300	383	44	103	18	712	43	132	27	72
11	56	102	105	525	43	492	19	244	30	109	27	72
12	55	102	105	350	44	489	19	243	27	90	27	72
13	50	102	359	98	76	732	32	265	28	81	27	72
14	56	101	537	98	93	1,850	830	249	36	67	27	72
15	55	100	256	99	93	921	1,240	255	37	59	27	72
16	55	100	100	97	94	526	1,230	279	34	58	33	72
17	55	100	100	368	94	256	1,220	288	29	50	37	72
18	55	100	99	516	94	108	1,020	273	27	45	37	72
19	54	100	99	333	214	108	650	243	27	52	37	72
20	54	100	100	94	92	108	320	224	26	42	37	72
21	54	100	100	94	92	108	122	195	50	37	37	72
22	54	85	333	95	93	109	126	168	85	31	37	82
23	55	57	98	95	219	109	171	146	777	29	43	92
24	56	46	98	315	368	108	923	128	759	27	57	92
25	93	46	98	319	621	108	536	113	464	32	57	92
26	308	46	99	93	753	109	89	96	305	124	57	92
27	596	77	100	227	1,170	76	44	82	218	289	57	92
28	589	97	100	95	1,110	30	95	74	163	258	50	91
29	273	101	99	268	741	15	466	67	1,250	311	45	77
30	106	294	99	94	------	15	350	69	1,110	283	45	68
31	106	------	98	167	------	15	------	131	------	28	44	------
TOTAL	4,035	4,332	12,558	6,680	7,012	15,702	9,664	6,585	6,072	4,564	1,122	2,610
MEAN	130	144	405	215	242	507	322	212	202	147	36.2	87.0
MAX	596	584	2,480	526	1,170	2,120	1,240	712	1,250	574	57	321
MIN	50	46	98	93	43	15	15	18	26	27	27	44
(†)	9,310	8,450	5,200	3,930	5,690	10,860	19,200	20,130	20,330	17,930	17,410	13,080

CAL YR 1971 TOTAL 73,631.8 MEAN 202 MAX 2,480 MIN 2.3 CFSM 1.91 IN 25.87
WTR YR 1972 TOTAL 80,936.0 MEAN 221 MAX 2,480 MIN 15 CFSM 2.08 IN 28.38

† Month-end contents, in acre-ft, in Savage River Reservoir (contents on Sept. 30, 1971, 12,090 acre-ft). Records furnished by Corps of Engineers.

01598500 North Branch Potomac River at Luke, Md.

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

DRAINAGE AREA.--404 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 946.25 ft above mean sea level, adjustment of 1912. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 miles downstream at datum about 35 feet lower.

AVERAGE DISCHARGE.--29 years (1899-1905, 1949-1972), 686 cfs (23.06 inches per year), adjusted for storage since 1949.

EXTREMES.--Current year: Maximum discharge, 7,520 cfs Mar. 1 (gage height, 8.46 ft); maximum gage height, 9.97 ft Jan. 17 (backwater from ice); minimum discharge, 116 cfs Sept. 8 (gage height, 1.39 ft).
Period of record: Maximum discharge, 39,400 cfs Oct. 15, 1954 (gage height, 17.15 ft); minimum daily, 6 cfs Sept. 4, 1904.

REMARKS.--Records good. Flow regulated since 1913 by Stony River Reservoir, 45 miles above station (see station 01595200), and since December 1950, by Savage River Reservoir, 5 miles above station (see station 01597500). Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1921: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	611	2,040	375	509	6,170	578	756	520	1,860	270	142
2	470	705	1,580	503	547	6,770	581	699	400	1,320	206	335
3	670	1,020	1,360	796	484	6,250	573	1,320	350	1,050	190	368
4	545	1,130	1,240	881	551	5,530	759	1,860	310	931	226	130
5	491	757	1,140	1,370	410	4,420	1,180	2,200	280	1,730	518	130
6	445	750	1,350	1,250	410	2,930	889	1,820	250	2,090	307	126
7	408	618	3,980	775	500	1,560	924	1,520	240	1,490	257	120
8	392	444	5,710	680	380	1,510	1,400	1,310	220	1,150	231	124
9	507	409	5,260	643	360	1,190	1,130	1,540	190	960	204	133
10	295	396	3,410	1,620	330	1,040	1,200	2,000	200	800	182	132
11	282	375	1,530	1,660	340	1,160	1,130	1,490	210	660	157	129
12	261	354	1,240	1,600	330	1,320	1,080	1,150	185	560	149	129
13	234	337	1,270	1,080	620	3,220	2,110	1,060	160	520	142	127
14	231	317	1,360	958	860	4,590	2,970	996	170	450	135	130
15	221	303	1,030	760	652	3,140	3,490	1,040	220	370	125	151
16	209	292	756	560	676	2,580	3,330	1,170	230	350	123	152
17	202	273	669	500	565	2,170	3,510	1,140	210	330	144	131
18	194	263	543	920	514	1,560	2,890	1,030	200	300	197	159
19	185	263	460	900	618	1,270	2,140	930	235	280	159	146
20	175	286	552	617	520	1,090	1,680	932	225	250	199	132
21	167	290	730	860	470	1,010	1,250	945	350	190	155	127
22	163	314	757	747	800	1,000	1,770	800	720	180	131	131
23	184	274	485	711	1,300	1,110	1,930	760	3,330	165	123	140
24	1,260	250	472	1,020	1,900	998	2,460	680	3,380	151	151	139
25	1,570	260	456	1,150	3,000	920	2,140	600	2,190	169	194	141
26	2,140	300	430	789	5,100	849	1,380	520	1,620	284	385	144
27	1,830	330	425	799	4,090	792	1,160	450	1,140	374	442	148
28	1,540	528	416	695	3,420	703	1,030	400	875	442	267	164
29	1,070	1,290	422	804	4,440	667	1,240	380	3,320	446	211	202
30	757	2,860	395	605	------	717	1,070	350	2,850	382	179	204
31	641	------	415	589	------	670	------	540	------	259	157	------
TOTAL	18,127	16,599	41,883	27,217	34,096	68,906	48,974	32,388	24,780	20,493	6,516	4,666
MEAN	585	553	1,351	878	1,196	2,223	1,632	1,045	826	661	210	156
MAX	2,140	2,860	5,710	1,660	5,100	6,770	3,510	2,200	3,380	2,090	518	368
MIN	163	250	395	375	330	667	573	350	160	151	123	120

CAL YR 1971 TOTAL 306,726 MEAN 840 MAX 5,710 MIN 100 CFSM 2.08 IN 28.22
WTR YR 1972 TOTAL 345,245 MEAN 943 MAX 6,770 MIN 120 CFSM 2.33 IN 31.77

01599000 Georges Creek at Franklin, Md.

LOCATION.--Lat 39°29'38", long 79°02'42", Allegany County, on right bank at Franklin, and 1.2 miles upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 sq mi.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft above mean sea level (Westvaco Corporation bench mark). May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mile downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft downstream at present datum.

AVERAGE DISCHARGE.--43 years (1929-72), 77.8 cfs (14.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,570 cfs Mar. 13 (gage height, 6.95 ft); minimum, 8.0 cfs Sept. 17, 18 (gage height, 3.11 ft).
Period of record: Maximum discharge, 8,500 cfs Mar. 17, 1936 (gage height, 9.6 ft, site then in use), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; minimum, 1.6 cfs Sept. 29 to Oct. 13, 1930.
Flood of Mar. 29, 1924, reached a stage of about 10 ft, from floodmarks, at site 95 ft downstream.

REMARKS.--Records good. Records include about 0.5 cfs of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge diverted above 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. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1965-72 by the U. S. Geological Survey and in the water years 1958 and 1959 by the Maryland Geological Survey. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1502: 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	48	141	35	52	808	97	119	69	380	26	11
2	19	92	107	87	48	918	97	115	56	264	22	11
3	23	72	87	90	40	846	92	221	50	196	30	11
4	19	58	75	71	36	550	96	256	45	157	56	13
5	17	50	63	97	32	412	107	224	42	231	49	13
6	16	45	113	83	39	324	103	196	40	185	26	12
7	15	41	500	74	56	268	109	177	37	134	34	11
8	14	36	710	66	40	249	130	167	34	109	25	11
9	14	34	545	68	38	212	139	276	31	97	19	10
10	14	33	384	78	36	188	143	264	32	96	17	9.6
11	13	30	284	94	36	162	141	221	28	78	16	9.6
12	12	28	212	121	40	153	132	193	26	69	15	10
13	12	26	172	103	109	941	550	170	26	65	15	10
14	12	24	141	97	120	653	445	188	34	56	15	11
15	11	27	125	74	105	487	570	190	33	51	15	13
16	11	21	111	37	115	450	545	180	41	50	14	9.6
17	11	20	96	47	97	398	575	160	29	46	19	9.1
18	11	19	83	76	88	348	416	143	25	45	18	21
19	11	19	72	77	81	252	328	134	23	39	15	12
20	10	19	81	71	60	246	272	134	25	35	15	9.6
21	10	22	75	70	58	215	221	123	172	39	14	9.6
22	11	22	60	72	92	209	380	115	121	31	13	9.6
23	14	20	54	74	100	202	368	94	565	27	15	9.1
24	165	18	54	88	162	180	280	83	332	23	13	9.6
25	167	20	52	83	260	160	231	72	218	24	37	10
26	145	24	51	66	635	145	196	66	162	21	40	10
27	94	32	47	64	412	134	175	62	128	21	25	10
28	69	46	45	70	380	125	148	59	103	22	14	13
29	58	183	41	67	690	117	134	56	742	21	13	32
30	50	242	41	60	------	111	125	58	605	23	12	20
31	42	------	39	58	------	105	------	134	------	28	11	------
TOTAL	1,107	1,366	4,661	2,318	4,057	10,608	7,285	4,650	3,874	2,663	668	360.4
MEAN	35.7	45.5	150	74.8	140	342	243	150	129	85.9	21.5	12.0
MAX	167	242	710	121	690	941	575	276	742	380	56	32
MIN	10	13	39	35	32	105	92	56	23	21	11	9.1
CFSM	.49	.63	2.07	1.03	1.93	4.72	3.36	2.07	1.78	1.19	.30	.17
IN.	.57	.70	2.39	1.19	2.08	5.45	3.74	2.39	1.99	1.37	.34	.19

CAL YR 1971 TOTAL 37,652.6 MEAN 103 MAX 797 MIN 7.0 CFSM 1.42 IN 19.35
WTR YR 1972 TOTAL 43,617.4 MEAN 119 MAX 941 MIN 9.1 CFSM 1.64 IN 22.41

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-13	0800	6.95	1,570	6-29	0415	6.44	1,250

01600000 North Branch Potomac River at Pinto, Md.

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

DRAINAGE AREA.--596 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft above mean sea level (Corps of Engineers bench mark). Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250 ft downstream at same datum.

AVERAGE DISCHARGE.--34 years, 859 cfs (19.57 inches per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 8,700 cfs Mar. 3 (gage height, 10.67 ft); minimum, 133 cfs Sept. 9 (gage height, 1.91 ft).
Period of record: Maximum discharge, 37,000 cfs Oct. 16, 1954 (gage height, 23.23 ft); minimum, 31 cfs Dec. 18, 19, 1943 (gage height, 1.37 ft), result of freezeup.
Flood of Mar. 29, 1924, reached a stage of about 24 ft (discharge, about 55,000 cfs). Flood of Mar. 17, 1936, reached a stage of about 23.5 ft, from floodmarks (discharge, about 50,000 cfs).

REMARKS.--Records good. Some regulation at low flow by Stony River Reservoir, 66 miles above station (see station 01595200), and since December 1950, by Savage River Reservoir (see station 01597500). Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1332: 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	742	2,490	468	652	7,400	739	969	652	2,680	347	191
2	462	863	1,870	554	700	8,120	742	906	499	1,780	307	303
3	733	1,050	1,580	1,050	645	7,610	723	1,760	442	1,340	268	416
4	660	1,260	1,440	941	700	6,170	837	2,520	388	1,150	280	261
5	556	1,040	1,300	1,420	520	4,970	1,440	2,880	350	1,980	560	170
6	508	822	1,350	1,610	520	3,370	1,050	2,320	321	2,580	438	159
7	452	723	4,010	999	664	1,820	1,090	1,920	303	1,790	335	147
8	433	551	6,760	884	497	1,770	1,770	1,660	275	1,430	307	138
9	496	489	6,050	815	460	1,440	1,480	2,070	246	1,190	261	150
10	428	468	4,340	1,520	429	1,230	1,530	2,650	250	1,010	232	150
11	322	447	2,060	1,840	441	1,250	1,450	2,070	266	830	208	149
12	303	424	1,650	1,930	433	1,580	1,380	1,550	232	703	191	149
13	276	402	1,520	1,360	824	3,940	3,080	1,420	208	640	185	150
14	257	378	1,610	1,210	1,120	5,920	4,000	1,350	214	556	173	148
15	250	358	1,380	1,040	905	3,990	4,460	1,420	287	470	164	163
16	239	347	1,020	680	1,050	3,130	4,300	1,550	295	424	150	183
17	228	328	901	650	983	2,840	4,410	1,480	268	412	167	160
18	221	313	779	1,230	849	2,100	3,500	1,320	257	370	228	192
19	211	307	627	1,200	896	1,690	2,540	1,180	291	345	225	193
20	201	313	660	811	668	1,440	2,090	1,190	284	324	201	160
21	191	350	943	971	601	1,310	1,560	1,220	491	292	214	148
22	182	381	942	953	1,130	1,300	2,250	1,060	977	260	170	146
23	195	338	646	893	1,710	1,400	2,670	974	3,890	232	150	153
24	1,130	304	592	1,050	2,400	1,260	2,950	882	4,060	211	155	158
25	1,970	315	582	1,400	4,160	1,150	2,680	770	2,490	201	201	160
26	2,700	359	547	1,030	6,670	1,070	1,750	674	1,820	303	520	165
27	2,120	388	534	987	5,320	1,010	1,480	572	1,290	407	574	166
28	1,740	568	518	899	4,170	920	1,260	519	979	513	424	194
29	1,390	1,290	513	991	4,900	856	1,450	481	5,620	471	299	250
30	938	3,690	488	813	------	889	1,330	460	4,900	492	250	277
31	810	------	498	769	------	865	------	679	------	366	211	------
TOTAL	21,027	19,608	50,200	32,968	45,065	83,810	61,891	42,476	32,845	25,752	8,395	5,549
MEAN	678	654	1,619	1,063	1,554	2,704	2,063	1,370	1,095	831	271	185
MAX	2,700	3,690	6,760	1,930	6,670	8,120	4,460	2,880	5,620	2,680	574	416
MIN	182	304	488	468	429	856	723	460	208	201	150	138

CAL YR 1971 TOTAL 366,493 MEAN 1,004 MAX 7,320 MIN 115 CFSM 1.68 IN 22.87
WTR YR 1972 TOTAL 429,586 MEAN 1,174 MAX 8,120 MIN 138 CFSM 1.97 IN 26.81

01601500 Wills Creek near Cumberland, Md.

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, on right bank at downstream side of Western Maryland Railway bridge, 2 miles upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above mean sea level (Corps of Engineers bench mark). 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.

AVERAGE DISCHARGE.--43 years (1929-72), 314 cfs (17.26 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,300 cfs June 23 (gage height, 10.06 ft); minimum daily, 27 cfs Sept. 16.
Period of record: Maximum discharge, 38,100 cfs Mar. 17, 1936 (gage height, 20.2 ft, from floodmarks at present site), from rating curve extended above 6,500 cfs on basis of slope-area measurements at gage heights 13.45 and 20.2 ft; minimum, 9 cfs Oct. 14, 1930.

REMARKS.--Records good. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into basin from Georges Creek basin by Hoffman drainage tunnel (see station 01599000). Slight diurnal fluctuation at low flow caused by quarry upstream.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	142	649	131	170	4,000	272	388	218	1,430	90	35
2	70	257	487	213	170	4,500	275	370	198	869	80	34
3	73	309	379	292	170	3,960	250	704	177	643	140	38
4	68	286	313	279	150	2,000	388	1,030	159	499	120	34
5	68	234	261	384	125	1,300	492	1,170	145	529	90	32
6	63	193	384	353	120	900	520	968	136	491	80	31
7	55	167	1,700	347	120	733	575	782	125	368	130	31
8	53	140	3,340	326	120	739	555	677	112	303	110	30
9	50	122	2,360	299	120	644	525	1,090	107	269	75	30
10	49	112	1,560	314	120	575	530	1,360	112	240	65	30
11	47	105	1,070	336	115	489	515	1,130	101	215	60	30
12	45	96	737	403	140	475	478	860	91	191	55	31
13	42	89	575	386	443	3,070	1,890	693	109	184	60	32
14	40	83	460	428	669	2,630	2,000	693	122	163	57	32
15	38	76	411	361	548	1,770	2,770	666	114	146	53	30
16	37	73	352	195	560	1,510	3,710	633	112	139	49	27
17	37	70	296	261	490	1,370	4,730	595	152	149	50	37
18	35	66	260	329	441	1,180	2,210	580	138	139	59	53
19	33	65	221	314	406	897	1,360	530	122	118	57	43
20	32	65	240	260	312	732	976	505	105	116	53	37
21	31	70	236	256	323	638	748	460	794	105	44	33
22	30	82	199	233	480	660	897	402	3,290	100	43	32
23	35	73	168	241	468	600	812	348	8,840	95	41	30
24	210	72	183	267	560	510	812	302	4,360	90	44	29
25	415	72	176	256	759	460	726	268	1,950	90	53	29
26	600	93	171	209	2,060	420	633	237	1,130	85	79	30
27	429	105	168	200	1,620	388	550	207	757	85	62	32
28	294	147	159	210	1,340	361	478	187	573	90	54	40
29	215	424	146	210	2,680	330	424	174	2,010	85	47	70
30	172	782	142	200	------	313	397	294	2,650	85	42	70
31	147	------	147	180	------	279	------	306	------	90	36	------
TOTAL	3,588	4,670	17,950	8,673	15,799	38,433	31,498	18,609	29,009	8,201	2,078	1,072
MEAN	116	156	579	280	545	1,240	1,050	600	967	265	67.0	35.7
MAX	600	782	3,340	428	2,680	4,500	4,730	1,360	8,840	1,430	140	70
MIN	30	65	142	131	115	279	250	174	91	85	36	27
CFSM	.47	.63	2.34	1.13	2.21	5.02	4.25	2.43	3.92	1.07	.27	.14
IN.	.54	.70	2.70	1.31	2.38	5.79	4.74	2.80	4.37	1.24	.31	.16

CAL YR 1971 TOTAL 139,326 MEAN 382 MAX 3,710 MIN 21 CFSM 1.55 IN 20.98
WTR YR 1972 TOTAL 179,580 MEAN 491 MAX 8,840 MIN 27 CFSM 1.99 IN 27.05

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0815	6.33	3,560	4-16	2200	7.75	6,160
2-29	2130	6.99	4,730	6-22	0930	7.28	5,280
3- 3	0445	7.24	5,210	6-23	1245	10.06	11,300
3-13	1100	6.52	3,890	6-29	1930	7.44	5,590
4-15	1600	6.97	4,700				

NOTE.--No gage-height record July 19 to Sept. 30.

01603000 North Branch Potomac River near Cumberland, Md.

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, on left bank at downstream side of Wiley Ford Bridge, 2.1 miles downstream from Wills Creek, 2 miles south of Cumberland, and at mile 19.6.

DRAINAGE AREA.--875 sq mi.

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2 miles upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of U. W. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above mean sea level (Corps of Engineers bench mark). Prior to June 18, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 1,212 cfs (18.81 inches per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 17,400 cfs June 23 (gage height, 14.55 ft); minimum, 182 cfs Sept. 9 (gage height, 2.34 ft).
Period of record: Maximum discharge, 88,200 cfs Mar. 17, 1936 (gage height, 29.1 ft), from rating curve extended above 33,000 cfs on basis of slope-area measurement of peak flow; minimum (river only), 12 cfs Sept. 22, 1932 (gage height, 2.38 ft); minimum daily (including flow in canal), 38 cfs Sept. 24, 1932.
Maximum stage known, 29.2 ft June 1, 1889 (discharge, about 89,000 cfs). Flood of Mar. 29, 1924, reached a stage of 28.4 ft (discharge, about 82,000 cfs).

REMARKS.--Records good. Regulation by Stony River Reservoir, about 79 miles above station (see station 01595200), and since December 1950, by Savage River Reservoir (see station 01597500). 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 below station. Diversion to Chesapeake and Ohio Canal prior to 1935. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 781: 1932(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	522	919	3,680	634	840	11,800	1,010	1,470	923	4,830	442	253
2	532	1,110	2,570	757	876	13,300	1,000	1,270	744	3,000	411	233
3	756	1,280	2,040	1,270	840	12,600	978	2,270	658	2,050	375	423
4	761	1,570	1,770	1,160	906	9,140	1,030	3,890	588	1,640	450	485
5	656	1,370	1,570	1,670	680	7,260	1,840	4,730	530	2,180	596	224
6	600	914	1,700	2,070	680	5,210	1,600	3,820	487	3,610	590	214
7	536	984	5,350	1,400	859	2,860	1,490	3,040	462	2,340	476	201
8	506	824	10,500	1,200	650	2,680	2,300	2,520	424	1,770	440	191
9	478	662	9,430	1,100	610	2,250	2,210	3,300	382	1,450	364	191
10	600	627	7,000	1,620	578	1,840	2,060	4,500	374	1,230	316	201
11	389	599	3,540	2,290	576	1,670	2,040	3,870	391	1,040	289	196
12	370	564	2,560	2,460	581	2,140	1,910	2,610	358	903	267	201
13	340	533	2,090	1,830	1,220	6,830	4,560	2,250	350	833	257	196
14	316	503	2,130	1,640	1,990	9,810	7,140	2,080	371	745	248	214
15	311	474	1,870	1,400	1,460	6,950	7,700	2,130	405	656	238	214
16	300	458	1,360	979	1,640	5,290	8,860	2,270	447	588	219	229
17	289	437	1,200	880	1,490	4,970	10,400	2,140	444	591	219	224
18	278	414	1,070	1,550	1,270	3,790	6,870	1,950	491	550	278	300
19	267	402	885	1,490	1,230	2,890	4,590	1,730	445	486	316	267
20	257	404	896	1,110	1,070	2,330	3,610	1,650	459	469	262	229
21	248	447	1,130	1,140	850	2,010	2,540	1,700	1,240	442	294	201
22	238	490	1,040	1,170	1,410	1,980	3,070	1,460	5,010	395	243	196
23	243	454	976	1,100	2,200	2,030	4,240	1,290	12,900	356	219	191
24	995	417	794	1,180	2,650	1,800	3,920	1,180	9,850	326	214	205
25	2,460	426	791	1,640	5,540	1,610	4,160	1,040	5,220	305	262	210
26	3,770	477	743	1,270	9,090	1,470	2,640	921	3,370	328	560	210
27	2,840	519	727	1,120	8,150	1,370	2,150	807	2,230	407	616	238
28	2,190	689	700	1,180	6,380	1,260	1,770	731	1,560	545	552	253
29	1,740	1,470	677	1,130	7,570	1,160	1,790	683	6,880	565	389	328
30	1,140	4,930	660	1,130	------	1,150	1,800	680	8,840	569	322	364
31	994	------	658	917	------	1,160	------	1,000	------	568	278	------
TOTAL	25,922	25,367	72,097	41,487	63,886	132,610	101,278	64,982	66,833	35,767	11,002	7,282
MEAN	836	846	2,326	1,338	2,203	4,278	3,376	2,096	2,228	1,154	355	243
MAX	3,770	4,930	10,500	2,460	9,090	13,300	10,400	4,730	12,900	4,830	616	485
MIN	238	402	658	634	576	1,150	978	680	350	305	214	191

CAL YR 1971 TOTAL 540,906 MEAN 1,482 MAX 12,400 MIN 135 CFSM 1.69 IN 22.99
WTR YR 1972 TOTAL 648,513 MEAN 1,772 MAX 13,300 MIN 191 CFSM 2.02 IN 27.56

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0800	10.69	11,000	4-17	0400	11.02	11,500
2-26	1800	10.28	10,400	6-23	1800	14.55	17,400
3- 3	0430	12.70	14,300	6-29	2100	11.38	12,100
3-14	0230	10.54	10,800				

01603500 Evitts Creek near Centerville, Pa.

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, on left bank 2 miles upstream from Thomas W. Koon Dam, 3.0 miles south of Centerville, 7.0 miles upstream from Rock Gully Creek, and at mile 16.3.

DRAINAGE AREA.--30.2 sq mi.

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft above mean sea level (city of Cumberland bench mark).

AVERAGE DISCHARGE.--40 years, 30.9 cfs (13.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,750 cfs June 22 (gage height, 5.06 ft); minimum, 3.7 cfs Sept. 17, 18 (gage height, 1.11 ft).
Period of record: Maximum discharge, 5,240 cfs Mar. 17, 1936 (gage height, 7.13 ft), from rating curve extended above 400 cfs on basis of slope-area measurements at gage heights 4.64 and 7.13 ft; minimum, 0.70 cfs Dec. 17, 1958 (gage height, 0.79 ft), result of freezeup.
Maximum stage known, about 8 ft, from floodmark, date unknown.

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

REVISIONS (WATER YEARS).--WSP 781: 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	20	50	15	16	382	31	44	25	78	11	4.7
2	7.0	40	29	40	16	394	30	43	21	63	10	4.7
3	8.4	27	25	30	15	414	28	92	20	55	17	4.5
4	7.8	19	22	22	15	221	43	118	18	46	14	4.7
5	7.5	17	20	32	14	159	34	99	17	61	11	4.5
6	6.5	16	50	25	14	118	29	82	16	57	9.4	4.4
7	6.0	15	220	21	14	101	38	74	15	40	16	4.4
8	5.5	14	500	20	14	88	40	70	14	33	13	4.2
9	5.5	13	200	20	14	72	37	143	13	31	9.4	4.2
10	5.8	13	120	25	14	66	34	115	14	28	8.4	4.0
11	5.5	12	80	31	14	57	33	95	12	26	7.8	4.0
12	5.1	12	70	41	15	55	32	84	11	24	7.5	4.2
13	4.9	11	60	30	101	191	163	76	20	23	7.8	4.4
14	4.9	11	50	30	132	150	113	82	19	20	7.5	4.5
15	4.7	10	45	24	84	126	300	74	20	18	7.0	4.4
16	4.7	10	40	20	86	147	340	64	41	18	6.5	4.2
17	4.7	9.4	34	20	63	124	364	59	31	18	6.2	3.8
18	4.7	9.0	31	30	52	103	198	57	46	18	5.8	6.0
19	4.5	9.0	28	25	44	88	147	49	55	15	8.4	5.5
20	4.4	9.0	29	23	47	78	118	54	28	17	7.0	4.4
21	4.4	9.8	27	24	70	70	95	49	194	14	6.2	4.4
22	4.4	9.8	22	23	60	78	121	41	1,580	13	6.0	4.4
23	4.9	8.7	20	25	65	66	97	37	1,490	12	5.8	4.0
24	35	7.8	20	28	70	55	82	33	644	11	5.8	4.0
25	72	11	19	24	82	49	74	31	300	11	5.8	4.4
26	57	11	19	19	263	46	64	28	183	10	6.2	4.5
27	24	12	18	18	143	43	59	26	129	10	7.2	4.2
28	18	21	18	18	147	40	52	24	99	11	5.8	5.8
29	16	80	16	17	346	37	49	23	118	11	5.5	8.1
30	14	106	17	17	------	34	46	26	126	9.8	5.1	8.1
31	13	------	16	16	------	32	------	41	------	11	4.7	------
TOTAL	377.5	573.5	1,915	753	2,030	3,684	2,891	1,933	5,319	812.8	258.8	141.6
MEAN	12.2	19.1	61.8	24.3	70.0	119	96.4	62.4	177	26.2	8.35	4.72
MAX	72	106	500	41	346	414	364	143	1,580	78	17	8.1
MIN	4.4	7.8	16	15	14	32	28	23	11	9.8	4.7	3.8
CFSM	.40	.63	2.05	.80	2.32	3.94	3.19	2.07	5.86	.87	.28	.16
IN.	.47	.71	2.36	.93	2.50	4.54	3.56	2.38	6.55	1.00	.32	.17

CAL YR 1971 TOTAL 15,506.9 MEAN 42.5 MAX 573 MIN 3.7 CFSM 1.41 IN 19.10
WTR YR 1972 TOTAL 20,689.2 MEAN 56.5 MAX 1,580 MIN 3.8 CFSM 1.87 IN 25.48

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	Unknown	*3.24	736	4-16	1900	3.02	556
2-29	2145	3.02	556	6-22	0800	5.06	2,750
3- 2	2400	3.00	540	6-23	1200	4.24	1,760
4-15	1430	3.04	572				

* From high-water mark in well.

01608500 South Branch Potomac River near Springfield, W. Va.

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

DRAINAGE AREA.--1,471 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above mean sea level. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 miles upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 miles 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.

AVERAGE DISCHARGE.--48 years (1899-1901, 1903-5, 1928-72), 1,243 cfs (11.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 31,500 cfs June 23 (gage height, 17.87 ft), from rating curve extended as explained below; minimum, 179 cfs Sept. 23, 24, 26, 27 (gage height, 1.48 ft).
Period of record: Maximum discharge, 143,000 cfs Mar. 18, 1936 (gage height, 34.2 ft), from rating curve extended above 18,000 cfs on basis of measurement made about 10 miles upstream from station, adjusted for storage and inflow and slope-area measurement at gage height 29.84 ft; minimum, 29 cfs Jan. 28, 1956 (result of freezeup), July 30, 1966; minimum gage height, 0.39 ft July 30, 1966.
Flood in November 1877 reached a stage of about 34 ft, from floodmarks (discharge, 140,000 cfs).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1552: 1903-6, 1929-30(M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	703	1,100	3,480	491	1,300	7,810	992	1,650	1,080	3,150	2,140	273
2	620	1,030	2,410	537	1,150	8,310	947	1,460	921	2,280	1,520	257
3	2,740	912	1,740	742	1,090	8,540	904	5,470	798	1,790	1,150	246
4	2,960	845	1,380	855	1,640	6,730	848	10,800	719	1,440	976	241
5	2,090	809	1,190	865	1,400	4,440	886	10,500	659	1,860	1,010	246
6	1,560	734	1,070	1,020	1,200	3,360	994	6,110	600	7,440	984	268
7	1,200	676	1,200	1,120	1,100	2,680	989	4,220	559	5,510	801	277
8	953	627	6,350	1,060	1,000	2,270	2,120	3,300	520	3,810	692	251
9	786	584	5,730	967	900	1,970	3,730	3,440	479	2,740	646	234
10	681	544	3,810	951	800	1,700	3,050	4,210	445	2,040	579	221
11	605	513	2,880	1,440	700	1,490	2,530	3,420	419	1,590	507	211
12	544	490	2,230	1,700	729	1,320	2,150	2,800	405	1,300	456	207
13	478	465	1,790	1,640	1,340	2,030	2,880	2,350	387	1,120	417	205
14	426	441	1,490	1,480	2,430	2,390	5,890	2,070	378	1,060	395	206
15	390	419	1,270	1,310	2,460	2,240	5,170	1,990	397	1,050	503	210
16	365	401	1,130	1,040	3,000	2,150	4,180	2,310	581	951	495	203
17	352	384	1,020	679	3,160	2,210	3,970	2,210	676	933	424	208
18	337	370	901	814	2,660	2,010	4,450	1,960	692	1,220	439	210
19	339	357	806	960	2,250	1,700	3,540	1,800	671	972	585	199
20	328	349	733	858	1,780	1,500	2,900	2,260	686	784	554	191
21	310	341	753	812	1,450	1,300	2,460	3,880	1,040	725	485	187
22	297	350	876	872	2,000	1,250	2,880	3,390	18,100	760	442	183
23	290	374	790	851	4,160	1,460	6,450	3,280	23,100	697	383	180
24	493	369	720	864	4,180	1,700	5,640	2,870	12,100	627	366	180
25	3,570	371	687	1,510	10,300	1,590	4,840	2,340	5,830	578	350	182
26	5,980	373	668	1,730	14,300	1,460	3,820	1,920	3,660	515	348	181
27	4,260	372	639	1,560	19,500	1,320	3,080	1,560	2,620	468	407	184
28	2,830	416	615	1,420	9,760	1,230	2,520	1,310	2,010	456	442	189
29	2,010	1,100	577	1,730	6,700	1,150	2,120	1,150	1,980	432	358	193
30	1,510	3,500	544	1,750	------	1,090	1,820	1,030	3,840	468	315	207
31	1,230	------	513	1,540	------	1,060	------	1,020	------	1,940	292	------
TOTAL	41,237	19,616	49,992	35,168	104,439	81,460	88,750	98,080	86,352	50,706	19,461	6,430
MEAN	1,330	654	1,613	1,134	3,601	2,628	2,958	3,164	2,878	1,636	628	214
MAX	5,980	3,500	6,350	1,750	19,500	8,540	6,450	10,800	23,100	7,440	2,140	277
MIN	290	341	513	491	700	1,060	848	1,020	378	432	292	180
CFSM	.90	.44	1.10	.77	2.45	1.79	2.01	2.15	1.96	1.11	.43	.15
IN.	1.04	.50	1.26	.89	2.64	2.06	2.24	2.48	2.18	1.28	.49	.16

CAL YR 1971 TOTAL 581,146 MEAN 1,592 MAX 15,300 MIN 156 CFSM 1.08 IN 14.70
WTR YR 1972 TOTAL 681,691 MEAN 1,863 MAX 23,100 MIN 180 CFSM 1.27 IN 17.24

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-27	0730	15.29	23,000	6-23	1600	17.87	31,500
5- 4	2130	11.18	13,400				

01609000 Town Creek near Oldtown, Md.

LOCATION.--Lat 39°33'12", long 78°33'19", Allegany County, on left bank at downstream side of highway bridge, 2.0 miles upstream from Sawpit Run, 3.0 miles northeast of Oldtown, and 4.0 miles upstream from mouth.

DRAINAGE AREA.--148 sq mi.

PERIOD OF RECORD.--July 1928 to September 1935, June 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map). July 1928, to September 1935, nonrecording gage on upstream side of highway bridge at datum 0.08 ft lower.

AVERAGE DISCHARGE.--12 years (1928-35, 1967-72), 143 cfs (13.12 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,700 cfs June 22 (gage height, 14.13 ft); minimum, 9.2 cfs Sept. 27 (gage height, 1.94 ft).
Period of record: Maximum discharge, 11,700 cfs June 22, 1972 (gage height, 14.13 ft); minimum, 0.9 cfs Aug. 2, 3, 7-14, 1930 (gage height, 1.49 ft).
Flood of Mar. 17 or 18, 1936, reached a stage of 19.08 ft, from floodmarks (discharge, 27,000 cfs, from rating curve extended above 1,100 cfs on basis of contracted-opening measurement of peak flow).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	45	348	44	66	1,470	114	220	138	220	28	12
2	20	70	204	114	64	1,150	124	194	92	167	28	12
3	20	128	139	233	62	1,390	112	388	78	149	29	11
4	20	102	116	155	60	946	107	902	74	133	55	12
5	19	83	99	156	58	649	144	838	117	155	41	11
6	18	67	137	144	58	451	115	530	79	192	31	11
7	17	59	688	122	58	367	124	403	65	136	29	10
8	15	51	1,250	111	56	307	183	319	56	109	36	10
9	14	46	713	102	56	240	205	600	50	94	32	10
10	14	43	473	112	56	211	209	910	48	83	25	9.6
11	14	41	333	115	90	183	205	617	48	74	22	9.6
12	14	39	235	158	93	175	188	451	41	69	20	10
13	14	37	196	157	547	1,260	958	352	40	63	18	11
14	12	35	161	159	1,120	990	1,110	331	53	59	18	11
15	12	32	144	138	691	838	890	334	55	57	17	11
16	11	31	130	100	624	726	1,320	340	153	85	16	12
17	11	30	115	100	502	670	1,510	288	218	67	15	10
18	11	29	101	160	391	523	894	240	138	65	16	15
19	11	27	87	155	343	409	603	253	133	57	20	15
20	10	27	87	125	218	322	451	265	110	48	20	13
21	10	27	86	120	223	275	349	245	442	78	17	12
22	10	28	76	101	258	295	484	202	8,140	52	15	12
23	11	27	62	94	243	288	575	169	7,690	41	15	10
24	16	25	60	102	253	228	490	142	3,620	36	15	10
25	66	27	60	105	367	196	403	120	1,160	32	15	10
26	311	34	57	85	1,460	183	325	104	701	29	15	10
27	157	32	56	74	1,050	169	265	89	463	27	16	9.6
28	101	45	53	74	733	157	225	81	334	26	18	13
29	75	318	50	72	1,000	144	198	74	280	27	14	19
30	57	553	47	70	------	136	173	71	295	27	13	27
31	49	------	47	68	------	124	------	177	------	27	12	------
TOTAL	1,161	2,138	6,410	3,625	10,800	15,472	13,053	10,249	24,911	2,484	681	358.8
MEAN	37.5	71.3	207	117	372	499	435	331	830	80.1	22.0	12.0
MAX	311	553	1,250	233	1,460	1,470	1,510	910	8,140	220	55	27
MIN	10	25	47	44	56	124	107	71	40	26	12	9.6
CFSM	.25	.48	1.40	.79	2.51	3.37	2.94	2.24	5.61	.54	.15	.08
IN.	.29	.54	1.61	.91	2.71	3.89	3.28	2.58	6.26	.62	.17	.09

CAL YR 1971 TOTAL 64,652.2 MEAN 177 MAX 2,520 MIN 7.0 CFSM 1.20 IN 16.25
WTR YR 1972 TOTAL 91,342.8 MEAN 250 MAX 8,140 MIN 9.6 CFSM 1.69 IN 22.96

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0430	7.17	1,500	3-13	1330	7.83	1,920
2-26	1300	7.51	1,760	4-13	1800	7.52	1,760
3- 1	0600	7.55	1,780	4-17	0345	7.64	1,820
3- 3	1145	7.63	1,820	6-22	1515	14.13	11,700

01610000 Potomac River at Paw Paw, W. Va.

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

DRAINAGE AREA.--3,109 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above mean sea level (Corps of Engineers bench mark). Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

AVERAGE DISCHARGE.--34 years, 3,091 cfs (13.51 inches per year).

EXTREMES.--Current year: Maximum discharge, 64,500 cfs June 23 (gage height, 28.83 ft); minimum, 405 cfs Sept. 24 (gage height, 3.42 ft).
Period of record: Maximum discharge, 111,000 cfs Oct. 16, 1942 (gage height, 38.36 ft); minimum, 164 cfs Sept. 10, 11, 1966.
Maximum stage known, 54.0 ft Mar. 18, 1936 (discharge, 240,000 cfs, from rating curve extended above 85,000 cfs on basis of slope-area measurement of peak flow at site 5 miles upstream at Okonoko, W. Va.).

REMARKS.--Records good. Low flow affected by Stony River Reservoir (see station 01595200), and since December 1950, by Savage River Reservoir (see station 01597500). Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,470	2,600	9,130	1,450	2,820	21,900	2,880	4,570	2,880	10,700	3,190	697
2	1,300	2,620	6,490	1,650	2,690	23,800	2,740	4,040	2,440	7,100	2,470	634
3	2,410	2,800	5,030	2,680	2,610	24,700	2,650	8,100	2,080	5,460	1,990	709
4	4,180	2,900	4,220	2,890	3,420	19,600	2,540	19,000	1,890	4,530	1,810	836
5	3,320	2,810	3,710	3,100	3,340	14,200	3,210	20,400	1,840	4,640	1,780	664
6	2,680	2,300	3,540	3,780	2,870	10,400	3,480	13,300	1,600	11,400	2,080	553
7	2,210	2,130	5,810	3,560	2,960	7,430	3,230	9,600	1,470	10,100	1,720	573
8	1,860	1,970	16,400	3,070	2,670	6,220	4,350	7,710	1,380	7,140	1,500	545
9	1,650	1,610	17,800	2,830	2,300	5,660	6,890	8,380	1,260	5,570	1,330	506
10	1,610	1,480	12,800	2,830	2,090	4,860	6,480	11,600	1,180	4,480	1,210	480
11	1,310	1,410	8,460	4,180	1,960	4,360	5,970	10,100	1,120	3,730	1,050	471
12	1,180	1,340	6,120	4,780	1,920	4,350	5,360	7,580	1,080	3,130	952	460
13	1,080	1,280	5,040	4,700	4,320	9,300	7,880	6,430	1,020	2,770	877	456
14	976	1,210	4,550	4,190	9,200	16,400	17,400	5,740	1,050	2,500	819	460
15	893	1,150	4,160	3,780	7,140	13,100	15,000	5,880	1,060	2,420	783	499
16	842	1,090	3,530	2,990	6,960	10,000	17,600	6,400	1,380	2,300	950	479
17	797	1,040	3,060	2,120	7,040	9,900	19,000	5,990	1,780	2,050	827	479
18	760	991	2,720	2,800	6,010	8,260	15,100	5,420	1,690	2,180	816	577
19	724	950	2,360	3,300	5,380	6,730	10,800	4,900	1,800	2,140	958	585
20	716	918	2,140	2,940	4,560	5,670	8,490	4,770	1,730	1,720	1,090	513
21	675	924	2,280	2,570	3,780	5,010	6,860	6,630	2,560	1,580	935	462
22	637	963	2,470	2,800	4,250	4,750	7,060	6,130	39,700	1,520	917	434
23	614	1,020	2,420	2,680	7,720	4,840	13,100	5,570	53,400	1,400	791	417
24	847	993	1,980	2,680	7,390	4,850	11,800	5,200	38,800	1,240	719	414
25	4,870	995	1,900	3,430	16,300	4,460	11,300	4,430	16,200	1,130	705	427
26	9,950	993	1,830	3,850	27,800	4,130	8,540	3,830	9,920	1,020	843	431
27	8,690	1,100	1,770	3,360	34,800	3,820	6,970	3,240	7,120	1,050	1,160	433
28	6,150	1,220	1,710	3,320	21,100	3,580	5,860	2,800	5,310	1,150	1,340	501
29	4,780	2,830	1,630	3,270	16,400	3,290	5,150	2,520	7,310	1,230	1,150	532
30	3,660	9,880	1,560	3,660	------	3,130	4,910	2,310	16,300	1,220	912	670
31	2,970	------	1,490	3,150	------	3,070	------	2,600	------	1,770	787	------
TOTAL	75,791	55,417	148,110	98,390	221,800	271,770	242,600	215,170	228,350	110,370	38,461	15,897
MEAN	2,445	1,847	4,778	3,174	7,648	8,767	8,087	6,941	7,612	3,560	1,241	530
MAX	9,950	9,880	17,800	4,780	34,800	24,700	19,000	20,400	53,400	11,400	3,190	836
MIN	614	918	1,490	1,450	1,920	3,070	2,540	2,310	1,020	1,020	705	414

CAL YR 1971 TOTAL 1,422,978 MEAN 3,899 MAX 38,400 MIN 300 CFSM 1.25 IN 17.02
WTR YR 1972 TOTAL 1,722,126 MEAN 4,705 MAX 53,400 MIN 414 CFSM 1.51 IN 20.59

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	1930	15.69	20,500	4-17	0930	15.53	20,100
2-27	1030	21.34	37,400	5- 5	0300	16.64	23,100
3- 3	1200	17.55	25,700	6-23	2100	28.83	64,500

01610155 Sideling Hill Creek near Bellegrove, Md.

LOCATION.--Lat 39°38'58", long 78°20'40", Washington County, on left bank at Highway bridge on Pearre Road, 4 miles south of Bellegrove, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--102 sq mi.

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

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

AVERAGE DISCHARGE.--5 years, 119 cfs (15.84 inches per year).

EXTREMES.--Current year: Maximum discharge, 14,200 cfs June 22 (gage height, 12.44 ft); minimum daily, 0.32 cfs Sept. 14-17.
Period of record: Maximum discharge, 14,200 cfs June 22, 1972 (gage height, 12.44 ft); minimum, no flow for many days in August and September 1968.

REMARKS.--Records poor.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1970: 1967-69(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	37	399	23	40	1,070	54	96	105	85	3.7	2.9
2	7.6	74	231	76	38	761	64	93	69	68	3.5	2.3
3	7.5	135	150	177	37	569	57	216	54	97	3.5	1.6
4	7.2	111	122	140	36	378	50	593	44	90	5.2	1.3
5	7.0	81	112	90	35	269	62	745	119	85	9.1	1.3
6	5.9	62	105	85	35	195	57	458	80	118	10	.92
7	5.3	51	624	70	35	159	66	317	61	90	8.0	.92
8	4.6	41	1,120	65	34	137	104	241	46	72	8.0	.81
9	4.2	36	514	60	34	108	118	473	35	60	8.4	.81
10	4.2	31	318	65	34	91	134	751	32	50	8.0	.72
11	4.2	29	222	70	55	79	137	451	30	43	5.9	.54
12	4.2	27	153	95	60	75	131	295	23	36	4.6	.54
13	4.0	24	126	90	400	260	448	218	20	32	3.5	.39
14	3.7	22	97	95	1,400	388	774	186	35	31	2.7	.32
15	4.0	19	85	80	500	466	725	176	35	25	2.5	.32
16	3.2	17	74	60	400	406	1,030	299	112	25	1.9	.32
17	2.7	15	66	60	362	388	979	286	252	23	1.6	.32
18	2.4	14	55	95	284	303	544	255	141	23	1.6	4.0
19	2.0	14	46	90	245	214	346	236	104	22	2.1	4.2
20	1.6	13	43	75	206	163	245	256	74	18	2.9	2.5
21	1.4	13	46	70	189	134	183	284	1,710	15	3.5	1.9
22	1.4	13	43	60	149	144	245	247	9,200	14	3.5	1.4
23	1.2	12	33	55	152	141.	345	185	6,160	11	18	1.1
24	4.9	11	30	60	141	112	326	140	1,850	8.4	78	.91
25	74	15	31	65	153	99	263	105	562	6.8	17	.72
26	493	16	31	50	817	92	208	81	288	5.5	9.6	.39
27	193	17	30	45	646	85	162	64	191	4.6	8.0	.57
28	108	24	30	45	456	76	132	51	137	4.2	8.4	.72
29	69	172	28	44	628	70	111	45	107	3.7	6.3	.91
30	51	559	26	42	------	64	96	40	112	3.7	5.2	1.5
31	42	------	25	41	------	60	------	140	------	3.7	4.2	------
TOTAL	1,133.4	1,705	5,015	2,238	7,601	7,556	8,196	8,023	21,788	1,173.6	258.4	37.15
MEAN	36.6	56.8	162	72.2	262	244	273	259	726	37.9	8.34	1.24
MAX	493	559	1,120	177	1,400	1,070	1,030	751	9,200	118	78	4.2
MIN	1.2	11	25	23	34	60	50	40	20	3.7	1.6	.32
CFSM	.36	.56	1.59	.71	2.57	2.39	2.68	2.54	7.12	.37	.08	.01
IN.	.41	.62	1.83	.82	2.77	2.76	2.99	2.93	7.95	.43	.09	.01

CAL YR 1971 TOTAL 46,952.15 MEAN 129 MAX 2,210 MIN .04 CFSM 1.26 IN 17.12
WTR YR 1972 TOTAL 64,724.55 MEAN 177 MAX 9,200 MIN .32 CFSM 1.74 IN 23.61

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0245	4.32	1,500	3- 1	0045	4.23	1,440
2-13				4-15	2145	4.13	1,360
or 14	*	†5.62	2,700	6-22	0915	12.44	14,200
2-26	1230	3.78	1,100				

* Unknown.
† From floodmark.

01613000 Potomac River at Hancock, Md.

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

DRAINAGE AREA.--4,073 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 383.46 ft above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--40 years, 3,966 cfs (13.22 inches per year).

EXTREMES.--Current year: Maximum discharge, 112,000 cfs June 23 (gage height, 30.79 ft); minimum, 490 cfs Sept. 25 (gage height, 2.65 ft).
Period of record: Maximum discharge, 340,000 cfs Mar. 18, 1936 (gage height, 47.6 ft), from rating curve extended above 120,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 180 cfs Oct. 4, 1932 (gage height, 2.01 ft).
Maximum stage known prior to 1932, about 40 ft in May 1889 (discharge, about 220,000 cfs).

REMARKS.--Records good. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir (see station 01595200) and since December 1950, by Savage River Reservoir (see station 01597500). Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 801: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,000	3,680	13,900	1,770	3,430	24,800	3,600	5,850	3,610	16,300	2,790	897
2	1,850	3,540	9,850	2,080	3,240	27,300	3,380	5,360	3,670	10,400	3,220	810
3	1,700	3,700	7,210	3,200	3,110	27,300	3,280	6,450	2,990	7,830	2,630	741
4	4,320	3,650	5,750	4,050	3,690	24,400	3,160	22,200	2,630	6,410	2,220	864
5	4,770	3,700	4,880	3,840	4,720	17,500	3,170	29,300	2,610	5,590	2,080	951
6	3,780	3,360	4,450	4,370	4,060	13,500	4,000	20,000	2,440	10,500	2,090	727
7	3,170	2,670	5,840	4,700	3,850	10,300	3,820	13,800	2,130	14,000	2,310	660
8	2,640	2,600	14,600	4,050	3,630	7,930	4,080	10,700	1,920	9,710	1,930	675
9	2,260	2,320	21,600	3,690	3,180	7,150	6,790	10,400	1,770	7,790	1,700	643
10	2,030	2,030	16,400	3,500	2,900	6,190	8,000	15,000	1,630	6,150	1,520	595
11	1,950	1,900	12,000	4,180	2,710	5,470	7,560	14,900	1,500	4,970	1,360	573
12	1,690	1,810	8,320	5,410	2,540	4,990	6,910	11,400	1,410	4,130	1,200	567
13	1,490	1,730	6,670	5,930	4,110	7,440	7,890	9,080	1,360	3,570	1,100	542
14	1,330	1,640	5,690	5,290	16,900	18,500	20,200	7,830	1,360	3,220	1,020	545
15	1,200	1,560	5,220	4,860	12,700	17,300	19,000	7,430	1,360	3,160	947	564
16	1,100	1,470	4,660	4,080	10,100	13,600	21,800	8,360	1,470	3,210	917	574
17	1,030	1,390	3,940	3,090	10,200	12,600	22,400	8,810	2,160	2,970	1,080	562
18	976	1,330	3,500	2,780	8,970	11,200	19,900	7,840	2,310	2,950	972	587
19	932	1,260	3,140	3,810	7,820	9,210	14,700	6,900	2,130	3,400	946	648
20	904	1,200	2,760	3,820	6,680	7,600	11,200	6,640	2,210	2,720	1,110	667
21	890	1,170	2,620	3,320	5,420	6,570	9,210	8,650	3,740	2,240	1,200	591
22	838	1,170	2,840	3,210	5,060	6,050	8,200	9,270	71,000	2,050	1,040	546
23	795	1,210	2,810	3,280	7,580	6,050	15,000	7,900	108,000	1,910	1,040	516
24	940	1,270	2,660	3,180	9,770	6,010	16,600	7,450	89,800	1,730	1,080	493
25	5,130	1,300	2,300	3,310	13,100	5,660	14,900	6,330	28,900	1,530	893	490
26	14,800	1,250	2,230	4,360	29,700	5,180	12,300	5,330	15,800	1,390	945	496
27	14,500	1,270	2,170	4,100	44,000	4,790	9,650	4,520	10,900	1,260	1,150	504
28	9,660	1,410	2,100	3,790	31,200	4,470	8,040	3,840	8,010	1,290	1,380	539
29	7,120	2,260	2,040	3,710	21,500	4,160	6,850	3,380	6,380	1,390	1,520	600
30	5,550	10,500	1,930	4,000	------	3,860	6,290	3,060	16,500	1,460	1,230	644
31	4,260	------	1,840	3,920	------	3,720	------	3,120	------	1,490	1,010	------
TOTAL	103,565	69,350	185,920	118,680	285,870	330,800	301,880	291,100	401,700	146,720	45,630	18,811
MEAN	3,405	2,312	5,997	3,828	9,858	10,670	10,060	9,390	13,390	4,733	1,472	627
MAX	14,800	10,500	21,600	5,930	44,000	27,300	22,400	29,300	108,000	16,300	3,220	951
MIN	795	1,170	1,840	1,770	2,540	3,720	3,160	3,060	1,360	1,260	893	490
CFSM	.84	.57	1.47	.94	2.42	2.62	2.47	2.31	3.29	1.16	.36	.15
IN.	.96	.63	1.70	1.08	2.61	3.02	2.76	2.66	3.67	1.34	.42	.17

CAL YR 1971 TOTAL 1,902,119 MEAN 5,211 MAX 49,700 MIN 401 CFSM 1.28 IN 17.37
WTR YR 1972 TOTAL 2,302,026 MEAN 6,290 MAX 108,000 MIN 490 CFSM 1.54 IN 21.03

PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-27	1000	18.91	44,900	5- 5	0930	15.52	31,300
3- 1	2345	14.53	27,700	6-23	0800	30.79	112,000
4-17	1700	13.34	23,500				

01614500 Conococheague Creek at Fairview, Md.

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, on right bank 0.7 mile upstream from highway bridge in Fairview, 2 miles upstream from Rockdale Run, 6.5 miles northwest of Hagerstown, and 19.1 miles (revised) upstream from mouth.

DRAINAGE AREA.--494 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 391.77 ft above mean sea level, adjustment of 1912. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mile downstream at datum 2.85 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.84 ft lower than present datum.

AVERAGE DISCHARGE.--44 years, 562 cfs (15.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 32,400 cfs June 23 (gage height, 24.5 ft, from floodmark), from rating curve extended above 15,000 cfs as explained below; minimum, 102 cfs Oct. 23 (gage height, 1.42 ft).
Period of record: Maximum discharge, 32,400 cfs June 23, 1972 (gage height, 24.5 ft, from floodmark), from rating curve extended above 15,000 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 21 cfs Aug. 8, Sept. 12, 1966; minimum daily, 25 cfs Nov. 28, 1930.
Maximum stage known prior to 1928, about 16.5 ft (present datum) sometime in 1889, from information by local residents (discharge, about 22,000 cfs).

REMARKS.--Records good. Low flow partly regulated by small powerplants near Mercersburg, Pa. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	529	1,760	329	310	3,870	678	843	1,630	1,670	375	201
2	156	787	1,170	740	370	3,970	759	819	1,050	1,400	358	196
3	157	882	873	1,370	419	3,840	703	1,990	907	1,270	406	193
4	158	701	718	950	1,410	3,140	640	3,750	847	1,290	444	191
5	151	570	624	894	960	2,450	621	3,760	741	1,510	396	187
6	144	488	727	792	760	1,930	569	2,410	651	1,600	335	184
7	135	442	2,990	685	720	1,660	569	1,900	594	1,300	360	178
8	128	394	3,820	620	540	1,490	607	1,620	533	1,110	481	177
9	120	364	2,750	591	520	1,270	584	2,370	489	1,000	360	172
10	149	341	2,200	778	460	1,130	543	2,960	465	906	314	167
11	252	321	1,890	781	430	1,010	519	2,150	437	864	292	164
12	213	302	1,590	854	410	943	504	1,730	410	785	295	169
13	164	281	1,380	840	1,300	924	1,280	1,500	405	723	297	169
14	147	270	1,190	798	3,370	1,030	2,020	1,460	452	684	304	173
15	140	254	1,090	713	2,530	1,240	2,300	1,470	432	676	278	162
16	132	248	1,000	480	2,040	1,350	3,250	1,480	439	853	258	159
17	128	236	890	430	1,670	1,670	3,790	1,290	631	1,250	257	156
18	124	225	798	600	1,430	1,500	2,730	1,200	468	998	321	158
19	123	220	719	580	1,380	1,260	2,070	1,110	636	768	303	250
20	121	215	683	549	1,000	1,090	1,740	2,150	596	667	260	174
21	115	212	648	538	1,020	993	1,500	2,460	1,590	600	247	165
22	111	215	582	515	1,000	1,220	1,650	1,830	11,100	543	234	163
23	108	204	505	509	900	1,600	1,940	1,510	26,700	506	228	156
24	121	195	457	542	840	1,300	1,670	1,290	22,100	472	250	154
25	1,260	198	446	519	825	1,130	1,480	1,120	9,970	450	231	154
26	4,700	248	427	458	1,580	1,030	1,300	974	4,590	419	216	158
27	1,860	250	416	420	2,110	944	1,150	863	3,060	400	244	155
28	1,140	275	400	420	1,880	874	1,040	786	2,330	398	386	169
29	832	758	372	410	2,690	815	951	729	2,050	391	277	202
30	664	2,280	358	400	------	770	883	683	2,050	373	233	206
31	559	------	349	340	------	724	------	1,270	------	372	210	------
TOTAL	14,477	12,905	33,822	19,445	34,874	48,167	40,040	51,477	98,353	26,248	9,450	5,262
MEAN	467	430	1,091	627	1,203	1,554	1,335	1,661	3,278	847	305	175
MAX	4,700	2,280	3,820	1,370	3,370	3,970	3,790	3,760	26,700	1,670	481	250
MIN	108	195	349	329	310	724	504	683	405	372	210	154
CFSM	.95	.87	2.21	1.27	2.44	3.15	2.70	3.36	6.64	1.71	.62	.35
IN.	1.09	.97	2.55	1.46	2.63	3.63	3.02	3.88	7.41	1.98	.71	.40

CAL YR 1971 TOTAL 259,154 MEAN 710 MAX 6,970 MIN 94 CFSM 1.44 IN 19.52
WTR YR 1972 TOTAL 394,520 MEAN 1,078 MAX 26,700 MIN 108 CFSM 2.18 IN 29.71

PEAK DISCHARGE (BASE, 4,300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	0400	8.91	5,980	6-23	*1700	24.5	32,400
5- 4	2145	7.73	4,520				

* About.
NOTE.--No gage-height record June 20-26.

01617800 Marsh Run at Grimes, Md.

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, on right bank 220 ft upstream from bridge on Sprecher Road, 0.1 mile downstream from unnamed tributary, 0.5 mile southwest of Grimes, 1.5 miles upstream from mouth, and 2.2 miles southwest of Fairplay.

DRAINAGE AREA.--18.9 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (from topographic map).

AVERAGE DISCHARGE.--9 years 11.1 cfs (7.98 inches per year).

EXTREMES.--Current year: Maximum discharge, 268 cfs June 22 (gage height, 3.44 ft); minimum, 5.8 cfs Oct. 19 (gage height, 1.05 ft).
Period of record: Maximum discharge, 268 cfs June 22, 1972 (gage height, 3.44 ft); minimum daily, 0.40 cfs Jan. 31, 1966, result of freezeup.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	22	30	14	13	41	21	29	30	48	21	14
2	10	23	25	23	13	39	24	28	24	45	26	14
3	9.7	20	22	18	19	50	20	39	23	55	36	13
4	8.9	18	21	16	25	39	20	60	40	51	24	14
5	8.7	17	20	17	18	35	19	50	41	61	22	13
6	6.7	16	24	15	16	30	21	41	27	48	20	12
7	6.3	16	39	14	16	30	20	38	24	41	21	12
8	6.2	14	31	14	15	29	20	37	22	39	21	12
9	6.3	13	25	15	14	27	19	50	21	36	19	11
10	13	13	24	17	14	27	18	45	20	33	18	11
11	11	13	23	16	14	28	17	37	20	31	17	11
12	9.7	13	21	15	13	27	16	35	19	30	16	11
13	8.9	13	22	15	31	30	40	32	20	32	16	10
14	8.4	12	20	17	28	36	30	36	21	33	15	10
15	6.8	13	19	15	22	32	36	35	19	29	15	10
16	6.5	14	18	14	19	33	37	38	20	34	15	10
17	6.4	14	19	13	18	36	45	38	20	36	16	9.7
18	6.1	14	18	14	19	29	33	32	19	30	16	9.8
19	6.1	12	17	15	22	27	28	29	19	26	15	9.7
20	6.3	12	18	15	14	25	27	57	19	25	15	9.4
21	6.2	12	17	15	18	24	25	42	52	24	14	9.8
22	6.2	11	16	15	23	32	39	37	180	25	14	9.9
23	6.5	11	16	15	20	29	34	33	223	25	14	9.5
24	8.7	12	16	15	19	26	36	30	131	23	14	9.6
25	47	13	16	14	20	25	31	28	87	22	13	9.7
26	52	12	16	13	43	24	28	27	72	21	20	9.2
27	27	14	16	13	39	23	27	27	63	20	23	8.8
28	20	15	15	14	40	22	25	27	58	20	18	8.9
29	19	28	15	13	43	22	25	26	57	20	15	9.2
30	19	40	15	13	------	22	25	25	56	20	14	9.6
31	20	------	14	13	------	21	------	34	------	21	14	------
TOTAL	392.7	470	628	465	628	920	806	1,122	1,447	1,004	557	320.8
MEAN	12.7	15.7	20.3	15.0	21.7	29.7	26.9	36.2	48.2	32.4	18.0	10.7
MAX	52	40	39	23	43	50	45	60	223	61	36	14
MIN	6.1	11	14	13	13	21	16	25	19	20	13	8.8
CFSM	.67	.83	1.07	.79	1.15	1.57	1.42	1.92	2.55	1.71	.95	.57
IN.	.77	.93	1.24	.92	1.24	1.81	1.59	2.21	2.85	1.98	1.10	.63

CAL YR 1971 TOTAL 5,584.3 MEAN 15.3 MAX 68 MIN 3.1 CFSM .81 IN 10.99
WTR YR 1972 TOTAL 8,760.5 MEAN 23.9 MAX 223 MIN 6.1 CFSM 1.26 IN 17.24

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1600	2.36	109	6-22	0800	3.44	268
3- 3	0430	1.91	64	6-23	1030	3.39	258
4-13	1400	1.90	63	7- 3	1815	2.03	76
5- 4	0545	1.96	69	7- 5	1000	2.08	81
5-20	0415	1.97	70	8- 2	2245	1.88	61
6- 4	2130	2.64	140				

01618000 Potomac River at Shepherdstown, W. Va.

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

DRAINAGE AREA.--5,936 sq mi.

PERIOD OF RECORD.--August 1928 to current year (annual maximum only, October 1954 to June 1964). Gage-height record and estimated discharge October 1953 to June 1964 available in files of Maryland district office.

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--33 years (1928-53, 1964-72), 5,793 cfs (13.25 inches per year).

EXTREMES.--Current year: Maximum discharge, 187,000 cfs June 23 (gage height, 31.58 ft); minimum daily, 950 cfs Sept. 24-28.
Period of record: Maximum discharge, 335,000 cfs Mar. 19, 1936 (gage height, 42.1 ft, from floodmarks), from rating curve extended above 200,000 cfs on basis of slope-area measurement of peak flow; minimum, 170 cfs Aug. 1, 1966; minimum daily, 185 cfs July 31, 1966.
Floods in June 1889 and May 1924 reached stages of 39.2 and 29.8 ft respectively, from floodmarks (discharges, about 290,000 and 168,000 cfs, respectively, from rating curve extended as explained above).

REMARKS.--Records good except those for periods of doubtful or no gage-height record, which are fair. Some regulation at low flow by powerplants above station, Stony River Reservoir (see station 01595200), and since December 1950 by Savage River Reservoir (see station 01597500).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1929(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,620	5,970	22,100	5,120	5,990	35,600	5,650	8,770	7,750	27,400	4,400	1,750
2	2,620	5,770	17,100	5,080	5,690	39,400	5,530	8,270	7,080	17,800	5,500	1,570
3	2,490	6,080	12,600	6,210	5,780	39,000	5,350	8,530	5,840	13,400	4,600	1,410
4	2,450	6,120	9,400	7,260	7,050	36,500	5,110	24,000	5,040	11,400	4,000	1,400
5	5,370	5,730	7,760	7,140	8,660	28,300	4,870	43,000	5,040	9,750	3,800	1,390
6	4,880	5,420	6,750	6,910	8,080	21,600	5,000	35,300	4,930	11,600	3,700	1,520
7	4,050	4,920	8,200	7,260	7,360	16,700	5,620	23,500	4,220	18,800	3,700	1,490
8	3,480	4,380	18,300	7,200	6,500	13,000	5,560	17,600	3,850	15,800	4,100	1,360
9	2,990	4,250	28,600	6,610	6,000	10,900	6,460	15,500	3,370	11,900	3,700	1,180
10	2,840	3,990	26,300	6,620	5,540	9,790	9,700	21,900	3,120	9,950	3,000	1,100
11	2,800	3,760	20,000	6,900	5,450	8,550	9,790	24,000	2,890	8,110	2,600	1,050
12	2,810	3,530	14,500	7,620	5,510	7,760	9,340	19,600	2,710	6,920	2,300	1,000
13	2,490	3,470	11,200	8,670	6,420	7,850	9,280	15,100	2,640	6,080	2,100	1,000
14	2,230	3,390	9,530	8,780	29,900	17,600	22,000	12,700	2,690	5,380	1,900	1,000
15	2,000	3,310	8,440	8,170	27,800	26,000	29,100	11,700	2,730	5,120	1,790	1,050
16	1,800	3,240	7,800	7,470	18,600	21,700	30,600	11,900	2,830	5,150	1,690	1,050
17	1,710	3,130	7,030	6,310	15,900	19,000	33,000	13,100	3,630	5,450	1,700	1,000
18	1,640	2,970	6,410	5,430	14,600	18,300	32,700	12,300	4,270	5,790	1,860	1,000
19	1,530	2,750	6,120	6,110	12,900	15,100	24,800	10,900	4,040	5,920	1,880	1,300
20	1,480	2,620	5,870	6,680	11,000	12,300	18,600	11,200	3,890	5,740	1,780	1,200
21	1,400	2,610	5,570	6,610	8,850	10,500	14,900	15,800	4,600	4,800	1,780	1,100
22	1,440	2,500	5,430	6,350	8,420	9,560	12,700	16,300	67,600	4,300	1,840	1,050
23	1,380	2,100	5,560	6,110	8,550	10,300	18,000	13,700	171,000	3,800	1,730	1,000
24	1,540	2,130	5,600	6,230	12,600	9,900	25,400	11,800	172,000	3,400	1,700	950
25	3,900	2,320	5,330	6,210	12,700	9,230	22,000	10,500	82,000	3,100	1,870	950
26	24,000	2,340	5,390	6,230	27,800	8,430	19,400	8,700	33,500	2,900	1,740	950
27	25,400	2,390	4,980	6,650	53,900	7,770	15,200	7,480	21,600	2,700	1,800	950
28	16,500	2,510	4,760	6,430	49,400	7,220	12,500	6,480	15,600	2,500	2,530	950
29	11,500	3,060	4,940	6,180	34,500	6,750	10,600	5,700	12,100	2,700	2,550	1,100
30	8,810	13,000	4,870	6,110	------	6,300	9,350	5,210	15,300	2,800	2,280	1,200
31	7,070	------	5,070	6,310	------	5,910	------	5,160	------	2,900	2,030	------
TOTAL	157,220	119,760	311,510	206,970	431,490	496,820	438,110	455,700	677,860	243,360	81,950	35,020
MEAN	5,072	3,992	10,050	6,676	14,880	16,030	14,600	14,700	22,600	7,850	2,644	1,167
MAX	25,400	13,000	28,600	8,780	53,900	39,400	33,000	43,000	172,000	27,400	5,500	1,750
MIN	1,380	2,100	4,760	5,080	5,450	5,910	4,870	5,160	2,640	2,500	1,690	950
CFSM	.85	.67	1.69	1.12	2.51	2.70	2.46	2.48	3.81	1.32	.45	.20
IN.	.99	.75	1.95	1.30	2.70	3.11	2.75	2.86	4.25	1.53	.51	.22

CAL YR 1971 TOTAL 2,821,127 MEAN 7,729 MAX 63,000 MIN 800 CFSM 1.30 IN 17.68
WTR YR 1972 TOTAL 3,655,770 MEAN 9,988 MAX 172,000 MIN 950 CFSM 1.68 IN 22.91

PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	1830	10.71	31,400	4-18	0315	11.43	34,800
12- 1	1030	8.88	23,200	4-24	0915	9.62	26,400
12- 9	1615	10.55	30,700	5- 5	1700	13.40	44,600
2-14	1945	12.35	39,300	5-11	0100	9.28	25,000
2-27	1700	15.70	57,100	6-23	2330	31.58	187,000
3-15	0545	9.68	26,700	7- 1	0630	10.52	30,500

NOTE.--Doubtful or no gage-height record July 21 to Sept. 30.

01619000 Antietam Creek near Waynesboro, Pa.

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., on right bank 100 ft upstream from highway bridge at Rocky Forge, 0.4 mile downstream from Pennsylvania-Maryland State line, 0.7 mile downstream from confluence of west and east branches, 1.9 miles northeast of Leitersburg, Md., 2.5 miles southwest of Waynesboro, Pa., and 36.6 miles upstream from mouth.

DRAINAGE AREA.--93.5 sq mi.

PERIOD OF RECORD.--May 1948 to September 1951, October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 550.64 ft above mean sea level (Corps of Engineers bench mark). May 1948 to September 1951, nonrecording gage and crest-stage gage 100 ft downstream at present datum.

AVERAGE DISCHARGE.--10 years (1948-51, 1965-72), 109 cfs (15.83 inches per year).

EXTREMES.--Current year: Maximum discharge, 5,430 cfs June 22 (gage height, 12.33 ft), from rating curve extended above 2,700 cfs; minimum, 34 cfs Oct. 7, 8, 20, Nov. 25 (gage height, 3.20 ft).
Period of record: Maximum discharge, 5,430 cfs June 22 (gage height, 12.33 ft), from rating curve extended above 2,700 cfs; minimum daily, 11 cfs Jan. 30, 1966.

REMARKS.--Records good. Occasional regulation from mills above station. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	82	133	54	60	450	145	174	151	336	100	61
2	42	103	106	120	76	499	160	170	133	295	98	61
3	45	82	94	230	111	585	139	236	127	295	98	59
4	41	72	89	160	170	416	136	343	130	281	98	61
5	42	64	82	150	116	356	127	296	145	373	93	59
6	40	62	106	130	98	296	125	253	116	318	88	57
7	38	64	436	110	98	270	133	236	114	258	128	56
8	36	59	436	96	89	245	127	221	106	224	113	56
9	36	57	331	106	85	214	119	283	103	212	88	56
10	89	57	278	133	80	202	116	257	103	200	84	54
11	59	56	240	116	82	188	116	210	96	200	82	54
12	44	54	195	116	85	181	111	199	94	181	80	56
13	41	53	174	114	556	178	394	192	101	174	82	56
14	39	52	154	133	412	221	287	214	119	174	80	56
15	39	50	145	111	287	199	436	206	98	160	75	54
16	38	50	136	92	249	199	381	199	103	167	73	54
17	38	49	125	82	214	240	356	181	98	153	82	53
18	38	49	116	106	202	195	283	174	92	150	86	53
19	38	49	108	106	225	181	261	164	98	140	75	53
20	36	49	108	103	178	170	245	450	89	134	73	51
21	36	49	103	103	167	167	217	339	300	131	69	51
22	36	49	96	98	167	258	314	287	3,060	125	67	53
23	36	46	84	98	151	217	274	245	3,590	119	67	51
24	74	46	76	98	151	188	274	217	1,640	116	65	50
25	202	62	72	92	157	178	240	195	980	110	65	51
26	167	59	70	85	331	174	221	178	673	108	64	50
27	80	57	68	82	249	167	206	164	525	106	75	57
28	68	62	66	80	240	160	195	154	442	106	78	90
29	59	151	62	78	326	154	184	148	433	103	67	59
30	56	221	60	76	------	151	178	142	424	100	64	62
31	59	------	58	66	------	142	------	184	------	103	61	------
TOTAL	1,731	2,015	4,407	3,324	5,412	7,441	6,500	6,911	14,283	5,652	2,518	1,694
MEAN	55.8	67.2	142	107	187	240	217	223	476	182	81.2	56.5
MAX	202	221	436	230	556	585	436	450	3,590	373	128	90
MIN	36	46	58	54	60	142	111	142	89	100	61	50
CFSM	.60	.72	1.52	1.14	2.00	2.57	2.32	2.39	5.09	1.95	.87	.60
IN.	.69	.80	1.75	1.32	2.15	2.96	2.59	2.75	5.68	2.25	1.00	.67

CAL YR 1971 TOTAL 43,173 MEAN 118 MAX 670 MIN 36 CFSM 1.26 IN 17.18
WTR YR 1972 TOTAL 61,888 MEAN 169 MAX 3,590 MIN 36 CFSM 1.81 IN 24.62

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-13	1800	5.76	1,020	6-22	2115	12.33	5,430

01619500 Antietam Creek near Sharpsburg, Md.

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, on left bank 400 ft downstream from Burnside Bridge, 1 mile southeast of Sharpsburg, and 4 miles upstream from mouth.

DRAINAGE AREA.--281 sq mi.

PERIOD OF RECORD.--June 1897 to September 1905. August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.00 ft above mean sea level, adjustment of 1912. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 miles upstream at datum about 12 feet higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge at present datum.

AVERAGE DISCHARGE.--49 years (1897-1903, 1904-5, 1930-1972), 262 cfs (12.66 inches per year), adjusted for inflow since 1930.

EXTREMES.--Current year: Maximum discharge, 9,880 cfs June 23 (gage height, 14.30 ft); minimum, 124 cfs Oct. 21, 22, 23 (gage height, 2.46 ft).
Period of record: Maximum discharge, 12,600 cfs July 20. 1956 (gage height, 16.73 ft); minimum, 9.4 cfs Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily, 37 cfs Jan. 30, 1966.

REMARKS.--Records good. Some diurnal fluctuation caused by powerplant above station. Since 1928, records include pumpage from Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek above station as sewage. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	276	557	267	260	1,140	458	555	574	968	351	210
2	138	325	443	365	261	1,230	498	546	477	858	353	208
3	150	312	397	476	295	1,440	463	611	449	863	381	206
4	139	276	368	355	533	1,200	440	945	467	836	333	211
5	140	254	346	361	394	1,010	428	966	504	896	326	205
6	138	239	352	356	355	878	411	793	439	919	311	200
7	133	238	777	329	350	805	419	731	416	805	320	197
8	129	230	1,140	317	326	750	434	698	393	711	384	194
9	129	221	898	317	310	680	405	851	380	669	316	191
10	201	216	766	393	303	642	389	883	375	635	293	184
11	230	212	680	378	297	604	383	748	361	611	284	183
12	169	208	602	366	295	585	376	694	351	584	279	184
13	149	203	548	358	677	591	633	663	352	566	276	186
14	143	197	504	386	1,340	625	913	660	398	554	276	185
15	137	192	478	374	788	658	749	679	373	527	268	195
16	134	191	457	300	692	604	961	662	366	533	258	181
17	132	188	428	290	615	697	973	639	476	527	264	175
18	130	185	403	338	576	635	813	604	363	489	284	172
19	131	182	381	337	627	586	732	578	371	471	269	180
20	129	181	377	333	565	557	697	867	348	454	252	173
21	127	179	368	332	519	543	656	984	777	440	243	170
22	126	176	346	321	533	617	748	790	5,540	429	239	172
23	126	174	327	315	500	707	831	715	8,520	414	235	168
24	138	174	321	329	492	597	801	654	5,540	401	232	164
25	998	198	316	312	505	566	736	613	2,750	392	226	165
26	839	206	307	290	926	549	679	572	1,920	375	230	166
27	436	207	303	279	945	530	642	539	1,520	367	247	164
28	339	220	299	284	830	515	610	512	1,260	368	278	190
29	295	365	287	280	905	499	586	495	1,150	359	237	201
30	268	751	283	273	------	490	564	481	1,140	351	221	190
31	254	------	276	267	------	474	------	569	------	350	213	------
TOTAL	6,864	7,176	14,335	10,278	16,014	22,004	18,428	21,297	38,350	17,722	8,679	5,570
MEAN	221	239	462	332	552	710	614	687	1,278	572	280	186
MAX	998	751	1,140	476	1,340	1,440	973	984	8,520	968	384	211
MIN	126	174	276	267	260	474	376	481	348	350	213	164
(†)	-12.1	-7.7	-6.9	-6.4	-7.1	-6.0	-5.4	-5.8	-8.6	-8.6	-12.6	-14.4
MEAN ‡	209	231	455	326	545	704	609	681	1,269	563	267	172
CFSM ‡	.74	.82	1.62	1.16	1.94	2.51	2.17	2.42	4.52	2.00	.95	.61
IN ‡	.85	.92	1.87	1.34	2.09	2.89	2.42	2.79	5.04	2.31	1.10	.68

CAL YR 1971 TOTAL 126,197 MEAN 346 MAX 1,630 MIN 125 MEAN‡ 338 CFSM‡ 1.20 IN‡ 16.29
WTR YR 1972 TOTAL 186,717 MEAN 510 MAX 8,520 MIN 126 MEAN‡ 502 CFSM‡ 1.79 IN‡ 24.36

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1845	7.38	2,850	3- 3	0400	5.43	1,550
2-14	0445	5.72	1,710	6-23	1400	14.30	9,880

† Pumpage, in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
‡ Adjusted for pumpage.

01636500 Shenandoah River at Millville, W. Va.

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

DRAINAGE AREA.--3,040 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft above mean sea level, adjustment of 1912. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mile downstream at datum 0.32 ft higher.

AVERAGE DISCHARGE.--57 years (1895-1908, 1928-72), 2,615 cfs (11.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 103,000 cfs June 23 (gage height, 21.89 ft); minimum, 710 cfs Jan. 18, Aug. 31, Sept. 5; minimum gage height, 1.65 ft Aug. 31, Sept. 5; minimum daily discharge, 919 cfs Sept. 22.
Period of record: Maximum discharge, 230,000 cfs Oct. 16, 1942 (gage height, 32.4 ft, from floodmarks); minimum, about 59 cfs Oct. 4, 1930 (gage height, 0.39 ft); minimum daily, 194 cfs July 24, 1930.
Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft (discharge, 151,000 cfs).

REMARKS.--Records good. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mile upstream from station.

REVISIONS (WATER YEARS).--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-2, 1905, 1907-8, 1932(M), 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,200	3,950	3,880	1,350	1,310	9,800	2,370	3,310	2,690	16,500	6,210	1,320
2	1,200	3,510	4,160	1,360	1,310	8,480	2,330	3,110	2,730	10,400	5,550	1,160
3	3,990	3,170	3,420	1,390	1,370	8,410	2,240	2,980	2,740	8,170	4,290	1,190
4	6,480	2,910	2,920	1,420	1,720	7,820	2,170	3,400	2,470	6,520	3,840	1,280
5	5,340	2,700	2,580	1,460	2,270	6,880	2,070	7,170	2,350	5,590	3,670	1,070
6	3,970	2,560	2,370	1,490	2,890	5,890	2,000	8,910	2,360	5,980	3,080	1,230
7	3,150	2,320	2,490	1,480	2,660	5,080	1,970	6,650	2,130	9,280	3,140	1,370
8	2,520	2,180	3,020	1,460	2,390	4,480	2,050	5,480	2,020	7,600	2,850	1,220
9	2,130	2,050	3,520	1,420	2,160	4,020	2,190	5,150	1,770	6,140	2,490	1,130
10	2,050	1,940	4,620	1,380	2,010	3,640	2,530	5,640	1,700	5,170	2,310	1,130
11	2,150	1,850	4,390	1,600	1,860	3,310	2,950	5,650	1,610	4,460	2,130	1,080
12	2,210	1,660	3,750	1,620	1,790	3,090	2,720	5,000	1,520	3,930	2,000	1,050
13	2,180	1,770	3,280	1,620	3,100	3,060	2,820	4,420	1,430	3,620	2,010	1,070
14	1,880	1,730	2,900	1,600	14,500	2,980	4,220	4,020	1,460	3,950	1,970	1,050
15	1,620	1,690	2,610	1,560	16,200	3,080	4,640	3,770	1,450	5,070	1,910	1,080
16	1,560	1,670	2,410	1,490	9,440	3,060	4,140	3,680	1,400	4,240	1,830	1,020
17	1,490	1,550	2,240	1,380	7,080	3,190	5,590	3,970	1,510	4,260	1,870	1,060
18	1,420	1,430	2,130	1,200	6,190	3,420	5,540	4,000	1,440	4,240	1,690	982
19	1,300	1,540	1,980	1,410	5,800	3,410	4,620	3,880	1,400	4,350	1,740	1,020
20	1,350	1,450	1,910	1,380	5,100	3,150	4,120	4,660	1,490	3,430	1,730	982
21	1,380	1,400	1,870	1,410	4,500	2,880	3,750	7,520	2,330	3,000	1,730	946
22	1,240	1,350	1,750	1,400	4,050	2,720	3,870	7,260	37,600	2,820	1,660	919
23	1,220	1,350	1,720	1,370	4,090	3,060	7,270	6,820	97,300	2,640	1,720	991
24	1,890	1,300	1,710	1,360	4,380	3,210	7,940	6,520	57,200	2,460	1,490	1,010
25	10,600	1,500	1,560	1,420	5,010	3,370	7,340	6,550	22,300	2,370	1,450	946
26	20,300	1,390	1,550	1,400	10,400	3,250	6,310	5,130	13,900	2,310	1,470	1,010
27	17,400	1,400	1,530	1,370	17,600	3,110	5,370	4,150	9,830	2,130	1,430	928
28	10,300	1,470	1,510	1,370	16,600	2,970	4,640	3,520	7,580	2,050	1,690	973
29	7,310	1,730	1,470	1,300	12,200	2,790	4,080	3,070	8,120	1,960	1,480	982
30	5,630	3,210	1,430	1,310	------	2,630	3,640	2,770	17,500	1,960	1,420	1,050
31	4,600	------	1,370	1,340	------	2,510	------	2,690	------	2,490	1,280	------
TOTAL	131,060	59,730	78,050	44,120	169,980	128,750	117,490	150,850	311,330	149,090	73,130	32,249
MEAN	4,228	1,991	2,518	1,423	5,861	4,153	3,916	4,866	10,380	4,809	2,359	1,075
MAX	20,300	3,950	4,620	1,620	17,600	9,800	7,940	8,910	97,300	16,500	6,210	1,370
MIN	1,200	1,300	1,370	1,200	1,310	2,510	1,970	2,690	1,400	1,960	1,280	919
CFSM	1.39	.65	.83	.47	1.93	1.37	1.29	1.60	3.41	1.58	.78	.35
IN.	1.60	.73	.96	.54	2.08	1.58	1.44	1.85	3.81	1.82	.89	.39

CAL YR 1971 TOTAL 1,205,633 MEAN 3,303 MAX 50,700 MIN 719 CFSM 1.09 IN 14.75
WTR YR 1972 TOTAL 1,445,829 MEAN 3,950 MAX 97,300 MIN 919 CFSM 1.30 IN 17.69

PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	0400	10.12	21,500	6-23	1200	21.89	103,000
2-15	0145	9.89	20,600	6-30	1630	10.13	21,600
2-27	2215	9.53	19,100				

01637500 Catoctin Creek near Middletown, Md.

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, on right bank 300 ft downstream from bridge on State Highway 17, 1.3 miles south of Middletown, 2.2 miles downstream from Little Catoctin Creek, and 14.8 miles upstream from mouth.

DRAINAGE AREA.--66.9 sq mi.

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 71.0 cfs (14.41 inches per year).

EXTREMES.--Current year: Maximum discharge, 11,200 cfs June 22 (gage height, 12.28 ft), from rating curve extended as explained below; minimum daily, 4.5 cfs Sept. 10, 11, 25, 28.
Period of record: Maximum discharge, 11,200 cfs June 22, 1972 (gage height, 12.28 ft), from rating curve extended above 1,500 cfs on basis of slope-area measurement at gage height 11.18 ft; no flow Aug. 27 to Sept. 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: 1947-48.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	103	271	42	48	600	97	133	156	208	33	8.0
2	17	121	198	105	50	572	119	129	107	170	28	7.5
3	25	102	159	100	86	706	92	165	89	213	30	8.0
4	19	88	139	75	228	453	85	399	90	189	28	8.0
5	16	76	117	97	140	363	79	317	136	272	28	9.0
6	15	70	128	85	160	276	74	252	91	195	24	8.5
7	14	71	447	78	130	242	77	219	79	160	28	7.2
8	12	62	431	74	100	205	82	198	67	130	30	6.5
9	12	56	345	81	110	170	77	334	60	100	22	6.0
10	103	53	291	134	95	153	71	307	54	90	20	5.5
11	75	49	237	113	100	134	68	254	46	80	18	5.5
12	45	46	191	109	78	128	63	222	41	85	18	6.5
13	35	43	166	106	774	129	538	193	39	75	18	7.5
14	31	40	143	113	567	160	480	211	49	65	18	7.5
15	27	38	130	96	375	148	447	190	41	60	15	7.5
16	24	37	119	55	292	149	401	166	41	110	14	9.0
17	23	35	107	65	235	232	545	159	68	120	16	7.5
18	22	33	96	90	206	186	369	142	74	73	22	7.5
19	20	33	85	87	276	166	294	129	78	64	18	7.5
20	18	34	86	78	224	149	247	430	53	58	14	7.5
21	17	32	80	76	215	138	199	341	1,260	50	13	6.5
22	17	31	70	71	183	263	354	278	4,320	44	12	7.5
23	17	28	62	71	153	235	314	228	2,570	42	12	7.5
24	62	29	63	81	148	196	343	190	1,100	39	10	6.5
25	994	55	60	69	167	173	267	162	685	36	10	5.5
26	433	53	58	56	540	156	228	140	462	33	9.5	6.5
27	213	57	55	50	443	141	197	125	327	31	10	6.5
28	152	69	53	50	402	128	173	113	277	34	15	5.5
29	114	440	49	55	514	117	155	104	403	33	13	7.0
30	94	438	49	50	------	109	141	97	303	33	10	15
31	92	------	47	46	------	100	------	167	------	34	9.0	------
TOTAL	2,773	2,422	4,532	2,458	7,039	7,077	6,676	6,494	13,166	2,926	565.5	221.7
MEAN	89.5	80.7	146	79.3	243	228	223	209	439	94.4	18.2	7.39
MAX	994	440	447	134	774	706	545	430	4,320	272	33	15
MIN	12	28	47	42	48	100	63	97	39	31	9.0	5.5
CFSM	1.34	1.21	2.18	1.19	3.63	3.41	3.33	3.12	6.56	1.41	.27	.11
IN.	1.54	1.35	2.52	1.37	3.91	3.94	3.71	3.61	7.32	1.63	.31	.12

CAL YR 1971 TOTAL 34,024.1 MEAN 93.2 MAX 994 MIN 4.8 CFSM 1.39 IN 18.92
WTR YR 1972 TOTAL 56,350.2 MEAN 154 MAX 4,320 MIN 5.5 CFSM 2.30 IN 31.33

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1600	7.49	3,090	2- 3	1730	4.54	1,460
11-29	1730	4.15	1,270	6-22	0230	12.28	11,200

01638500 Potomac River at Point of Rocks, Md.

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

DRAINAGE AREA.--9,651 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 200.54 ft above mean sea level, adjustment of 1912. Prior to October 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.

AVERAGE DISCHARGE.--77 years, 9,167 cfs (12.90 inches per year).

EXTREMES.--Current year: Maximum discharge, 347,000 cfs June 23 (gage height, 37.43 ft); minimum, 2,130 cfs Sept. 26, 28 (gage height, 1.14 ft).
Period of record: Maximum discharge, 480,000 cfs Mar. 19, 1936 (gage height, 41.03 ft), from rating curve extended above 300,000 cfs on basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum, 530 cfs Sept. 11, 12, 1966 (gage height, 0.27 ft).
Flood of June 2, 1889, reached a stage of 40.2 ft from floodmarks (discharge, about 460,000 cfs, from rating curve extended as explained above).

REMARKS.--Records good. Low flow affected slightly since 1913 by Stony River Reservoir (see station 01595200) and since December 1950 by Savage River Reservoir (see station 01597500). Low flow affected extensively at times by run-of-the-river hydroelectric plants. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1932: 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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,410	11,900	27,600	4,990	7,520	48,900	9,940	14,700	12,400	47,600	8,370	3,520
2	4,270	10,900	25,700	5,350	7,030	52,000	9,890	13,800	12,400	34,700	10,600	3,150
3	5,280	10,700	19,300	6,940	7,330	52,500	9,460	13,500	11,200	25,700	10,300	2,960
4	9,980	10,500	14,900	9,480	9,480	49,200	9,090	23,100	9,700	22,000	9,040	2,990
5	10,800	9,780	12,600	9,790	12,500	41,500	8,650	48,900	9,340	18,900	8,500	2,930
6	10,700	9,330	11,100	9,400	11,700	33,000	8,410	50,000	9,270	19,500	7,400	2,820
7	8,680	8,600	12,700	9,510	10,900	26,600	9,200	35,100	8,370	27,400	7,090	3,100
8	7,250	7,580	21,000	9,530	9,960	21,500	9,360	26,700	7,430	28,000	7,700	3,000
9	6,170	7,040	31,600	8,770	8,760	17,800	9,860	23,700	6,720	21,700	6,990	2,700
10	6,730	6,520	33,200	8,680	7,820	16,100	13,100	27,900	6,110	17,900	6,250	2,500
11	6,290	6,060	28,900	9,030	7,250	14,600	14,700	32,400	5,720	15,700	5,400	2,470
12	6,090	5,470	22,600	9,550	7,140	13,400	14,100	28,400	5,280	15,100	5,010	2,430
13	5,800	5,520	17,300	11,000	12,000	13,100	15,400	22,800	5,070	12,700	4,780	2,460
14	5,110	5,200	14,600	11,500	38,900	18,400	24,400	19,500	5,190	11,300	4,650	2,410
15	4,420	5,020	12,900	10,600	50,000	30,400	36,300	17,900	5,170	12,100	4,400	2,540
16	3,920	4,860	12,000	9,500	32,500	28,700	36,800	17,400	5,180	11,400	4,130	2,410
17	3,700	4,590	11,000	8,000	26,000	25,700	42,200	18,900	5,820	11,500	4,140	2,390
18	3,490	4,340	9,780	6,830	23,500	24,900	42,500	18,700	6,930	10,900	4,060	2,390
19	3,230	4,300	8,850	7,020	21,700	21,900	34,700	17,100	6,790	11,800	4,190	2,370
20	3,100	4,070	8,240	8,180	18,800	18,500	27,300	18,000	6,690	10,300	4,060	2,410
21	3,310	3,970	7,740	8,210	16,100	16,000	22,000	24,300	12,100	9,090	3,970	2,540
22	2,990	3,880	7,260	7,650	14,900	15,200	20,400	26,600	108,000	7,970	3,970	2,410
23	2,890	3,710	7,040	7,270	14,700	15,600	25,300	23,800	296,000	7,410	4,030	2,340
24	3,540	3,780	7,030	7,440	17,700	15,700	35,200	20,700	296,000	6,880	3,720	2,320
25	19,200	4,390	6,700	7,410	19,500	15,100	33,400	19,800	157,000	6,500	3,610	2,270
26	41,900	4,290	6,170	7,220	33,500	14,200	29,400	16,500	60,300	6,090	3,650	2,160
27	48,700	4,250	5,990	7,940	70,200	13,300	24,400	14,800	40,200	5,680	3,640	2,250
28	33,800	4,470	5,870	8,010	73,100	12,500	20,200	12,700	30,600	5,390	4,380	2,160
29	23,400	6,550	5,720	7,480	53,500	11,700	17,400	11,200	26,200	5,170	4,830	2,250
30	17,300	14,500	5,490	7,410	------	11,100	15,600	10,100	34,900	5,140	4,200	2,340
31	14,100	------	5,280	7,480	------	10,400	------	10,200	------	5,470	3,910	------
TOTAL	330,550	196,070	426,160	257,170	643,990	719,500	628,660	679,200	1,212.1M	456,990	170,970	76,990
MEAN	10,660	6,536	13,750	8,296	22,210	23,210	20,960	21,910	40,400	14,740	5,515	2,566
MAX	48,700	14,500	33,200	11,500	73,100	52,500	42,500	50,000	296,000	47,600	10,600	3,520
MIN	2,890	3,710	5,280	4,990	7,030	10,400	8,410	10,100	5,070	5,140	3,610	2,160
CFSM	1.10	.68	1.42	.86	2.30	2.40	2.17	2.27	4.19	1.53	.57	.27
IN.	1.27	.76	1.64	.99	2.48	2.77	2.42	2.62	4.67	1.76	.66	.30

CAL YR 1971 TOTAL 4,365,010 MEAN 11,960 MAX 83,200 MIN 1,810 CFSM 1.24 IN 16.83
WTR YR 1972 TOTAL 5,798,330 MEAN 15,840 MAX 296,000 MIN 2,160 CFSM 1.64 IN 22.35

PEAK DISCHARGE (BASE, 35,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-27	0200	11.29	52,400	4-24	1530	8.70	36,700
12-10	0300	8.50	35,500	5- 6	0030	11.84	56,000
2-15	0230	12.36	59,500	6-23	2330	37.43	347,000
2-27	2330	15.06	79,500	7- 1	1130	11.00	50,500
4-18	0230	9.94	44,100				

01639000 Monocacy River at Bridgeport, Md.

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, on right bank 60 ft downstream from bridge on State Highway 97 at Bridgeport, 0.9 mile upstream from Cattail Branch, 3.4 miles northwest of Taneytown, 4.8 miles downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 miles (revised) upstream from mouth.

DRAINAGE AREA.--173 sq mi.

PERIOD OF RECORD.--May 1942 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft above mean sea level (Corps of Engineers bench mark). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mile downstream at datum 0.98 ft lower.

AVERAGE DISCHARGE.--30 years, 194 cfs (15.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 21,300 cfs June 22 (gage height, 24.05 ft), from rating curve extended as explained below; minimum, 7.1 cfs Sept. 12 13 (gage height, 1.97 ft).
Period of record: Maximum discharge, 21,300 cfs June 22, 1972 (gage height, 24.05 ft), from rating curve extended above 7,000 cfs on basis of slope-conveyance study; no flow July 24-29, 1966.
Flood of Aug. 24, 1933, reached a stage of about 25 ft, present site and datum, from floodmarks; stage exceeded that of June 1889, from information by local residents.

REMARKS.--Records good. Occasional regulation at low flow from unknown source above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1382: 1944(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	1,060	1,070	64	60	2,650	117	143	410	253	33	13
2	26	1,010	430	716	70	2,100	172	132	128	187	32	12
3	28	479	292	621	240	2,260	141	224	91	160	29	12
4	31	313	220	244	2,540	766	116	2,130	344	297	75	11
5	25	183	210	456	420	517	115	873	392	332	44	11
6	25	148	316	290	220	321	99	327	109	349	31	10
7	21	134	2,990	179	180	278	95	235	87	375	29	9.9
8	17	115	1,860	152	120	250	123	196	66	203	168	9.7
9	16	94	846	140	100	192	126	896	52	162	48	9.1
10	494	87	580	662	90	176	100	1,040	45	135	31	8.1
11	384	84	497	439	85	156	91	337	43	127	24	7.9
12	133	75	311	352	80	153	89	225	36	102	22	7.5
13	81	68	257	250	2,000	151	1,560	183	36	254	23	7.3
14	64	64	210	376	1,670	271	861	192	69	141	44	9.8
15	54	57	199	234	647	611	1,770	248	71	93	30	11
16	45	56	194	103	572	324	1,250	238	49	80	22	8.4
17	39	54	166	99	364	1,350	2,010	181	52	143	23	8.6
18	36	50	144	100	277	421	483	258	46	291	41	31
19	33	49	118	119	300	265	314	183	63	116	38	53
20	29	50	116	119	220	210	253	982	53	79	26	18
21	27	50	121	125	240	190	218	489	727	64	21	13
22	26	48	105	131	240	1,230	905	265	16,700	55	18	11
23	24	43	83	144	220	831	924	197	8,220	49	17	8.8
24	24	40	85	193	200	319	759	154	1,450	43	16	9.0
25	1,320	935	90	191	200	233	393	126	780	38	15	9.3
26	1,830	1,320	82	137	1,050	206	273	104	495	34	34	8.6
27	364	748	80	85	1,240	178	216	89	327	31	22	10
28	223	805	76	75	933	158	183	78	247	32	27	12
29	169	2,680	69	75	2,220	141	164	70	232	34	26	9.9
30	137	3,600	66	75	------	136	147	66	544	31	19	14
31	201	------	73	70	------	126	------	134	------	31	16	------
TOTAL	5,954	14,499	11,956	7,016	16,798	17,170	14,067	10,995	31,964	4,321	1,044	373.9
MEAN	192	483	386	226	579	554	469	355	1,065	139	33.7	12.5
MAX	1,830	3,600	2,990	716	2,540	2,650	2,010	2,130	16,700	375	168	53
MIN	16	40	66	64	60	126	89	66	36	31	15	7.3
CFSM	1.11	2.79	2.23	1.31	3.35	3.20	2.71	2.05	6.16	.80	.19	.07
IN.	1.28	3.12	2.57	1.51	3.61	3.69	3.02	2.36	6.87	.93	.22	.08

CAL YR 1971 TOTAL 93,040.0 MEAN 255 MAX 3,600 MIN 6.9 CFSM 1.47 IN 20.01
WTR YR 1972 TOTAL 136,157.9 MEAN 372 MAX 16,700 MIN 7.3 CFSM 2.15 IN 29.28

PEAK DISCHARGE (BASE, 4,800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-30	0100	13.14	7,800	2-29	2300	10.26	4,830
2- 4	0400	10.39	4,950	6-22	1600	24.05	21,300
2-13	2030	10.65	5,200				

01639500 Big Pipe Creek at Bruceville, Md.

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, on left bank 300 ft downstream from bridge on State Highway 194, 800 ft downstream from Bruceville, 3.5 miles upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 sq mi.

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. Altitude of gage is 340 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 103 cfs (13.71 inches per year).

EXTREMES.--Current year: Maximum discharge, 22,800 cfs June 22 (gage height, 17.86 ft), from rating curve extended as explained below; minimum, 32 cfs Sept. 27.
Period of record: Maximum discharge, 22,800 cfs June 22, 1972 (gage height, 17.86 ft), from rating curve extended above 3,500 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 1.0 cfs Sept. 12, 1966.

REMARKS.--Records good. Occasional diversion for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	169	370	83	80	507	128	153	311	348	123	55
2	73	182	251	244	85	492	147	144	122	312	107	55
3	85	244	208	173	242	442	124	179	105	318	106	55
4	63	161	190	130	592	275	124	275	109	292	106	54
5	61	127	169	196	160	250	117	200	117	451	105	53
6	58	116	203	143	160	204	112	153	95	317	90	51
7	51	113	610	122	151	199	117	140	96	274	99	48
8	48	100	389	113	130	182	129	137	84	248	115	46
9	47	94	264	129	120	160	119	277	80	235	89	46
10	476	94	231	239	120	157	107	232	78	220	77	43
11	190	90	208	166	100	146	106	165	74	204	73	41
12	116	84	180	160	100	149	102	146	72	194	73	43
13	95	82	167	143	594	147	643	134	76	303	182	50
14	86	77	153	144	359	182	281	141	125	215	111	46
15	77	76	151	120	227	185	406	146	90	184	91	57
16	71	74	145	80	202	168	332	141	83	360	81	46
17	69	71	132	100	173	403	500	133	83	621	119	42
18	66	70	123	110	163	211	251	150	83	325	133	42
19	62	69	114	112	248	176	215	176	85	213	99	50
20	59	74	122	110	193	159	198	324	76	188	85	42
21	58	70	118	109	206	154	177	182	794	172	76	40
22	57	65	106	107	190	394	411	151	14,400	160	73	43
23	57	60	96	115	163	280	299	130	4,630	149	69	39
24	62	62	104	128	163	201	317	115	1,400	140	66	36
25	639	655	102	107	163	180	224	107	930	132	63	38
26	453	381	99	88	479	169	197	97	616	122	129	38
27	174	276	98	83	364	157	179	94	493	120	75	36
28	138	304	96	90	369	149	165	91	421	130	108	102
29	117	1,190	89	87	444	141	157	89	494	123	72	48
30	106	1,090	92	87	------	136	151	89	507	121	63	82
31	134	------	92	84	------	132	------	177	------	126	57	------
TOTAL	3,907	6,320	5,472	3,902	6,740	6,887	6,535	4,868	26,729	7,317	2,915	1,467
MEAN	126	211	177	126	232	222	218	157	891	236	94.0	48.9
MAX	639	1,190	610	244	594	507	643	324	14,400	621	182	102
MIN	47	60	89	80	80	132	102	89	72	120	57	36
CFSM	1.24	2.07	1.74	1.24	2.27	2.18	2.14	1.54	8.74	2.31	.92	.48
IN.	1.42	2.30	2.00	1.42	2.46	2.51	2.38	1.78	9.75	2.67	1.06	.54

CAL YR 1971 TOTAL 50,278 MEAN 138 MAX 1,610 MIN 22 CFSM 1.35 IN 18.34
WTR YR 1972 TOTAL 83,059 MEAN 227 MAX 14,400 MIN 36 CFSM 2.23 IN 30.29

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	2030	5.32	1,690	6-22	0830	17.86	22,800
11-29	1930	8.01	3,460				

01640500 Owens Creek at Lantz, Md.

LOCATION.--Lat 39°40'36", long 77°27'50", Frederick County, on right bank 0.5 mile west of Lantz Post Office (Deerfield station on Western Maryland Railway), 1.5 miles south of Sabillasville, 4.5 miles northwest of Thurmont, and 14.2 miles upstream from mouth.

DRAINAGE AREA.--5.93 sq mi.

PERIOD OF RECORD.--October 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 965 ft (from topographic map).

AVERAGE DISCHARGE.--41 years, 8.78 cfs (20.11 inches per year), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 940 cfs June 22 (gage height, 5.14 ft); minimum daily, 0.92 cfs Sept. 23.
Period of record: Maximum discharge, 3,270 cfs Dec. 1, 1934 (gage height, 8.4 ft), from rating curve extended above 750 cfs on basis of slope-area measurements at gage heights 5.11 and 6.30 ft; no flow Sept. 2-11, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 921: 1932(M). WSP 1202: 1935(M). WSP 1382: Drainage area. WSP 1432: 1937(M), 1943(M), 1949(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	13	14	5.8	6.0	73	13	16	13	28	4.6	1.4
2	4.9	14	11	19	5.6	75	15	15	11	23	3.8	1.4
3	3.8	12	10	12	17	70	12	21	9.7	23	4.0	1.4
4	2.6	10	9.0	10	18	45	12	40	11	21	3.8	1.5
5	3.3	9.0	8.7	13	12	38	11	29	9.8	38	3.6	1.4
6	2.2	8.3	16	9.7	11	30	9.9	24	8.8	29	3.2	1.2
7	1.8	9.1	82	9.0	10	28	11	21	7.9	22	4.3	1.1
8	1.5	7.7	59	8.4	8.0	24	11	20	6.8	19	3.5	1.1
9	1.5	7.1	45	13	8.0	21	11	34	6.4	17	2.9	1.0
10	15	6.9	38	16	8.0	19	10	26	6.4	15	2.6	.99
11	5.8	6.5	29	13	7.5	17	9.7	22	5.7	14	2.5	.98
12	3.3	6.1	23	12	7.5	17	9.0	20	5.4	13	2.9	1.0
13	2.7	5.8	20	12	83	18	44	19	6.8	12	3.1	1.1
14	2.5	5.4	18	14	47	26	27	20	9.0	11	2.6	1.3
15	2.2	5.4	17	11	40	21	36	19	6.0	9.7	2.3	1.4
16	2.2	5.1	15	9.0	34	24	32	18	6.8	9.3	2.2	1.0
17	2.2	4.8	13	9.0	28	29	35	16	6.6	8.9	3.1	.94
18	2.2	4.7	12	10	25	22	26	15	5.6	8.2	3.0	1.0
19	2.0	4.9	11	9.7	22	20	23	15	5.5	7.6	2.4	1.1
20	1.9	4.8	11	9.0	22	18	21	66	5.2	7.0	2.2	.95
21	2.0	4.7	10	9.0	20	17	19	37	150	6.4	2.0	1.0
22	1.9	4.3	9.0	8.4	19	31	33	29	482	5.8	1.9	1.2
23	2.0	3.9	8.4	8.7	17	22	26	24	251	5.5	1.8	.92
24	23	3.6	8.4	9.4	18	19	37	20	105	5.0	1.7	.93
25	71	5.9	7.9	7.6	17	18	27	18	72	4.5	1.7	1.0
26	34	5.6	7.9	6.8	34	16	23	16	52	4.1	1.7	.94
27	18	5.8	7.3	6.5	23	16	21	15	40	4.4	2.2	1.1
28	13	6.3	7.0	6.5	24	15	19	14	35	4.6	2.2	1.7
29	11	27	6.5	6.0	54	14	18	13	47	4.5	1.7	.97
30	9.7	23	7.0	6.0	------	13	17	12	39	4.5	1.5	1.7
31	11	------	6.2	6.0	------	12	------	22	------	4.9	1.4	------
TOTAL	261.9	240.7	546.8	305.5	645.6	828	618.6	696	1,426.4	389.9	82.4	34.72
MEAN	8.45	8.02	17.6	9.85	22.3	26.7	20.6	22.5	47.5	12.6	2.66	1.16
MAX	71	27	82	19	83	75	44	66	482	38	4.6	1.7
MIN	1.5	3.6	6.2	5.8	5.6	12	9.0	12	5.2	4.1	1.4	.92
CFSM	1.43	1.35	2.97	1.66	3.76	4.50	3.47	3.79	8.01	2.12	.45	.20
IN.	1.64	1.51	3.43	1.92	4.05	5.19	3.88	4.37	8.95	2.45	.52	.22

CAL YR 1971 TOTAL 3,934.89 MEAN 10.8 MAX 82 MIN .59 CFSM 1.82 IN 24.68
WTR YR 1972 TOTAL 6,076.52 MEAN 16.6 MAX 482 MIN .92 CFSM 2.80 IN 38.12

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1715	2.99	150	6-22	0200	5.14	940
2-13	1145	3.11	174				

01641000 Hunting Creek at Jimtown, Md.

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, on right bank just downstream from highway bridge, 0.4 mile southwest of Jimtown, about 2.2 miles southeast of Thurmont, 2.2 miles upstream from Little Hunting Creek, and 5.2 miles upstream from mouth.

DRAINAGE AREA.--18.4 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 355 ft (from topographic map)

AVERAGE DISCHARGE.--23 years, 23.9 cfs (17.64 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,330 cfs June 22 (gage height, 5.26 ft); minimum, 2.4 cfs Sept. 24 (gage height, 1.55 ft).
Period of record: Maximum discharge, 1,330 cfs June 22, 1972 (gage height, 5.26 ft), from rating curve extended above 500 cfs; minimum, 0.4 cfs Sept. 9, 1966 (gage height, 1.48 ft).

REMARKS.--Records good. 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.

REVISIONS (WATER YEARS).--WSP 1332: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	26	56	18	18	156	40	46	59	58	13	3.9
2	7.5	36	40	55	19	159	49	45	38	47	11	3.7
3	6.8	36	32	47	76	174	38	56	31	68	11	3.7
4	5.6	29	28	33	98	139	35	157	33	65	8.7	4.4
5	5.6	25	25	41	48	114	33	95	29	102	7.9	4.0
6	5.6	22	40	32	40	89	31	71	26	77	7.6	3.6
7	5.0	22	152	28	36	74	34	62	24	60	9.4	3.4
8	5.0	21	151	26	28	68	35	58	20	50	8.3	3.4
9	5.0	20	132	44	26	56	32	103	19	45	7.7	3.4
10	37	20	114	61	26	51	30	87	18	40	7.1	3.2
11	12	20	94	46	25	47	29	67	17	35	7.1	3.2
12	6.8	19	72	41	24	46	27	60	16	33	7.3	3.2
13	6.2	19	61	37	191	47	119	54	20	31	7.6	3.2
14	5.6	18	53	37	173	74	88	60	20	29	7.4	3.2
15	5.0	17	49	32	130	66	105	56	17	26	6.7	3.2
16	5.0	17	45	24	103	72	99	50	19	41	6.7	3.0
17	5.0	15	40	34	79	97	103	53	20	31	8.5	3.0
18	5.6	12	36	34	68	68	75	51	18	26	7.7	3.0
19	6.8	12	33	28	86	58	66	47	17	23	6.7	3.0
20	6.8	12	34	27	65	52	61	199	16	20	6.0	2.8
21	6.8	12	32	26	60	49	53	132	293	20	5.7	2.8
22	6.8	13	28	25	55	100	99	102	1,100	18	5.4	3.2
23	6.8	12	25	26	48	83	88	75	700	17	4.9	2.8
24	32	12	25	32	47	63	108	62	320	17	4.6	2.9
25	210	57	24	27	51	56	86	54	110	16	4.6	2.8
26	139	32	23	22	136	51	70	47	68	15	4.4	2.8
27	73	30	22	20	99	48	62	42	136	15	6.1	3.6
28	52	30	21	21	94	45	56	39	91	15	5.7	4.0
29	20	128	20	20	122	42	51	35	86	14	4.6	3.6
30	17	96	20	20	------	40	48	33	89	14	4.1	5.1
31	25	------	18	19	------	37	------	81	------	14	4.1	------
TOTAL	740.8	840	1,545	983	2,071	2,321	1,850	2,179	3,470	1,082	217.6	101.0
MEAN	23.9	28.0	49.8	31.7	71.4	74.9	61.7	70.3	116	34.9	7.02	3.37
MAX	210	128	152	61	191	174	119	199	1,100	102	13	5.1
MIN	4.5	12	18	18	18	37	27	33	16	14	4.1	2.8
CFSM	1.30	1.52	2.71	1.72	3.88	4.07	3.35	3.82	6.30	1.90	.38	.18
IN.	1.50	1.70	3.12	1.99	4.19	4.69	3.74	4.41	7.02	2.19	.44	.20

CAL YR 1971 TOTAL 10,864.5 MEAN 29.8 MAX 220 MIN 2.5 CFSM 1.62 IN 21.97
WTR YR 1972 TOTAL 17,400.4 MEAN 47.5 MAX 1,100 MIN 2.8 CFSM 2.58 IN 35.18

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1830	3.29	466	5- 4	0330	3.02	362
11-29	1700	3.42	518	6-22	0330	5.26	1,330

01641500 Fishing Creek near Lewistown, Md.

LOCATION.--Lat 39°31'35", long 77°28'00", Frederick County, on left bank immediately upstream from Fishing Creek Reservoir, 50 ft downstream from Little Fishing Creek, 2.8 miles west of Lewistown, and 9.9 miles upstream from mouth.

DRAINAGE AREA.--7.29 sq mi.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 735 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 10.7 cfs (19.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 610 cfs June 21 (gage height, 4.01 ft), from rating curve extended as explained below; minimum, 2.0 cfs Sept. 26, 27, 28, 29.
Period of record: Maximum discharge, 610 cfs June 21, 1972 (gage height, 4.01 ft), from rating curve extended above 100 cfs on basis of slope-area measurement at gage height 3.73 ft; minimum, 0.6 cfs Sept. 10, 11, 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	18	17	9.8	8.8	52	18	24	26	31	7.5	3.1
2	5.5	18	16	15	8.8	60	18	21	21	28	6.9	2.9
3	4.6	18	15	12	15	63	16	27	19	30	7.1	2.9
4	3.4	16	15	11	17	53	15	51	20	27	6.8	3.1
5	4.0	15	14	12	13	47	14	46	21	32	6.4	3.1
6	3.2	15	17	11	13	40	14	39	18	29	6.0	2.7
7	2.9	14	43	11	13	35	14	37	17	27	7.3	2.7
8	2.6	13	51	10	12	31	13	32	15	26	6.1	2.7
9	2.6	12	50	12	12	27	13	44	15	24	5.5	2.7
10	12	12	44	14	12	25	12	39	14	22	5.1	2.5
11	8.0	11	39	12	11	23	12	36	13	21	4.9	2.5
12	4.5	10	34	13	11	22	12	33	12	20	4.8	2.5
13	3.8	10	30	13	43	21	40	30	14	19	4.9	2.5
14	3.4	9.5	27	13	48	24	38	33	13	17	4.8	2.5
15	3.0	9.5	25	12	46	21	42	36	12	16	4.6	2.5
16	3.0	9.0	23	12	38	22	43	30	12	20	4.3	2.3
17	3.0	8.5	22	12	34	25	56	26	11	17	4.8	2.3
18	3.0	8.5	20	12	30	22	46	25	11	15	4.8	2.3
19	2.8	8.8	18	12	31	22	37	24	11	13	4.3	2.3
20	2.6	8.8	18	12	28	22	31	52	10	13	4.0	2.3
21	2.6	8.5	17	12	26	21	27	48	114	12	3.8	2.3
22	2.5	8.0	15	11	22	29	43	46	299	11	3.8	2.7
23	2.5	7.4	14	12	19	25	39	40	221	10	3.8	2.3
24	12	7.6	13	12	22	24	38	36	117	9.5	3.8	2.3
25	52	9.7	13	11	22	23	37	31	80	9.1	3.8	2.3
26	48	8.5	13	9.8	34	23	34	28	58	8.5	3.8	2.3
27	32	8.6	12	9.7	34	22	32	25	46	8.4	3.8	2.3
28	25	8.8	12	9.9	29	21	29	23	40	8.3	4.0	2.3
29	20	21	11	9.3	37	20	28	22	42	7.9	3.6	2.5
30	18	22	11	9.2	------	19	26	21	38	7.9	3.3	3.1
31	18	------	10	9.0	------	18	------	30	------	8.0	3.3	------
TOTAL	313.0	354.7	679	355.7	689.6	902	837	1,035	1,360	547.6	151.7	76.8
MEAN	10.1	11.8	21.9	11.5	23.8	29.1	27.9	33.4	45.3	17.7	4.89	2.56
MAX	52	22	51	15	48	63	56	52	299	32	7.5	3.1
MIN	2.5	7.4	10	9.0	8.8	18	12	21	10	7.9	3.3	2.3
CFSM	1.39	1.62	3.00	1.58	3.26	3.99	3.83	4.58	6.21	2.43	.67	.35
IN.	1.60	1.81	3.46	1.82	3.52	4.60	4.27	5.28	6.94	2.79	.77	.39

CAL YR 1971 TOTAL 4,952.9 MEAN 13.6 MAX 85 MIN 1.7 CFSM 1.87 IN 25.27
WTR YR 1972 TOTAL 7,302.1 MEAN 20.0 MAX 299 MIN 2.3 CFSM 2.74 IN 37.26

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1530	2.33	102	6-21	2230	4.01	610

01642500 Linganore Creek near Frederick, Md.

LOCATION.--Lat 39°24'55", long 77°20'00", Frederick County, on left bank 2.4 miles upstream from mouth and 4 miles east of Frederick.

DRAINAGE AREA.--82.3 sq mi.

PERIOD OF RECORD.--November 1931 to March 1932, September 1934 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 23, 1946. Altitude of gage is 270 ft (from topographic map). Prior to Mar. 27, 1932, nonrecording gage at Frederick pumping station, 1.5 miles downstream at datum about 20 ft lower. Sept. 12, 1934, to Sept. 25, 1946, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--38 years (1934-72), 81.5 cfs (13.45 inches per year).

EXTREMES.--Current year: Maximum discharge, 20,100 cfs June 22 (gage height, 19.46 ft, from high-water mark in well), from rating curve extended as explained below; minimum, 13 cfs Sept. 13 (gage height, 1.73 ft), result of regulation.
Period of record: Maximum discharge, 20,100 cfs June 22, 1972 (gage height, 19.46 ft, from high-water mark in well); from rating curve extended above 1,500 cfs on basis of slope-area measurement at gage height 10.01 ft and contracted-opening measurement at gage height 19.46 ft, at site 2.6 miles upstream, adjusted for flow from intervening area; minimum discharge, 2.0 cfs Sept. 8, 1966 (gage height, 1.14 ft).

REMARKS.--Records good except those for period of no gage-height record, which are fair.

REVISIONS (WATER YEARS).--WSP 891: 1938-39. WSP 1432: 1934, 1936, 1937(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	107	343	81	75	373	119	157	589	372	80	38
2	76	105	240	205	82	357	137	151	160	290	73	39
3	74	111	194	123	212	441	115	196	133	266	73	40
4	60	97	177	108	481	276	119	255	142	240	74	39
5	58	87	158	166	147	244	109	198	359	360	73	39
6	56	84	172	118	138	200	105	160	133	261	67	35
7	53	84	446	108	131	195	116	148	123	248	69	35
8	50	78	272	102	103	173	131	144	108	191	91	34
9	50	76	233	131	98	157	121	291	102	176	69	32
10	374	76	207	204	95	154	107	213	96	163	62	29
11	126	74	186	140	94	143	103	168	92	151	60	32
12	91	72	165	128	92	144	98	151	89	143	59	33
13	79	72	154	121	500	143	997	139	89	157	59	19
14	74	69	140	122	241	182	354	146	108	137	59	24
15	69	68	140	103	178	165	364	143	96	128	56	26
16	66	68	134	75	161	160	290	132	94	121	53	28
17	65	65	125	102	144	392	497	133	94	114	55	29
18	62	64	116	97	141	211	268	122	105	114	63	26
19	60	65	111	98	247	178	227	125	105	108	57	25
20	58	66	120	95	162	159	205	533	88	103	53	25
21	58	64	113	99	172	153	179	222	961	100	50	26
22	57	61	104	95	168	277	545	177	11,500	96	48	27
23	58	57	95	101	146	209	339	148	3,200	93	47	27
24	70	61	102	115	147	168	328	133	1,100	89	46	27
25	1,100	492	98	101	168	157	248	122	800	87	45	28
26	448	236	96	85	469	149	216	111	550	81	44	29
27	173	192	94	82	339	141	193	106	440	80	46	42
28	135	227	92	89	340	135	178	102	335	83	47	32
29	116	961	87	84	366	129	168	99	657	82	44	42
30	106	754	89	85	------	126	163	98	1,380	81	41	49
31	104	------	85	78	------	121	------	345	------	82	38	------
TOTAL	4,083	4,693	4,888	3,441	5,837	6,212	7,139	5,368	23,828	4,797	1,801	956
MEAN	132	156	158	111	201	200	238	173	794	155	58.1	31.9
MAX	1,100	961	446	205	500	441	997	533	11,500	372	91	49
MIN	50	57	85	75	75	121	98	98	88	80	38	19
CFSM	1.60	1.90	1.92	1.35	2.44	2.43	2.89	2.10	9.65	1.88	.71	.39
IN.	1.85	2.12	2.21	1.56	2.64	2.81	3.23	2.43	10.77	2.17	.81	.43

CAL YR 1971 TOTAL 44,656 MEAN 122 MAX 1,370 MIN 17 CFSM 1.48 IN 20.18
WTR YR 1972 TOTAL 73,043 MEAN 200 MAX 11,500 MIN 19 CFSM 2.43 IN 33.02

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	2030	7.35	2,020	6- 1	0130	6.56	1,630
11-29	2000	8.74	2,720	6-22	*0400	†19.46	20,100
4-13	1400	7.78	2,240	6-29	2400	9.66	3,340

* About.
† From floodmarks.
NOTE.--No gage-height record June 22-27.

01643000 Monocacy River at Jug Bridge near Frederick, Md.

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, on right bank 0.2 mile upstream from Jug Bridge on U. S. Highway 40, 0.4 mile downstream from Linganore Creek, 2 miles east of Frederick, and 16.9 miles (revised) upstream from mouth.

DRAINAGE AREA.--817 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

GAGE.--Water-stage recorder. Nonrecording gage at sie 0.2 mile downstream. Datum of gage is 231.92 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--43 years, 878 cfs (14.59 inches per year).

EXTREMES.--Current year: Maximum discharge, 81,600 cfs June 23 (gage height, 35.9 from floodmarks); minimum, 175 cfs Sept. 25, 26.
Period of record: Maximum discharge, 81,600 cfs June 23, 1972 (gage height, 35.9 ft from floodmarks); minimum daily, 19 cfs Sept. 7-13, 1966.
Flood in June 1889 reached a stage of 30 ft, from floodmarks (discharge, 56,000 cfs).

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 711: 1930.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	1,910	4,700	570	516	6,590	919	1,200	2,460	2,680	545	247
2	341	1,970	2,410	1,050	605	5,980	1,060	1,150	1,180	2,060	521	241
3	431	1,950	1,760	2,540	863	5,660	1,030	1,250	841	1,920	494	238
4	385	1,440	1,480	1,210	6,060	3,740	893	3,980	763	2,080	499	241
5	335	999	1,320	1,370	2,230	2,580	862	3,930	3,630	2,410	570	241
6	319	841	1,280	1,520	1,350	2,060	802	1,940	1,210	2,770	485	235
7	296	777	5,190	1,010	1,200	1,760	790	1,530	920	2,110	463	226
8	269	720	6,200	878	900	1,640	895	1,330	793	1,760	645	220
9	254	654	3,410	860	800	1,400	897	1,950	721	1,490	655	214
10	1,700	620	2,650	1,930	750	1,260	807	3,680	682	1,350	458	205
11	2,560	601	2,280	1,780	700	1,160	749	2,000	647	1,240	404	196
12	980	570	1,850	1,440	650	1,100	722	1,480	619	1,150	384	196
13	683	544	1,560	1,260	2,880	1,090	3,670	1,280	600	1,170	384	199
14	573	516	1,350	1,200	7,050	1,290	5,370	1,180	650	1,480	494	202
15	506	487	1,240	1,200	2,980	2,100	3,080	1,320	729	1,040	420	193
16	449	476	1,190	745	2,400	1,630	5,110	1,250	703	1,000	372	202
17	417	463	1,080	603	1,940	3,590	5,810	1,200	675	2,010	356	199
18	392	443	977	777	1,640	2,490	3,030	1,090	668	1,260	432	187
19	367	435	879	826	2,130	1,690	2,130	1,320	676	1,120	449	190
20	343	438	864	801	1,670	1,420	1,810	3,850	651	884	396	271
21	327	436	872	785	1,600	1,280	1,610	3,550	2,810	807	344	211
22	317	425	804	774	1,760	2,060	2,610	2,020	52,000	746	317	193
23	315	403	718	791	1,480	4,140	4,410	1,560	74,000	697	299	193
24	412	390	699	912	1,420	1,960	3,140	1,280	30,000	655	285	184
25	4,210	1,910	707	918	1,380	1,590	2,480	1,090	7,500	615	278	178
26	7,840	4,220	683	785	3,180	1,410	1,930	964	4,680	580	271	178
27	2,340	2,540	667	649	4,360	1,270	1,660	872	3,410	550	336	181
28	1,470	2,520	652	631	3,400	1,160	1,490	812	2,770	555	328	223
29	1,110	4,610	619	616	4,420	1,060	1,350	763	2,860	560	344	328
30	925	12,500	595	636	------	1,010	1,250	729	4,940	550	296	247
31	847	------	598	596	------	961	------	1,070	------	550	264	------
TOTAL	32,024	46,808	51,284	31,663	62,314	68,131	62,366	52,620	204,788	39,849	12,788	6,459
MEAN	1,033	1,560	1,654	1,021	2,149	2,198	2,079	1,697	6,826	1,285	413	215
MAX	7,840	12,500	6,200	2,540	7,050	6,590	5,810	3,980	74,000	2,770	655	328
MIN	254	390	595	570	516	961	722	729	600	550	264	178
CFSM	1.26	1.91	2.02	1.25	2.63	2.69	2.54	2.08	8.36	1.57	.51	.26
IN.	1.46	2.13	2.34	1.44	2.84	3.10	2.84	2.40	9.32	1.81	.58	.29

CAL YR 1971 TOTAL 407,631 MEAN 1,117 MAX 12,500 MIN 139 CFSM 1.37 IN 18.56
WTR YR 1972 TOTAL 671,094 MEAN 1,834 MAX 74,000 MIN 178 CFSM 2.24 IN 30.56

PEAK DISCHARGE (BASE, 8,800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	0230	11.61	9,820	2-14	0630	11.34	9,430
11-30	1300	14.67	14,700	6-23	0600	35.9	81,600

NOTE.--Fragmentary gage-height record June 22 to June 25.

01643500 Bennett Creek at Park Mills, Md.

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, on left bank 75 ft downstream from highway bridge, 0.2 mile south of Park Mills, 1.8 miles upstream from mouth, and 3.7 miles southwest of Urbana.

DRAINAGE AREA.--62.8 sq mi.

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. Altitude of gage is 240 ft (from topographic map). Oct. 1, 1959 to July 31, 1966, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--16 years (1948-58, 1966-72), 68.5 cfs (14.81 inches per year).

EXTREMES.--Current year: Maximum discharge, 32,200 cfs June 21 (gage height, 22.1 ft, from floodmark) from rating curve extended as explained below; minimum, 21 cfs part of each day Sept. 10, 11, 17, 18, 20, 21 (gage height, 1.21 ft)
Period of record: Maximum discharge, 32,200 cfs June 21, 1972 (gage height, 22.1 ft, from floodmark) from rating curve extended above 2,700 cfs on basis of contracted-opening measurements at gage heights 11.15, 14.33, and 22.1 ft; minimum, 0.30 cfs Sept. 8, 1966 (gage height, 0.80 ft).

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	102	207	59	63	218	89	115	262	279	58	26
2	80	97	160	126	63	205	101	109	103	236	52	26
3	71	108	137	85	221	329	86	145	88	212	52	27
4	59	91	126	79	320	188	87	181	97	164	51	28
5	58	81	114	123	125	167	82	130	106	206	51	27
6	55	78	115	91	110	142	79	107	81	166	47	27
7	50	77	299	82	103	134	87	100	77	137	53	25
8	48	72	187	76	90	123	97	101	69	121	70	24
9	48	70	149	102	85	111	91	209	65	112	49	24
10	331	69	134	156	80	108	83	149	62	104	43	22
11	132	68	123	109	75	101	79	117	58	97	42	22
12	92	66	111	97	71	102	76	106	56	94	42	23
13	78	65	105	93	311	108	542	99	57	106	43	24
14	71	62	98	96	170	133	237	105	64	94	42	24
15	65	61	96	82	126	122	236	101	63	85	39	25
16	61	60	94	68	113	117	191	94	67	83	37	23
17	60	58	89	80	102	325	472	90	65	85	41	22
18	56	58	82	80	102	167	219	92	70	78	44	22
19	54	58	79	78	197	136	179	85	66	74	39	23
20	51	58	86	76	130	121	161	236	57	70	36	21
21	51	56	81	78	130	115	138	131	3,200	67	34	22
22	50	53	74	74	126	216	415	139	5,500	65	33	40
23	51	50	69	81	113	172	263	116	1,400	63	32	23
24	78	54	73	87	113	135	239	95	360	60	30	23
25	1,040	366	70	77	159	122	185	86	280	59	29	23
26	372	174	70	67	437	114	161	79	260	55	28	23
27	185	171	69	64	244	109	144	75	250	55	31	22
28	142	199	67	69	219	103	132	72	217	58	30	24
29	120	612	63	66	228	98	124	69	748	57	29	23
30	108	369	66	67	------	95	119	68	1,080	58	27	27
31	108	------	62	61	------	92	------	278	------	60	26	------
TOTAL	3,884	3,563	3,355	2,629	4,426	4,528	5,194	3,679	14,928	3,260	1,260	735
MEAN	125	119	108	84.8	153	146	173	119	498	105	40.6	24.5
MAX	1,040	612	299	156	437	329	542	278	5,500	279	70	40
MIN	48	50	62	59	63	92	76	68	56	55	26	21
CFSM	1.99	1.89	1.72	1.35	2.44	2.32	2.75	1.89	7.93	1.67	.65	.39
IN.	2.30	2.11	1.99	1.56	2.62	2.68	3.08	2.18	8.84	1.93	.75	.44

CAL YR 1971 TOTAL 39,577 MEAN 108 MAX 3,040 MIN 16 CFSM 1.72 IN 23.44
WTR YR 1972 TOTAL 51,441 MEAN 141 MAX 5,500 MIN 21 CFSM 2.25 IN 30.47

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	2030	6.27	1,900	6-21	*2400	†22.1	32,200
11-29	2130	6.06	1,790	6-30	0030	9.36	4,540
4-13	1600	4.71	1,220				

* About.
† From floodmark.
NOTE.--No gage-height record June 21-27.

01645000 Seneca Creek at Dawsonville, Md.

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, on right bank 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, half a mile east of Dawsonville, and 5.8 miles upstream from mouth.

DRAINAGE AREA.--101 sq mi.

PERIOD OF RECORD.--September 1930 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.15 ft above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--42 years, 95.3 cfs (12.82 inches per year).

EXTREMES.--Current year: Maximum discharge, 26,100 cfs June 22 (gage height, 16.4 ft, from high-water mark in gage house), from rating curve extended as explained below; minimum, 50 cfs Sept. 27 (gage height, 2.07 ft).
Period of record: Maximum discharge, 26,100 cfs June 22, 1972 (gage height, 16.4 ft, from high-water mark in gage house, from rating curve extended above 3,000 cfs 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 mile downstream, adjusted for flow from intervening area); minimum observed, 1.7 cfs Sept. 28, 29, 1930 (gage height, 0.56 ft).

REMARKS.--Records good except those for period of fragmentary or no gage-height record, which are fair. Small diversion at times for irrigation above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M) 1941(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	178	291	135	120	318	171	203	303	361	130	69
2	159	169	245	258	131	317	188	196	175	569	118	71
3	149	212	221	178	372	376	167	288	159	784	136	77
4	123	176	212	169	589	264	169	425	158	321	153	78
5	122	155	199	280	210	245	161	264	214	311	131	76
6	119	149	199	189	200	222	156	216	156	292	116	71
7	110	165	485	165	178	214	181	204	153	269	158	67
8	106	145	328	154	150	204	197	199	139	251	198	64
9	106	141	253	178	150	189	178	353	134	239	120	64
10	729	142	233	286	145	186	162	266	131	224	108	60
11	248	139	222	198	140	182	157	215	124	211	103	59
12	168	135	200	179	137	186	151	198	124	206	101	60
13	147	135	189	171	677	200	565	189	126	376	101	62
14	142	130	182	173	342	248	311	207	147	229	101	69
15	138	129	179	153	239	204	261	206	134	206	96	92
16	126	127	175	110	213	455	463	196	128	244	88	62
17	123	124	168	130	197	463	1,330	182	135	266	99	58
18	119	122	158	140	200	260	324	193	136	200	105	56
19	115	123	155	146	449	226	266	197	142	187	95	57
20	110	124	172	144	268	211	242	427	129	179	86	52
21	110	121	162	150	281	207	219	253	2,840	174	83	52
22	110	114	148	148	259	360	650	221	9,900	158	81	60
23	111	109	142	162	223	264	374	205	2,400	145	78	54
24	165	120	148	182	222	218	340	181	600	136	77	52
25	1,490	1,480	148	156	338	207	272	170	440	132	84	53
26	844	394	145	136	734	200	245	161	364	125	116	54
27	290	323	145	131	368	193	229	157	322	121	98	52
28	233	321	145	143	330	185	217	155	294	127	145	52
29	203	643	138	137	330	178	210	152	689	127	85	52
30	189	592	142	137	------	175	206	155	1,500	131	78	74
31	191	------	138	128	------	173	------	278	------	137	70	------
TOTAL	7,214	7,137	6,067	5,146	8,192	7,530	8,762	6,912	22,396	7,438	3,338	1,879
MEAN	233	238	196	166	282	243	292	223	747	240	108	62.6
MAX	1,490	1,480	485	286	734	463	1,330	427	9,900	784	198	92
MIN	106	109	138	110	120	173	151	152	124	121	70	52
CFSM	2.31	2.36	1.94	1.64	2.79	2.41	2.89	2.21	7.40	2.38	1.07	.62
IN.	2.66	2.63	2.23	1.90	3.02	2.77	3.23	2.55	8.25	2.74	1.23	.69

CAL YR 1971 TOTAL 75,544 MEAN 207 MAX 9,000 MIN 40 CFSM 2.05 IN 27.82
WTR YR 1972 TOTAL 92,011 MEAN 251 MAX 9,900 MIN 52 CFSM 2.49 IN 33.89

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1815	7.93	3,010	4-17	0030	7.58	2,600
11-25	1615	6.91	1,980	6-22	*0200	†16.4	26,100
11-29	2345	6.55	1,740	6-30	0345	7.79	2,840
2- 3	2330	6.25	1,580	7- 2	2115	7.00	2,050

* About.
† From high-water mark in gage house.
NOTE.--Fragmentary or no gage-height record June 21-25.

01645200 Watts Branch at Rockville, Md.

LOCATION.--Lat 39°05'03", long 77°10'38", Montgomery County, on left bank 0.2 mile south of State Highway 28, 1.3 miles west of post office in Rockville, and 9.4 miles upstream from mouth.

DRAINAGE AREA.--3.70 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 3.76 cfs (13.80 inches per year).

EXTREMES.--Water year 1970: Maximum discharge, 825 cfs Aug. 14 (gage height, 6.55 ft), from rating curve extended as explained below; minimum, 0.52 cfs Sept. 25 (gage height, 1.18 ft).
Water year 1971: Maximum discharge, 325 cfs Aug. 1 (gage height, 6.05 ft), from rating curve extended as explained below; minimum, 0.72 cfs Oct. 3-7 (gage height, 1.20 ft).
Water year 1972: Maximum discharge, 2,900 cfs June 21 (gage height, 7.22 ft in gage well, 7.83 ft, from floodmarks), from rating curve extended as explained below; minimum, 1.1 cfs Sept. 25 (gage height, 1.22 ft).
Period of record: Maximum discharge, 2,900 cfs June 21, 1972 (gage height, 7.22 ft in gage well, 7.83 ft, from floodmarks), from rating curve extended above 280 cfs on basis of combined computation of peak flow through culvert and slope-area measurement of tributary inflow; minimum, 0.10 cfs Sept. 2, 1966 (gage height, 1.10 ft).

REMARKS.--Records good. Some regulation of low flow from unknown cause.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.79	.86	5.5	2.5	1.7	5.7	2.3	1.6	1.1	1.5	.93
2	12	2.1	.77	3.6	5.5	1.8	28	2.2	1.5	6.0	1.2	.91
3	1.2	.74	.88	2.8	13	3.2	4.7	5.4	2.8	1.5	1.8	.93
4	.80	.72	.76	2.4	2.8	5.8	3.9	2.9	2.0	1.3	1.2	.91
5	.73	.68	.74	1.9	2.4	3.2	3.3	2.3	2.4	1.5	.93	.82
6	.80	.74	.76	2.0	2.4	2.2	4.1	2.1	4.6	1.1	.93	.72
7	.82	.74	12	1.8	2.2	2.1	3.7	2.1	1.6	1.1	.93	.93
8	1.4	4.6	3.8	1.6	2.1	2.0	2.9	2.1	1.5	1.1	.82	.75
9	.83	1.4	1.3	1.5	13	1.9	2.9	1.9	1.5	54	.82	2.6
10	.82	.77	44	1.4	39	1.8	2.6	1.9	1.3	16	.93	13
11	.82	.72	6.7	1.5	5.3	1.8	2.4	1.8	1.3	2.2	.83	1.2
12	.83	2.1	2.2	1.5	3.0	3.3	2.4	3.8	1.3	2.0	.82	.91
13	.86	1.1	1.7	1.5	2.6	2.4	2.8	4.0	1.2	1.6	.80	.95
14	.89	1.9	2.6	1.4	2.2	1.8	83	5.5	1.2	1.5	78	.85
15	.90	.93	1.6	1.4	2.6	1.7	16	2.0	1.2	1.5	3.2	.82
16	.84	.72	1.4	1.5	2.7	1.6	4.6	2.0	25	1.5	1.8	.80
17	.83	.72	1.3	6.8	2.8	1.7	4.0	17	2.8	1.3	1.6	.83
18	.84	.73	1.3	17	6.7	6.6	3.0	2.7	24	1.2	1.5	.93
19	.76	19	1.3	4.0	6.0	2.8	2.8	2.2	1.5	1.1	1.5	.73
20	.80	4.0	1.2	2.2	2.6	8.5	5.6	1.9	1.5	29	1.5	.71
21	3.3	1.9	1.1	2.0	2.2	3.3	3.0	1.8	17	8.3	1.3	.72
22	.69	1.6	21	1.8	2.4	11	2.6	1.6	3.3	1.6	1.2	.70
23	.64	1.6	2.4	1.6	2.2	3.8	7.7	1.7	1.6	3.2	19	.68
24	.64	1.6	1.8	1.6	2.1	2.7	9.8	24	1.5	2.4	1.5	.62
25	.72	1.1	1.5	1.8	2.1	2.4	3.5	25	1.5	1.6	1.3	.70
26	.72	.98	1.8	18	1.8	4.0	3.0	2.8	1.3	1.3	1.2	.79
27	.91	.86	1.7	7.6	1.8	2.7	2.8	2.0	1.3	1.3	1.2	2.8
28	.74	.83	1.6	7.0	1.8	2.2	2.7	1.8	1.2	1.3	1.1	.96
29	.72	.85	2.1	12	------	11	2.6	1.6	1.3	1.6	1.2	.80
30	.75	.84	20	4.6	------	3.3	2.4	1.5	1.2	19	1.1	.82
31	.72	------	30	2.8	------	4.0	------	1.4	------	2.4	2.0	------
TOTAL	39.09	57.36	172.17	124.1	137.8	108.3	228.5	133.3	113.0	171.6	134.71	40.82
MEAN	1.26	1.91	5.55	4.00	4.92	3.49	7.62	4.30	3.77	5.54	4.35	1.36
MAX	12	19	44	18	39	11	83	25	25	54	78	13
MIN	.64	.68	.74	1.4	1.8	1.6	2.4	1.4	1.2	1.1	.80	.62
CFSM	.34	.52	1.50	1.08	1.33	.94	2.06	1.16	1.02	1.50	1.18	.37
IN.	.39	.58	1.73	1.25	1.39	1.09	2.30	1.34	1.14	1.73	1.35	.41

CAL YR 1969 TOTAL 1,293.70 MEAN 3.54 MAX 139 MIN .33 CFSM .96 IN 13.01
WTR YR 1970 TOTAL 1,460.75 MEAN 4.00 MAX 83 MIN .62 CFSM 1.08 IN 14.69

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-24	2330	5.97	294	7-20	2230	6.00	300
6-16	2045	5.72	253	8-14	1800	6.55	825
7- 9	1945	6.20	400				

01645200 Watts Branch at Rockville, Md.--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	2.0	1.6	2.4	2.2	5.5	2.7	2.2	4.3	2.5	28	2.3
2	.72	1.8	1.6	2.2	2.0	4.6	5.5	3.0	19	2.3	22	1.8
3	.62	18	1.6	2.2	1.7	33	3.2	2.2	7.7	3.0	18	1.7
4	.52	54	1.8	11	1.4	10	2.7	2.1	18	3.5	20	1.6
5	.61	22	1.6	30	12	7.1	2.7	2.3	4.8	2.9	9.4	1.4
6	.52	2.8	1.6	5.6	9.5	5.7	22	2.3	15	3.0	2.3	1.6
7	.52	2.4	1.6	3.3	55	4.9	23	3.2	11	3.2	1.9	1.9
8	.72	2.0	1.8	2.7	46	4.2	4.6	7.0	4.3	3.0	1.7	1.6
9	.72	1.8	2.0	2.6	6.1	5.1	3.7	3.0	3.7	3.2	1.5	1.5
10	1.6	2.3	2.0	2.4	3.2	4.9	3.2	2.3	3.7	3.0	1.6	1.4
11	.82	11	2.2	2.5	2.9	6.1	3.2	1.9	3.7	1.5	3.2	41
12	.72	4.0	5.4	3.4	3.2	6.4	3.2	2.3	3.5	1.2	1.9	31
13	.72	2.8	2.6	2.6	75	6.8	2.7	52	3.5	1.1	1.5	4.6
14	.82	3.4	2.2	5.4	7.2	7.6	2.5	3.9	4.4	1.2	1.4	3.5
15	16	30	2.0	3.4	4.2	7.1	2.5	3.2	4.3	1.1	1.4	2.9
16	4.2	3.3	22	2.4	3.6	4.4	2.7	41	4.0	1.2	1.4	2.3
17	1.1	2.8	6.7	2.2	3.9	4.1	3.0	4.6	4.0	1.4	1.4	15
18	.93	2.4	2.4	2.1	3.5	3.6	2.5	3.5	4.0	1.1	1.4	2.7
19	.82	2.2	2.1	2.0	3.7	14	2.7	3.0	4.0	2.5	6.0	2.4
20	.93	9.4	2.0	2.1	5.3	4.6	2.5	21	3.7	1.2	1.4	2.3
21	14	2.8	3.6	2.1	4.1	2.5	2.5	8.6	3.7	1.1	1.2	3.6
22	4.9	2.4	39	2.0	50	3.2	2.3	3.7	3.2	1.0	1.2	2.2
23	1.3	2.0	5.2	10	17	4.9	2.3	3.2	3.0	1.1	1.2	2.1
24	1.2	1.8	4.0	2.6	6.0	3.2	2.2	3.0	2.7	2.5	1.1	2.0
25	1.1	2.0	3.0	5.7	4.8	3.0	2.1	3.1	2.5	3.0	1.0	1.9
26	.93	1.8	2.8	7.6	5.0	3.1	2.2	3.4	1.8	2.7	1.1	4.6
27	.93	1.8	2.4	2.5	13	2.9	2.1	2.5	1.8	1.4	56	2.5
28	.93	1.6	2.0	2.5	6.3	2.9	2.3	2.3	9.0	1.1	3.7	2.0
29	.93	1.8	1.8	2.4	------	2.9	2.3	4.0	2.1	15	2.1	1.9
30	2.8	2.0	1.9	2.4	------	2.7	2.3	22	1.9	4.9	1.9	2.3
31	2.6	------	1.8	1.9	------	2.7	------	41	------	1.9	1.8	------
TOTAL	66.10	200.4	134.3	134.2	357.8	183.7	123.4	262.8	162.3	78.8	199.7	149.6
MEAN	2.13	6.68	4.33	4.33	12.8	5.93	4.11	8.48	5.41	2.54	6.44	4.99
MAX	16	54	39	30	75	33	23	52	19	15	56	41
MIN	.52	1.6	1.6	1.9	1.4	2.5	2.1	1.9	1.8	1.0	1.0	1.4
CFSM	.58	1.81	1.17	1.17	3.46	1.60	1.11	2.29	1.46	.69	1.74	1.35
IN.	.66	2.01	1.35	1.35	3.60	1.85	1.24	2.64	1.63	.79	2.01	1.50

CAL YR 1970 TOTAL 1,592.93 MEAN 4.36 MAX 83 MIN .52 CFSM 1.18 IN 16.02
WTR YR 1971 TOTAL 2,053.10 MEAN 5.62 MAX 75 MIN .52 CFSM 1.52 IN 20.64

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-4	2045	5.87	275	6- 2	2115	5.48	226
2- 7	1900	5.87	275	8- 1	2245	6.05	325
2- 8	1800	5.70	250	8-27	1645	5.58	236
2-13	1900	5.78	261	9-11	0730	5.62	240
5-13	0445	5.84	270	9-11	2015	5.74	256

01645200 Watts Branch at Rockville, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	2.6	3.4	2.2	2.3	7.5	4.7	2.9	7.4	8.8	2.8	1.9
2	8.1	2.4	3.0	11	3.3	6.7	4.3	3.5	5.0	42	2.7	1.9
3	2.6	6.7	2.8	2.7	41	17	3.6	15	3.8	19	5.6	1.7
4	2.2	2.5	2.8	7.3	6.9	5.3	4.3	48	11	8.0	3.9	3.2
5	2.5	2.3	2.6	14	3.3	4.9	3.1	9.5	3.0	12	3.0	1.8
6	2.3	2.4	2.8	3.2	3.3	4.3	2.9	8.0	2.1	8.0	2.6	1.7
7	1.9	3.9	28	2.8	3.0	4.0	8.2	6.6	2.0	6.5	4.9	1.7
8	1.9	2.3	4.5	2.6	2.5	3.8	6.6	7.7	1.8	10	2.9	1.7
9	2.2	2.2	3.6	12	2.5	3.8	3.7	24	1.9	7.0	2.5	1.5
10	63	2.3	3.3	5.6	2.4	3.7	3.5	8.2	1.9	6.0	2.4	1.8
11	4.9	2.2	3.1	3.8	2.5	3.5	3.4	7.2	1.9	5.0	2.4	1.5
12	3.6	2.1	2.8	3.1	2.6	3.8	3.2	6.9	2.0	5.0	2.2	1.6
13	3.2	2.1	2.8	3.2	58	4.0	32	5.9	3.9	9.0	2.3	1.5
14	3.0	2.0	2.6	4.2	7.2	7.2	4.7	8.7	2.3	5.5	2.3	9.8
15	2.9	2.0	2.8	2.6	4.7	4.0	17	7.7	2.0	5.0	2.3	2.0
16	2.7	2.0	2.6	2.4	4.0	15	31	6.4	2.1	20	2.1	1.5
17	2.6	2.0	2.6	3.2	4.6	41	22	5.8	4.7	5.8	4.2	1.6
18	2.6	2.0	2.4	2.5	11	5.3	4.4	7.2	2.4	4.9	2.6	1.5
19	2.5	2.1	2.4	2.6	27	4.3	3.7	13	2.3	4.3	2.1	1.5
20	2.3	2.2	3.9	2.7	9.6	4.0	3.4	19	3.2	3.7	1.9	1.5
21	2.3	1.9	2.5	2.7	6.3	4.3	3.1	6.0	312	3.6	1.9	1.5
22	2.3	1.7	2.3	3.2	10	14	44	5.6	183	3.2	2.2	1.4
23	4.0	1.8	2.3	3.7	5.3	4.6	5.3	4.0	64	3.1	1.9	1.2
24	7.3	24	2.4	6.3	9.3	4.0	6.7	3.7	8.9	3.0	1.8	1.2
25	100	78	2.4	3.6	20	3.8	3.9	2.7	7.9	3.0	1.8	1.4
26	14	5.4	2.4	2.5	41	3.5	3.5	2.6	5.9	2.8	3.0	1.5
27	4.2	4.7	2.4	2.4	9.1	3.2	3.2	2.5	5.2	2.9	18	1.5
28	3.3	3.5	2.4	4.1	8.7	3.0	3.1	2.6	5.5	3.0	6.6	1.6
29	2.8	31	2.2	2.7	7.9	3.0	3.0	2.4	56	2.8	2.0	1.5
30	2.6	5.2	2.5	2.6	------	3.0	3.0	26	15	2.9	2.0	4.7
31	2.6	------	2.2	2.4	------	2.9	------	14	------	2.8	1.9	------
TOTAL	268.7	207.5	110.8	129.9	319.3	202.4	248.5	293.3	730.1	228.6	100.8	60.4
MEAN	8.67	6.92	3.57	4.19	11.0	6.53	8.28	9.46	24.3	7.37	3.25	2.01
MAX	100	78	28	14	58	41	44	48	312	42	18	9.8
MIN	1.9	1.7	2.2	2.2	2.3	2.9	2.9	2.4	1.8	2.8	1.8	1.2
CFSM	2.34	1.87	.96	1.13	2.97	1.76	2.24	2.56	6.57	1.99	.88	.54
IN.	2.70	2.09	1.11	1.31	3.21	2.03	2.50	2.95	7.34	2.30	1.01	.61

CAL YR 1971 TOTAL 2,239.3 MEAN 6.14 MAX 100 MIN 1.0 CFSM 1.66 IN 22.51
WTR YR 1972 TOTAL 2,900.3 MEAN 7.92 MAX 312 MIN 1.2 CFSM 2.14 IN 29.16

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0515	5.73	254	5-30	2030	6.16	380
10-25	0900	6.11	355	6-21	2245	7.22	2,900
10-25	1645	5.50	228	6-29	2045	5.85	272
11-25	0145	5.83	269	7- 2	1915	6.04	320
5- 4	0245	5.80	264				

01646500 Potomac River near Washington, D. C.

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Maryland, on left bank just above Little Falls Dam, 1 mile upstream from District of Columbia boundary line, 1.2 miles upstream from Chain Bridge, 1.8 miles east of Langley, Fairfax County, Virginia, and at mile 117.4.
DRAINAGE AREA.--11,560 sq mi.
PERIOD OF RECORD.--March 1930 to current year.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above mean sea level. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mile upstream on right bank at same datum.
AVERAGE DISCHARGE.--42 years, 19,030 cfs (12.83 inches per year), adjusted for diversions.
EXTREMES.--Current year: Maximum discharge, 359,000 cfs June 24 (gage height, 22.03 ft); minimum daily, 2,170 cfs Sept. 27 (does not include diversion of 466 cfs for municipal use).
Period of record: Maximum discharge, 484,000 cfs Mar. 19, 1936 (gage height, 28.1 ft, site then in use); minimum daily observed at gaging station, 121 cfs Sept. 9, 1966 (does not include diversion of 489 cfs for municipal use); minimum daily (adjusted), 601 cfs Sept. 10, 1966 (includes diversion of 449 cfs for municipal use).
Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.
REMARKS.--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); and since April 1964, at Violets Lock, to Chesapeake and Ohio Canal. Low flow affected slightly by Stony River Reservoir (see station 01595200) and since December 1950, by Savage River Reservoir (see station 01597500). Low flow affected extensively at times by run-of-the-river hydroelectric plants.
REVISIONS.--WSP 726: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,820	14,300	36,500	5,910	8,090	56,600	11,400	16,800	13,900	49,700	6,840	3,940
2	4,730	13,500	33,400	6,070	7,900	59,300	11,400	15,700	14,900	43,600	10,500	3,710
3	4,750	13,100	25,500	7,450	8,290	61,400	11,300	15,500	12,900	35,700	10,900	3,450
4	6,730	12,700	19,400	10,500	16,600	58,200	10,600	21,000	11,200	27,900	10,600	3,150
5	9,530	11,700	15,900	12,100	17,700	49,600	10,100	47,600	11,000	23,300	9,610	3,150
6	11,300	10,500	13,800	12,100	14,800	39,400	9,640	56,800	12,600	23,000	8,890	3,140
7	9,620	9,690	15,400	11,100	13,700	31,900	9,840	43,300	10,000	25,800	7,720	2,980
8	7,990	8,920	27,300	10,800	12,300	26,400	10,800	32,500	8,690	32,500	8,080	3,150
9	6,750	7,960	35,600	10,400	10,700	21,800	11,000	29,200	7,800	26,100	8,080	3,120
10	9,950	7,450	40,700	10,700	9,550	19,000	12,000	31,200	6,680	21,200	7,270	2,900
11	12,100	6,970	35,400	11,400	8,800	17,200	15,400	36,700	6,310	18,000	6,280	2,680
12	9,120	6,540	28,400	11,400	8,330	15,600	15,500	34,000	5,980	15,600	5,720	2,680
13	7,290	6,010	21,800	11,700	12,700	14,600	17,400	27,900	5,620	14,300	5,330	2,680
14	6,430	5,910	18,000	12,700	36,400	15,500	28,700	23,200	5,600	13,000	5,120	2,710
15	5,650	5,660	15,600	12,000	61,100	29,800	40,500	21,000	5,730	12,700	5,120	2,930
16	4,990	5,350	14,100	10,500	44,100	34,000	42,700	19,800	5,790	13,000	4,840	2,720
17	4,570	5,220	13,100	9,650	33,000	35,300	54,100	19,900	5,810	13,000	4,700	2,570
18	4,270	5,060	11,400	8,390	28,500	32,000	50,400	20,900	6,400	13,600	4,700	2,550
19	4,040	4,770	10,500	7,760	29,500	27,600	42,800	19,900	7,490	12,900	4,640	2,540
20	3,770	4,710	9,770	8,280	24,900	23,100	33,300	21,900	7,160	12,100	4,700	2,450
21	3,620	4,490	9,220	9,220	21,000	19,800	26,800	28,800	12,000	10,800	4,570	2,540
22	3,740	4,180	8,610	9,080	18,700	18,100	26,700	31,100	172,000	9,520	4,380	2,720
23	3,570	4,230	8,080	8,580	18,000	20,900	32,000	29,000	268,000	8,800	4,250	2,620
24	3,780	4,330	7,810	8,660	18,000	20,100	39,800	24,800	334,000	8,170	4,250	2,520
25	20,100	10,000	7,810	8,710	23,100	17,900	40,700	22,000	200,000	7,720	4,000	2,480
26	61,600	10,200	7,410	8,400	33,600	16,800	35,000	19,600	79,800	7,180	3,880	2,330
27	57,500	9,820	6,970	8,250	66,200	15,700	29,900	16,400	47,600	6,920	3,820	2,170
28	42,100	8,690	6,680	8,830	80,200	14,600	24,600	14,200	35,600	6,600	3,820	2,350
29	28,900	9,700	6,540	8,660	66,000	13,800	21,100	12,500	30,700	6,440	4,770	2,260
30	21,400	23,900	6,360	8,170	------	13,000	18,500	11,200	47,500	6,440	4,900	2,530
31	17,000	------	5,940	8,020	------	12,200	------	11,000	------	6,440	4,320	------
TOTAL	401,710	255,560	523,000	295,490	751,760	851,200	743,980	775,400	1,398,880	532,030	186,600	83,720
MEAN	12,960	8,519	16,870	9,532	25,920	27,460	24,800	25,010	46,630	17,160	6,019	2,791
MAX	61,600	23,900	40,700	12,700	80,200	61,400	54,100	56,800	334,000	49,700	10,900	3,940
MIN	3,570	4,180	5,940	5,910	7,900	12,200	9,640	11,000	5,600	6,440	3,820	2,170
(†)	417	418	418	425	440	429	410	436	487	510	528	479
MEAN‡	13,380	8,937	17,290	9,957	26,360	27,890	25,210	25,450	47,120	17,670	6,547	3,270
CFSM‡	1.16	.77	1.50	.86	2.28	2.41	2.18	2.20	4.08	1.53	.57	.28
IN‡	1.34	.86	1.73	.99	2.46	2.78	2.43	2.54	4.55	1.76	.66	.31

CAL YR 1971 TOTAL 5,116,440 MEAN 14,020 MAX 89,500 MIN 1,850 MEAN‡ 14,460 CFSM‡ 1.25 IN‡ 16.97
WTR YR 1972 TOTAL 6,799,210 MEAN 18,580 MAX 334,000 MIN 2,170 MEAN‡ 19,030 CFSM‡ 1.65 IN‡ 22.46

PEAK DISCHARGE (BASE, 45,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-26	0145	8.17	70,100	5- 6	0645	7.55	59,100
2-15	1030	7.88	64,800	6-24	0330	22.03	359,000
2-28	0800	8.85	82,300	7- 1	1745	7.11	51,600
4-17	0815	7.39	56,300				

† Diversion, in cfs, to Chesapeake and Ohio Canal and for municipal supply of Washington, D.C., Washington Suburban Sanitary District, City of Rockville, and City of Fairfax (from Goose Creek); records furnished by Corps of Engineers, Washington Suburban Sanitary Commission, City of Rockville, and City of Fairfax.
‡ Adjusted for diversion.

01646550 Little Falls Branch near Bethesda, Md.

LOCATION.--Lat 38°57'27", long 77°06'31", Montgomery County, on left bank at downstream side of bridge on Massachusetts Avenue, 0.3 mile downstream from Willett Branch, 1.7 miles upstream from mouth, and 2.0 miles southwest of Bethesda.

DRAINAGE AREA.--4.1 sq mi, approximately.

PERIOD OF RECORD.--June 1944 to September 1959. Annual maximum, water years 1960-61. Occasional low-flow measurements water years 1960-62, December 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 169.32 ft above mean sea level (Maryland State Highway Administration bench mark). Prior to Oct. 1, 1959, water-stage recorder and concrete control at site 50 ft upstream at same datum. Oct. 1, 1959 to Nov. 30, 1961, crest-stage gage at present site and datum.

AVERAGE DISCHARGE.--25 years (1945-59, 1963-72), 3.22 cfs (10.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,540 cfs June 21 (gage height, 6.62 ft); minimum daily, 0.43 cfs Sept. 23.
Period of record: Maximum discharge, 2,680 cfs Sept. 14, 1966 (gage height, 6.82 ft), from rating curve extended above 630 cfs on basis of slope-area measurement at gage height 5.92 ft; no flow at times in 1944 1954, 1959, minima not available Oct. 1959 to Nov. 1961.

REMARKS.--Records good. Occasional slight regulation at low flow from unknown source above station.

REVISIONS (WATER YEARS).--WSP 1171: 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.2	1.6	1.3	1.2	2.3	3.3	1.7	2.8	2.4	1.1	.70
2	7.8	1.2	1.5	9.5	3.7	2.2	3.8	2.0	1.9	10	1.0	1.0
3	1.1	6.8	1.4	1.7	32	14	1.6	11	1.7	10	1.3	.66
4	.99	1.1	1.3	11	3.9	2.3	3.4	14	5.7	2.4	4.2	1.7
5	4.8	1.1	1.3	12	1.7	2.1	1.5	2.3	1.9	3.5	1.3	.68
6	5.2	1.1	1.4	2.0	1.8	1.9	1.7	2.0	3.3	2.1	.89	.69
7	1.0	2.7	40	1.7	1.6	1.9	12	1.8	1.6	2.1	1.1	.72
8	.97	1.1	2.7	1.6	1.4	1.8	8.7	5.3	1.5	2.3	1.0	.67
9	1.1	1.1	2.0	9.5	1.2	1.7	2.1	20	1.5	1.7	.93	.64
10	37	1.1	1.8	3.9	1.0	1.7	1.9	2.3	1.3	1.7	.94	.55
11	1.6	1.1	1.7	3.2	1.0	1.7	1.8	2.0	1.3	1.7	.89	.59
12	1.2	1.0	1.5	1.6	1.2	1.9	1.7	1.8	1.3	2.1	.83	1.1
13	1.1	.96	1.5	3.9	39	2.3	23	1.7	4.1	6.0	.75	.62
14	1.1	.94	1.4	4.4	4.0	6.5	2.6	6.7	1.6	1.7	.79	6.8
15	1.0	.99	1.5	1.4	2.0	1.8	3.1	7.8	1.4	1.5	.79	.82
16	1.0	1.0	1.4	1.0	1.7	14	19	2.4	1.4	12	.76	.57
17	.94	.95	1.4	1.2	4.1	23	9.6	1.9	2.0	1.8	5.3	.62
18	.97	1.0	1.3	1.6	16	2.5	2.1	2.0	6.1	1.3	2.7	.83
19	.94	1.3	1.3	2.0	34	2.1	2.0	19	1.6	1.3	.80	.61
20	.90	1.0	7.9	1.5	5.5	1.9	1.7	24	5.3	1.3	.61	.53
21	.91	.92	1.5	1.8	4.6	2.0	1.5	3.4	219	1.3	.74	.56
22	.94	.91	1.4	2.3	5.7	12	29	5.0	95	1.3	.76	.60
23	4.6	1.1	1.4	2.3	2.4	2.3	2.7	2.3	30	1.2	.79	.43
24	5.4	27	1.4	5.9	17	1.8	5.3	2.1	3.5	1.2	.81	.50
25	48	39	1.4	2.2	9.2	1.8	2.1	2.0	3.1	2.0	.82	.51
26	14	2.3	1.3	1.3	20	1.7	2.0	1.8	2.6	1.1	2.0	.53
27	1.9	2.8	1.3	1.3	3.2	1.9	1.8	1.8	3.8	1.2	2.3	1.1
28	1.5	1.5	1.3	4.0	2.7	1.7	1.8	1.7	10	1.4	3.3	.60
29	1.3	19	1.3	1.3	2.4	1.6	1.7	1.7	29	1.3	.79	.58
30	1.3	2.3	1.4	1.3	------	1.6	1.8	5.2	7.6	2.2	.72	3.9
31	1.2	------	1.2	1.2	------	1.9	------	8.6	------	2.4	.69	------
TOTAL	155.56	125.57	90.8	100.9	225.2	119.9	156.3	167.3	452.9	85.5	41.70	30.41
MEAN	5.02	4.19	2.93	3.25	7.77	3.87	5.21	5.40	15.1	2.76	1.35	1.01
MAX	48	39	40	12	39	23	29	24	219	12	5.3	6.8
MIN	.90	.91	1.2	1.0	1.0	1.6	1.5	1.7	1.3	1.1	.61	.43
CFSM	1.22	1.02	.71	.79	1.90	.94	1.27	1.32	3.68	.67	.33	.25
IN.	1.41	1.14	.82	.92	2.04	1.09	1.42	1.52	4.11	.78	.38	.28

CAL YR 1971 TOTAL 1,478.07 MEAN 4.05 MAX 48 MIN .90 CFSM .99 IN 13.41
WTR YR 1972 TOTAL 1,752.04 MEAN 4.79 MAX 219 MIN .43 CFSM 1.17 IN 15.90

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-16	1900	3.17	507	7-16	1930	3.25	543
6-21	2300	6.62	2,540				

01647685 Williamsburg Run near Olney, Md.

LOCATION.--Lat 39°08'32", long 77°05'48", Montgomery County, on right bank 200 ft downstream from vehicle bridge on golf course of Norbeck Country Club, 0.2 mile downstream from Cashell Road, 0.5 mile upstream from mouth, and 1.8 miles southwest of Olney.

DRAINAGE AREA.--2.25 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 390 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 2.78 cfs (16.78 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,110 cfs June 21 (gage height, 8.26 ft, from high-water mark in gage house), from rating curve extended above 300 cfs on basis of slope-area measurements at gage heights 5.90 and 8.26 ft; minimum, 0.65 cfs Sept. 23, 26 (gage height, 1.22 ft).
Period of record: Maximum discharge, 3,110 cfs June 21, 1972 (gage height, 8.26 ft, from high-water mark in gage house), from rating curve extended above 300 cfs on basis of slope-area measurements at gage heights 5.90 and 8.26 ft; minimum, 0.10 cfs Sept. 26, 1968 (gage height, 0.98 ft).

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1971: 1967(P), 1969(M), 1970(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.1	3.0	1.7	1.7	4.1	2.3	2.6	3.9	4.6	1.4	1.0
2	3.3	2.1	2.7	6.8	1.9	3.8	2.9	2.6	2.6	72	1.3	1.0
3	1.6	3.9	2.6	2.3	25	13	2.2	11	2.2	15	1.5	.99
4	1.4	2.0	2.6	3.4	5.7	3.6	2.7	30	9.2	6.0	1.5	1.1
5	1.3	1.9	2.4	9.5	2.1	3.3	2.2	4.5	3.8	4.0	1.4	.94
6	1.9	1.9	2.6	2.5	1.9	2.8	2.1	3.1	2.5	3.2	1.3	.97
7	1.3	2.2	16	2.1	1.8	2.9	3.7	2.8	2.4	2.8	5.1	.91
8	1.2	1.8	3.5	2.0	1.7	2.6	4.1	2.7	2.0	13	2.6	1.3
9	1.3	1.8	2.7	8.1	1.6	2.3	2.6	10	1.9	4.0	2.0	.88
10	33	1.7	2.5	5.1	1.6	2.4	2.3	4.5	1.8	3.4	1.6	.78
11	2.5	1.7	2.4	2.9	1.7	2.3	2.2	3.5	1.7	3.0	1.4	.80
12	1.8	1.7	2.3	2.4	1.8	2.5	2.1	2.8	1.7	2.6	1.3	.84
13	1.6	1.7	2.2	2.4	36	2.6	22	2.5	1.7	6.0	1.3	.85
14	1.5	1.6	2.1	2.7	5.5	3.9	3.9	3.1	2.0	3.5	1.3	.94
15	1.5	1.6	2.1	2.1	3.2	2.9	5.6	3.1	1.8	2.8	1.2	.87
16	1.5	1.6	2.1	1.6	2.7	9.1	37	2.5	1.7	14	1.3	.79
17	1.5	1.6	2.1	1.6	2.5	30	17	2.4	2.1	4.4	1.6	.77
18	1.5	1.6	1.9	1.7	5.7	3.9	3.8	2.5	2.1	2.8	1.4	.77
19	1.4	1.6	1.9	2.0	31	2.9	3.3	5.0	2.0	2.2	1.2	.76
20	1.5	1.6	2.6	2.0	5.0	2.7	3.2	11	2.2	2.0	1.1	.74
21	1.5	1.5	2.1	2.1	3.5	2.7	2.7	3.4	293	1.8	1.1	.77
22	1.5	1.5	1.9	2.1	4.0	8.1	25	6.6	250	1.7	1.1	.76
23	1.6	1.6	1.8	2.5	3.0	3.3	5.3	3.4	46	1.6	1.0	.69
24	2.7	5.8	1.9	3.4	4.2	2.7	5.8	2.7	7.0	1.5	1.0	.71
25	43	61	1.9	2.4	15	2.5	3.4	2.3	5.4	1.5	.94	.71
26	15	3.3	1.9	1.9	23	2.4	3.0	2.2	3.9	1.5	.94	.70
27	2.9	2.7	1.9	1.8	4.8	2.3	2.8	2.1	2.9	1.6	3.0	.72
28	2.3	2.4	1.9	2.4	4.7	2.3	2.7	2.0	2.6	1.5	5.0	.75
29	2.1	17	1.7	2.1	4.3	2.3	2.6	2.0	49	1.5	1.2	.78
30	2.1	4.4	1.9	2.2	------	2.3	2.5	35	11	1.5	1.1	1.0
31	2.1	------	1.8	1.9	------	2.3	------	18	------	1.5	1.0	------
TOTAL	140.8	138.9	83.0	89.7	206.6	136.8	183.0	191.9	722.1	188.5	50.18	25.54
MEAN	4.54	4.63	2.68	2.89	7.12	4.41	6.10	6.19	24.1	6.08	1.62	.85
MAX	43	61	16	9.5	36	30	37	35	293	72	5.1	1.3
MIN	1.2	1.5	1.7	1.6	1.6	2.3	2.1	2.0	1.7	1.5	.94	.69
CFSM	2.02	2.06	1.19	1.28	3.16	1.96	2.71	2.75	10.7	2.70	.72	.38
IN.	2.33	2.30	1.37	1.48	3.42	2.26	3.03	3.17	11.94	3.12	.83	.42

CAL YR 1971 TOTAL 1,407.03 MEAN 3.85 MAX 73 MIN .55 CFSM 1.71 IN 23.26
WTR YR 1972 TOTAL 2,157.02 MEAN 5.89 MAX 293 MIN .69 CFSM 2.62 IN 35.66

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0700	3.09	160	5-30	Unknown	5.58	908
10-25	1745	3.17	171	6-21	*2400	†8.26	3,110
11-25	0200	3.75	258	6-29	2115	4.37	411
4-16	2130	4.27	368	7- 2	1915	5.67	982
5- 4	0330	3.35	198				

* About.
† From high-water mark in gage house.
NOTE.--No gage-height record 2330 hours June 21 to 0800 hours June 22.

01647720 North Branch Rock Creek near Norbeck, Md.

LOCATION.--Lat 39°06'59", long 77°06'09", Montgomery County, on left bank 550 ft downstream from bridge on Muncaster Mill Road (State Highway 115), 0.7 mile upstream from Manor Run, 1.5 miles northwest of Norbeck, and 2 miles upstream from mouth.

DRAINAGE AREA.--9.73 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 11.6 cfs (16.19 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,100 cfs June 22 (gage height, 14.1 ft, from floodmarks), from rating curve extended as explained below; minimum daily, 2.6 cfs Sept. 27.
Period of record: Maximum discharge, 10,100 cfs June 22, 1972 (gage height, 14.1 ft, from floodmarks), from rating curve extended above 400 cfs on basis of computation of peak flow through culvert and flow over road; minimum daily, 0.40 cfs July 17-18, 1969.

REMARKS.--Records fair. Diversion at low flow for irrigation of golf courses above station. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	9.7	14	8.6	8.9	19	11	12	18	22	6.6	4.2
2	12	9.6	11	26	10	19	15	11	12	110	6.6	4.1
3	8.3	16	10	12	70	43	11	36	9.7	120	7.2	4.2
4	6.6	10	10	14	40	18	13	125	20	26	8.0	4.8
5	6.6	9.0	10	36	12	16	11	22	18	20	7.0	4.3
6	7.8	8.7	10	14	10	14	11	15	10	18	7.0	4.2
7	6.0	11	55	11	9.2	13	16	13	9.8	16	14	4.0
8	5.6	8.9	20	11	9.8	12	18	13	8.4	30	12	4.2
9	5.6	8.5	15	23	8.5	11	13	43	7.7	17	7.5	3.6
10	113	8.6	13	27	8.6	11	11	20	7.2	14	6.5	2.9
11	14	9.3	12	16	9.8	11	10	14	7.0	13	6.2	2.8
12	9.7	8.9	11	13	9.6	11	9.7	12	6.6	13	6.1	3.2
13	8.3	8.9	11	12	80	12	71	11	7.6	22	6.0	3.5
14	8.0	7.7	10	13	28	17	20	13	8.4	14	5.6	3.6
15	7.4	8.1	10	11	16	14	24	14	7.0	13	5.0	4.2
16	7.4	8.1	10	9.2	14	20	55	13	6.8	62	4.7	3.2
17	7.0	7.4	10	8.8	13	118	120	10	8.4	26	6.1	3.2
18	7.0	7.4	9.7	9.2	16	19	13	9.9	10	15	6.5	3.0
19	7.0	7.6	9.7	11	103	15	16	13	8.6	11	5.3	3.3
20	7.0	7.6	12	11	20	13	14	45	8.7	9.5	4.5	2.9
21	7.0	7.2	10	12	17	13	13	17	388	9.0	4.4	3.0
22	7.4	7.1	9.2	11	20	30	86	20	1,540	8.5	4.4	3.3
23	9.0	7.2	9.1	12	18	18	25	14	200	8.0	4.4	2.9
24	10	10	9.8	17	22	14	22	10	41	7.8	4.4	2.8
25	170	244	9.5	13	60	13	16	9.5	25	7.5	4.2	2.7
26	66	23	9.4	10	90	13	14	8.9	20	7.2	4.2	2.8
27	17	16	9.4	9.9	24	12	13	8.5	16	7.0	7.9	2.6
28	13	14	9.3	12	20	12	13	8.2	18	7.0	19	2.9
29	11	67	8.7	11	19	11	13	8.1	90	7.4	5.4	3.0
30	11	24	9.4	11	------	11	12	98	108	7.4	4.5	4.5
31	9.7	------	9.1	9.9	------	11	------	115	------	7.0	4.3	------
TOTAL	603.5	606.6	376.3	426.1	784.3	584	715.7	782.1	2,645.9	675.3	205.5	103.9
MEAN	19.4	20.2	12.1	13.7	27.0	18.8	23.9	25.2	88.2	21.8	6.63	3.46
MAX	170	244	55	36	103	118	120	125	1,540	120	19	4.8
MIN	5.6	7.1	9.7	8.3	8.5	11	9.7	8.1	6.6	7.0	4.2	2.6
CFSM	1.99	2.08	1.24	1.41	2.77	1.93	2.46	2.59	9.06	2.24	.68	.36
IN.	2.30	2.32	1.44	1.63	3.00	2.23	2.74	2.99	10.12	2.58	.79	.40

CAL YR 1971 TOTAL 5,866.3 MEAN 16.1 MAX 276 MIN 2.0 CFSM 1.65 IN 22.43
WTR YR 1972 TOTAL 8,508.2 MEAN 23.2 MAX 1,540 MIN 2.6 CFSM 2.38 IN 32.53

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0945	3.58	338	3-17	0400	3.62	347
10-25	1915	4.03	448	4-17	0030	4.74	642
11-25	0445	4.79	657	5- 4	0615	4.08	460
2- 3	2145	3.44	308	5-30	2400	5.74	986
2-13	Unknown	†3.58	338	6-22	*0100	†14.1	10,100
2-19	0330	3.55	331	7-16	1945	4.92	323

* About.
† From floodmarks.
NOTE.--No gage-height record June 21 to July 11.

01647725 Manor Run near Norbeck, Md.

LOCATION.--Lat 36°06'36", long 77°06'00", Montgomery County, on left bank 100 ft downstream from ford on farm lane, 0.5 mile upstream from mouth, and 1.2 miles west of Norbeck.

DRAINAGE AREA.--1.01 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 1.31 cfs (17.61 inches per year).

EXTREMES.--Current year: Maximum discharge, 909 cfs June 21 (gage height, 5.12 ft), from rating curve extended above 220 cfs on basis of a slope-area measurement of peak flow; minimum daily, 0.32 cfs Sept. 11, 17, 20, 23-29.
Period of record: Maximum discharge, 909 cfs June 21, 1972 (gage height, 5.12 ft), from rating curve extended above 220 cfs on basis of a slope-area measurement of peak flow; minimum daily, 0.17 cfs Aug. 17, 1967, Sept. 30, Oct. 1-5, 1968.

REMARKS.--Records fair. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1969: 1967-68(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	.62	.92	.53	.57	1.4	1.0	.83	.83	1.5	.56	.39
2	1.8	.62	.75	3.0	.68	1.3	1.4	1.0	.68	37	.52	.39
3	.57	1.9	.75	.75	15	5.3	.83	5.7	.62	3.2	.58	.39
4	.53	.68	.75	2.2	2.1	1.4	1.2	12	4.8	1.3	.63	.53
5	.53	.57	.68	4.7	.75	1.2	.83	1.5	1.0	1.5	.61	.44
6	1.2	.57	.75	.92	.66	1.0	.83	1.1	.68	1.3	.52	.42
7	.53	1.1	10	.75	.60	1.0	2.3	.95	.62	1.1	1.3	.39
8	.53	.62	1.3	.68	.57	.93	2.2	1.0	.53	.96	.62	.38
9	.53	.57	1.0	3.6	.57	.83	1.1	5.7	.53	.92	.52	.35
10	14	.57	.92	2.0	.53	.83	1.2	1.6	.49	.82	.47	.34
11	.83	.57	.83	1.1	.57	.83	.93	1.1	.49	.74	.47	.32
12	.62	.57	.75	.83	.57	.83	.93	.93	.49	.75	.45	.33
13	.53	.57	.75	.83	17	.92	8.3	.85	.57	2.2	.47	.35
14	.53	.53	.68	.92	2.4	1.6	1.5	1.2	.53	.85	.47	.90
15	.49	.53	.68	.68	1.3	1.1	3.8	1.1	.53	.78	.43	.39
16	.49	.53	.68	.54	1.1	6.4	8.6	.92	.49	17	.43	.35
17	.49	.53	.62	.53	1.0	12	5.7	.75	.83	1.8	.56	.32
18	.49	.53	.57	.57	4.1	1.4	1.3	.94	.68	.97	.51	.33
19	.49	.53	.57	.62	11	1.1	1.1	3.4	.57	.82	.46	.34
20	.45	.57	1.0	.68	16	1.1	1.0	4.9	.83	.73	.42	.32
21	.45	.53	.68	.75	1.2	1.0	.96	1.3	102	.72	.40	.34
22	.45	.53	.60	.75	1.6	3.5	11	1.4	59	.67	.39	.34
23	.53	.53	.57	.92	1.3	1.3	2.0	.92	15	.66	.39	.32
24	1.4	12	.57	1.9	2.6	1.0	2.4	.75	2.5	.66	.39	.32
25	24	27	.57	.92	6.4	.92	1.2	.68	1.5	.64	.39	.32
26	5.9	1.3	.57	.68	12	.83	1.1	.62	1.0	.61	.39	.32
27	1.1	1.1	.57	.62	2.1	.83	1.0	.57	.81	.61	8.8	.32
28	.83	.92	.57	1.0	2.0	.83	.88	.57	.89	.58	2.1	.32
29	.75	8.2	.57	.75	1.6	.83	.83	.57	29	.57	.50	.32
30	.68	1.6	.57	.75	------	.83	.83	3.0	6.8	.57	.43	.52
31	.62	------	.53	.62	------	.83	------	1.4	------	.57	.42	------
TOTAL	63.17	66.99	31.32	36.09	107.87	55.17	68.25	59.25	235.29	83.10	25.60	11.41
MEAN	2.04	2.23	1.01	1.16	3.72	1.78	2.28	1.91	7.84	2.68	.83	.38
MAX	24	27	10	4.7	17	12	11	12	102	37	8.8	.90
MIN	.45	.53	.53	.53	.53	.83	.83	.57	.49	.57	.39	.32
CFSM	2.02	2.21	1.00	1.15	3.68	1.76	2.26	1.89	7.76	2.65	.82	.38
IN.	2.33	2.47	1.15	1.33	3.97	2.03	2.51	2.18	8.67	3.06	.94	.42

CAL YR 1971 TOTAL 624.28 MEAN 1.71 MAX 30 MIN .35 CFSM 1.69 IN 22.99
WTR YR 1972 TOTAL 843.51 MEAN 2.30 MAX 102 MIN .32 CFSM 2.28 IN 31.07

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-25	0045	2.77	152	7- 2	1945	4.72	560
6-21	2230	5.12	909	7-16	1715	3.71	259
6-29	2030	4.22	376	8-27	2245	2.95	169

01647740 North Branch Rock Creek near Rockville, Md.

LOCATION.--Lat 39°06'09", long 77°07'12", Montgomery County, on left bank 170 ft downstream from outlet of Bernard Frank Lake, 370 ft upstream from mouth, and 2.4 miles northeast of Rockville.

DRAINAGE AREA.--12.5 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 270 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 16.6 cfs (18.03 inches per year).

EXTREMES.--Current year: Maximum discharge, 420 cfs June 22 (gage height, 6.10 ft), from rating curve extended as explained below; maximum gage height, 9.62 ft June 22 (backwater from Rock Creek); minimum discharge, 4.6 cfs Sept. 25-30 (gage height, 1.16 ft).
Period of record: Maximum discharge, 420 cfs June 22, 1972 (gage height, 6.10 ft), from rating curve extended above 100 cfs on basis of flow-through-culvert and flow-over-road measurement at gage height 5.90 ft; maximum gage height, 9.62 ft June 22, 1972 (backwater from Rock Creek); minimum discharge, 0.01 cfs July 28-29, 1971 (gage height, 0.64 ft), when drain valve at Bernard Frank Lake was closed.

REMARKS.--Records good. Flow regulated by dam above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1970: 1967-68(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	26	54	12	16	45	16	28	44	107	11	9.0
2	11	19	46	15	15	39	18	24	42	106	12	8.1
3	14	19	39	19	17	44	18	26	39	145	12	7.7
4	11	19	30	19	32	43	18	40	38	108	12	6.9
5	9.8	16	24	23	32	36	17	43	37	103	12	6.9
6	10	14	21	23	31	29	16	42	35	97	12	6.8
7	9.8	13	32	23	29	24	17	39	30	92	13	6.6
8	8.6	14	43	22	28	23	22	37	26	85	20	6.5
9	7.9	13	38	21	26	21	22	37	24	80	18	6.2
10	47	13	32	26	25	20	20	38	22	70	16	6.0
11	57	12	27	25	23	18	19	37	19	58	13	5.6
12	47	12	21	24	22	18	17	35	16	50	11	5.5
13	32	12	19	23	42	18	31	34	15	43	10	5.5
14	21	12	17	22	80	20	34	32	15	39	9.4	5.8
15	15	12	16	21	71	22	33	31	13	33	8.2	6.9
16	11	11	15	20	58	22	34	28	13	33	8.2	6.8
17	10	11	15	18	47	70	52	27	13	57	8.0	5.8
18	9.4	11	13	17	37	65	54	24	13	48	7.9	5.5
19	9.4	11	12	16	67	52	50	24	13	36	7.9	5.5
20	9.0	11	14	16	67	43	46	28	13	26	7.9	5.2
21	9.0	11	14	16	56	35	42	29	51	21	7.9	5.2
22	9.0	9.8	14	16	49	32	46	29	404	18	7.7	5.2
23	9.0	9.4	14	16	45	35	49	29	384	16	6.5	5.2
24	11	12	14	17	37	29	48	26	370	14	6.5	4.6
25	39	80	14	17	40	26	47	25	345	13	6.4	4.6
26	81	76	14	18	66	23	43	23	331	13	6.2	4.6
27	76	70	13	17	68	21	41	21	218	12	6.6	4.6
28	67	62	13	16	58	19	38	18	108	12	31	4.6
29	57	58	13	16	51	17	36	16	103	12	21	4.6
30	47	61	12	16	------	16	33	16	111	12	14	5.1
31	36	------	12	16	------	16	------	50	------	11	11	------
TOTAL	799.1	730.2	675	586	1,235	941	977	936	2,905	1,570	354.3	177.1
MEAN	25.8	24.3	21.8	18.9	42.6	30.4	32.6	30.2	96.8	50.6	11.4	5.90
MAX	81	80	54	26	80	70	54	50	404	145	31	9.0
MIN	7.9	9.4	12	12	15	16	16	16	13	11	6.2	4.6
CFSM	2.06	1.94	1.74	1.51	3.41	2.43	2.61	2.42	7.74	4.05	.91	.47
IN.	2.38	2.17	2.01	1.74	3.68	2.80	2.91	2.79	8.65	4.67	1.05	.53

CAL YR 1971 TOTAL 8,111.42 MEAN 22.2 MAX 96 MIN .02 CFSM 1.78 IN 24.14
WTR YR 1972 TOTAL 11,885.70 MEAN 32.5 MAX 404 MIN 4.6 CFSM 2.60 IN 35.37

01648000 Rock Creek at Sherrill Drive, Washington, D. C.

LOCATION.--Lat 38°58'21", long 77°02'25", District of Columbia, on left bank 125 ft downstream from new Sherrill Drive Bridge in Rock Creek Park in Washington, and 7½ miles upstream from mouth.

DRAINAGE AREA.--62.2 sq mi.

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 148.87 ft above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--43 years, 58.3 cfs (12.73 inches per year).

EXTREMES.--Current year: Maximum discharge, 12,500 cfs June 22 (gage height, 16.2 ft from floodmark), from rating curve extended as explained below; minimum daily, 22 cfs Sept. 10.
Period of record: Maximum discharge, 12,500 cfs June 22, 1972 (gage height, 16.2 ft from floodmark), from rating curve extended above 4,400 cfs on basis of contracted-opening measurements at gage heights 13.19 and 16.2 ft; minimum, 0.5 cfs Oct. 1-7, 1930 (gage height, 1.04 ft).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Flow affected by two reservoirs upstream; Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968.

REVISIONS (WATER YEARS).--WSP 1432: 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	82	142	46	104	133	75	90	153	309	52	36
2	100	70	117	134	117	122	119	90	103	366	48	35
3	51	118	95	63	348	243	75	150	93	940	51	33
4	43	66	83	89	289	125	90	600	99	332	85	34
5	46	56	67	205	144	106	75	174	154	281	83	32
6	112	53	63	108	92	91	75	138	85	252	49	30
7	39	75	386	94	90	84	100	120	77	227	49	30
8	35	51	141	80	85	79	150	110	69	216	71	28
9	35	49	106	95	55	75	90	267	66	189	56	24
10	566	48	90	143	48	73	75	140	61	166	49	22
11	172	47	78	87	45	69	70	111	56	139	45	24
12	134	46	68	74	44	69	70	101	53	121	42	26
13	101	45	62	78	599	75	350	93	55	162	41	28
14	81	44	58	90	175	108	150	120	75	106	42	32
15	68	43	56	66	127	86	180	100	51	92	38	30
16	59	43	56	60	112	128	240	98	49	238	36	28
17	54	35	54	60	110	624	600	81	66	256	67	26
18	52	36	52	59	125	182	160	78	104	126	55	25
19	50	38	49	56	652	153	120	104	59	104	40	25
20	49	41	90	58	199	130	110	275	60	86	36	25
21	48	40	54	53	153	111	100	117	950	75	34	25
22	48	39	43	54	173	215	450	120	5,000	67	34	25
23	56	39	43	64	129	127	200	100	1,200	63	34	24
24	115	113	43	101	166	106	150	87	900	59	32	24
25	765	1,010	45	68	224	93	120	81	860	56	32	24
26	598	223	43	53	393	86	110	74	820	53	32	24
27	206	189	42	52	190	81	100	69	600	52	60	25
28	171	158	43	73	162	77	95	66	330	54	100	27
29	148	322	43	59	147	77	95	63	682	51	50	24
30	124	199	45	78	------	73	90	70	744	55	44	55
31	102	------	46	76	------	75	------	254	------	51	40	------
TOTAL	4,306	3,418	2,403	2,476	5,297	3,876	4,484	4,141	13,674	5,344	1,527	850
MEAN	139	114	77.5	79.9	183	125	149	134	456	172	49.3	28.3
MAX	765	1,010	386	205	652	624	600	600	5,000	940	100	55
MIN	35	35	42	46	44	69	70	63	49	51	32	22
CFSM	2.23	1.83	1.25	1.28	2.94	2.01	2.40	2.15	7.33	2.77	.79	.46
IN.	2.58	2.04	1.44	1.48	3.17	2.32	2.68	2.48	8.18	3.20	.91	.51

CAL YR 1971 TOTAL 36,387 MEAN 99.7 MAX 1,010 MIN 22 CFSM 1.60 IN 21.76
WTR YR 1972 TOTAL 51,796 MEAN 142 MAX 5,000 MIN 22 CFSM 2.28 IN 30.98

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1130	5.43	1,130	4-17	*	*	*
10-25	2400	6.51	1,480	5- 4	*	*	*
11-25	1000	7.08	1,700	6-22	†0300	a16.2	12,500
2- 4	0045	5.29	1,090	6-30	0315	6.79	1,590
2-13	1500	5.64	1,190	7- 3	0545	7.60	1,910
3-17	0700	5.95	1,290	7-16	2330	5.13	1,040

* Unknown.
† About.
a From floodmark.
NOTE.--No gage-height record Apr. 4 to May 4, and June 22-27.

01649500 Northeast Branch Anacostia River at Riverdale, Md.

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, on right bank 200 ft downstream from bridge on Riverdale Road, in Riverdale, 1.8 miles downstream from Indian Creek, and 1.8 miles upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 sq mi.

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

GAGE.--Water-stage recorder 200 ft downstream from bridge. Datum of gage is 12.68 ft above mean sea level (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 at datum 9.25 ft above mean sea level.

AVERAGE DISCHARGE.--34 years 79.4 cfs (14.80 inches per year).

EXTREMES.--Current year: Maximum discharge, 10,600 cfs June 22 (gage height, 9.52 ft), from rating curve extended as explained below; minimum, 21 cfs Sept. 11, 12 (gage height, 1.32 ft).
Period of record: Maximum discharge, 10,600 cfs June 22, 1972 (gage height, 9.52 ft), from rating curve extended above 3,800 cfs 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 cfs Sept. 12, 1966.
Maximum stage known, about 15.5 ft, at datum 14.00 ft above mean sea level, Aug. 23, or 24, 1933, from floodmarks (discharge, 10,500 cfs from rating curve extended above 3,000 cfs on basis of velocity-area study).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation at low flow by sand and gravel plants above station. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1968: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	70	137	58	57	117	69	73	144	327	53	30
2	120	76	94	164	79	107	92	71	64	215	44	33
3	65	140	78	99	154	344	69	264	53	422	45	34
4	50	86	76	133	132	197	88	415	91	313	67	33
5	50	64	71	352	105	128	71	158	214	152	74	38
6	100	60	66	154	88	99	63	107	95	122	47	39
7	50	76	725	99	83	89	160	91	71	103	46	34
8	40	58	369	86	81	81	195	89	52	101	62	27
9	42	55	149	129	80	76	118	316	45	90	43	27
10	800	55	112	206	79	73	93	182	43	76	38	27
11	110	53	96	140	72	66	81	107	38	67	36	24
12	80	51	81	107	60	69	72	89	38	64	35	25
13	60	53	73	117	977	71	586	81	42	289	114	29
14	55	51	71	140	470	115	267	112	52	98	87	140
15	50	49	69	91	157	94	160	207	43	73	44	84
16	50	51	71	66	111	169	353	176	40	263	38	38
17	48	53	66	81	105	649	874	89	47	265	71	31
18	46	49	62	66	147	196	192	81	91	102	55	30
19	46	47	60	66	1,880	117	122	134	69	79	44	32
20	46	53	153	71	428	96	104	544	57	75	38	28
21	46	51	102	78	202	90	87	235	781	66	33	29
22	46	46	76	76	201	252	753	148	4,700	59	32	32
23	48	44	66	86	143	166	415	119	1,350	51	33	29
24	90	193	66	131	287	107	230	81	362	51	31	27
25	1,000	1,680	67	95	379	93	139	68	256	52	30	26
26	700	331	66	69	597	86	104	61	145	49	36	26
27	130	146	65	60	244	79	90	58	111	44	40	28
28	90	104	62	102	162	75	81	55	338	46	123	30
29	75	396	61	85	131	72	78	51	399	47	42	27
30	70	317	60	74	------	71	76	50	747	54	33	58
31	65	------	60	65	------	69	------	203	------	55	31	------
TOTAL	4,328	4,558	3,430	3,346	7,691	4,113	5,882	4,515	10,578	3,870	1,545	1,095
MEAN	140	152	111	108	265	133	196	146	353	125	49.8	36.5
MAX	1,000	1,680	725	352	1,880	649	874	544	4,700	422	123	140
MIN	40	44	60	58	57	66	63	50	38	44	30	24
CFSM	1.92	2.09	1.52	1.48	3.64	1.83	2.69	2.01	4.85	1.72	.68	.50
IN.	2.21	2.33	1.75	1.71	3.93	2.10	3.01	2.31	5.41	1.98	.79	.56

CAL YR 1971 TOTAL 47,172 MEAN 129 MAX 1,680 MIN 14 CFSM 1.77 IN 24.10
WTR YR 1972 TOTAL 54,951 MEAN 150 MAX 4,700 MIN 24 CFSM 2.06 IN 28.08

PEAK DISCHARGE (BASE, 1,650 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	*	*	*	2-19	0415	5.88	3,390
10-25	*	*	*	4-16	2315	4.57	1,930
11-25	0145	5.48	2,900	6-22	0530	9.52	10,600
2-13	1045	4.55	1,910	6-29	2300	4.49	1,850

* Unknown (discharge greater than base.
NOTE.--No gage-height record Oct. 1 to Nov. 1.

01650050 Northwest Branch Anacostia River at Norwood, Md.

LOCATION.--Lat 39°07'36", long 77°01'15", Montgomery County, on left bank 20 ft downstream from bridge on Ednor Road, 0.2 mile downstream from tributary, 0.4 mile east of Norwood, 1.6 miles south of Sandy Spring and 19 miles upstream from confluence with Northeast Branch.

DRAINAGE AREA.--2.45 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 360 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 2.84 cfs (15.74 inches per year).

EXTREMES.--Current year: Maximum discharge, 3,750 cfs June 21 (gage height, 6.25 ft, from high-water mark in gage well), from rating curve extended as explained below; minimum daily, 0.77 cfs Sept. 20, 24.
Period of record: Maximum discharge, 3,750 cfs June 21, 1972 (gage height, 6.25 ft, from high-water mark in gage well), from rating curve extended above 280 cfs on basis of culvert and flow-over-road measurements at gage heights 5.43 and 6.25 ft; minimum daily, 0.05 cfs July 19, 1969.

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1968: 1967(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.4	2.9	2.1	1.8	4.2	2.6	2.6	3.0	4.7	1.6	1.2
2	4.2	2.0	2.4	6.4	2.1	4.0	3.5	2.8	2.2	44	1.6	1.2
3	1.8	4.2	2.4	2.9	30	11	2.7	10	1.9	13	2.0	1.0
4	1.6	2.4	2.4	3.5	8.6	4.2	3.3	45	13	4.7	1.9	1.2
5	1.5	2.1	2.1	12	2.7	3.6	3.0	5.3	4.4	4.1	1.8	1.1
6	2.4	2.1	2.1	3.5	2.4	3.0	3.4	3.5	2.6	3.7	1.6	1.1
7	1.5	3.2	18	2.6	2.2	2.9	5.6	3.1	2.3	3.2	2.2	1.1
8	1.3	2.4	4.6	2.4	1.9	2.8	5.1	3.0	1.8	20	1.8	1.1
9	1.3	2.1	3.2	6.0	1.8	2.6	3.6	11	1.7	4.4	1.5	1.1
10	35	2.1	2.9	6.0	1.8	2.6	3.2	4.8	1.6	3.1	1.4	1.0
11	3.2	2.1	2.6	3.5	1.8	2.5	3.0	3.4	1.5	2.4	1.3	1.0
12	2.1	2.1	2.4	2.9	1.8	2.6	2.8	3.1	1.5	2.3	1.3	1.0
13	1.6	2.1	2.4	2.6	42	2.8	32	2.8	1.6	7.2	1.3	.90
14	1.6	2.1	2.4	2.9	7.0	3.7	5.3	3.2	1.8	2.9	1.3	.98
15	1.6	1.8	2.4	2.4	3.8	3.2	7.4	3.2	1.6	2.3	1.2	.94
16	1.5	1.6	2.4	1.8	3.2	10	19	3.0	1.5	70	1.3	.84
17	1.5	1.6	2.2	1.8	2.9	40	21	2.6	2.3	8.6	1.6	.82
18	1.5	1.6	2.1	1.8	6.0	4.6	4.4	2.4	2.0	4.0	1.4	.85
19	1.5	1.6	2.1	2.1	51	3.5	3.4	4.3	2.0	2.9	1.2	.89
20	1.5	1.8	3.2	2.1	7.0	3.2	3.2	12	1.7	2.3	1.1	.77
21	1.5	1.8	2.4	2.4	4.5	3.0	2.8	4.0	265	2.1	1.1	.84
22	1.5	1.6	2.1	2.4	4.3	8.2	29	8.3	274	2.0	1.1	.92
23	1.6	1.6	2.1	2.6	4.1	4.3	6.2	4.1	75	1.7	1.0	.81
24	3.5	12	2.1	3.5	4.2	3.3	5.5	2.8	6.5	1.6	1.2	.77
25	35	62	2.1	2.9	15	2.9	3.8	2.3	5.1	1.6	1.1	.82
26	29	4.2	2.1	2.4	33	2.9	3.3	2.1	3.5	1.6	1.0	.83
27	3.8	3.2	2.1	2.1	6.4	2.9	3.0	2.1	2.8	1.6	6.3	.84
28	2.9	2.9	2.1	2.6	5.4	2.8	2.9	2.1	2.7	1.6	5.0	.84
29	2.4	18	1.8	2.4	5.0	2.9	2.8	2.0	52	1.6	1.2	.83
30	2.4	5.0	2.1	2.4	------	2.7	2.6	3.3	14	1.6	1.2	1.1
31	2.4	------	2.1	2.1	------	2.6	------	3.6	------	1.7	1.2	------
TOTAL	155.8	155.7	90.3	99.1	263.7	155.5	199.4	167.8	752.6	228.5	51.8	28.69
MEAN	5.03	5.19	2.91	3.20	9.09	5.02	6.65	5.41	25.1	7.37	1.67	.96
MAX	35	62	18	12	51	40	32	45	274	70	6.3	1.2
MIN	1.3	1.6	1.8	1.8	1.8	2.5	2.6	2.0	1.5	1.6	1.0	.77
CFSM	2.05	2.12	1.19	1.31	3.71	2.05	2.71	2.21	10.2	3.01	.68	.39
IN.	2.37	2.36	1.37	1.50	4.00	2.36	3.03	2.55	11.43	3.47	.79	.44

CAL YR 1971 TOTAL 1,555.75 MEAN 4.26 MAX 75 MIN .77 CFSM 1.74 IN 23.62
WTR YR 1972 TOTAL 2,348.89 MEAN 6.42 MAX 274 MIN .77 CFSM 2.62 IN 35.66

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0615	2.10	165	5- 4	0315	3.12	280
10-25	1730	2.00	156	6- 4	2115	2.00	156
11-25	0145	2.92	253	6-21	*2330	†6.25	3,750*
2- 3	2030	2.48	200	6-29	2115	4.38	582
2-13	1015	1.99	155	7- 2	1945	3.47	338
2-19	0330	2.64	218	7- 8	1400	2.97	259
4-16	2245	1.95	151	7-16	1800	5.03	980

* About.
† From high-water mark in gage well.
NOTE.--No gage-height record 2245 hours June 21 to 0030 hours June 22.

01650085 Nursery Run at Cloverly, Md.

LOCATION.--Lat 39°07'05", long 77°00'24", Montgomery County, on left bank 300 ft upstream from culvert on Bryants Nursery Road, 350 ft upstream from mouth, 0.8 mile northwest of Cloverly, and 2.4 miles southeast of Sandy Spring.

DRAINAGE AREA.--0.35 sq mi.

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

AVERAGE DISCHARGE.--6 years, 0.47 cfs (18.24 inches per year).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 400 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 695 cfs June 21 (gage height, 4.85 ft), from rating curve extended as explained below; minimum, 0.13 cfs Sept. 17 (gage height, 1.63 ft).
Period of record: Maximum discharge, 695 cfs June 21, 1972 (gage height, 4.85 ft), from rating curve extended above 30 cfs on the basis of flow-through-culvert computation at gage height 3.56 ft and slope-area measurement at gage height 4.85 ft; minimum, 0.07 cfs Aug. 30, 31, Oct. 2-5, 1968, Jan. 16, and July 16-18, 1969.

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1971: 1967(P), 1968(M), 1969(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.48	.52	.42	.44	.80	.59	.57	.56	.78	.39	.28
2	.68	.48	.50	.78	.45	.75	.81	.57	.41	2.3	.37	.29
3	.45	.76	.49	.46	3.0	1.3	.61	1.1	.37	1.2	.40	.28
4	.41	.51	.49	.54	1.0	.81	.68	4.1	.96	.79	.44	.30
5	.40	.48	.47	.90	.56	.75	.58	.85	.65	.80	.43	.28
6	.62	.47	.48	.46	.50	.67	.56	.72	.48	.73	.37	.27
7	.43	.63	1.8	.44	.46	.66	.84	.63	.42	.64	.60	.25
8	.41	.48	.68	.43	.45	.64	.77	.62	.37	.75	.45	.25
9	.41	.46	.56	.71	.43	.61	.64	1.2	.34	.62	.36	.25
10	3.2	.45	.55	.62	.43	.61	.59	.81	.33	.56	.33	.23
11	.61	.44	.51	.50	.45	.61	.56	.68	.32	.51	.32	.23
12	.48	.44	.50	.46	.47	.61	.54	.62	.31	.55	.32	.24
13	.45	.43	.50	.46	3.7	.63	1.7	.56	.35	.88	.33	.25
14	.42	.43	.50	.47	.90	.82	.90	.69	.37	.55	.32	.27
15	.40	.42	.47	.44	.67	.69	1.0	.64	.33	.50	.31	.26
16	.39	.41	.47	.43	.62	1.5	2.5	.60	.30	1.7	.29	.24
17	.38	.40	.46	.43	.61	3.6	2.0	.52	.47	.80	.40	.23
18	.37	.40	.46	.43	.96	.88	.90	.51	.48	.58	.37	.28
19	.37	.40	.46	.44	4.9	.75	.89	.73	.40	.52	.32	.27
20	.36	.39	.60	.45	.88	.68	.83	1.1	.38	.48	.29	.24
21	.36	.38	.48	.45	.72	.66	.67	.73	43	.46	.28	.25
22	.37	.38	.45	.44	.84	1.4	3.7	.68	26	.44	.27	.25
23	.47	.40	.42	.46	.67	.81	1.2	.57	3.8	.42	.26	.23
24	.67	1.8	.42	.54	.82	.72	1.1	.49	.98	.39	.25	.23
25	3.1	4.7	.42	.46	1.5	.66	.72	.46	.98	.39	.26	.23
26	2.8	.70	.42	.44	3.0	.66	.63	.45	.80	.37	.40	.23
27	.67	.62	.42	.43	.97	.66	.59	.44	.65	.39	1.1	.23
28	.58	.57	.42	.48	.90	.62	.59	.41	.68	.41	.78	.24
29	.53	1.6	.42	.45	.85	.61	.59	.41	2.8	.42	.33	.24
30	.51	.70	.42	.45	------	.61	.60	.49	1.2	.42	.30	.34
31	.50	------	.42	.44	------	.61	------	.64	------	.41	.28	------
TOTAL	22.25	21.21	16.18	15.31	32.15	26.39	28.88	23.59	89.49	20.76	11.92	7.66
MEAN	.72	.71	.52	.49	1.11	.85	.96	.76	2.98	.67	.38	.26
MAX	3.2	4.7	1.8	.90	4.9	3.6	3.7	4.1	43	2.3	1.1	.34
MIN	.36	.38	.42	.42	.43	.61	.54	.41	.30	.37	.25	.23
CFSM	2.06	2.03	1.49	1.40	3.17	2.43	2.74	2.17	8.51	1.91	1.09	.74
IN.	2.36	2.25	1.72	1.63	3.42	2.80	3.07	2.51	9.51	2.21	1.27	.81

CAL YR 1971 TOTAL 204.73 MEAN .56 MAX 6.0 MIN .15 CFSM 1.60 IN 21.76
WTR YR 1972 TOTAL 315.79 MEAN .86 MAX 43 MIN .23 CFSM 2.46 IN 33.56

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5- 4	0045	2.48	35	6-29	2045	2.43	33
6-21	2315	4.85	695				

01650450 Bel Pre Creek at Layhill, Md.

LOCATION.--Lat 39°05'27", long 77°03'11", Montgomery County, on right bank 130 ft upstream from bridge on Bel Pre Road, 0.5 mile west of Layhill, 1.2 miles upstream from Lutes Run, 1.8 miles southeast of Norbeck, and 2.9 miles upstream from mouth.

DRAINAGE AREA.--1.69 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 350 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 2.09 cfs (16.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,930 cfs June 21 (gage height, 10.47 ft, from high-water mark in gage house), from rating curve extended above 210 cfs on basis of culvert measurements at gage heights 8.49 and 10.47 ft; minimum daily, 0.29 cfs Sept. 24.
Period of record: Maximum discharge, 1,930 cfs June 21, 1972 (gage height, 10.47 ft, from high-water mark in gage house), from rating curve extended above 210 cfs on basis of culvert measurements at gage heights 8.49 and 10.47 ft; minimum daily, 0.04 cfs Aug. 25-26, Sept. 1, 1968.

REMARKS.--Records good prior to June 21 and fair thereafter. Diversions at low flow for irrigation of golf courses above station. Some regulation at low flow from unknown cause. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1968: 1967. WRD Md. and Del. 1970: 1967(P), 1968(P), 1969(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.66	1.1	.51	.54	2.0	1.4	.86	1.5	2.6	1.3	.39
2	2.9	.66	.75	6.0	.60	1.5	2.2	1.2	.66	35	.92	.39
3	.66	3.1	.66	1.2	20	11	.98	9.6	.58	21	1.6	.39
4	.51	.86	.66	3.5	3.0	2.3	2.0	25	7.1	4.2	1.9	.53
5	.51	.58	.58	10	.90	1.8	1.2	2.7	2.4	2.4	1.5	.42
6	1.8	.51	.86	1.7	.70	1.2	1.1	1.4	.81	1.6	.82	.42
7	.44	2.2	19	.98	.60	1.2	4.4	1.1	.65	1.4	2.8	.43
8	.38	.66	2.7	.75	.56	.98	4.7	1.4	.50	1.3	.79	.44
9	.38	.58	1.5	5.4	.56	.86	2.0	10	.44	1.2	.58	.47
10	31	.58	1.2	4.4	.50	.86	1.4	2.9	.44	.94	.49	.42
11	1.5	.58	.98	2.0	.50	.75	1.2	1.2	.44	.66	.50	.34
12	.66	.58	.86	1.2	.50	.75	1.1	.98	.44	.66	.47	.50
13	.51	.51	.86	1.1	25	1.1	19	.86	1.5	5.6	.79	.62
14	.51	.51	.75	1.5	3.0	2.5	2.7	1.5	2.9	.78	.50	2.6
15	.44	.51	.75	.86	1.1	1.5	6.8	1.2	.65	.64	.37	.41
16	.38	.51	.66	.52	.90	14	18	1.1	.78	21	.33	.33
17	.38	.51	.66	.51	.80	36	15	.96	1.3	3.7	1.1	.32
18	.44	.51	.58	.51	2.0	2.5	2.2	.75	1.5	.79	.52	2.8
19	.44	.51	.58	.66	14	1.5	1.4	4.0	.66	.62	.43	.38
20	.44	.51	2.0	.86	17	1.2	1.2	9.0	1.8	.60	.42	.31
21	.44	.51	.86	.98	1.1	1.1	.98	2.2	197	.61	.42	.35
22	.44	.44	.66	.98	1.3	7.4	24	1.7	194	.62	.46	.33
23	.75	.38	.58	1.5	1.0	2.3	4.0	1.1	3.0	.52	.42	.31
24	1.8	17	.58	3.3	2.0	1.2	3.7	.75	1.5	.49	.31	.29
25	49	51	.58	1.5	9.0	1.1	1.7	.66	4.0	.67	.40	.31
26	18	2.3	.58	.68	15	.98	1.2	.58	3.4	.52	.40	.36
27	1.8	1.5	.58	.60	3.5	.98	1.1	.58	2.3	.52	11	.47
28	.98	1.1	.66	.70	3.1	.98	.98	.58	2.6	.66	8.6	.43
29	.75	14	.58	.80	2.3	.86	.98	.58	34	.74	.49	.39
30	.66	2.9	.66	.70	------	.86	.86	2.3	15	1.0	.40	.97
31	.66	------	.51	.60	------	.86	------	2.3	------	1.2	.39	------
TOTAL	120.76	106.76	44.52	56.50	131.06	104.12	129.48	90.94	473.85	114.24	41.42	17.12
MEAN	3.90	3.56	1.44	1.82	4.52	3.36	4.32	2.93	15.8	3.69	1.34	.57
MAX	49	51	19	10	25	36	24	25	197	35	11	2.8
MIN	.38	.38	.51	.51	.50	.75	.86	.58	.44	.49	.31	.29
CFSM	2.31	2.11	.85	1.08	2.67	1.99	2.56	1.73	9.35	2.18	.79	.34
IN.	2.66	2.35	.98	1.24	2.88	2.29	2.85	2.00	10.43	2.51	.91	.38

CAL YR 1971 TOTAL 1,091.88 MEAN 2.99 MAX 61 MIN .09 CFSM 1.77 IN 24.03
WTR YR 1972 TOTAL 1,430.77 MEAN 3.91 MAX 197 MIN .29 CFSM 2.31 IN 31.49

PEAK DISCHARGE (BASE, 140 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0615	3.99	155	5- 4	0300	4.21	171
10-25	1715	4.23	172	6-21	†2300	*10.47	1,930
11-25	0100	4.61	198	6-29	2100	4.97	151
2- 3	Unknown	*4.12	164	7- 2	1930	5.89	264
2-13	Unknown	*3.98	154	8-27	2330	5.69	234
3-16	2330	4.06	160				

* From high-water mark in gage house.
† About.
NOTE.--No gage-height record Jan. 26 to Feb. 28, June 21-25.

01650500 Northwest Branch Anacostia River near Colesville, Md.

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, on right bank 400 ft upstream from bridge on State Highway 183, 1.5 miles southwest of Colesville, 3 miles upstream from Burnt Mills, 10 miles upstream from Sligo Creek, and 12.5 miles upstream from confluence with Northeast Branch.
DRAINAGE AREA.--21.1 sq mi.
PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1302.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 264.85 ft above mean sea level, adjustment of 1912. Prior to Apr. 22, 1932, nonrecording gages in same general vicinity at different datums. Apr. 22, 1932, to Apr. 11, 1934, nonrecording gages at present site and datum.
AVERAGE DISCHARGE (UNADJUSTED).--49 years, 21.9 cfs (14.09 inches per year).
EXTREMES.--Current year: Maximum discharge, 11,000 cfs June 22 (gage height, 15.89 ft, from high-water mark in gage house), from rating curve extended as explained below; minimum, 7.2 cfs Sept. 26, 27 (gage height 1.70 ft).
Period of record: Maximum discharge, 11,000 cfs June 22, 1972 (gage height, 15.89 ft, from high-water mark in gage house), from rating curve extended above 1,200 cfs on basis of contracted-opening and flow-over-road measurement at gage height 10.99 ft and computation of flow over Burnt Mills Dam, 3 miles downstream, adjusted for flow from intervening area, at gage height 15.89 ft; no flow several days during August and September 1966.
REMARKS.--Records good. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District August 1939 to August 1960. Diversions at low flow since 1962 for irrigation of golf courses above station. Water-quality records for the current water year are published in Part 2 of this report.
REVISIONS (WATER YEARS).--WSP 1432: 1924(M), 1925-26, 1929-30(M), 1933(M), 1939(P), 1940(M) 1943-46, 1948-49(P). WSP 1903: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	27	17	18	38	25	26	32	45	17	10
2	32	18	23	54	21	35	36	27	21	194	16	11
3	17	34	21	26	169	88	26	82	19	239	16	11
4	13	21	21	33	114	41	31	301	47	56	20	11
5	13	18	20	89	28	34	27	51	75	41	19	11
6	22	18	20	31	24	29	26	35	24	35	15	10
7	13	26	130	24	21	28	43	31	22	29	17	9.7
8	11	19	43	22	20	27	47	30	19	47	22	9.3
9	11	18	29	41	19	25	33	94	17	31	15	9.2
10	212	17	26	59	18	25	28	46	16	25	14	8.5
11	31	17	24	31	18	24	27	32	16	23	14	9.4
12	19	16	22	26	19	25	25	28	15	22	13	10
13	16	16	21	25	295	27	161	26	17	48	15	9.2
14	15	16	20	27	65	36	49	31	21	27	15	14
15	14	16	21	22	37	30	68	30	17	23	13	11
16	13	16	21	18	30	46	104	28	16	160	12	9.0
17	13	15	21	17	28	308	175	25	20	85	17	8.5
18	13	15	19	19	40	46	42	23	24	31	15	15
19	12	15	18	21	353	35	34	34	20	26	14	10
20	12	15	31	21	59	31	32	95	19	22	13	8.3
21	12	15	23	22	42	29	29	39	625	21	11	8.7
22	12	14	19	22	45	72	194	39	2,370	20	9.9	9.3
23	13	13	18	25	37	43	60	33	200	19	9.9	8.3
24	23	42	20	36	46	32	52	25	66	17	9.5	8.2
25	246	456	19	26	114	29	38	23	56	17	9.4	8.5
26	187	41	19	21	203	28	32	21	37	15	9.9	8.2
27	36	29	19	19	56	27	30	21	31	15	23	8.1
28	25	25	19	25	46	26	28	21	30	17	98	9.9
29	21	101	18	23	42	26	27	20	159	17	15	9.0
30	20	48	19	22	------	25	27	22	193	18	12	13
31	19	------	18	20	------	25	------	43	------	18	11	------
TOTAL	1,132	1,149	789	884	2,027	1,340	1,556	1,382	4,244	1,403	530.6	296.3
MEAN	36.5	38.3	25.5	28.5	69.9	43.2	51.9	44.6	141	45.3	17.1	9.88
MAX	246	456	130	89	353	308	194	301	2,370	239	98	15
MIN	11	13	18	17	18	24	25	20	15	15	9.4	8.1
CFSM	1.73	1.82	1.21	1.35	3.31	2.05	2.46	2.11	6.68	2.15	.81	.47
IN.	2.00	2.03	1.39	1.56	3.57	2.36	2.74	2.44	7.48	2.47	.94	.52

CAL YR 1971 TOTAL 12,005.9 MEAN 32.9 MAX 494 MIN 5.6 CFSM 1.56 IN 21.17
WTR YR 1972 TOTAL 16,732.9 MEAN 45.7 MAX 2,370 MIN 8.1 CFSM 2.17 IN 29.50

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-25	1830	6.07	675	5- 4	0500	6.83	828
11-25	0530	7.72	1,070	6-22	*0100	†15.89	11,000
2- 3	2130	6.08	676	6-30	0200	6.65	790
2-13	1300	6.09	678	7- 2	2230	7.86	1,110
2-19	0430	7.16	910	7-16	2300	6.48	756
3-17	0430	6.63	786				

* About.
† From high-water mark in gage house.
NOTE.--Fragmentary or no gage-height record June 21-23.

01651000 Northwest Branch Anacostia River near Hyattsville, Md.

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mile downstream from Sligo Branch, 1 mile west of Hyattsville, and 1.6 miles upstream from mouth.

DRAINAGE AREA.--49.4 sq mi.

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.30 ft above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--34 years, 42.1 cfs (11.57 inches per year) unadjusted.

EXTREMES.--Current year: Maximum discharge, 18,000 cfs June 22 (gage height, 14.47 ft), from rating curve extended as explained below; minimum daily, 14 cfs Sept. 24, 26.
Period of record: Maximum discharge, 18,000 cfs June 22, 1972 (gage height 14.47 ft), from rating curve extended above 4,000 cfs on the basis of the average of slope-area and step-backwater measurements at gage height 14.47 ft; minimum, 0.2 cfs Sept. 11, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7 miles above 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 above station.

REVISIONS (WATER YEARS).--WSP 971: 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	31	51	36	34	77	44	51	75	80	28	18
2	76	31	42	125	50	72	77	49	36	200	26	20
3	31	79	39	48	363	205	46	193	32	500	26	20
4	20	39	38	76	267	92	63	486	36	100	50	20
5	23	29	35	187	48	71	48	105	147	70	40	20
6	124	28	35	57	40	60	45	65	47	60	28	18
7	22	44	439	42	38	58	121	56	36	50	26	17
8	18	30	90	38	31	55	116	58	28	100	40	16
9	17	27	53	69	31	51	64	211	26	55	26	15
10	671	26	46	112	29	51	53	93	25	46	22	14
11	69	26	42	58	30	49	48	59	23	40	22	15
12	35	25	37	44	30	51	43	52	23	38	20	16
13	28	26	36	57	670	56	398	48	28	150	50	15
14	25	25	34	63	145	88	99	79	38	50	34	90
15	23	25	34	38	79	60	94	109	25	40	22	30
16	22	26	34	30	66	111	313	60	23	190	19	18
17	21	25	33	33	74	566	446	45	32	200	30	15
18	20	24	33	35	120	98	88	42	69	60	24	18
19	20	24	31	35	967	72	68	92	38	44	22	22
20	18	28	89	36	142	63	61	278	34	38	20	15
21	18	25	37	41	98	60	55	82	801	36	19	16
22	18	23	33	44	116	222	511	89	3,500	34	18	17
23	35	22	31	51	82	86	138	69	750	32	18	15
24	71	92	31	79	169	59	119	47	130	28	17	14
25	691	1,010	31	50	194	53	74	42	100	28	16	16
26	511	89	31	36	406	51	64	38	70	24	16	14
27	72	60	31	34	118	49	58	37	55	24	18	16
28	46	51	30	57	92	47	55	35	100	28	200	19
29	37	229	31	41	85	44	53	34	370	28	30	17
30	34	130	38	37	------	45	51	36	420	30	22	40
31	33	------	38	35	------	44	------	157	------	30	19	------
TOTAL	2,907	2,349	1,633	1,724	4,614	2,766	3,513	2,897	7,117	2,433	968	616
MEAN	93.8	78.3	52.7	55.6	159	89.2	117	93.5	237	78.5	31.2	20.5
MAX	691	1,010	439	187	967	566	511	486	3,500	500	200	90
MIN	17	22	30	30	29	44	43	34	23	24	16	14
CFSM	1.90	1.59	1.07	1.13	3.22	1.81	2.37	1.89	4.80	1.59	.63	.42
IN.	2.19	1.77	1.23	1.30	3.47	2.08	2.65	2.18	5.36	1.83	.73	.46

CAL YR 1971 TOTAL 25,727.5 MEAN 70.5 MAX 1,010 MIN 9.0 CFSM 1.43 IN 19.37
WTR YR 1972 TOTAL 33,537.0 MEAN 91.6 MAX 3,500 MIN 14 CFSM 1.85 IN 25.25

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0600	8.27	2,150	4-16	1945	7.36	1,780
10-25	1630	7.90	2,000	6-22	0130	14.47	18,000
11-25	0230	7.88	1,990	6-29	2200	8.06	1,780
2-19	0245	8.25	2,140	7-16	2000	7.85	1,700

NOTE.--No gage-height record June 24 to Sept. 23.

01653500 Henson Creek at Oxon Hill, Md.

LOCATION.--Lat 38°47'16", long 76°58'42", Prince Georges County, on left bank 100 ft downstream from bridge on Tucker Road, 1.0 mile south of Oxon Hill, and 1.4 miles upstream from Carey Branch and mouth.

DRAINAGE AREA.--16.7 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 62 ft (from topographic map).

AVERAGE DISCHARGE.--24 years, 19.1 cfs (15.53 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,450 cfs June 22 (gage height, 6.89 ft), from rating curve extended as explained below; minimum, 2.1 cfs Sept. 11, 12, 26, 27 (gage height, 0.57 ft).
Period of record: Maximum discharge, 3,440 cfs Aug. 4, 1971 (gage height, 7.63 ft), from rating curve extended above 520 cfs on basis of slope-area measurements at gage heights 6.63 and 7.27 ft; no flow at times during some summer months in 1954, 1955, 1957, 1962-64, and 1966.

REMARKS.--Records fair. Some diversion above station for irrigation of truck farm. Some regulation at low flow by sand and gravel plant above station.

REVISIONS (WATER YEARS).--WSP 1232: 1949(M), 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	18	21	12	12	25	15	16	14	30	12	3.6
2	32	20	19	34	23	22	18	15	12	20	8.4	7.1
3	8.7	42	18	16	126	56	13	51	11	26	7.9	5.2
4	6.5	19	18	35	70	41	23	35	11	20	7.6	5.7
5	6.7	16	16	133	22	26	16	20	17	33	20	4.4
6	27	16	15	26	20	21	15	16	16	19	7.6	3.7
7	6.8	23	324	20	18	19	32	14	14	15	6.8	3.6
8	6.1	14	103	17	15	17	37	15	9.8	14	8.9	3.3
9	6.8	14	43	26	13	15	19	51	9.0	12	5.8	3.7
10	378	13	32	44	14	14	16	22	8.8	10	4.7	3.0
11	60	13	27	28	12	14	15	15	7.7	8.5	4.8	2.8
12	31	13	24	21	15	13	14	13	8.1	9.4	5.3	3.6
13	24	13	21	25	235	13	91	13	10	420	13	4.6
14	20	13	19	27	45	15	24	26	13	41	10	13
15	16	12	18	19	26	15	18	23	9.0	28	5.3	11
16	14	12	17	19	20	16	23	29	8.2	28	4.5	4.0
17	13	11	16	15	20	105	35	30	11	28	13	3.4
18	12	11	15	15	29	29	15	48	13	19	23	5.3
19	11	12	14	16	390	21	14	49	9.5	21	7.2	4.0
20	11	12	31	15	55	19	13	318	11	22	5.2	2.9
21	11	11	27	17	30	18	13	50	163	16	4.3	5.5
22	11	9.0	22	16	28	40	154	31	1,060	12	4.2	5.4
23	14	9.4	18	19	28	24	38	24	243	11	4.1	3.5
24	42	64	17	13	85	18	37	19	50	9.4	3.9	4.2
25	403	341	15	18	60	17	23	17	38	8.7	5.8	3.4
26	248	52	14	14	180	16	20	16	29	7.5	5.7	2.9
27	67	38	13	12	55	15	18	15	23	7.8	4.2	5.5
28	33	33	13	21	33	14	17	15	30	8.6	29	5.9
29	24	125	13	18	27	13	17	15	70	9.7	4.9	4.0
30	20	46	14	15	------	13	16	14	83	21	4.3	52
31	18	------	13	14	------	13	------	15	------	13	3.9	------
TOTAL	1,590.8	1,045.4	990	745	1,707	717	819	1,050	2,012.1	948.6	255.3	190.2
MEAN	51.3	34.8	31.9	24.0	58.9	23.1	27.3	33.9	67.1	30.6	8.24	6.34
MAX	403	341	324	133	390	105	154	318	1,060	420	29	52
MIN	6.1	9.0	13	12	12	13	13	13	7.7	7.5	3.9	2.8
CFSM	3.07	2.08	1.91	1.44	3.53	1.38	1.63	2.03	4.02	1.83	.49	.38
IN.	3.54	2.33	2.21	1.66	3.80	1.60	1.82	2.34	4.48	2.11	.57	.42

CAL YR 1971 TOTAL 11,929.2 MEAN 32.7 MAX 1,150 MIN 2.2 CFSM 1.96 IN 26.57
WTR YR 1972 TOTAL 12,070.4 MEAN 33.0 MAX 1,060 MIN 2.8 CFSM 1.98 IN 26.89

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	0830	4.63	959	2-19	0730	4.51	905
10-25	1830	4.64	963	5-20	1130	3.67	601
11-25	0400	4.26	804	6-22	0245	6.89	2,450
12- 7	1130	3.83	649	6-23	0645	3.23	473
2-13	1230	3.59	577	7-13	0830	6.17	1,820

01653600 Piscataway Creek at Piscataway, Md.

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, on left bank 70 ft upstream from bridge on State Highway 223, at Piscataway, 0.4 mile upstream from Tinker Creek, and 4.8 miles upstream from mouth.

DRAINAGE AREA.--39.5 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

AVERAGE DISCHARGE.--7 years (1966-72), 44.5 cfs (15.30 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,900 cfs June 22 (gage height, 9.80 ft), from rating curve extended as explained below; minimum, 1.3 cfs Sept. 11, 12 (gage height, 2.20 ft).
Period of record: Maximum discharge, 4,900 cfs June 22, 1972 (gage height, 9.80 ft), from rating curve extended above 520 cfs on basis of contracted-opening and flow-over-road measurement of peak flow at bridge 0.5 mile downstream, adjusted for flow from intervening area; no flow at times in 1966, 70.

REMARKS.--Records good below 100 cfs and fair above.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	58	90	37	38	104	48	53	40	77	26	9.5
2	38	53	70	64	46	100	48	49	31	60	20	3.9
3	25	67	58	50	110	200	52	150	27	54	19	6.2
4	16	53	55	58	220	116	46	130	25	55	18	4.3
5	14	47	50	133	75	96	55	73	34	105	21	5.0
6	53	45	50	93	55	93	40	58	54	79	16	3.9
7	20	53	352	64	59	90	45	51	72	55	15	2.6
8	14	44	323	56	50	75	79	50	31	48	14	2.2
9	13	41	105	57	44	70	87	129	25	44	12	1.9
10	569	41	93	100	44	67	68	73	21	39	9.6	1.7
11	401	39	79	76	47	63	58	54	20	35	8.6	1.4
12	59	33	70	44	47	63	52	47	19	24	8.7	1.6
13	43	38	64	62	437	59	43	43	17	464	9.6	2.4
14	37	36	60	76	449	67	204	66	23	110	12	2.1
15	32	37	60	59	110	59	107	80	20	56	8.6	6.5
16	29	36	59	43	87	68	71	71	17	46	7.3	2.8
17	29	37	55	46	91	391	63	48	20	101	11	2.1
18	27	36	51	43	99	116	92	55	73	67	23	4.7
19	25	37	49	53	762	93	61	50	75	46	13	5.6
20	22	37	89	50	562	72	53	439	28	43	9.0	2.6
21	22	35	67	54	155	68	50	293	116	46	7.0	2.9
22	22	33	52	49	156	84	405	91	2,340	33	6.1	6.0
23	26	25	49	56	115	105	226	69	1,060	28	5.4	3.1
24	84	35	49	54	243	70	105	59	385	25	4.8	2.5
25	365	704	47	52	300	62	84	54	142	23	4.4	3.0
26	1,020	339	46	45	454	59	73	47	105	20	4.0	2.5
27	233	34	45	42	233	57	67	45	84	19	3.9	3.5
28	95	89	43	54	135	55	62	43	82	21	13	11
29	75	158	40	49	114	52	57	39	125	21	5.8	5.2
30	65	264	41	45	------	51	55	37	93	30	3.6	57
31	62	------	39	40	------	49	------	37	------	31	2.8	------
TOTAL	3,554	3,605	3,367	1,899	5,440	2,744	2,570	2,623	5,204	1,915	342.2	162.7
MEAN	115	96.9	77.3	60.9	189	88.5	85.7	84.6	173	61.8	11.0	5.42
MAX	1,020	704	362	133	762	391	405	439	2,340	464	26	57
MIN	12	25	39	37	38	49	45	37	17	19	2.8	1.4
CFSM	2.91	2.70	1.96	1.54	4.76	2.24	2.17	2.14	4.38	1.56	.28	.14
IN.	3.35	3.45	3.24	1.79	5.12	2.58	2.42	2.47	4.90	1.80	.32	.15

CAL YR 1971 TOTAL 25,227.08 MEAN 69.1 MAX 1,020 MIN .98 CFSM 1.75 IN 23.76
WTR YR 1972 TOTAL 31,448.90 MEAN 85.9 MAX 2,340 MIN 1.4 CFSM 2.17 IN 29.62

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	0500	6.54	876	2-19	2400	7.00	1,080
10-26	1330	7.12	1,140	2-26	1500	5.54	580
11-25	1000	6.30	800	3-17	Unknown	5.39	542
11-29	2400	5.13	478	4-22	Unknown	5.67	613
12-07	1930	5.77	641	5-20	2030	5.77	641
2- 4	0400	5.30	520	6-22	1230	9.80	4,900
2-13	1930	6.23	779	7-13	1400	6.03	719

01658000 Mattawoman Creek near Pomonkey, Md.

LOCATION.--Lat 38°35'45", long 77°03'25", Charles County, on left bank 50 ft downstream from bridge on State Highway 227, 80 ft downstream from Old Womans Run, 1.2 miles southeast of Pomonkey, and 12.6 miles upstream from mouth.

DRAINAGE AREA.--57.7 sq mi.

PERIOD OF RECORD.--November 1949 to September 1972 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 40 ft (from topographic map).

AVERAGE DISCHARGE.--22 years (1950-72), 54.2 cfs (12.76 inches per year).

EXTREMES.--Current year: Maximum discharge, 7,350 cfs June 22 (gage height, 7.10 ft); no flow many days in August and September.
Period of record: Maximum discharge, 9,300 cfs Aug. 13, 1955 (gage height, 7.52 ft), from rating curve extended above 6,000 cfs; no flow at times each year.

REMARKS.--Records good except those below 10 cfs and those for periods of no gage-height record, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	62	235	29	35	149	52	65	29	110	15	0
2	26	56	167	49	40	122	60	59	25	70	12	0
3	22	58	100	63	88	149	59	102	20	60	10	0
4	12	61	80	60	257	206	56	188	18	55	9.5	.02
5	10	49	69	167	281	194	61	218	41	95	11	.01
6	36	41	62	201	198	129	53	132	45	110	9.5	0
7	16	44	255	176	123	100	57	79	126	70	8.5	0
8	11	46	376	108	86	86	102	63	55	50	6.7	0
9	9.5	38	475	82	62	73	107	121	27	40	5.4	0
10	300	34	269	106	54	67	92	136	20	36	4.2	0
11	350	31	153	114	53	61	78	90	16	34	3.4	0
12	250	28	111	102	52	61	67	65	15	32	2.8	0
13	60	28	89	87	249	61	121	55	14	300	2.3	0
14	36	25	74	103	420	67	191	65	14	200	1.8	0
15	26	25	69	98	501	70	186	122	15	80	2.0	0
16	22	24	65	62	261	67	124	161	15	50	1.7	0
17	20	23	59	55	137	239	136	107	24	70	1.7	0
18	19	23	55	51	120	313	125	72	40	90	6.8	0
19	18	23	50	57	450	298	91	62	54	60	7.7	0
20	17	24	68	60	701	143	73	156	44	40	5.4	0
21	16	24	84	61	501	99	64	224	207	30	3.7	0
22	16	21	66	57	277	110	194	265	4,770	22	2.5	0
23	18	19	54	61	189	126	328	140	2,120	17	1.5	0
24	40	22	52	67	209	100	402	75	809	15	.73	0
25	500	310	50	62	271	79	226	57	456	13	.10	0
26	700	350	47	56	399	70	128	47	235	12	.02	0
27	750	421	46	49	417	64	91	36	128	12	0	0
28	300	221	43	50	355	60	74	31	97	13	.03	0
29	150	175	37	53	208	57	66	28	118	13	.03	0
30	96	238	34	49	------	54	62	26	145	17	0	8.1
31	74	------	34	44	------	54	------	25	------	19	0	------
TOTAL	3,930.5	2,544	3,428	2,439	6,994	3,528	3,526	3,072	9,742	1,835	136.01	8.13
MEAN	127	84.8	111	78.7	241	114	118	99.1	325	59.2	4.39	.27
MAX	750	421	475	201	701	313	402	265	4,770	300	15	8.1
MIN	9.5	19	34	29	35	54	52	25	14	12	0	0
CFSM	2.20	1.47	1.92	1.36	4.18	1.98	2.05	1.72	5.63	1.03	.08	.005
IN.	2.53	1.64	2.21	1.57	4.51	2.27	2.27	1.98	6.28	1.18	.09	.005

CAL YR 1971 TOTAL 30,024.03 MEAN 82.3 MAX 907 MIN 0 CFSM 1.43 IN 19.36
WTR YR 1972 TOTAL 41,182.64 MEAN 113 MAX 4,770 MIN 0 CFSM 1.96 IN 26.55

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-11	*	*	*	2-20	1530	4.85	905
10-27	*	*	*	2-26	1530	4.19	436
11-26	2400	4.29	476	4-24	0600	4.18	432
12- 9	0130	4.40	530	6-22	0200	7.10	7,350
2-15	0130	4.47	572				

* Unknown.
NOTE.--No gage-height record Oct. 1-29 and July 1 to Aug. 7.

01661000 Chaptico Creek at Chaptico, Md.

LOCATION.--Lat 38°22'45", long 76°46'56", St. Marys County, on right bank at downstream side of highway culvert, 0.8 mile north of Chaptico, and 0.8 mile upstream from Chaptico Bay.

DRAINAGE AREA.--10.7 sq mi.

PERIOD OF RECORD.--June 1947 to September 1972 (discontinued).

GAGE.--Water-stage recorder. Concrete control prior to Oct. 25, 1961. Altitude of gage is 15 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 9.98 cfs (12.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs June 22 (gage height, 6.63 ft), from rating curve extended as explained below; minimum, 1.3 cfs Oct. 1 (gage height, 1.25 ft).
Period of record: Maximum discharge, 7,800 cfs Sept. 10, 1950 (gage height, 8.56 ft), from rating curve extended above 410 cfs on basis of slope-area measurement of peak flow; no flow at times in 1954, 55, 57, 62-64, 66, 68-70.

REMARKS.--Records good. Occasional small diversion above station for irrigation. Water-quality records for the current water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	10	15	12	13	22	12	12	46	47	22	4.7
2	16	9.7	14	19	16	21	13	9.3	12	26	14	11
3	6.1	20	13	15	33	49	11	29	8.7	22	12	9.6
4	3.6	14	13	17	43	27	12	25	6.9	20	10	7.1
5	3.4	10	13	37	20	22	10	14	17	29	75	7.9
6	7.0	9.3	13	22	19	19	10	11	19	27	23	7.0
7	3.4	14	36	18	20	18	14	8.9	34	21	17	4.9
8	2.6	10	25	16	16	19	25	8.9	12	36	13	4.2
9	2.6	9.3	19	17	16	16	18	31	9.2	36	11	3.9
10	58	9.1	18	21	16	16	15	14	8.4	21	8.8	3.3
11	16	8.7	17	19	15	15	13	10	6.2	18	8.0	3.2
12	7.9	8.5	16	17	15	15	12	8.3	6.0	20	7.5	3.6
13	6.0	8.6	16	16	41	14	26	7.2	5.4	165	15	3.9
14	5.4	7.8	15	30	27	16	16	31	8.0	36	11	3.1
15	4.7	7.7	15	20	21	15	14	31	7.5	25	8.9	8.3
16	4.0	7.7	15	16	19	16	13	24	8.6	22	7.5	4.3
17	4.2	7.4	15	16	19	63	18	14	52	23	9.9	3.7
18	4.0	7.4	14	17	22	29	12	12	32	21	19	3.7
19	4.1	7.7	14	18	122	20	10	21	19	22	11	3.9
20	4.1	8.0	24	17	34	17	9.8	50	20	18	7.5	2.8
21	4.0	7.4	18	18	26	17	8.2	25	48	17	6.4	6.7
22	4.0	6.6	15	16	27	24	51	19	672	14	5.9	6.3
23	8.0	6.4	14	17	25	19	29	15	112	12	5.4	4.1
24	16	9.2	15	20	47	15	19	12	53	11	4.9	4.0
25	32	70	14	17	37	14	16	11	39	10	4.3	4.3
26	70	20	14	15	88	14	14	9.5	32	9.0	4.0	3.7
27	30	20	14	15	44	13	13	9.0	26	7.7	3.7	3.4
28	17	18	14	16	29	13	12	8.5	26	9.2	25	4.8
29	13	18	13	14	25	12	11	7.6	32	10	9.4	5.1
30	12	21	14	14	------	13	11	7.6	49	27	6.2	21
31	11	------	13	14	------	12	------	12	------	25	5.1	------
TOTAL	385.0	391.5	498	556	895	615	468.0	507.8	1,426.9	806.9	391.4	167.5
MEAN	12.4	13.1	16.1	17.9	30.9	19.8	15.6	16.4	47.6	26.0	12.6	5.58
MAX	70	70	36	37	122	63	51	50	672	165	75	21
MIN	2.6	6.4	13	12	13	12	8.2	7.2	5.4	7.7	3.7	2.8
CFSM	1.16	1.22	1.50	1.67	2.89	1.85	1.46	1.53	4.45	2.43	1.18	.52
IN.	1.34	1.36	1.73	1.93	3.11	2.14	1.63	1.77	4.96	2.81	1.36	.58

CAL YR 1971 TOTAL 5,063.68 MEAN 13.9 MAX 201 MIN .38 CFSM 1.30 IN 17.60
WTR YR 1972 TOTAL 7,109.00 MEAN 19.4 MAX 672 MIN 2.6 CFSM 1.81 IN 24.72

PEAK DISCHARGE (BASE, 160 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-19	1100	4.64	272	7-13	0630	5.08	413
6-22	0700	6.63	1,600	8- 5	0930	4.35	198

01661050 St. Clement Creek near Clements, Md.

LOCATION.--Lat 38°28'00", long 76°43'31", St. Marys County, on left bank 60 ft downstream from bridge on State Highway 242, 0.5 mile north of Clements, 2.3 miles upstream from mouth, and 5.7 miles northwest of Leonardtown.

DRAINAGE AREA.--18.5 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8 ft (from topographic map). Prior to Jan. 3, 1969, water-stage recorder 140 ft downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 4,350 cfs June 22 (gage height, 6.55 ft), from rating curve extended as explained below; minimum, 3.2 cfs Aug. 28 (gage height, 1.12 ft).
Period of record: Maximum discharge, 4,350 cfs June 22, 1972 (gage height, 6.55 ft), from rating curve extended above 420 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 0.07 cfs Sept. 7, 8, 1970 (gage height, 0.69 ft).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1971: 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	14	23	12	16	37	24	28	270	41	22	7.9
2	10	13	18	20	23	35	25	22	63	31	16	31
3	6.0	50	16	18	60	66	24	52	26	26	15	32
4	4.5	37	15	17	111	47	22	76	19	23	13	13
5	4.0	16	14	68	39	34	23	36	26	33	132	12
6	7.0	14	14	46	31	30	22	25	24	40	50	13
7	4.0	14	42	25	33	29	25	22	35	28	19	9.9
8	3.5	14	45	20	22	28	47	21	19	28	16	8.4
9	3.5	12	24	20	21	25	33	46	15	57	13	8.2
10	40	12	20	31	20	24	29	30	14	26	11	7.6
11	24	12	17	31	18	24	26	23	12	20	9.7	6.8
12	16	12	15	27	18	24	25	20	12	22	9.2	7.3
13	10	12	14	23	80	24	42	18	11	191	10	7.6
14	7.0	11	14	42	66	25	35	60	13	58	10	6.9
15	6.5	11	14	30	34	25	27	116	12	28	8.9	8.9
16	6.0	11	14	16	28	27	29	42	10	22	8.9	7.7
17	6.5	10	14	15	26	147	45	29	136	45	9.3	6.6
18	6.0	10	13	17	34	82	27	25	137	31	23	5.9
19	6.5	10	12	23	204	38	24	34	213	22	15	6.5
20	6.5	10	29	23	102	31	23	92	45	19	10	5.9
21	6.0	10	28	25	44	29	22	54	77	18	8.8	9.7
22	6.0	8.8	16	23	42	34	91	37	1,580	16	8.0	11
23	12	8.4	14	24	34	33	97	28	290	14	7.6	7.8
24	25	10	14	39	70	26	40	24	145	13	7.2	6.8
25	55	118	14	26	69	25	30	20	72	14	6.8	6.8
26	90	58	14	21	190	24	25	18	51	12	6.6	6.5
27	25	32	14	19	102	24	24	16	41	11	6.2	5.9
28	20	39	14	21	52	23	22	16	36	12	60	6.2
29	16	28	13	21	41	22	21	15	40	13	21	7.1
30	14	36	14	20	------	22	21	14	42	39	11	21
31	16	------	13	18	------	24	------	53	------	44	8.4	------
TOTAL	467.5	653.2	555	781	1,630	1,088	970	1,112	3,486	997	572.6	301.9
MEAN	15.1	21.8	17.9	25.2	56.2	35.1	32.3	35.9	116	32.2	18.5	10.1
MAX	90	118	45	68	204	147	97	116	1,580	191	132	32
MIN	3.5	8.4	12	12	16	22	21	14	10	11	6.2	5.9
CFSM	.82	1.18	.97	1.36	3.04	1.90	1.75	1.94	6.27	1.74	1.00	.55
IN.	.94	1.31	1.12	1.57	3.28	2.19	1.95	2.24	7.01	2.00	1.15	.61

CAL YR 1971 TOTAL 7,498.9 MEAN 20.5 MAX 267 MIN 1.3 CFSM 1.11 IN 15.08
WTR YR 1972 TOTAL 12,614.2 MEAN 34.5 MAX 1,580 MIN 3.5 CFSM 1.86 IN 25.36

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-25	0800	2.94	167	5-15	0030	3.03	173
2- 4	0200	3.05	175	6- 1	0830	4.16	378
2-19	1300	3.86	295	6-19	0130	4.27	411
2-26	1430	3.96	320	6-22	0730	6.55	4,350
3-17	0830	2.97	169	7-13	0700	3.65	250
4-22	1930	3.05	175	8- 5	1000	3.28	197

01661500 St. Marys River at Great Mills, Md.

LOCATION.--Lat 38°14'36", long 76°30'13", St. Marys County, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mile downstream from Western Branch, and 12.0 miles upstream from mouth.

DRAINAGE AREA.--24.0 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (from topographic map).

AVERAGE DISCHARGE.--25 years, 23.0 cfs (13.01 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,890 cfs June 22 (gage height, 9.75 ft); minimum, 2.5 cfs Oct. 1 (gage height, 1.32 ft).
Period of record: Maximum discharge, 7,950 cfs Aug. 20, 1969 (gage height, 13.34 ft), from rating curve extended above 1,500 cfs on basis of contracted-opening measurement at gage height 12.08 ft; minimum, 0.2 cfs Sept. 7, 1966 (gage height, 1.13 ft).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1702: 1946, 1948-49, 1955, 1957-58.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	9.1	14	9.0	11	35	18	18	204	58	14	6.1
2	7.1	8.0	12	11	15	29	19	16	57	28	9.9	28
3	6.1	41	11	12	59	38	17	20	26	20	8.9	34
4	4.3	23	10	12	149	34	19	27	18	17	8.2	15
5	3.8	13	9.6	52	51	28	19	20	20	37	55	12
6	5.4	9.8	9.7	45	30	24	17	17	17	39	24	11
7	4.0	10	18	24	26	22	20	15	21	22	13	8.4
8	3.2	10	20	17	17	22	39	14	14	34	10	7.5
9	3.1	8.6	15	15	15	20	29	39	12	58	8.7	6.9
10	32	8.1	13	25	14	19	25	23	12	24	7.4	6.3
11	21	7.8	12	24	13	18	22	17	11	17	6.4	5.7
12	8.1	7.6	11	22	13	18	20	15	9.8	16	6.1	5.7
13	5.2	7.6	10	20	91	17	41	13	9.4	35	8.2	6.0
14	4.5	7.3	9.5	27	83	18	35	60	10	24	11	5.7
15	4.0	7.1	9.5	22	40	18	26	163	9.3	16	8.7	6.3
16	3.8	7.0	9.8	14	26	22	24	73	8.3	13	7.5	6.1
17	4.0	6.9	9.7	11	23	129	34	36	12	12	7.0	5.7
18	3.8	6.8	9.0	13	35	101	24	38	16	11	10	5.4
19	3.9	6.8	8.0	15	440	51	20	36	22	10	9.8	5.8
20	3.9	7.0	17	14	179	31	19	135	14	9.3	7.6	5.4
21	3.8	6.7	18	15	72	26	17	89	15	9.1	6.7	6.7
22	3.8	6.1	13	14	50	27	97	52	836	8.5	6.4	8.0
23	7.6	5.7	10	14	34	25	125	32	233	7.9	5.8	7.0
24	28	7.8	10	23	76	21	58	23	92	7.4	5.6	6.1
25	56	186	9.8	18	93	19	35	19	47	7.2	5.3	6.1
26	173	51	9.5	14	161	18	26	16	28	6.7	4.9	5.8
27	34	26	9.3	13	140	17	21	14	21	6.4	4.5	5.4
28	17	22	8.9	14	73	17	19	13	61	7.2	29	5.9
29	11	17	8.6	13	47	16	18	13	43	7.7	14	6.3
30	10	18	8.7	13	------	18	17	14	153	22	8.3	10
31	11	------	8.6	12	------	20	------	48	------	26	6.7	------
TOTAL	490.7	558.8	352.2	566.0	2,076	918	920	1,128	2,051.8	616.4	338.6	260.3
MEAN	15.8	18.6	11.4	18.3	71.6	29.6	30.7	36.4	68.4	19.9	10.9	8.68
MAX	173	186	20	52	440	129	125	163	836	58	55	34
MIN	3.1	5.7	8.0	8.0	11	16	17	13	8.3	6.4	4.5	5.4
CFSM	.66	.78	.48	.76	2.98	1.23	1.28	1.52	2.85	.83	.45	.36
IN.	.76	.87	.55	.88	3.22	1.42	1.43	1.75	3.18	.96	.52	.40

CAL YR 1971 TOTAL 8,222.4 MEAN 22.5 MAX 810 MIN 2.0 CFSM .94 IN 12.74
WTR YR 1972 TOTAL 10,276.8 MEAN 28.1 MAX 836 MIN 3.1 CFSM 1.17 IN 15.93

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-19	1530	6.75	690	6-22	1230	9.75	1,890

03075500 Youghiogheny River near Oakland, Md.

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, on left bank 200 ft downstream from Baltimore & Ohio Railroad bridge, 250 ft downstream from Little Youghiogheny River, 1.2 miles northwest of Oakland, and 1.5 miles upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 sq mi.

PERIOD OF RECORD.--August 1941 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.11 ft above mean sea level, unadjusted. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

AVERAGE DISCHARGE.--31 years, 286 cfs (28.98 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,980 cfs June 23 (gage height, 8.01 ft); minimum, 16 cfs Sept. 23, 24 (gage height, 1.94 ft).
Period of record: Maximum discharge, 11,800 cfs Oct. 16, 1954 (gage height, 12.16 ft); minimum daily, 2.5 cfs Oct. 4, 1953..
Flood in March 1936 reached a stage of 15.3 ft, from floodmarks.

REMARKS.--Records good. Town of Oakland diverted an average of 0.4 cfs for water supply. The diversion is returned above station as sewage.

REVISIONS (WATER YEARS).--WSP 1113: 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	97	1,010	172	180	2,540	294	280	126	819	133	41
2	160	257	637	428	155	3,080	294	250	103	536	79	37
3	260	339	462	565	144	2,970	272	720	92	431	92	35
4	200	252	368	450	126	1,420	714	1,300	76	416	216	37
5	160	199	300	848	130	900	786	1,100	70	801	339	36
6	90	170	637	640	130	631	562	820	64	867	157	32
7	82	158	2,020	520	140	529	662	660	62	613	195	28
8	75	133	1,850	427	120	769	792	600	53	441	154	26
9	67	115	1,090	467	110	583	642	840	49	341	108	26
10	64	111	756	1,110	103	459	556	800	68	276	87	26
11	62	102	595	927	95	373	479	600	57	216	71	24
12	55	93	447	895	96	365	395	480	47	182	65	24
13	51	85	361	600	118	1,060	1,020	400	46	157	65	30
14	50	77	299	500	128	1,290	1,120	380	126	133	57	36
15	51	72	267	400	137	1,030	1,100	450	151	111	53	62
16	47	69	247	271	173	1,020	1,040	500	84	157	53	39
17	43	65	202	240	173	987	1,290	450	85	114	92	28
18	41	61	180	250	158	779	922	380	69	97	141	26
19	39	67	164	250	146	623	681	318	157	97	153	27
20	33	105	362	282	120	490	557	290	147	186	219	24
21	33	111	390	463	165	415	448	266	222	92	116	21
22	33	113	282	381	290	462	885	250	468	74	88	20
23	40	105	229	381	480	474	869	204	3,710	66	74	18
24	101	97	220	455	820	400	800	168	3,470	59	65	17
25	175	120	197	500	1,750	360	660	148	1,570	92	62	22
26	313	142	184	403	2,180	326	580	126	989	79	109	22
27	192	174	198	339	1,610	322	470	103	745	61	118	21
28	142	348	210	343	1,110	294	370	94	561	89	83	36
29	113	822	216	339	1,800	290	320	85	2,960	61	67	51
30	96	1,840	201	230	------	395	260	83	1,350	79	55	67
31	87	------	204	196	------	330	------	196	------	133	46	------
TOTAL	3,039	6,499	14,775	14,272	12,887	25,966	19,840	13,341	17,777	7,876	3,412	939
MEAN	98.0	217	477	460	444	838	661	430	593	254	110	31.3
MAX	313	1,840	2,020	1,110	2,180	3,080	1,290	1,300	3,710	867	339	67
MIN	33	61	164	172	95	290	260	83	46	59	46	17
CFSM	.73	1.62	3.56	3.43	3.31	6.25	4.93	3.21	4.43	1.90	.82	.23
IN.	.84	1.80	4.10	3.96	3.58	7.21	5.51	3.70	4.94	2.19	.95	.26

CAL YR 1971 TOTAL 112,780 MEAN 309 MAX 2,690 MIN 15 CFSM 2.31 IN 31.31
WTR YR 1972 TOTAL 140,623 MEAN 384 MAX 3,710 MIN 17 CFSM 2.87 IN 39.04

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-30	0630	5.54	2,080	3- 3	0545	6.82	3,440
12- 7	2030	5.84	2,360	6-23	1830	8.01	4,980
2-26	1600	5.90	2,420	6-29	0645	7.02	3,680

Reservoirs in Monongahela River Basin

03076000 DEEP CREEK RESERVOIR.--Lat 39°30'34", long 79°23'28", Garrett County, on Deep Creek at dam, 1.8 miles upstream from mouth and 7 miles north of Oakland, Md. Drainage area, 64.7 sq mi. Period of record, July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385. Gage, water-stage recorder at right end of spillway. Datum of gage is at mean sea level (unadjusted). Maximum contents during year, 87,000 acre-ft Apr. 18 (elevation, 2,460.40 ft); minimum, 63,700 acre-ft Nov. 25 (elevation, 2,453.80 ft). Maximum contents since storage began, 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).

Reservoir is formed by an earthfill dam completed January 1925. Usable capacity, 92,975 acre-ft between elevations 2,425 ft (top of intake to outlet tunnel) and 2,462 ft (crest of spillway). Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power. Records furnished by Pennsylvania Electric Co.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,457.30	75,700	
Oct. 31	2,454.90	67,400	-8,300
Nov. 30	2,454.20	65,000	-2,400
Dec. 31	2,455.70	70,100	+5,100
CAL YR 1971	- -	- -	-1,400
Jan. 31	2,456.50	72,900	+2,800
Feb. 29	2,457.00	74,700	+1,800
Mar. 31	2,459.40	83,300	+8,600
Apr. 30	2,459.50	83,700	+ 400
May 31	2,458.70	80,800	-2,900
June 30	2,459.80	84,800	+4,000
July 31	2,458.60	80,400	-4,400
Aug. 31	2,456.00	71,100	-9,300
Sept. 30	2,454.90	67,400	-3,700
WTR YR 1972	- -	- -	-8,300

03076500 Youghiogheny River at Friendsville, Md.

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, on left bank 0.7 mile upstream from bridge on State Highway 42 at Friendsville, and 1.5 miles upstream from Bear Creek.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above mean sea level. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mile downstream at datum 16.24 and 16.29 ft lower, respectively.

AVERAGE DISCHARGE.--38 years (1898-1904, 1940-1972), 632 cfs (29.09 inches per year), adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 7,250 cfs June 23 (gage height, 6.72 ft); minimum, 24 cfs Sept. 25, 26 (gage height, 1.86 ft); minimum daily, 25 cfs Sept. 25.
Period of record: Maximum discharge, 13,000 cfs Oct. 16, 1954 (gage height, 8.99 ft), from rating curve extended above 5,800 cfs on basis of slope-area measurement of peak flow; minimum daily, 8.2 cfs Sept. 11, 1966.
Maximum stage since 1898, 14.2 ft Mar. 29, 1924, from floodmarks, site and datum then in use, or 10.2 ft, present site and datum (discharge, about 15,600 cfs, from rating curve extended as explained above).

REMARKS.--Records good. Low and medium flow regulated since 1925 by Deep Creek Reservoir (see station 03076000). Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	307	2,170	369	554	4,360	818	859	436	1,690	387	229
2	348	558	1,340	563	460	5,210	648	763	365	1,110	380	76
3	294	803	989	1,180	444	5,100	752	1,180	210	978	368	71
4	408	619	675	925	330	2,920	1,420	1,370	178	921	358	71
5	423	541	537	1,460	240	1,910	1,840	1,580	303	1,300	451	161
6	403	316	902	1,490	350	1,390	1,340	971	294	1,830	248	172
7	393	292	3,450	1,130	400	1,180	1,320	749	288	1,390	494	176
8	386	383	3,760	753	430	1,670	1,500	813	279	1,100	523	172
9	293	403	2,470	697	410	1,390	1,070	1,110	261	909	428	55
10	195	392	1,680	1,980	440	1,110	1,260	1,200	147	781	392	44
11	337	383	1,200	1,790	420	905	1,130	971	146	594	370	114
12	396	387	892	1,710	230	905	1,010	857	248	630	161	168
13	374	224	897	1,360	210	2,770	2,200	602	251	450	107	214
14	374	172	776	1,230	380	3,140	2,710	519	260	501	233	183
15	381	299	696	794	480	2,490	2,520	788	403	225	266	196
16	205	302	676	480	461	2,260	2,580	1,090	317	286	254	88
17	142	340	581	680	462	2,320	3,450	939	159	436	276	59
18	318	317	412	658	449	1,880	2,440	835	138	387	363	128
19	354	319	330	675	290	1,570	1,820	791	286	366	191	94
20	347	239	660	665	240	1,280	1,580	572	383	436	288	38
21	304	227	906	927	430	1,110	1,390	492	376	372	318	34
22	293	392	700	674	660	1,130	1,840	641	749	163	306	33
23	143	339	725	651	1,000	1,180	2,380	634	5,180	130	282	27
24	136	346	678	889	1,600	1,030	1,930	538	5,460	300	271	26
25	436	248	394	978	2,810	930	1,690	567	3,100	292	299	25
26	668	374	345	884	3,350	944	1,440	480	2,110	382	112	26
27	513	339	609	737	2,840	1,200	1,240	251	1,460	337	138	30
28	408	472	640	714	2,070	918	1,090	222	1,030	359	288	34
29	375	1,240	712	506	3,040	805	986	208	4,460	175	276	49
30	221	3,430	648	442	------	905	924	386	2,890	109	254	76
31	169	------	664	505	------	944	------	439	------	338	244	------
TOTAL	10,536	15,003	32,114	28,496	25,480	56,856	48,318	23,417	32,167	19,277	9,326	2,869
MEAN	340	500	1,036	919	879	1,834	1,611	755	1,072	622	301	95.6
MAX	668	3,430	3,760	1,980	3,350	5,210	3,450	1,580	5,460	1,830	523	229
MIN	136	172	330	369	210	805	648	208	138	109	107	25
†	-135	-40.3	+83.2	+45.5	+31.3	+140	+6.7	-47.1	+67.1	-71.6	-151	-62.0
MEAN‡	205	460	1,119	964	910	1,974	1,618	708	1,139	550	150	33.6
CFSM‡	.70	1.56	3.79	3.27	3.08	6.69	5.48	2.40	3.86	1.86	.51	.11
IN ‡	.80	1.73	4.37	3.77	3.32	7.71	6.11	2.77	4.31	2.14	.59	.12

CAL YR 1971 TOTAL 266,059 MEAN 729 MAX 4,720 MIN 37 MEAN‡ 727 CFSM‡ 2.46 IN‡ 33.45
WTR YR 1972 TOTAL 303,859 MEAN 830 MAX 5,460 MIN 25 MEAN‡ 819 CFSM‡ 2.78 IN‡ 37.79

† 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, on right bank 0.2 mile downstream from bridge on Accident-Friendsville Road, 0.6 mile downstream from South Branch Bear Creek, 0.8 mile southeast of Friendsville, and 1.2 miles upstream from mouth.

DRAINAGE AREA.--48.9 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,555 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 77.3 cfs (21.47 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,880 cfs June 29 (gage height, 5.42 ft); minimum daily, 7.8 cfs Sept. 23, 24.
Period of record: Maximum discharge, 4,650 cfs Sept. 14, 1971 (gage height, 9.6 ft, from floodmarks), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; minimum, 1.5 cfs Sept. 12, 1966 (gage height, 0.42 ft).

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	32	202	49	52	695	99	79	33	242	19	14
2	50	60	160	91	50	766	104	74	31	178	17	14
3	49	78	131	116	46	547	94	96	27	149	26	14
4	46	67	112	80	40	336	167	93	24	124	73	15
5	42	58	95	149	46	236	193	108	23	132	41	15
6	40	54	143	144	52	180	174	102	21	138	29	13
7	38	50	299	100	48	169	168	99	21	128	107	12
8	35	44	293	80	46	192	151	95	19	113	67	12
9	33	40	223	84	45	165	143	118	18	96	44	12
10	32	40	197	150	44	149	146	132	23	82	32	11
11	30	38	172	140	44	131	143	126	18	72	30	11
12	28	36	148	150	44	262	132	119	16	62	24	12
13	26	34	126	120	73	916	262	105	17	55	23	13
14	23	31	107	110	72	578	256	100	25	48	20	15
15	23	29	101	80	57	428	262	98	21	41	19	18
16	22	28	90	58	62	443	564	100	18	53	18	12
17	22	26	78	52	60	439	815	90	17	39	38	12
18	20	25	71	54	60	306	531	82	16	34	45	11
19	18	27	64	54	58	231	290	76	15	30	32	11
20	17	33	86	70	47	198	239	77	14	27	28	9.6
21	17	37	83	110	70	180	155	72	26	25	24	8.3
22	16	36	70	90	90	180	169	69	54	23	21	8.3
23	19	33	64	96	130	146	172	60	407	21	20	7.8
24	30	34	64	120	170	133	176	54	289	20	19	7.8
25	53	40	63	130	270	120	162	49	228	19	22	9.1
26	56	42	61	90	356	111	147	43	197	18	24	8.7
27	38	53	60	70	316	107	132	39	169	17	20	9.3
28	33	89	60	72	290	106	115	36	274	18	18	17
29	30	192	53	62	459	102	100	35	1,260	17	17	17
30	28	248	54	60	------	115	89	34	487	18	17	16
31	27	------	54	52	------	102	------	44	------	19	15	------
TOTAL	992	1,634	3,584	2,883	3,197	8,769	6,350	2,504	3,808	2,058	949	365.9
MEAN	32.0	54.5	116	93.0	110	283	212	80.8	127	66.4	30.6	12.2
MAX	56	248	299	150	459	916	815	132	1,260	242	107	18
MIN	16	25	53	49	40	102	89	34	14	17	15	7.8
CFSM	.65	1.11	2.37	1.90	2.25	5.79	4.34	1.65	2.60	1.36	.63	.25
IN.	.75	1.24	2.73	2.19	2.43	6.67	4.83	1.90	2.90	1.57	.72	.28

CAL YR 1971 TOTAL 39,324.0 MEAN 108 MAX 3,100 MIN 11 CFSM 2.21 IN 29.92
WTR YR 1972 TOTAL 37,093.9 MEAN 101 MAX 1,260 MIN 7.8 CFSM 2.07 IN 28.22

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3- 1	1915	4.77	1,030	4-17	0800	4.06	898
3-13	0915	5.41	1,400	6-29	0400	5.42	1,880

03078000 Casselman River at Grantsville, Md.

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, on left bank at downstream side of highway bridge, 0.3 mile upstream from Slaubaugh Run, 0.7 mile downstream from U. S. Highway 40, and 1 mile northeast of Grantsville.

DRAINAGE AREA.--62.5 sq mi.

PERIOD OF RECORD.--July 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,089.03 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--25 years, 116 cfs (25.21 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,810 cfs Mar. 13 (gage height, 5.67 ft); minimum daily, 4.8 cfs Sept. 10, 11, 12.
Period of record: Maximum discharge, 8,400 cfs Oct. 15, 1954 (gage height, 10.70 ft), from rating curve extended above 2,600 cfs on basis of contracted-opening measurement at gage height 8.13 ft; no flow Aug. 31, 1962, result of regulation from unknown source.

REMARKS.--Records good except those for winter periods, which are fair. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1143: 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	54	275	67	74	1,180	116	101	65	235	27	8.1
2	69	122	186	153	72	1,530	120	97	56	157	22	7.6
3	69	142	148	181	67	1,240	118	228	49	129	41	7.2
4	62	94	135	123	58	546	344	238	42	110	172	8.6
5	56	76	117	227	66	370	286	256	39	120	82	9.2
6	50	70	224	170	76	276	198	175	37	130	42	8.1
7	47	67	955	135	79	272	221	144	36	110	175	6.2
8	46	60	1,250	110	72	436	229	132	31	100	90	5.7
9	42	57	681	115	68	302	191	253	28	90	54	5.2
10	41	56	436	229	64	233	191	300	35	72	41	4.8
11	39	54	334	222	64	191	173	193	30	64	32	4.8
12	35	51	250	231	64	254	143	157	26	58	29	4.8
13	32	49	201	178	84	2,120	649	137	25	54	27	6.6
14	31	45	166	176	80	874	464	142	35	46	26	7.6
15	29	43	152	125	88	528	410	187	37	41	22	16
16	28	42	135	83	100	458	562	242	28	60	20	9.2
17	28	40	115	74	88	464	921	200	29	49	32	7.2
18	27	38	106	76	82	385	430	163	25	41	62	17
19	25	39	101	76	80	322	288	152	24	36	35	13
20	24	49	161	100	66	254	238	139	18	42	27	8.6
21	22	57	156	161	120	218	197	134	38	31	22	7.2
22	22	56	108	129	180	268	336	127	70	28	17	7.2
23	29	53	90	136	250	247	292	108	1,350	25	15	6.6
24	68	48	89	172	320	200	272	88	720	22	14	6.2
25	140	54	85	177	469	178	217	78	336	21	13	6.6
26	180	64	82	126	876	161	178	71	228	20	19	7.2
27	86	75	81	98	495	158	152	63	178	19	20	7.2
28	64	112	81	105	344	158	132	59	132	20	15	13
29	54	268	76	90	822	141	117	54	756	19	13	28
30	50	484	77	88	------	156	108	54	435	20	11	29
31	46	------	76	74	------	128	------	95	------	25	8.6	------
TOTAL	1,610	2,519	7,129	4,207	5,368	14,248	8,293	4,567	4,938	1,994	1,225.6	283.7
MEAN	51.9	84.0	230	136	185	460	276	147	165	64.3	39.5	9.46
MAX	180	484	1,250	231	876	2,120	921	300	1,350	235	175	29
MIN	22	38	76	67	58	128	108	54	18	19	8.6	4.8
CFSM	.83	1.34	3.68	2.18	2.96	7.36	4.42	2.35	2.64	1.03	.63	.15
IN.	.96	1.50	4.24	2.50	3.20	8.48	4.94	2.72	2.94	1.19	.73	.17

CAL YR 1971 TOTAL 56,944.4 MEAN 156 MAX 1,830 MIN 9.2 CFSM 2.50 IN 33.89
WTR YR 1972 TOTAL 56,382.3 MEAN 154 MAX 2,120 MIN 4.8 CFSM 2.46 IN 33.56

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	0315	4.27	1,520	4-13	1545	3.86	1,190
2-26	0400	4.68	1,880	4-17	0130	4.17	1,320
3- 2	2045	4.57	1,780	6-23	*1200	†4.80	1,820
3-13	0815	5.67	2,810	6-29	1115	4.10	1,260

* About.
† From crest stage indicator.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1972, in North Atlantic Slope and Ohio (Monongahela) River basins

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Choptank River basin				
01491180	Watts Creek near Denton, Md.	Lat 38°52'29", long 75°47'38", Caroline County, at bridge on State Highway 474, 1.6 miles southeast of Denton.	[a]11	1964-72	9-27-72	1.57
		Chester River basin				
01492980	Cypress Branch at Millington, Md.	Lat 39°15'28", long 75°50'01", Kent County, at bridge on State Highway 291, 0.04 mile east of Millington.	[a]38	1964-66, 1968-72	9-27-72	7.24
		Elk River basin				
01495550	Perch Creek near Elkton, Md.	Lat 39°34'16", long 75°48'53", Cecil County, at bridge on U.S. Highway 213, 2.5 miles south of Elkton.	[a]6.0	1964-72	9-27-72	1.08
		Northeast River basin				
01496050	Little Northeast Creek at Mechanic Valley, Md.	Lat 39°38'26", long 75°55'49", Cecil County, at highway bridge, 0.8 mile northwest of Mechanic Valley.	[a]14	1964-72	9-27-72	4.36
		Potomac River basin				
01601300	North Branch Jennings Run at Barrelville, Md.	Lat 39°42'13", long 78°50'38", Allegany County, at bridge on State Highway 47, at Barrelville.	[a]12	1964-72	9-13-72	.62
01604150	Collier Run at Spring Gap, Md.	Lat 39°34'03", long 78°43'23", Allegany County, at culvert on State Highway 51, 0.6 mile west of Spring Gap.	[a]11	1964-72	9-12-72	.07
01619150	Marsh Run at Fiddlesburg, Md.	Lat 39°39'29", long 77°41'16", Washington County, at bridge on Old Forge Road, at Fiddlesburg, 0.6 mile above mouth, and 0.5 mile east of Hagerstown city limits.	[a]31	1965-72	9-13-72	11.5
		Monongahela River basin				
03075400	Laurel Run at Crellin, Md.	Lat 39°23'04", long 79°28'25", Garrett County, 800 ft above mouth, 0.5 mile southwest of Crellin.	10.9	1964-72	9-13-72	3.24
03076580	South Branch Bear Creek near Accident, Md.	Lat 39°36'39", long 79°20'02", Garrett County, at culvert on U.S. Highway 219, 1.5 miles southwest of Accident.	6.01	1964-72	9-13-72	.66

a Approximately.

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 1972, in North Atlantic Slope basins

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Delaware River basin					
01478950	Pike Creek near Newark, Del.	Lat 39°42'11", long 75°41'41", New Castle County, on right upstream wingwall of bridge on State Highway 2, 2.6 miles northeast of Newark, and 0.4 mile upstream from mouth.	6.04	1969-72	6-22-72	6.78	942
01479200	Mill Creek at Hockessin, Del.	Lat 39°46'31", long 75°41'26", New Castle County, 20 ft above bridge on Brackenville Road, and 0.9 mile southeast of Hockessin.	*4.19	1966-72	6-22-72	7.98	687
01479950	Red Clay Creek tributary near Yorklyn, Del.	Lat 39°47'50", long 75°39'33", New Castle County, 8 ft above culvert and 1.1 miles southeast of Yorklyn.	.38	1966-72	6-22-72	5.29	56
01481200	Brandywine Creek tributary near Centerville, Del.	Lat 39°50'08", long 75°35'57", New Castle County, 30 ft above bridge on State Highway 100, and 1.4 miles northeast of Centerville.	.97	1966-72	6-22-72	5.92	170
01481450	Willow Run at Rockland, Del.	Lat 39°47'32", long 75°33'16", New Castle County, 15 ft above culvert on Country Club Drive, and 1.0 mile east of Rockland.	.37	1966-72	6-30-72	8.26	263
01482310	Doll Run at Red Lion, Del.	Lat 39°35'53", long 75°39'43", New Castle County, 10 ft above culvert on secondary road, 0.7 mile south of Red Lion.	al.2	1966-72	6-22-72	5.59	215
		Smyrna River basin					
01483290	Paw Paw Branch tributary near Clayton, Del.	Lat 39°18'41", long 75°40'08", New Castle County, 6 ft above culverts on secondary road, and 2.4 miles northwest of Clayton.	al.3	1966-72	6-22-72	8.43	760
01483400	Sawmill Branch tributary near Blackbird, Del.	Lat 39°20'57", long 75°38'31", New Castle County, 10 ft above culvert on U.S. Highway 13, and 1.8 miles southeast of Blackbird.	a.6	1966-72	6-22-72	4.82	37
		Leipsic River basin					
01483500	Leipsic River near Cheswold, Del.	Lat 39°13'58", long 75°37'57", Kent County, 75 ft below highway bridge, 1.9 miles east of Kenton, and 2.6 miles northwest of Cheswold.	9.35	1931-33‡ 1943-57‡ 1958-72	6-22-72	5.53	785
		St. Jones River basin					
01483720	Puncheon Branch at Dover, Del.	Lat 39°08'25", long 75°32'20", Kent County, 10 ft above bridge on New Burton Road, and at Dover.	a2.3	1966-72	6-22-72	4.41	183
		Murderkill River basin					
01484002	Murderkill River tributary near Felton, Del.	Lat 38°58'19", long 75°33'31", Kent County, 6 ft above culvert on secondary road, and 2.9 miles south of Felton.	al.0	1966-72	10-24-71	3.89	15

See footnotes at end of table, p. 140

Annual maximum discharge at crest-stage partial-record stations during water year 1972, in North Atlantic Slope basins--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Murderkill River basin--Continued					
01484050	Pratt Branch near Felton, Del.	Lat 39°00'37", long 75°31'46", Kent County, at highway bridge, and 2.6 miles east of Felton.	3.29	1966-72	12- 7-71	8.10	54
		Broadkill River basin					
01484270	Beaverdam Creek near Milton, Del.	Lat 38°45'41", long 75°16'03", Sussex County, at highway bridge on secondary road, and 2.5 miles east of Milton.	6.10	1966-72	6-18-72	4.55	43
		Indian River basin					
01484550	Pepper Creek at Dagsboro, Del.	Lat 38°32'50", long 75°14'39", Sussex County, at bridge on State Highway 26, and at Dagsboro.	8.78	1960-72	10-24-71	6.39	545
		Wicomico River basin					
01486100	Andrews Branch near Delmar, Md.	Lat 38°26'15", long 75°31'46", Wicomico County, at culvert on Rum Ridge Road, 1.2 miles above Williams Pond, and 2.8 miles southeast of Delmar.	a4.1	1967-72	6-30-72	6.68	112
		Nanticoke River basin					
01486980	Toms Dam Branch near Greenwood, Del.	Lat 38°48'04", long 75°33'28", Sussex County, 16 ft above bridge on State Highway 16, and 1.5 miles east of Greenwood.	a6.4	1966-72	6-30-72	5.48	52
01487500	Trap Pond Outlet near Laurel, Del.	Lat 38°31'40", long 75°28'58", Sussex County, 200 ft downstream from Trap Pond Dam and 5 miles southeast of Laurel.	16.7	1951-71‡ 1972	6-29-72	3.14	315
01487900	Meadow Branch near Delmar, Del.	Lat 38°29'05", long 75°35'16" Sussex County, 14 ft above culverts on secondary road, 2.1 miles northwest of Delmar, and 3.1 miles upstream from confluence with Holly Branch.	a3.9	1967-72	6-22-72	6.60	100
01488000	Holly Ditch near Laurel, Del.	Lat 38°32'20", long 75°35'55", Sussex County, 10 ft above culvert on secondary road, and 1.5 miles southwest of Laurel.	2.19	1951-56‡ 1959-72	6-22-72	5.41	41
		Choptank River basin					
01490470	Tappahanna Ditch near Hartly, Del.	Lat 39°08'07", long 75°41'30", Kent County, 100 ft below bridge on State Highway 103, and 2.7 miles southeast of Hartly.	5.93	1952-72	12- 8-71	b7.42	127
01490490	Beachy Neidig Ditch near Willow Grove, Del.	Lat 39°04'57", long 75°39'27", Kent County, 10 ft above culvert on secondary road, and 1.8 miles northwest of Willow Grove.	a2.3	1966-72	10-26-71	7.65	†
01490600	Meredith Branch near Sandtown, Del.	Lat 39°02'23", long 75°41'52", Kent County, at bridge on State Highway 10, and 1.2 miles east of Sandtown.	a8.4	1966-72	10-26-71	4.02	242
01491010	Sangston Prong near Whiteleysburg, Del.	Lat 38°58'25", long 75°43'32", Kent County, 10 ft above culvert on secondary road, and 1.2 miles north of Whiteleysburg.	a1.9	1966-72	12- 7-71	5.55	68
01491050	Spring Branch near Greensboro, Md.	Lat 38°56'34", long 75°47'25", Caroline County, at culvert on Knife Box Road, 2.0 miles above mouth, and 2.2 miles southeast of Greensboro.	a3.8	1967-72	12- 7-71	6.05	70

See footnotes at end of table, p. 140

Annual maximum discharge at crest-stage partial-record stations during water year 1972, in North Atlantic Slope basins--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Wye River basin					
01492500	Sallie Harris Creek near Carmichael, Md.	Lat 38°57'55", long 76°06'30", Queen Annes County, on upstream wingwall of bridge on U.S. Highway 50, 2.0 miles northeast of Carmichael, and 2.2 miles northwest of Wye Mills.	8.09	1952-56‡ 1957-72	12- 7-71	4.75	290
01492550	Mill Creek near Skipton, Md.	Lat 38°55'00", long 76°03'42", Talbot County, at upstream side of culvert at U. S. Route 50, 1.5 miles north of Skipton, and 2.0 miles southeast of Wye Mills.	a4.6	1966-72	6-30-72	5.11	110
		Chester River basin					
01494020	Browns Branch tributary near Church Hill, Md.	Lat 39°10'05", long 75°58'41", Queen Annes County, at upstream side of culvert at John Powell Road, 0.6 mile upstream from mouth, and 1.8 miles north of Church Hill.	a1.7	1971-72	9-11-71 6-22-72	c12.3 c10.95	d890 450
		Northeast River basin					
01496080	Northeast River tributary near Charlestown, Md.	Lat 39°35'53", long 75°58'37", Cecil County, at upstream side of culvert on U.S. Highway 40, 1.3 miles above mouth, and 1.6 miles north of Charlestown, and 1.8 miles west of North East.	a1.7	1967-72	6-22-72	c6.4	615
		Susquehanna River basin					
01577940	Broad Creek tributary at Whiteford, Md.	Lat 39°42'30", long 76°21'49", Harford County, at upstream side of culvert at State Highway 165, 0.8 mile upstream from mouth, and 1.0 mile southwest of Whiteford.	.77	1971-72	8-28-71 6-22-72	6.62 c9.65	d156 310
01579000	Basin Run at Liberty Grove, Md.	Lat 39°39'30", long 76°06'10", Cecil County, on left bank 100 ft upstream from highway bridge, 0.9 mile east of Liberty Grove, 1.0 mile southwest of Colora, and 3 miles upstream from mouth.	5.31	1948-58‡ 1965-72	2- 7-65 2-13-66 8- 9-67 9-10-68 8- 4-69 4- 2-70 8-28-71 6-22-72	e3.68 e3.77 7.66 3.73 7.47 4.35 4.98 6.92	e625 e660 e3,500 e645 2,800 e790 1,200 2,500
		Bush River basin					
01581500	Bynum Run at Bel Air, Md.	Lat 39°32'30", long 76°19'50", Harford County, 30 ft downstream from bridge on State Highway 22, 1.0 mile east of Bel Air, and 8.5 miles upstream from mouth.	8.52	1945-50‡ 1955-70‡ 1971-72	6-22-72	8.32	4,650
		Gunpowder River basin					
01582510	Piney Creek near Hereford, Md.	Lat 39°34'38", long 76°40'39", Baltimore County, at upstream side of culvert on Interstate Route 83, 1.1 miles southwest of Hereford, 5.3 miles above mouth.	a1.5	1962-72	6-22-72	c19.4	1,370
01583495	Western Run tributary at Western Run Md.	Lat 39°31'01", long 76°41'04", Baltimore County, at upstream side of culvert on Western Run Road, 0.05 mile above mouth, 0.3 mile northwest of Western Run, and 3.0 miles northwest of Cockeysville.	.26	1966-72	6-22-72	f	515
01583580	Baisman Run at Broadmoor, Md.	Lat 39°28'45", long 76°40'42", Baltimore County, at upstream side of bridge on Ivy Hill Road, 0.3 mile upstream from mouth, and 1.8 miles west of Cockeysville.	1.47	1965-69‡ 1970-72	6-22-72	6.08	692
01584500	Little Guhpowder Falls at Laurel Brook, Md.	Lat 39°30'18", long 76°25'56", Baltimore County, 750 ft upstream from bridge on Bottom Road, 5 miles southwest of Bel Air, and 10.5 miles upstream from mouth.	36.1	1927-70‡ 1971-72	6-22-72	10.18	9,030

See footnotes at end of table, p. 140

Annual maximum discharge at crest-stage partial-record stations during water year 1972, in North Atlantic Slope basins--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Patapsco River basin					
01587050	Hay Meadow Branch tributary at Poplar Springs, Md.	Lat 39°20'55", long 77°06'02" Howard County, at upstream side of culvert on U.S. Route 40, 0.4 mile northwest of Poplar Springs, 0.5 mile above mouth, and 3.5 miles southeast of Mount Airy.	0.54	1966-72	6-21-72	8.48	420
01588000	Piney Run near Sykesville, Md.	Lat 39°22'55", long 76°58'00, Carroll County, 75 ft below bridge on State Highway 32, 1¼ miles north of Sykesville, and 5¼ miles above mouth.	11.4	1932-58‡ 1959-72	6-22-72	11.0	9,700
01589240	Gwynns Falls at McDonogh, Md.	Lat 39°23'28", long 76°45'56", Baltimore County, at bridge on McDonogh Road, at McDonogh.	19.3	1958-72	6-22-72	18.8	14,700
		South River basin					
01590500	Bacon Ridge Branch at Chesterfield, Md.	Lat 39°00'07", long 76°36'53", Anne Arundel County, on left bank 50 ft downstream from timber highway bridge, 0.5 mile east of Chesterfield, 1.4 miles upstream from confluence with North River, and 6.8 miles northwest of Annapolis.	6.92	1942-52‡ 1965-72	6-22-72	3.68	215
		Patuxent River basin					
01593350	Little Patuxent River tributary at Guilford Downs, Md.	Lat 39°13'39", long 76°50'41", Howard County, at upstream side of culvert on U.S. Route 29 at Guilford Downs, 0.3 mile above mouth, and 4.1 miles north of Guilford.	.95	1966-72	6-22-72	10.28	620
		Potomac River basin					
01601000	Wills Creek below Hyndman, Pa.	Lat 39°48'43", long 78°43'00", Bedford County, above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, and 0.5 mile south of Hyndman.	146	1951-67‡ 1968-72	6-23-72	8.91	7,560
01609500	Sawpit Run near Oldtown, Md.	Lat 39°32'48", long 78°33'20", Allegany County, 900 ft above bridge on State Highway 51, 1.0 mile above mouth, 3.0 miles east of Oldtown, and 12 miles southeast of Cumberland.	5.08	1948-58‡ 1963-72	6-22-72	4.33	g600
01613150	Ditch Run near Hancock, Md.	Lat 39°41'32", long 78°07'56", Washington County, at upstream side of culvert on U.S. Route 40, 0.3 mile above mouth, 2.1 miles south of the Mason and Dixon Line, and 2.7 miles east of Hancock.	a4.8	1965-72	6-22-72	c9.07	555
01613160	Potomac River tributary near Hancock, Md.	Lat 39°41'29", long 78°07'37", Washington County, at upstream side of culvert on Md. Route 615, 0.3 mile above mouth, 2.1 miles south of the Mason and Dixon Line, and 3.0 mile east of Hancock.	a1.2	1965-72	6-22-72	c5.10	174
01619475	Dog Creek tributary near Locust Grove, Md.	Lat 39°27'57", long 77°39'38", Washington County, at upstream side of culvert on Md. Route 67, 0.4 mile above mouth, and 1.3 miles north of Locust Grove.	.13	1966-72	6-22-72	5.36	30
01637600	Hollow Road Creek near Middletown, Md.	Lat 39°26'07", long 77°31'15", Frederick County, at upstream side of culvert on Alternate U.S. Route 40, 1.4 miles southeast of Middletown, 2.0 miles above mouth, and 4.5 miles west of Frederick.	a2.3	1965-72	6-21-72	c9.4	815

See footnotes at end of table, p. 140

Annual maximum discharge at crest-stage partial-record stations during water year 1972, in North Atlantic Slope basins--Continued and Ohio (Monongahela) River basin

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Potomac River basin--Continued					
01639095	Piney Creek tributary at Taneytown, Md.	Lat 39°39'53", long 77°09'59", Carroll County, at upstream side of culvert under Pennsylvania Railroad, 0.1 mile above mouth, 0.6 mile northeast of Taneytown, and 3.8 miles south of Penna. state line.	0.62	1967-72	6-22-72	c11.64	278
01640000	Little Pipe Creek at Avondale, Md.	Lat 39°33'40", long 77°02'38", Carroll County, at private bridge, 0.1 mile below Copps Branch, 1/2 mile northwest of Avondale, and 3 miles southwest of Westminster.	8.10	1948-56‡ 1959-64 1967-72	6-22-72	10.45	2,400
01640700	Owens Creek tributary near Rocky Ridge, Md.	Lat 39°37'16", long 77°20'26", Frederick County, at upstream side of culvert on Appolds Crossing Road, 0.8 mile above mouth, 1.6 miles northwest of Rocky Ridge, and 3.7 miles east of Frederick.	a1.2	1967-72	6-22-72	c12.29	363
01642400	Dollyhyde Creek at Libertytown, Md.	Lat 39°28'55", long 77°13'38", Frederick County, at upstream side of culvert on State Highway 26, 0.9 mile east of Libertytown, and 11 miles northeast of Frederick.	a2.7	1967-72	6-21-72	c13.20	1,620
01644420	Bucklodge Branch tributary near Barnesville, Md.	Lat 39°12'42", long 77°21'02", Montgomery County, at upstream side culvert on Barnesville Road, 0.6 mile above mouth, 1.6 miles southeast of Barnesville, and 4.0 miles northwest of Germantown.	.27	1967-72	6-21-72	c13.75	396
01660900	Wolf Den Branch near Cedarville, Md.	Lat 38°38'29", long 76°49'02", Charles County, at upstream side of culvert on Forest Road, 1.5 miles above mouth, 1.6 miles southwest of Cedarville, and 2.5 miles southwest of Baden.	a2.3	1966-72	6-22-72	6.59	255
01660930	Clark Run near Bel Alton, Md.	Lat 38°28'21", long 76°57'22", Charles County, at downstream side of bridge on Newtown Road, 1.5 miles northeast of Bel Alton, 1.8 miles above mouth, and 4.0 miles southeast of La Plata.	10.4	1966-72	6-22-72	c8.91	4,820
01661430	Glebe Branch at Valley Lee, Md.	Lat 38°11'40", long 76°31'13", St. Marys County, at upstream side of culvert on private road, 200 ft downstream from culvert on Md. State Highway 244, 0.2 mile above mouth, and 0.3 mile west of Valley Lee.	a.3	1968-72	6-22-72	4.56	29
		Monongahela River basin					
03075450	Little Youghiogheny River tributary near Deer Park, Md.	Lat 39°24'37", long 79°21'00", Garrett County, at upstream side culvert on Md. Route 135, 0.7 mile above mouth, 1.6 miles southwest of Deer Park, and 1.8 miles northeast of Mountain Lake Park.	.57	1965-72	6-29-72	5.31	40
03075600	Toliver Run tributary near Hoyes Run, Md.	Lat 39°29'39", long 79°25'14", Garrett County, at upstream side of culvert on Swallow Falls Road, 100 feet above mouth, 2.4 miles south of Hoyes Run, and 5.4 miles north of Oakland.	.53	1965-72	h6-23-72	5.03	35
03076505	Youghiogheny River tributary near Friendsville, Md.	Lat 39°39'48", long 79°25'42", Garrett County, at culvert on Md. Route 42, and 1.3 miles west of Friendsville.	.22	1965-72	3- 1-72	3.14	g7

See footnotes at end of table, p. 140

Annual maximum discharge at crest-stage partial-record stations during water year 1972, in Ohio (Monongahela) River basin--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (cfs)
		Monongahela River basin--Continued					
03077700	North Branch Casselman River tributary at Foxtown, Md.	Lat 39°37'58", long 79°14'36", Garrett County, at upstream side of culvert on Dunghill Road, at Foxtown, 2.0 miles above mouth, and 3.7 miles east of Accident.	a1.0	1965-72	2- 7-65	4.80	147
					2-13-66	j4.11	128
					3- 6-67	5.42	164
					5-24-68	4.61	142
					7-10-69	3.91	122
					4- 2-70	4.97	152
					9-14-71	6.31	84
					h6-23-72	4.92	51

* 0.15 sq mi is probably noncontributing.
† Not determined.
‡ Operated as a continuous-record station.
a Approximately.
b Maximum stage occurred Oct. 26, 1971 (8.22 ft).
c From floodmarks.
d Not previously published.
e Revised.
f Unknown, backwater from Western Run.
g About.
h May have occurred on 6-29-72.
i Corrected.
j May have been exceeded.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. All measurements in this table were made during periods of base flow, except as otherwise noted. Drainage areas given to two significant figures are approximate.

Discharge measurements made at miscellaneous sites during water year 1972, in North Atlantic Slope basins

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
		Chester River basin				
Morgan Creek	Chester River	Lat 39°18'27", long 75°57'58", Kent County, at Pennsylvania Railroad crossing culvert, 7.1 miles upstream from mouth, and 3/4 miles east of Kennedyville, Md.	a3.1	-	6-22-72	†1,300
		Patuxent River basin				
Cattail Creek	Patuxent River	Lat 39°15'17", long 77°02'43", Howard County, on left bank, 0.2 mile downstream from unnamed tributary and abandoned highway bridge, 0.5 mile southeast of Roxbury Mills, and 1.3 miles upstream from mouth.	27.7	1945-56‡ 1972	6-22-72	b
Little Patuxent River	Patuxent River	Lat 39°08'00", long 76°48'58", Howard County, on left bank 400 ft downstream from bridge on U.S. Highway 1, 0.5 mile southeast of Savage, and 1 mile downstream from Middle Patuxent River.	98.4	1940-58‡ 1959-66†† 1968†† 1972	6-22-72	c†35,400
Dorsey Run	Little Patuxent River	Lat 39°07'15", long 76°47'00", Anne Arundel County, on left bank at downstream side of bridge on State Highway 32, 0.6 mile southeast of Fort George G. Meade Junction, 1.0 mile upstream from mouth, and 2 miles south of Jessup.	11.6	1948-58‡ 1959-68†† 1972	6-22-72	d†1,700
Patuxent River	Chesapeake Bay	Lat 38°57'20", long 76°41'40", Prince Georges County-Anne Arundel County line, at bridge on U.S. Highway 50 (John Hanson Highway), 3.1 miles downstream from Little Patuxent River. 3.4 miles northeast of Mitchellville, and 4.2 miles northwest of Davidsonville.	348	-	6-22-72	†31,100
		Potomac River basin				
Paint Branch	Northeast Branch Anacostia River	Lat 39°, 01'15", long 76°56'45", Prince Georges County, at culvert on eastbound Interstate Highway 495 (Capital Beltway), 1.2 miles upstream from Little Paint Branch, 2.5 miles southwest of Beltsville, and 2.8 miles northwest of College Park.	16.5	-	6-22-72	†6,410
Sligo Creek	Northwest Branch Anacostia River	Lat 38°58'13", long 76°58'49", Prince Georges County, about 300 ft downstream from Riggs Road (Md. State Highway 212), 0.9 mile upstream from confluence with Northwest Branch Anacostia River, 1.1 miles southeast of Takoma Park, and 2.3 miles northwest of Hyattsville.	a13	-	6-22-72	†6,990
Potomac Blue Spring	North Branch Potomac	Lat 39°34'26", long 78°43'50", Allegany County, 200 ft below abandoned C & O Canal Lock, 1.1 miles northwest of Spring Gap, Md.	-	1958-71	9-12-72	*9.47
Murley Branch	Murley Branch	Lat 39°39'38", long 78°37'08", Allegany County, below dam at spring house of farm on Williams Road, 4.0 miles southwest of Flintstone, Md.	-	1958-71	9-13-72	*1,22

† Peak flow.
* Base flow.
‡ Operated as a continuous record station.
†† Operated as a crest-stage partial record station.
a Approximately.
b Discharge not determined, flood reached a stage of 16.4 ft, from floodmarks.
c Gage height at discontinued station, 25.4 ft, from floodmarks; discharge measured at site 0.6 mile upstream.
d About; gage height 14.0 ft, from high-water mark in gage house.

TIDAL CREST-STAGE STATIONS

The following table contains annual maximum stages for tidal crest-stage stations. The information 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 mean sea level, 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 stages at tidal crest-stage partial-record stations

Station No.	Station Name	Location	Period of Record	Annual Maximum	
				Date	Elevation above mean sea level (feet)
01483335	Duck Creek at Smyrna, Del.	Lat 39°18'31", long 75°36'34", at bridge on U.S. Highway 13, on north edge of Smyrna, Kent County, about 1,000 ft north of traffic light at junction of Route 300 and U.S. Highway 13, on downstream right wingwall of bridge.	1966-72	6-23-72	6.82
01484085	Murderkill River at Bowers, Del.	Lat 39°03'30", long 75°23'51", at Faulkner's Landing in Bowers, Kent County, on left bank, 10 ft southeast of southeast corner of restaurant on Faulkner's Pier.	1966-72	2-19-72	6.13
01484235	Cedar Creek near Slaughter Beach, Del.	Lat 38°56'06", long 75°19'26", at bridge No. S-164 on State Highway 36, 1.79 miles northwest of Slaughter Beach, Sussex County and 6 miles from traffic light at junction of state routes 14 and 36 in Milford, Del.	1966-72	9-21-72	4.17
01484595	Indian River at Oak Orchard, Del.	Lat 38°35'45", long 75°10'24", at Hanes Landing, 2.05 miles southeast of junction of state routes 24 and 5, at Oak Orchard, Sussex County.	1966-72	9-21-72	4.05

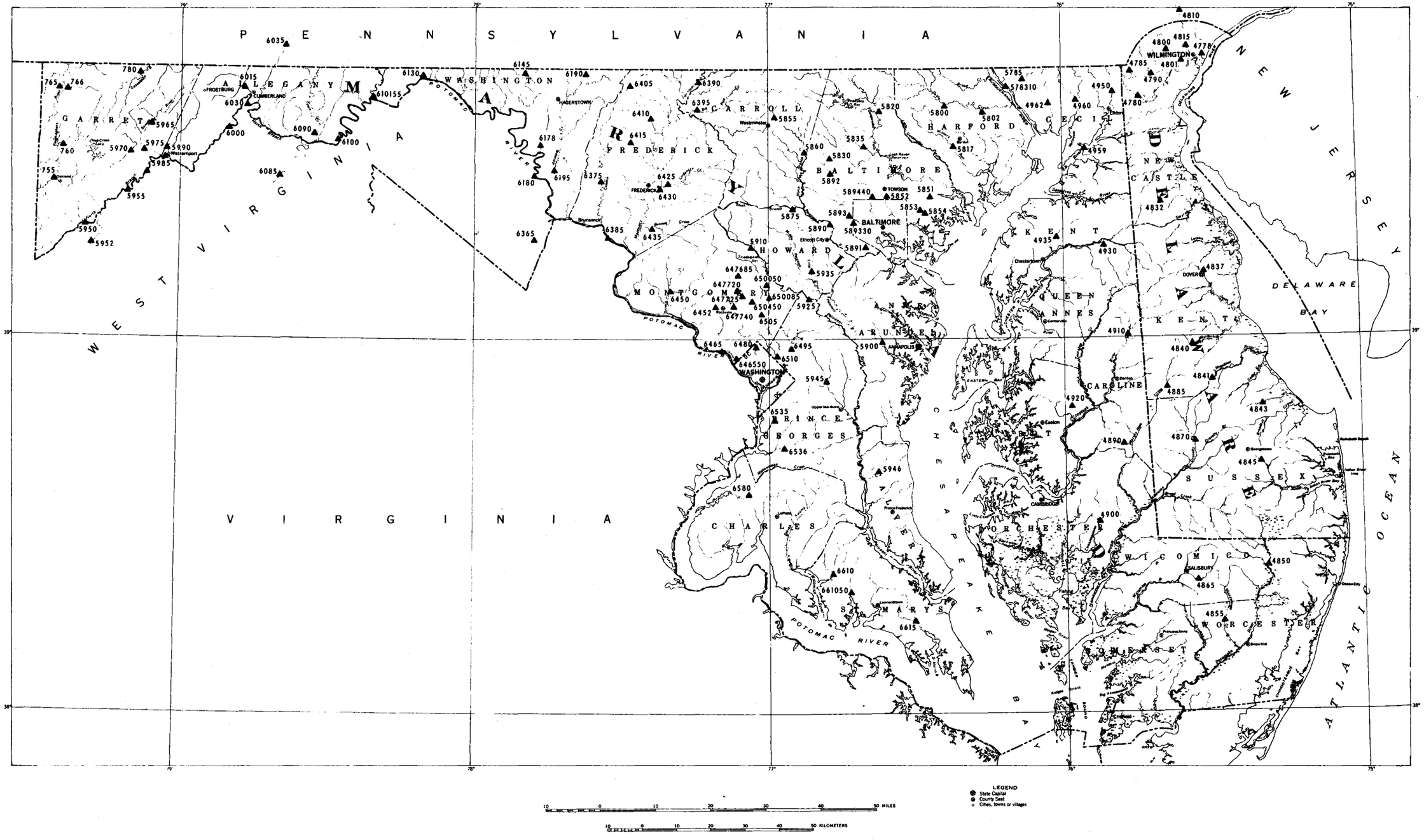

Figure 2.--Map showing location of gaging stations.

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