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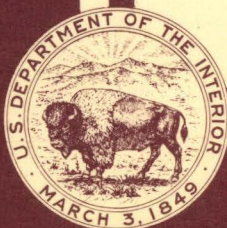
Water Resources Data for Maryland and Delaware

Part 1. Surface Water Records

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DATA REPORTS UNIT



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 1973

1972

OCTOBER

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1973

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**

Prepared in cooperation with

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

Water resources records, 1973, 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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WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1973

PART 1. SURFACE WATER RECORDS

INTRODUCTION

Water resources data for the 1973 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. Records are included for 110 gaging stations of which 109 are streamflow discharge stations, and 1 is a reservoir station; also are included records for low-flow partial-record stations, 62 crest-stage partial-record stations, and 2 miscellaneous sites. Locations of gaging stations are shown in figure 2. A few pertinent stations (not included above) in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U. S. Geological Survey under the direction of Walter 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.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U. S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series. More information is given under the headings "Publications" on pages 8 and 9.

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 National Weather Service, 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; city of Salisbury; Potomac Electric Power Co.; and Virginia Electric Power Co.

DEFINITION OF TERMS

Terms related to streamflow and other hydrologic data, as used in this report, are defined on the following pages. See also table for converting English units to International System of units (SI) on page 12.

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.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant 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 is 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 volume of water per unit of time, flowing in a channel.

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 NUMBER

Stations 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 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 series of 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. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 1 (North Atlantic Slope basins) and Part 3 (Ohio River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 15-, 30- or 60-minute intervals. 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, in Water-Supply Paper 888, and in U. S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. 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 stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, 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 daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. 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 computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists 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 reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

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 daily and monthly figures. For gaging stations on streams a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on 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 begins on October 1 and ends on September 30. A calendar for the current 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 stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. 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 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 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, 1965 stands for the water year October 1, 1964, to September 30, 1965. 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 table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion.

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

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods 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 site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

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 subjected to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and 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.

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 are 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

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Maryland and Delaware for the period October 1960 to September 1965 are in Water-Supply Papers 1902, 1903, and 1907.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series

covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. 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. Records for stations in Maryland and Delaware are compiled in Water-Supply Papers 1302 and 1305 through September 1950, and in 1722 and 1725 for October 1950 to September 1960.

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

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 averaged well above normal for almost all of the year as a result of scattered precipitation throughout the year by area and time. Although no wide-spread flooding occurred, runoff at four index stations averaged from 170 to 200 percent of normal, making 1973 one of the wettest years on record. Excessive streamflow, upper 25 percent of recorded flows, occurred from October to December and remained in the excessive or above normal range from January to September except for March. Monthly flows at the gaging station, Potomac River near Washington, D. C., ranged from 84 percent of median in March to 450 percent in December, reference period, 1941-70; and the yearly flow was the second highest observed since records began in 1930, exceeded only by the 1972 flow.

Graphical illustrations of streamflow conditions during the year in comparison with previous records for two stations are shown on page 11. 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.

Average fresh-water inflow to the Chesapeake Bay was the second highest for the period 1951-73. The water-year mean was estimated at 107,000 cfs, 146 percent of the long-term average of 73,000 cfs and was exceeded only by the 1972 mean of 116,000 cfs. Record high monthly inflows of 132,000 cfs and 209,000 cfs occurred in November and December, respectively, and monthly inflows were above the long-term average all year.

SELECTED REFERENCES

- Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.
- Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

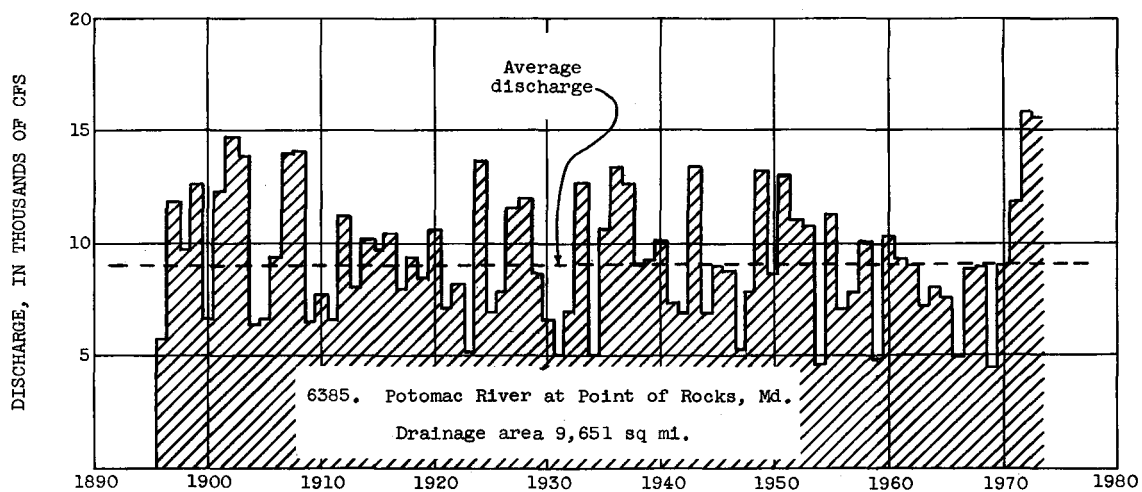
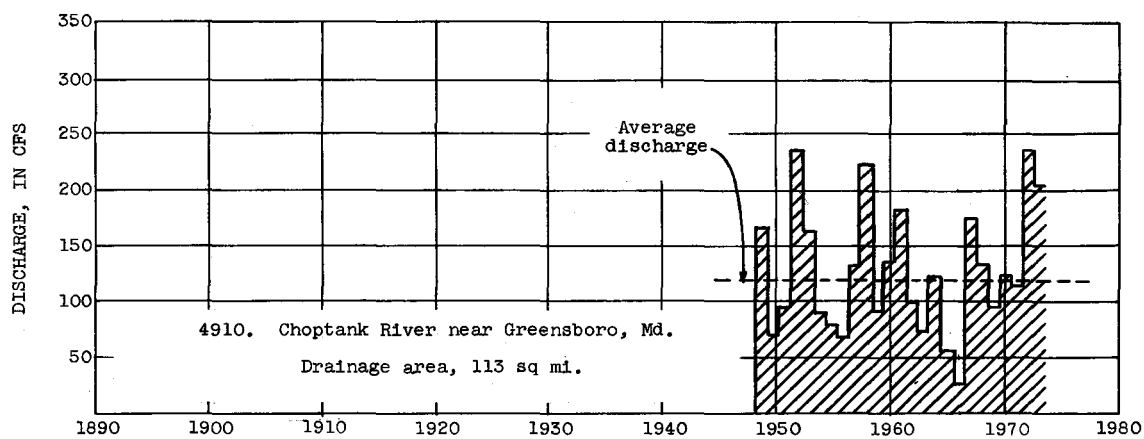


Figure 1.--Annual mean discharge at two gaging stations in Maryland.

Table 1.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
Length		
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
yards (yd)	.9144	meters (m)
rods	5.0292	meters (m)
miles (mi)	1.609	kilometers (km)
Area		
acres	4047	square meters (m ²)
	.4047	*hectares (ha)
	.4047	square hectometer (hm ²)
	.004047	square kilometers (km ²)
square miles (mi ²)	2.590	square kilometers (km ²)
Volume		
gallons (gal)	3.785	**liters (l)
	3.785	cubic decimeters (dm ³)
	3.785x10 ⁻³	cubic meters (m ³)
Million gallons (10 ⁶ gal)	3785	cubic meters (m ³)
	3.785x10 ⁻³	cubic hectometers (hm ³)
cubic feet (ft ³)	28.32	cubic decimeters (dm ³)
	.02832	cubic meters (m ³)
cfs-day (ft ³ /s-day)	2447	cubic meters (m ³)
	2.447x10 ⁻³	cubic hectometers (hm ³)
acre-feet (acre-ft)	1233	cubic meters (m ³)
	1.233x10 ⁻³	cubic hectometers (hm ³)
	1.233x10 ⁻⁶	cubic kilometers (km ³)
Flow		
cubic feet per second (ft ³ /s)	28.32	liters per second (l/s)
	28.32	cubic decimeters per second (dm ³ /s)
	.02832	cubic meters per second (m ³ /s)
gallons per minute (gpm)	.06309	liters per second (l/s)
	.06309	cubic decimeters per second (dm ³ /s)
	6.309x10 ⁻⁵	cubic meters per second (m ³ /s)
million gallons per day (mgd)	43.81	cubic decimeters per second (dm ³ /s)
	.04381	cubic meters per second (m ³ /s)
Mass		
ton (short)	.9072	tonne (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p. 15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

GAGING-STATION RECORDS

13

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 (30 m) east of intersection of 44th and Pine Streets in Clifton Park, 700 ft (213 m) downstream from highway bridge on North Market Street in Wilmington, 0.2 mile (0.3 km) downstream from Matson Run, and 2.3 miles (3.7 km) upstream from mouth.

DRAINAGE AREA.--7.46 sq mi (19.32 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft (4.621 m) above mean sea level.

AVERAGE DISCHARGE.--27 years (1946-73), 9.60 cfs (0.272 cu m/s), 17.48 in/yr (444 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,030 cfs (57.5 cu m/s) June 29 (gage height, 6.31 ft or 1.923 m); minimum daily, 0.43 cfs (0.012 cu m/s) Oct. 16.

Period of record: Maximum discharge, 6,850 cfs (194 cu m/s) Sept. 13, 1971 (gage height, 11.91 ft or 3.630 m), from rating curve extended above 620 cfs (17.6 cu m/s) on basis of computation of flow over dam at gage height 6.52 ft (1.987 m), and contracted-opening measurements at gage heights 6.52 ft or 1.987 m, 7.97 ft or 2.429 m (8.6 ft or 2.62 m from floodmarks), Type V culvert measurement at 9.10 ft (2.774 m), and contracted-opening measurement of peak flow; minimum daily, 0.09 cfs (0.003 cu m/s) 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 (2.59 m), from floodmarks.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.93	27	12	4.9	2.7	103	10	7.4	6.0	59	.93
2	.57	.86	5.8	5.0	312	2.7	60	5.4	5.3	4.1	48	.91
3	.50	.86	3.9	3.9	35	12	10	16	4.3	48	21	8.1
4	.48	1.3	3.2	46	12	31	122	8.4	6.3	32	3.2	3.8
5	.73	1.7	2.8	8.4	7.4	7.4	22	5.1	6.5	7.5	2.2	1.4
6	2.6	.86	80	5.5	6.4	5.4	9.7	4.0	8.5	3.3	1.9	1.4
7	54	.64	14	3.4	19	5.9	8.2	3.6	3.9	2.5	1.8	1.0
8	1.5	219	149	3.1	29	16	108	5.1	3.2	2.2	1.7	.71
9	.76	16	52	2.8	14	7.2	17	80	3.0	2.1	1.6	.59
10	.62	3.0	91	2.7	5.8	5.0	44	9.6	2.7	2.0	1.8	.55
11	.53	2.1	13	2.5	4.0	5.0	11	5.9	2.6	34	2.1	.54
12	.71	1.7	9.4	2.3	3.8	5.4	7.4	5.9	4.6	4.5	2.1	.50
13	.66	1.5	8.6	2.3	3.7	4.1	6.2	5.1	17	2.5	2.1	.51
14	.50	248	5.1	2.3	10	3.8	5.3	3.8	2.5	2.2	3.2	87
15	.44	13	52	2.3	47	3.7	4.7	3.8	2.1	27	4.7	17
16	.43	3.8	28	2.3	11	4.5	4.3	4.0	49	4.7	2.6	1.8
17	.47	2.6	5.9	2.5	4.8	28	4.1	7.6	7.4	2.7	1.8	1.4
18	.51	2.2	4.3	2.6	3.8	5.9	4.4	9.2	3.9	2.2	1.8	8.3
19	16	27	4.2	13	3.4	3.7	3.9	4.1	3.1	2.1	1.8	1.6
20	2.1	160	7.8	8.3	3.5	3.1	3.5	35	4.4	2.6	1.7	1.3
21	1.0	6.6	12	3.0	3.6	2.9	3.3	12	15	6.2	1.6	1.1
22	.86	3.8	91	21	4.7	2.7	3.3	5.3	47	2.0	3.0	.93
23	1.0	2.8	33	11	3.3	2.5	17	11	8.1	1.8	2.0	1.4
24	1.0	2.6	13	4.3	2.9	2.3	8.3	9.0	4.0	1.7	1.5	1.2
25	.79	3.8	8.7	3.2	2.7	4.3	17	18	3.2	1.6	1.4	.94
26	.69	40	7.0	3.0	2.8	134	173	9.0	2.8	1.6	1.3	.90
27	.59	5.9	7.5	124	2.7	21	92	73	2.6	1.6	1.4	.93
28	27	3.3	4.9	60	2.7	7.0	66	158	2.6	1.6	1.1	.93
29	3.9	2.6	3.8	186	-----	5.1	22	16	234	1.6	.92	2.5
30	1.8	53	8.8	11	-----	7.8	15	78	17	1.5	.95	2.7
31	1.3	-----	13	6.5	-----	7.8	-----	36	-----	1.4	1.0	-----
TOTAL	125.34	831.45	769.7	566.2	565.9	359.9	975.6	656.9	484.0	216.8	182.27	152.87
MEAN	4.04	27.7	24.8	18.3	20.2	11.6	32.5	21.2	16.1	6.99	5.88	5.10
MAX	54	248	149	186	312	134	173	158	234	48	59	87
MIN	.43	.64	2.8	2.3	2.7	2.3	3.3	3.6	2.1	1.4	.92	.50
CFSM	.54	3.71	3.32	2.45	2.71	1.56	4.36	2.84	2.16	.94	.79	.68
IN.	.63	4.15	3.84	2.82	2.82	1.79	4.86	3.28	2.41	1.08	.91	.76

CAL YR 1972 TOTAL 5,176.04 MEAN 14.1 MAX 501 MIN .43 CFSM 1.89 IN 25.81
WTR YR 1973 TOTAL 5,886.93 MEAN 16.1 MAX 312 MIN .43 CFSM 2.16 IN 29.36

PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	0800	4.76	1,250	12-10	0905	3.54	574	4-26	0415	4.10	910
11-14	1200	4.59	1,160	1-27	1635	3.71	676	5-28	0815	4.38	1,060
11-20	0200	4.20	970	1-29	0235	3.65	640	5-30	2210	4.72	1,230
12-06	1735	4.00	850	2-02	1400	4.78	1,260	6-16	1845	3.51	556
12-08	1945	4.01	856	4-04	1435	4.11	898	6-29	1240	6.31	2,030

DELAWARE RIVER BASIN

01478000 Christina River at Coochs Bridge, Del.

LOCATION.--Lat 39°38'16", long 75°43'46", New Castle County, on left bank 82 ft (25 m) downstream from highway bridge, 0.3 mile (0.5 km) south of Coochs Bridge, 3.3 miles (5.3 km) upstream from Muddy Run, 3.5 miles (5.6 km) south of Newark, and 23.0 miles (37.0 km) upstream from mouth.

DRAINAGE AREA.--20.5 sq mi (53.1 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 25.6 ft (7.80 m) above mean sea level. Prior to Sept. 14, 1944, nonrecording gage on upstream side of bridge at same datum. Sept. 14, 1944 to May 13, 1969, recording gage at site 70 ft (21 m) upstream at same datum.

AVERAGE DISCHARGE.--30 years, 26.6 cfs (0.753 cu m/s), 17.62 in/yr (448 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,400 cfs (68.0 cu m/s) Nov. 14 (gage height, 10.70 ft or 3.261 m); minimum daily, 4.8 cfs (0.14 cu m/s) Oct. 3, 12.
Period of record: Maximum discharge, 3,320 cfs (94.0 cu m/s) June 22, 1972; maximum gage height, 12.41 ft (3.783 m) May 1, 1947; minimum daily discharge, 0.2 cfs (0.006 cu m/s) Aug. 7, 14, 18, 21, 27, 28, 1966.

REMARKS.--Records fair. Low and medium flow regulated by mill above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	12	128	34	25	20	322	24	37	26	64	8.5
2	6.4	8.3	29	29	400	21	335	22	29	22	350	21
3	4.8	13	23	25	130	30	55	38	26	257	125	9.5
4	6.6	9.7	21	72	36	73	267	29	54	387	45	8.8
5	6.9	10	19	40	33	32	77	24	114	37	20	9.3
6	14	10	139	27	30	28	38	21	29	25	16	8.1
7	88	10	70	23	43	26	32	20	23	21	13	8.5
8	12	392	302	21	58	50	239	20	22	19	13	7.7
9	10	50	331	19	42	33	59	195	20	19	10	7.6
10	6.2	19	314	17	30	25	88	41	19	17	11	7.8
11	6.0	15	60	15	27	23	40	28	19	122	10	7.6
12	4.8	14	35	16	22	25	32	23	17	36	10	6.5
13	6.2	13	37	17	21	22	29	23	22	19	11	8.1
14	6.3	851	27	17	29	21	27	21	18	19	13	222
15	5.5	72	127	18	94	20	26	23	17	47	12	86
16	7.5	28	105	17	43	21	25	23	46	26	14	13
17	7.1	22	30	18	31	80	24	23	44	19	11	12
18	5.3	19	25	16	22	30	24	28	21	18	9.9	9.4
19	26	38	24	27	23	23	23	20	20	16	10	9.3
20	15	453	31	20	21	19	22	73	20	19	11	9.7
21	6.7	35	39	18	24	20	20	44	18	21	9.6	8.6
22	6.2	24	274	66	28	19	21	24	108	19	12	7.6
23	11	20	95	39	24	18	30	26	36	17	11	9.2
24	8.1	19	50	24	22	18	38	29	22	15	10	7.4
25	7.3	18	34	20	21	20	34	70	20	14	11	9.1
26	5.8	104	32	19	22	434	324	31	18	13	9.2	6.0
27	8.0	30	35	149	21	118	120	107	18	15	9.2	8.4
28	76	21	26	151	20	35	99	336	21	17	9.0	9.4
29	22	20	23	354	-----	27	39	55	546	16	9.0	33
30	12	133	28	39	-----	31	29	70	67	15	8.8	22
31	7.1	-----	39	30	-----	31	-----	221	-----	14	8.7	-----
TOTAL	421.4	2,483.0	2,552	1,397	1,342	1,393	2,538	1,732	1,491	1,347	886.4	601.1
MEAN	13.6	82.8	82.3	45.1	47.9	44.9	84.6	55.9	49.7	43.5	28.6	20.0
MAX	88	851	331	354	400	434	335	336	546	387	350	222
MIN	4.8	8.3	19	15	20	18	20	20	17	13	8.7	6.0
CFSM	.66	4.04	4.01	2.20	2.34	2.19	4.13	2.73	2.42	2.12	1.40	.98
IN.	.76	4.51	4.63	2.54	2.44	2.53	4.61	3.14	2.71	2.44	1.61	1.09

CAL YR 1972 TOTAL 15,893.4 MEAN 43.4 MAX 1,300 MIN 3.3 CFSM 2.12 IN 28.84
WTR YR 1973 TOTAL 18,183.9 MEAN 49.8 MAX 851 MIN 4.8 CFSM 2.43 IN 33.00

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	1230	9.67	1,000	3-26	0645	9.95	1,250
11-14	1500	10.70	2,400	4-02	0015	10.16	1,480
11-20	0500	10.02	1,320	6-29	1545	10.23	1,590
12-08	2330	10.23	1,590	7-04	0100	10.46	1,990
2-02	*	*	*				

* Unknown

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 (1.4 km) downstream from small tributary, 1.7 miles (2.7 km) southeast of Delaware-Maryland-Pennsylvania State corner, 2.1 miles (3.4 km) downstream from Pennsylvania-Delaware State line, 2.2 miles (3.5 km) north of Newark, and 12.8 miles (20.6 km) upstream from mouth.

DRAINAGE AREA.--66.7 sq mi (172.8 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 78.6 ft (24.0 m) above mean sea level.

AVERAGE DISCHARGE.--18 years, 80.4 cfs (2.277 cu m/s), 16.37 in/yr (416 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,800 cfs (79.3 cu m/s) Nov. 14 (gage height, 7.53 ft or 2.295 m); minimum daily, 39 cfs (1.10 cu m/s) Sept. 13.
Period of record: Maximum discharge, 10,200 cfs (289 cu m/s) June 22, 1972 (gage height, 13.77 ft or 4.197 m), from rating curve extended above 1,800 cfs (51.0 cu m/s) on basis of contracted-opening measurements at gage heights 9.97 ft (3.039 m) and 13.77 ft (4.197 m); minimum, 4.6 cfs (0.13 cu m/s) Dec. 7, 1954 (gage height, 0.55 ft or 0.168 m), result of freezeup; minimum daily, 5.6 cfs (0.16 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	54	271	164	150	124	390	141	147	110	135	44
2	44	55	137	151	738	125	537	136	136	100	433	85
3	44	54	117	142	356	143	181	164	128	380	131	56
4	44	52	107	256	194	221	351	161	123	450	93	53
5	44	50	102	160	159	157	231	136	147	280	81	49
6	50	49	301	147	156	152	174	128	119	140	74	47
7	150	48	228	138	227	143	173	119	110	110	70	46
8	64	629	448	137	204	171	424	119	108	100	69	43
9	49	183	545	135	202	150	210	265	101	96	67	42
10	44	99	325	133	154	134	262	171	95	92	65	42
11	44	83	196	131	154	133	177	147	90	120	64	41
12	46	77	173	128	156	139	168	137	86	90	63	40
13	46	71	172	126	154	125	162	134	136	78	62	39
14	44	962	162	124	156	121	155	128	95	75	65	214
15	43	219	258	122	308	119	148	135	82	105	66	180
16	42	133	286	120	176	120	143	132	200	102	66	64
17	44	108	166	120	154	219	141	129	248	92	62	54
18	41	96	151	122	150	151	144	143	120	85	62	61
19	78	101	150	126	136	127	137	125	105	82	62	58
20	67	603	163	153	134	119	131	191	100	78	59	51
21	53	168	164	123	138	115	127	178	96	100	59	48
22	52	131	434	164	143	114	127	136	200	90	60	48
23	52	114	229	186	136	110	138	141	130	82	56	49
24	53	107	182	134	130	108	177	153	110	76	54	47
25	51	103	160	117	125	109	138	199	120	70	53	44
26	49	262	154	108	129	358	542	154	100	70	52	44
27	48	145	168	260	128	160	263	229	88	70	51	44
28	141	113	154	254	124	145	242	704	140	80	50	44
29	106	103	148	686	-----	140	168	204	749	70	47	47
30	64	182	154	166	-----	150	150	178	170	64	46	55
31	56	-----	175	150	-----	160	-----	194	-----	60	45	-----
TOTAL	1,800	5,154	6,580	5,183	5,271	4,562	6,511	5,411	4,379	3,597	2,422	1,779
MEAN	58.1	172	212	167	188	147	217	175	146	116	78.1	59.3
MAX	150	962	545	686	738	358	542	704	749	450	433	214
MIN	41	48	102	108	124	108	127	119	82	60	45	39
CFSM	.87	2.58	3.18	2.50	2.82	2.20	3.25	2.62	2.19	1.74	1.17	.89
IN.	1.00	2.87	3.67	2.89	2.94	2.54	3.63	3.02	2.44	2.01	1.35	.99

CAL YR 1972 TOTAL 48,974 MEAN 134 MAX 3,560 MIN 41 CFSM 2.01 IN 27.31
WTR YR 1973 TOTAL 52,649 MEAN 144 MAX 962 MIN 39 CFSM 2.16 IN 29.36

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1330	7.53	2,800	5-28	1145	5.52	1,620
11-20	0415	5.59	1,560	6-29	1315	5.31	1,520
12-08	2245	6.61	2,250	7-03	2315	6.89	2,410
2-02	1645	6.18	1,990				

DELAWARE RIVER BASIN

01479000 White Clay Creek near Newark, Del.

LOCATION.--Lat 39°42'01", long 75°41'00", New Castle County, on left bank 300 ft (91 m) upstream from Baltimore & Ohio Railroad bridge, 0.4 mile (0.6 km) downstream from Pike Creek, 3.5 miles (5.6 km) east of Newark, and 5.5 miles (8.8 km) upstream from mouth.

DRAINAGE AREA.--87.8 sq mi (227.4 sq km).

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 (3.54 m) above mean sea level. Nov. 17, 1931, to Sept. 30, 1936, at site 15 ft (5 m) downstream at same datum.

AVERAGE DISCHARGE.--33 years, 108 cfs (3.059 cu m/s), 16.70 in/yr (424 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,340 cfs (123 cu m/s) July 3 (gage height, 13.86 ft or 4.225 m); minimum, 44 cfs (1.25 cu m/s) Oct. 19; minimum daily, 46 cfs (1.30 cu m/s) Oct. 4.
Period of record: Maximum discharge, 9,080 cfs (257 cu m/s) June 22, 1972 (gage height, 17.74 ft or 5.407 m), from rating curve extended above 6,000 cfs (170 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 4.7 cfs (0.13 cu m/s) Sept. 11, 1966; minimum gage height, 3.66 ft (1.116 m) July 26, 1954; minimum daily discharge, 5.0 cfs (0.14 cu m/s) Sept. 10, 1966.
Maximum stage known, 23 ft (7 m) 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. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	61	326	180	172	144	549	174	180	163	130	55
2	48	61	150	155	1,340	145	875	167	170	138	672	98
3	47	60	128	142	540	171	252	199	160	620	175	72
4	46	57	118	287	254	252	553	206	155	953	123	63
5	51	58	114	185	216	182	319	169	194	342	102	57
6	63	55	341	159	200	172	215	157	150	177	91	56
7	237	54	294	138	265	170	192	150	139	142	85	55
8	81	774	535	138	255	195	606	145	133	127	84	53
9	58	246	875	136	264	170	282	383	126	116	81	53
10	51	109	528	134	189	175	329	202	119	110	81	52
11	50	87	239	132	170	175	228	165	114	161	79	52
12	51	78	195	128	165	180	203	152	110	124	78	52
13	51	72	188	128	165	165	191	150	156	104	76	51
14	49	1,610	165	128	170	160	181	142	114	100	93	342
15	49	305	292	126	343	160	176	150	101	142	84	270
16	48	159	337	125	213	160	172	150	264	140	82	80
17	48	126	171	126	160	255	168	144	418	104	78	66
18	47	108	157	128	160	195	170	163	146	100	76	69
19	95	130	154	140	160	163	162	136	135	92	76	70
20	78	889	173	163	158	155	157	213	131	91	72	59
21	60	180	181	129	163	152	152	212	122	108	71	56
22	59	136	583	173	169	150	151	151	239	96	76	56
23	57	118	263	225	161	147	172	152	168	92	69	57
24	58	108	213	156	152	145	204	172	128	83	65	55
25	56	103	190	136	148	149	177	227	143	78	65	51
26	54	277	183	132	151	696	851	174	120	78	64	51
27	53	156	188	321	151	267	358	279	114	78	62	51
28	179	120	166	335	145	191	316	1,110	147	90	60	51
29	138	107	153	1,050	-----	177	218	298	1,370	77	58	72
30	72	213	162	236	-----	188	189	272	258	70	56	64
31	63	-----	187	187	-----	190	-----	230	-----	68	55	-----
TOTAL	2,153	6,617	7,949	6,058	6,799	5,996	8,768	6,794	6,024	4,964	3,119	2,289
MEAN	69.5	221	256	195	243	193	292	219	201	160	101	76.3
MAX	237	1,610	875	1,050	1,340	696	875	1,110	1,370	953	672	342
MIN	46	54	114	125	145	144	151	136	101	68	55	51
CFSM	.79	2.52	2.92	2.22	2.77	2.20	3.33	2.49	2.29	1.82	1.15	.87
IN.	.91	2.80	3.37	2.57	2.88	2.54	3.71	2.88	2.55	2.10	1.32	.97
CAL YR 1972	TOTAL 63,637		MEAN 174	MAX 3,980	MIN 46	CFSM 1.98	IN 26.96					
WTR YR 1973	TOTAL 67,530		MEAN 185	MAX 1,610	MIN 46	CFSM 2.11	IN 28.61					

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1415	13.28	3,880	5-27	2315	10.93	2,090
12-09	0030	12.03	2,910	6-29	0915	13.71	4,190
2-02	1700	12.73	3,410	7-03	2200	13.86	4,340

01480000 Red Clay Creek at Wooddale, Del.

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, on right bank 12 ft (4 m) upstream from bridge on State Highway 48, 0.3 mile (0.5 km) south of Wooddale, 2.3 miles (3.7 km) north of Marshallton, and 4.9 miles (7.9 km) upstream from mouth.

DRAINAGE AREA.--47.0 sq mi (121.7 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft (24.829 m) above mean sea level. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft (3 m) downstream at same datum.

AVERAGE DISCHARGE.--30 years, 63.1 cfs (1.787 cu m/s), 18.23 in/yr (463 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,040 cfs (57.8 cu m/s) Feb. 2 (gage height, 6.06 ft or 1.847 m); minimum, 8.5 cfs (0.241 cu m/s) Sept. 3, result of regulation; minimum daily, 23 cfs (0.65 cu m/s) Oct. 2, 3, 4.
Period of record: Maximum discharge, 4,780 cfs (135.4 cu m/s) Sept. 12, 1960 (gage height, 9.93 ft or 3.027 m); minimum, 2.9 cfs (0.082 cu m/s) Sept. 4, 1966; minimum daily, 4.5 cfs (0.127 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	33	203	107	108	89	257	106	107	89	61	28
2	23	34	82	92	748	89	336	100	98	76	401	41
3	23	33	70	86	310	113	136	131	92	175	99	34
4	23	32	65	189	174	181	271	127	90	270	65	59
5	24	30	62	110	148	116	172	102	102	168	54	35
6	30	29	215	95	140	110	123	94	84	89	50	33
7	132	29	140	81	188	104	110	88	79	76	50	32
8	41	493	273	76	181	136	344	87	77	69	44	29
9	32	118	377	76	174	110	166	244	74	66	44	28
10	29	58	232	74	123	98	208	127	68	63	44	28
11	28	49	132	74	113	98	133	101	67	90	42	28
12	30	43	113	68	104	101	119	92	65	72	40	27
13	29	40	112	66	104	89	113	88	110	60	40	26
14	28	714	95	67	107	86	110	84	68	58	42	114
15	27	147	195	70	266	86	107	88	61	98	42	119
16	26	75	216	70	140	86	104	86	172	81	41	45
17	28	62	101	72	107	147	101	86	146	62	40	38
18	26	55	92	73	95	95	102	104	85	60	39	53
19	60	59	95	82	98	84	97	83	84	56	39	43
20	43	447	110	97	98	81	93	128	84	55	36	37
21	32	93	101	72	101	79	89	123	78	59	37	35
22	32	71	334	164	107	79	90	90	156	56	39	36
23	31	62	161	164	101	76	100	99	98	55	35	35
24	32	58	126	98	95	74	124	103	77	51	34	34
25	30	55	110	83	92	76	94	140	84	49	33	33
26	29	196	105	79	95	285	379	106	69	48	32	33
27	28	82	109	242	92	133	226	156	65	49	31	33
28	102	65	93	196	89	104	227	477	202	52	31	33
29	64	60	86	593	-----	95	132	164	632	46	29	37
30	39	128	93	150	-----	104	112	130	146	43	28	38
31	35	-----	107	118	-----	98	-----	147	-----	43	28	-----
TOTAL	1,163	3,450	4,405	3,684	4,298	3,302	4,775	3,881	3,420	2,384	1,670	1,224
MEAN	37.5	115	142	119	154	107	159	125	114	76.9	53.9	40.8
MAX	132	714	377	593	748	285	379	477	632	270	401	119
MIN	23	29	62	66	89	74	89	83	61	43	28	26
CFSM	.80	2.45	3.02	2.53	3.28	2.28	3.38	2.66	2.43	1.64	1.15	.87
IN.	.92	2.73	3.49	2.92	3.40	2.61	3.78	3.07	2.71	1.89	1.32	.97

CAL YR 1972 TOTAL 35,479 MEAN 96.9 MAX 1,800 MIN 23 CFSM 2.06 IN 28.08
WTR YR 1973 TOTAL 37,656 MEAN 103 MAX 748 MIN 23 CFSM 2.19 IN 29.80

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	1045	5.15	1,400	2-02	1530	6.06	2,040
11-14	1445	5.96	1,970	6-29	1445	4.98	1,290
12-08	2315	5.22	1,450				

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 (0.8 km) downstream from unnamed tributary, and 2.2 miles (3.5 km) upstream from mouth.

DRAINAGE AREA.--6.70 sq mi (17.35 sq km).

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

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1968. Prior to Mar. 19, 1964, nonrecording gage at same site and datum. Datum of gage is 48.62 ft (14.819 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 10.0 cfs (0.283 cu m/s), 20.27 in/yr (515 mm/yr).

EXTREMES.--Current year: Maximum discharge, 714 cfs (20.2 cu m/s) Feb. 2 (gage height, 4.81 ft or 1.466 m); minimum, 1.2 cfs (0.034 cu m/s) Oct. 2, 3, 4, 5.
Period of record: Maximum discharge, 3,960 cfs (112 cu m/s) Aug. 10, 1967 (gage height, 8.58 ft or 2.615 m), from rating curve extended above 380 cfs (10.8 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 0.10 cfs (0.003 cu m/s) July 17, 18, Sept. 18, 19, 1966.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.4	24	11	7.2	3.5	101	7.2	10	8.0	21	2.2
2	1.2	2.6	7.6	7.2	200	3.5	52	6.8	9.3	6.4	29	2.2
3	1.2	2.4	6.1	6.4	31	12	12	14	8.0	75	12	2.2
4	1.2	2.6	5.2	36	12	16	79	9.3	17	39	4.1	3.1
5	2.4	2.6	4.7	10	9.3	5.8	17	6.8	24	9.7	3.3	2.4
6	6.1	2.4	53	7.6	8.4	5.0	10	6.4	5.8	6.8	3.1	2.2
7	49	2.4	14	5.8	15	5.0	8.9	6.4	5.5	5.8	3.0	2.1
8	2.2	146	105	5.2	25	10	82	7.7	5.0	5.2	3.0	1.9
9	1.6	18	45	5.0	13	5.5	14	79	4.7	5.0	2.8	1.7
10	1.5	7.2	77	4.7	8.4	4.7	30	11	3.8	4.7	2.8	1.7
11	1.6	5.5	12	4.4	6.4	4.7	9.7	8.9	3.8	16	2.6	1.7
12	1.7	3.3	10	4.1	5.8	4.7	8.0	9.3	4.6	5.8	2.4	1.7
13	1.6	3.1	9.7	4.1	5.5	4.4	7.2	8.9	13	5.0	2.4	1.7
14	1.6	175	7.2	4.4	16	3.5	6.8	7.2	3.8	4.4	10	52
15	1.5	13	43	5.0	28	4.4	6.1	7.6	3.3	15	3.9	14
16	1.5	6.4	20	5.0	10	5.2	6.1	7.2	51	5.8	3.1	3.0
17	1.6	5.2	7.6	15	5.8	15	6.1	11	10	4.7	2.8	2.6
18	1.5	4.4	6.8	6.4	5.5	5.2	6.4	8.4	5.8	4.4	2.6	5.0
19	14	28	6.4	12	5.2	4.4	6.1	5.8	5.5	3.8	2.6	2.6
20	5.7	106	9.2	7.6	5.8	4.4	5.5	36	6.1	3.8	2.4	2.4
21	1.7	9.3	13	6.1	8.4	4.1	5.2	11	15	5.5	2.4	2.4
22	1.7	6.1	76	17	6.8	4.1	5.5	7.2	43	3.8	4.7	2.2
23	1.9	5.2	26	9.7	5.8	4.1	16	11	9.7	3.5	3.0	2.8
24	1.9	4.7	12	6.8	5.2	3.8	8.4	9.3	6.1	3.1	2.6	2.2
25	1.7	5.0	9.3	5.8	4.7	10	17	13	5.5	3.0	2.6	2.2
26	1.9	31	8.9	5.5	4.1	129	112	9.3	5.0	3.1	2.4	2.2
27	2.1	7.2	8.4	89	3.8	24	45	61	4.7	3.0	2.6	2.2
28	34	6.1	6.8	58	3.5	8.4	31	104	4.4	3.0	2.6	2.4
29	5.0	5.5	5.8	120	-----	6.4	12	15	153	2.8	2.4	4.1
30	3.3	43	10	13	-----	8.0	8.4	47	15	2.8	2.4	3.1
31	2.6	-----	15	8.4	-----	8.8	-----	40	-----	2.8	2.2	-----
TOTAL	158.1	661.6	664.7	506.2	465.6	337.6	734.4	592.7	461.4	270.7	148.8	134.2
MEAN	5.10	22.1	21.4	16.3	16.6	10.9	24.5	19.1	15.4	8.73	4.80	4.47
MAX	49	175	105	120	200	129	112	104	153	75	29	52
MIN	1.2	2.4	4.7	4.1	3.5	3.5	5.2	5.8	3.3	2.8	2.2	1.7
CFSM	.76	3.30	3.19	2.43	2.48	1.63	3.66	2.85	2.30	1.30	.72	.67
IN.	.88	3.67	3.69	2.81	2.59	1.87	4.08	3.29	2.56	1.50	.83	.75

CAL YR 1972 TOTAL 4,700.0 MEAN 12.8 MAX 298 MIN 1.0 CFSM 1.91 IN 26.10
WTR YR 1973 TOTAL 5,136.0 MEAN 14.1 MAX 200 MIN 1.2 CFSM 2.10 IN 28.52

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	0830	4.49	586	1-29	0230	3.86	361	5-09	0300	3.88	368
11-14	1100	4.78	702	2-02	1430	4.81	714	5-30	2200	4.55	610
11-20	0200	4.22	487	3-26	0500	4.12	452	6-16	1900	4.38	543
12-06	1700	4.16	466	4-01	2000	4.20	480	6-29	1230	4.62	638
12-08	2000	4.25	498	4-04	1400	3.94	389	7-03	2200	4.51	594
12-10	0830	3.87	364	4-26	0430	4.12	452				

DELAWARE RIVER BASIN

19

01481000 Brandywine Creek at Chadds Ford, Pa.

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, on left bank 27 ft (8 m) upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run and 1,200 ft (366 m) downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 sq mi (743 sq km), 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 (45.857 m) above mean sea level. Prior to May 21, 1927, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--53 years (1911-53, 1962-73), 385 cfs (10.9 cu m/s), 18.22 in/yr (463 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,400 cfs (323 cu m/s) June 30 (gage height, 12.46 ft or 3.798 m), from rating curve extended as explained below; minimum, 120 cfs (3.40 cu m/s) Oct. 3, 4 (gage height, 1.25 ft or 0.381 m).

Period of record: Maximum discharge, 23,800 cfs (674 cu m/s) June 22, 1972 (gage height, 16.56 ft or 5.047 m), from rating curve extended above 7,000 cfs (198 cu m/s) on basis of area-velocity study; minimum, 4.9 cfs (0.14 cu m/s) Oct. 2, 1941 (gage height, 0.28 ft or 0.085 m); minimum daily, 42 cfs (1.19 cu m/s) 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(F), 1942 (maximum only, 1917-18, 1922-31, 1934, 1939, 1944-46). WRD Pa. 1972 and WRD Md. and Del. 1972: 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	181	845	740	705	494	1,020	687	634	985	330	172
2	151	186	705	589	2,170	499	3,010	655	568	775	1,550	183
3	140	181	611	530	2,140	571	1,320	692	537	715	545	210
4	136	173	480	1,060	1,130	840	1,410	724	539	2,470	370	206
5	147	169	350	810	965	665	1,470	635	617	1,300	320	187
6	186	162	625	635	890	602	939	592	504	750	297	179
7	685	151	985	517	970	580	819	555	527	560	283	183
8	296	1,310	755	495	925	700	1,640	540	475	500	274	172
9	198	955	2,100	476	1,050	660	1,310	995	449	465	265	161
10	155	395	1,120	463	770	553	1,500	696	418	440	260	157
11	147	404	920	476	680	526	1,090	590	398	535	256	161
12	151	332	765	458	619	548	909	537	391	505	260	154
13	147	242	755	463	607	503	839	518	494	420	256	150
14	143	2,740	675	431	620	476	786	492	408	400	243	278
15	140	2,280	910	445	1,180	481	749	493	366	475	256	770
16	136	670	1,410	449	845	481	670	509	403	500	278	283
17	136	503	715	449	635	760	714	488	526	405	252	214
18	133	391	625	436	602	700	718	546	402	385	230	218
19	238	332	598	476	571	513	664	477	398	365	238	230
20	278	1,900	645	598	575	473	629	580	402	350	243	194
21	181	589	660	467	584	454	602	680	382	375	252	183
22	173	386	1,710	635	593	444	594	509	480	405	238	179
23	166	332	1,100	955	571	429	643	506	451	365	222	202
24	166	296	865	607	544	415	830	615	616	335	214	198
25	158	283	765	512	526	416	632	800	921	316	202	172
26	158	1,070	720	467	526	1,250	1,700	661	495	316	206	172
27	155	598	735	805	521	747	1,190	672	411	316	202	172
28	355	373	645	1,180	503	542	1,290	2,580	1,050	302	206	168
29	494	364	580	2,500	-----	494	877	1,320	3,700	297	187	172
30	238	422	575	1,060	-----	528	737	841	4,070	283	176	202
31	194	-----	685	790	-----	546	-----	725	-----	278	179	-----
TOTAL	6,354	18,370	25,634	20,974	23,017	17,890	31,301	21,910	22,032	16,888	9,290	6,282
MEAN	205	612	827	677	822	577	1,043	707	734	545	300	209
MAX	685	2,740	2,100	2,500	2,170	1,250	3,010	2,580	4,070	2,470	1,550	770
MIN	133	151	350	431	503	415	594	477	366	278	176	150
CFSM	.71	2.13	2.88	2.36	2.86	2.01	3.63	2.46	2.56	1.90	1.05	.73
IN.	.82	2.38	3.32	2.72	2.98	2.32	4.06	2.84	2.86	2.19	1.20	.81

CAL YR 1972 TOTAL 218,481 MEAN 597 MAX 9,260 MIN 133 CFSM 2.08 IN 28.32
WTR YR 1973 TOTAL 219,942 MEAN 603 MAX 4,070 MIN 133 CFSM 2.10 IN 28.51

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	2400	9.64	6,300	4-02	1130	7.37	3,720
12-09	0400	7.18	3,550	5-28	1815	8.04	4,380
1-29	1200	7.55	3,890	6-30	0115	12.46	11,400
2-02	2245	8.17	4,510	7-04	0730	7.67	4,010

DELAWARE RIVER BASIN

01481500 Brandywine Creek at Wilmington, Del.

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, on right bank in Rockford Park, 0.2 mile (0.3 km) downstream from Henry Clay Bridge, in Wilmington, and 4.2 miles (6.8 km) upstream from mouth.

DRAINAGE AREA.--314 sq mi (813 sq km).

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 (20.797 m) above mean sea level.

AVERAGE DISCHARGE.--27 years, 461 cfs (13.06 cu m/s), 19.94 in/yr (506 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,400 cfs (295 cu m/s) June 30 (gage height, 10.57 ft or 3.222 m, from high-water mark in well); minimum, 105 cfs (2.97 cu m/s) Oct. 18; minimum daily, 145 cfs (4.11 cu m/s) Oct. 18.

Period of record: Maximum discharge, 29,000 cfs (821 cu m/s) June 23, 1972 (gage height, 15.49 ft or 4.721 m), from rating curve extended above 18,000 cfs (510 cu m/s); minimum, about 30 cfs (0.85 cu m/s) Dec. 26, 1948, during period of ice effect; minimum daily, 56 cfs (1.59 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	194	1,050	912	763	600	1,230	832	882	1,130	345	184
2	179	195	800	733	2,310	598	3,610	795	821	971	1,880	186
3	169	182	700	648	2,580	663	1,500	842	801	1,070	728	228
4	161	179	540	1,140	1,210	877	1,600	887	800	2,960	424	268
5	162	176	400	940	1,080	778	1,700	781	863	1,460	364	202
6	218	174	700	720	988	719	953	739	744	900	332	191
7	660	167	1,200	600	1,060	701	899	704	744	664	305	193
8	376	1,770	920	580	1,010	777	1,840	687	784	589	295	178
9	223	1,250	2,670	560	1,140	778	1,480	1,110	656	543	285	172
10	177	440	1,400	540	893	686	1,540	880	626	514	270	170
11	162	460	1,100	540	781	645	1,120	735	605	620	265	168
12	164	360	900	520	717	673	953	692	598	631	275	171
13	163	280	880	540	704	621	899	673	728	495	285	162
14	159	2,600	800	500	700	585	845	647	619	470	290	344
15	155	2,730	980	520	1,200	583	809	644	570	558	310	907
16	153	800	1,730	520	939	586	744	657	656	613	326	366
17	152	620	840	520	704	788	752	643	792	479	295	266
18	145	500	740	500	655	838	792	702	605	456	270	261
19	236	420	700	525	643	629	736	636	605	436	285	279
20	326	2,430	740	637	660	576	688	717	605	411	280	231
21	198	640	760	528	700	559	648	854	591	436	305	213
22	183	430	2,060	620	710	551	640	671	760	477	280	200
23	179	370	1,370	1,030	670	535	664	646	720	436	265	223
24	176	330	976	646	650	518	899	767	612	398	245	231
25	169	310	860	560	620	522	696	892	1,410	369	233	193
26	167	1,200	800	515	620	1,590	1,750	825	728	368	237	182
27	164	640	820	837	626	957	1,190	854	656	368	225	179
28	268	400	720	1,320	608	703	1,390	2,370	900	358	231	178
29	471	380	680	2,850	-----	629	987	1,770	4,000	337	208	200
30	257	460	680	1,180	-----	650	884	1,120	4,500	325	186	227
31	204	-----	819	852	-----	687	-----	926	-----	312	193	-----
TOTAL	6,768	21,087	30,335	23,633	25,941	21,602	34,438	26,698	28,981	20,154	10,717	7,153
MEAN	218	703	979	762	926	697	1,148	861	966	650	346	238
MAX	660	2,730	2,670	2,850	2,580	1,590	3,610	2,370	4,500	2,960	1,880	907
MIN	145	167	400	500	608	518	640	636	570	312	186	162
CFSM	.69	2.24	3.12	2.43	2.95	2.22	3.66	2.74	3.08	2.07	1.10	.76
IN.	.80	2.50	3.59	2.80	3.07	2.56	4.08	3.16	3.43	2.39	1.27	.85

CAL YR 1972 TOTAL 255,544 MEAN 698 MAX 14,300 MIN 145 CFSM 2.22 IN 30.27
WTR YR 1973 TOTAL 257,507 MEAN 705 MAX 4,500 MIN 145 CFSM 2.25 IN 30.51

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-15	0315	7.97	5,460	5-28	2000	7.16	4,620
2-03	0130	7.20	4,300	6-30	a0500	b10.57	10,400
4-02	1445	7.43	4,820	7-04	1015	7.03	4,340

a About.

b From high-water mark in well.

01483200 Blackbird Creek at Blackbird, Del.

LOCATION.--Lat 39°21'58", long 75°40'10", New Castle County, on right bank 15 ft (5 m) downstream from highway bridge, 0.5 mile (0.8 km) upstream from Barlow Branch, 0.6 mile (1.0 km) southwest of Blackbird, 5.6 miles (9.0 km) northwest of Smyrna, and 13.8 miles (22.2 km) upstream from mouth.

DRAINAGE AREA.--3.85 sq mi (9.97 sq km).

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

AVERAGE DISCHARGE.--17 years, 4.68 cfs (0.133 cu m/s), 16.51 in/yr (419 mm/yr).

EXTREMES.--Current year: Maximum discharge, 222 cfs (6.29 cu m/s) Feb. 2 (gage height, 3.27 ft or 0.997 m); minimum, 0.27 cfs (0.008 cu m/s) Sept. 13, 14 (gage height, 0.79 ft or 0.241 m).
Period of record: Maximum discharge, 712 cfs (20.2 cu m/s) June 22, 1972 (gage height, 5.04 ft or 1.536 m), from rating curve extended above 200 cfs (5.66 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.4	23	11	9.4	5.8	19	7.5	5.0	3.9	2.3	.40
2	1.3	2.5	10	8.7	73	5.8	35	6.8	4.5	3.1	6.1	.87
3	1.2	2.2	7.2	7.7	69	16	20	7.3	4.3	3.2	2.7	1.0
4	1.1	2.1	6.4	17	21	20	25	10	4.7	5.1	1.6	1.1
5	1.4	2.0	6.1	13	14	9.0	29	6.6	6.4	2.9	1.3	.76
6	2.0	1.9	9.5	9.0	12	7.8	13	5.8	3.9	2.4	1.1	.72
7	30	1.9	18	7.0	15	7.5	10	5.2	3.5	2.1	1.0	.84
8	9.1	18	14	6.1	15	13	32	5.3	3.3	1.9	.96	.48
9	2.2	18	58	5.8	18	11	20	15	2.9	1.8	.87	.42
10	1.7	6.1	18	5.4	11	7.7	19	7.4	2.6	1.8	.82	.40
11	1.6	3.7	13	5.8	8.7	7.4	13	5.4	2.5	4.2	.72	.40
12	1.7	3.3	9.8	5.4	8.2	7.4	10	4.7	2.2	2.4	.74	.35
13	1.7	3.0	9.3	4.9	7.8	6.5	9.4	4.4	5.1	1.9	.64	.30
14	1.6	38	8.5	5.1	14	6.3	8.5	4.2	2.7	1.7	.73	3.2
15	1.4	27	13	6.2	34	6.3	8.0	5.2	2.1	2.2	.99	5.9
16	1.4	9.1	21	6.2	13	7.0	7.7	4.9	5.4	2.2	.81	1.4
17	1.5	6.1	10	6.4	9.0	47	7.5	4.5	11	1.8	.73	.97
18	1.3	5.2	7.7	6.5	8.0	23	7.3	6.0	6.4	1.8	.69	1.2
19	6.1	5.8	8.1	9.7	8.8	10	6.9	4.3	5.1	1.6	.89	1.1
20	5.8	32	8.2	17	11	8.4	6.5	8.8	4.1	1.4	.87	.81
21	2.4	13	8.2	8.3	10	7.7	6.2	10	3.3	1.5	1.1	.72
22	2.1	7.5	41	7.5	9.4	7.3	6.2	5.0	9.7	2.2	3.1	.79
23	2.0	6.1	32	8.5	8.2	6.7	6.1	7.1	10	1.9	1.5	.67
24	1.9	5.5	24	6.8	7.2	6.4	7.6	8.9	3.9	1.5	1.0	.65
25	1.7	5.5	14	6.0	6.6	6.6	6.7	24	3.2	1.4	.87	.58
26	1.7	10	11	5.8	6.0	53	25	11	2.9	1.3	.82	.63
27	1.7	8.8	11	13	6.0	21	18	13	2.8	1.3	.77	.61
28	6.4	6.1	10	21	6.0	11	26	24	2.6	1.2	.67	.61
29	8.4	5.2	8.7	61	-----	8.8	11	16	22	1.1	.53	2.1
30	3.3	8.8	8.9	18	-----	8.8	8.3	7.3	8.3	1.1	.47	8.2
31	2.4	-----	11	10	-----	9.4	-----	5.9	-----	1.0	.46	-----
TOTAL	110.1	266.8	458.6	329.8	439.3	379.6	427.9	261.5	156.4	64.9	37.85	38.18
MEAN	3.55	8.89	14.8	10.6	15.7	12.2	14.3	8.44	5.21	2.09	1.22	1.27
MAX	30	38	58	61	73	53	35	24	22	5.1	6.1	8.2
MIN	1.1	1.9	6.1	4.9	6.0	5.8	6.1	4.2	2.1	1.0	.46	.30
CFSM	.92	2.31	3.84	2.75	4.08	3.17	3.71	2.19	1.35	.54	.32	.33
IN.	1.06	2.58	4.43	3.19	4.24	3.67	4.13	2.53	1.51	.63	.37	.37

CAL YR 1972 TOTAL 3,271.30 MEAN 8.94 MAX 338 MIN 1.0 CFSM 2.32 IN 31.61
WTR YR 1973 TOTAL 2,970.93 MEAN 8.14 MAX 73 MIN .30 CFSM 2.11 IN 28.71

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-07	1330	2.18	51	2-02	2115	3.27	222
11-14	1930	2.52	91	2-15	*	*	*
11-20	1130	2.17	50	3-17	1930	2.34	68
12-09	0515	2.65	110	3-26	1045	2.61	104
12-22	1500	2.30	63	4-04	2315	2.23	56
1-29	1015	2.58	99				

* Unknown

01483700 St. Jones River at Dover, Del.

LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, on left bank 150 ft (46 m) upstream from Division Street Bridge in Dover, 1,950 ft (594 m) downstream from Silver Lake, and 12.5 miles (20.1 km) upstream from mouth.

DRAINAGE AREA.--31.9 sq mi (82.6 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.50 ft (0.152 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 35.3 cfs (1.00 cu m/s), 15.03 in/yr (382 mm/yr).

EXTREMES.--Current year: Maximum discharge, 720 cfs (20.4 cu m/s) Feb. 3 (gage height, 6.54 ft or 1.993 m); minimum, 4.6 cfs (0.130 cu m/s) Aug. 14, Sept. 26.

Period of record: Maximum discharge, 1,900 cfs (53.8 cu m/s) Sept. 13, 1960 (gage height, 9.45 ft or 2.880 m, from floodmark); no flow at times in 1959, 1961, 1962.

REMARKS.--Records good except those for February, which are poor. Flow affected by Silver Lake.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	40	134	90	104	40	76	43	33	73	11	6.3
2	9.5	29	166	86	181	38	114	37	26	37	25	9.5
3	8.0	26	124	70	691	42	128	36	26	33	29	11
4	7.6	22	88	86	480	57	126	37	37	37	18	13
5	7.6	23	76	112	230	69	166	32	54	31	12	9.5
6	9.5	20	72	96	140	57	140	29	40	25	10	8.0
7	95	20	68	69	110	49	86	26	27	21	8.4	6.7
8	124	80	82	52	108	53	125	25	24	19	8.0	7.6
9	69	144	236	45	120	69	198	47	21	18	7.6	9.5
10	22	138	296	40	140	66	170	62	18	17	7.6	8.4
11	13	92	188	40	82	52	142	43	16	28	7.6	8.4
12	12	58	134	40	70	49	100	28	14	32	6.7	9.0
13	11	47	102	36	62	44	70	23	13	21	6.3	8.0
14	11	169	86	34	53	40	57	20	12	18	19	29
15	11	397	96	38	61	40	50	22	11	58	16	56
16	8.0	247	134	43	84	43	47	24	13	77	11	42
17	9.5	146	132	44	82	76	45	23	26	47	9.0	16
18	9.0	100	92	47	76	116	44	23	31	22	9.0	12
19	29	87	70	71	68	81	43	20	36	16	11	9.5
20	37	182	68	155	58	50	39	28	27	13	10	8.4
21	33	230	70	130	52	44	37	39	21	13	12	8.0
22	20	160	163	85	60	42	36	30	107	19	46	8.0
23	16	92	333	70	69	38	34	29	278	19	42	8.0
24	14	76	298	64	67	33	37	40	145	16	18	5.9
25	13	66	180	53	56	33	37	74	52	12	12	6.3
26	12	75	136	48	49	82	72	86	33	11	11	6.3
27	11	84	112	64	46	187	134	63	29	11	9.5	5.9
28	73	78	98	119	44	161	108	66	37	11	9.5	5.9
29	144	70	85	295	-----	85	81	86	158	11	8.4	7.6
30	116	96	76	292	-----	58	54	76	226	9.0	7.1	12
31	68	-----	79	158	-----	58	-----	55	-----	9.0	6.7	-----
TOTAL	1,035.7	3,094	4,074	2,672	3,443	1,952	2,596	1,272	1,591	784.0	424.4	361.7
MEAN	33.4	103	131	86.2	123	63.0	86.5	41.0	53.0	25.3	13.7	12.1
MAX	144	397	333	295	691	187	198	86	278	77	46	56
MIN	7.6	20	68	34	44	33	34	20	11	9.0	6.3	5.9
CFSM	1.05	3.23	4.11	2.70	3.86	1.97	2.71	1.29	1.66	.79	.43	.38
IN.	1.21	3.61	4.75	3.12	4.02	2.28	3.03	1.48	1.86	.91	.49	.42
CAL YR 1972	TOTAL 24,799.1	MEAN 67.8	MAX 876	MIN 5.9	CFSM 2.13	IN 28.92						
WTR YR 1973	TOTAL 23,299.8	MEAN 63.8	MAX 691	MIN 5.9	CFSM 2.00	IN 27.17						

01484000 Murderkill River near Felton, Del.

LOCATION.--Lat 38°58'33", long 75°34'03", Kent County, on left bank 30 ft (9 m) downstream from northbound lane of bridge on U.S. Highway 13, 400 ft (122 m) downstream from Black Swamp Creek, 1.3 miles (2.1 km) upstream from Killen Pond, 2.2 miles (3.5 km) south of Felton, and 17.6 miles (28.3 km) upstream from mouth.

DRAINAGE AREA.--13.6 sq mi (35.2 sq km).

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 (6.760 m) above mean sea level. July 1931 to October 1933, nonrecording gage at bridge 200 ft (61 m) upstream at datum 2.00 ft (0.610 m) higher. March 1951 to May 1960, nonrecording gage and crest-stage gage at bridge 200 ft (61 m) upstream at datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--15 years (1931-33, 1960-73), 18.7 cfs (0.530 cu m/s), 18.67 in/yr (474 mm/yr).

EXTREMES.--Current year: Maximum discharge, 265 cfs (7.50 cu m/s) Feb. 2 (gage height, 5.40 ft or 1.646 m); minimum, 2.8 cfs (0.079 cu m/s) July 29, 30, Sept. 8.
Period of record: Maximum discharge, 2,090 cfs (59.2 cu m/s) Aug. 4, 1967 (gage height, 8.83 ft or 2.691 m); minimum, 0.80 cfs (0.023 cu m/s) Aug. 28, Sept. 11, 1966.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	13	117	42	36	20	38	18	13	9.7	4.4	4.2
2	4.6	13	59	33	103	20	63	16	11	8.4	60	8.7
3	4.5	15	39	28	185	21	44	17	10	14	34	5.8
4	4.5	14	33	50	79	29	46	19	11	16	14	5.7
5	4.7	12	30	45	48	25	65	15	9.7	9.7	8.5	5.3
6	5.7	12	28	33	40	23	35	14	8.8	7.9	7.4	4.9
7	45	12	29	26	41	23	29	13	8.4	6.4	6.8	4.6
8	18	67	29	22	40	26	79	13	8.1	5.6	6.1	3.6
9	9.3	94	145	21	47	25	61	23	7.3	5.7	5.7	3.6
10	7.5	34	101	19	33	22	56	16	7.2	5.7	5.4	4.0
11	7.1	25	65	19	28	21	42	13	6.6	19	4.9	4.0
12	6.8	22	42	17	26	21	32	12	6.3	9.4	4.5	4.0
13	6.6	19	39	15	25	19	30	11	6.4	7.1	4.5	3.9
14	5.3	86	33	15	25	19	26	11	6.1	5.7	7.1	19
15	4.7	160	46	17	36	18	24	11	5.8	15	7.6	20
16	5.0	66	95	17	42	18	22	11	6.8	12	5.6	7.5
17	5.8	40	43	17	30	25	22	10	13	7.8	5.1	6.3
18	5.0	33	31	18	24	22	21	12	22	6.7	4.5	6.3
19	21	31	31	28	24	19	20	9.8	18	6.0	4.3	5.7
20	16	128	30	71	26	18	18	15	13	5.5	5.1	5.4
21	8.1	84	29	32	26	17	17	17	10	4.7	6.6	5.4
22	6.8	47	137	28	31	18	17	12	11	7.6	55	4.8
23	6.9	36	166	29	31	16	16	14	11	6.3	20	4.6
24	7.1	31	130	23	26	15	18	14	9.0	5.7	10	4.8
25	7.2	28	69	21	24	14	16	28	8.5	5.3	7.7	5.0
26	6.6	47	50	20	24	31	30	22	8.0	4.8	6.5	5.1
27	6.0	41	47	32	23	36	30	19	8.2	4.6	6.3	5.0
28	43	30	39	52	21	24	33	25	7.8	3.9	6.1	4.9
29	48	26	33	142	-----	21	23	23	32	3.6	5.4	4.7
30	19	35	30	80	-----	20	19	22	18	3.9	5.2	7.2
31	14	-----	33	42	-----	21	-----	16	-----	4.1	4.9	-----
TOTAL	365.4	1,301	1,828	1,054	1,144	667	992	491.8	322.0	237.8	339.2	184.0
MEAN	11.8	43.4	59.0	34.0	40.9	21.5	33.1	15.9	10.7	7.67	10.9	6.13
MAX	48	160	166	142	185	36	79	28	32	19	60	20
MIN	4.5	12	28	15	21	14	16	9.8	5.8	3.6	4.3	3.6
CFSM	.87	3.19	4.34	2.50	3.01	1.58	2.43	1.17	.79	.56	.80	.45
IN.	1.00	3.56	5.00	2.88	3.13	1.82	2.71	1.35	.88	.65	.93	.50

CAL YR 1972 TOTAL 10,459.0 MEAN 28.6 MAX 166 MIN 4.2 CFSM 2.10 IN 28.61
WTR YR 1973 TOTAL 8,926.2 MEAN 24.5 MAX 185 MIN 3.6 CFSM 1.80 IN 24.42

PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	2315	4.69	146	12-09	1115	4.95	196
11-14	2400	5.09	223	12-22	1715	5.07	219
11-20	1400	4.84	182	1-29	1230	5.04	190
12-01	0945	4.62	148	2-02	2330	5.40	265

MISPILLION RIVER BASIN

01484100 Beaverdam Branch at Houston, Del.

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, on left bank 15 ft (5 m) upstream from bridge on State Highway 384, 0.8 mile (1.3 km) south of Houston, 2,000 ft (610 m) upstream from unnamed stream, and 1.2 miles (1.9 km) upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 sq mi (7.33 sq km).

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

GAGE.--Water-stage recorder and timber control. Datum of gage is 35.67 ft (10.872 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 3.68 cfs (0.104 cu m/s), 17.66 in/yr (449 mm/yr).

EXTREMES.--Current year: Maximum discharge, 55 cfs (1.56 cu m/s) Dec. 22 (gage height, 3.68 ft or 1.122 m); minimum daily, 0.97 cfs (0.027 cu m/s) July 31.

Period of record: Maximum discharge, 176 cfs (4.98 cu m/s) Sept. 12, 1960 (gage height, 5.55 ft or 1.692 m); minimum daily, 0.20 cfs (0.006 cu m/s) Sept. 18, 19, 1966.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.8	16	9.3	7.5	5.3	7.1	4.8	4.0	2.9	1.3	1.4
2	2.0	3.6	8.8	8.2	23	5.2	8.4	4.5	4.0	2.7	4.9	5.9
3	1.9	3.5	7.5	7.5	27	5.5	6.2	5.2	3.7	2.7	3.8	3.6
4	1.8	3.3	6.9	12	12	6.8	9.9	5.7	3.7	2.9	2.2	2.2
5	1.7	3.3	6.6	9.8	9.4	5.9	11	4.7	3.4	2.7	1.8	2.0
6	2.5	3.2	6.6	8.4	8.4	5.6	7.3	4.4	3.2	2.5	1.6	1.8
7	2.6	3.1	6.6	7.4	8.2	5.7	6.6	4.3	3.2	2.4	1.5	1.8
8	1.9	10	6.7	6.9	8.2	5.7	13	4.3	3.2	2.4	1.5	1.6
9	1.8	10	20	6.7	8.6	5.5	9.2	6.1	3.0	2.2	1.5	1.6
10	1.8	5.2	13	6.4	7.5	5.2	11	4.9	2.9	1.6	1.5	1.6
11	1.8	4.8	10	6.4	6.9	5.2	8.4	4.6	2.9	2.7	1.4	1.5
12	1.9	4.5	8.3	6.1	6.5	5.1	7.4	4.3	2.7	2.4	1.4	1.4
13	1.8	4.3	7.9	5.8	6.4	4.9	6.9	4.0	2.7	2.4	1.4	1.4
14	1.8	9.6	7.3	5.7	6.4	4.9	6.5	3.7	2.7	2.2	1.8	3.3
15	1.8	9.8	10	5.8	7.6	4.9	6.1	3.7	2.4	2.0	1.9	3.0
16	1.8	5.6	15	5.5	9.5	4.9	6.0	3.7	2.4	2.2	1.5	1.8
17	1.8	5.2	8.4	5.5	7.2	5.9	5.8	4.0	3.0	2.0	1.5	1.6
18	1.7	4.9	7.3	5.5	6.4	5.2	5.7	4.6	5.2	1.8	1.4	1.7
19	2.7	5.0	7.0	7.5	6.3	4.7	5.5	4.0	4.3	1.5	1.4	1.6
20	2.4	19	7.0	9.8	6.4	4.3	5.4	4.6	3.4	1.5	1.4	1.6
21	2.1	9.9	7.0	6.7	6.4	4.5	5.2	4.6	3.2	1.5	1.5	1.6
22	2.0	7.7	36	6.6	6.8	4.5	5.1	3.7	3.4	1.7	7.0	1.6
23	2.0	6.8	36	6.7	6.4	4.3	4.9	4.0	3.4	1.8	2.7	1.5
24	1.9	6.5	23	6.2	6.0	4.2	4.7	4.0	3.0	1.6	1.9	1.5
25	1.9	6.4	13	5.8	5.8	4.3	4.7	5.8	3.0	1.1	1.9	1.4
26	1.9	9.5	11	5.7	5.8	5.4	6.3	5.2	2.9	.98	1.8	1.4
27	1.8	7.9	10	7.8	5.7	6.8	6.4	4.9	2.9	1.1	1.7	1.4
28	16	6.6	9.4	8.7	5.5	5.0	6.5	5.8	2.9	1.2	1.6	1.4
29	14	6.2	8.4	22	-----	4.6	5.3	5.5	4.0	1.2	1.6	1.5
30	4.5	7.4	7.9	9.9	-----	4.6	4.9	5.2	3.2	1.2	1.5	1.8
31	3.8	-----	8.1	8.0	-----	5.0	-----	4.6	-----	.97	1.5	-----
TOTAL	91.6	196.6	356.7	240.3	237.8	159.6	207.4	143.4	97.9	60.05	61.4	57.5
MEAN	2.95	6.55	11.5	7.75	8.49	5.15	6.91	4.63	3.26	1.94	1.98	1.92
MAX	16	19	36	22	27	6.8	13	6.1	5.2	2.9	7.0	5.9
MIN	1.7	3.1	6.6	5.5	5.5	4.2	4.7	3.7	2.4	.97	1.3	1.4
CFSM	1.04	2.31	4.06	2.74	3.00	1.82	2.44	1.64	1.15	.69	.70	.68
IN.	1.20	2.58	4.69	3.16	3.13	2.10	2.73	1.88	1.29	.79	.81	.76

CAL YR 1972 TOTAL 2,145.60 MEAN 5.86 MAX 36 MIN 1.6 CFSM 2.07 IN 28.20
WTR YR 1973 TOTAL 1,910.25 MEAN 5.23 MAX 36 MIN .97 CFSM 1.85 IN 25.11

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	2015	3.50	41	1-29	0900	3.17	32
11-20	1100	3.16	31	2-02	2045	3.63	52
12-22	1345	3.68	55				

BROADKILL RIVER BASIN

25

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 (1.6 km) downstream from Reynolds Pond, 2.5 miles (4.0 km) north of Milton, and 0.7 mile (1.1 km) upstream from mouth.

DRAINAGE AREA.--7.08 sq mi (18.34 sq km).

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 (1.045 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 10.1 cfs (0.286 cu m/s), 19.37 in/yr (492 mm/yr).

EXTREMES.--Maximum discharge, 46 cfs (1.30 cu m/s) Dec. 23 (gage height, 5.41 ft or 1.649 m); minimum, 3.1 cfs (0.088 cu m/s) Aug. 29, 30.
Period of record: Maximum discharge, 134 cfs (3.79 cu m/s) Aug. 5, 1967 (gage height, 6.33 ft or 1.929 m); minimum, 0.47 cfs (0.013 cu m/s) Feb. 10, 1969 (result of freezeup).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	10	35	18	20	16	15	12	9.9	7.6	5.9	4.0
2	8.9	9.7	29	18	26	15	15	12	9.4	7.6	6.6	10
3	8.2	9.6	25	18	26	16	14	12	9.2	7.5	6.6	15
4	7.7	9.6	22	25	26	17	15	12	8.9	8.8	5.6	15
5	7.4	10	20	27	25	17	14	11	7.5	6.5	5.2	12
6	7.5	10	19	25	24	16	14	11	7.3	6.0	5.2	10
7	16	10	20	22	28	16	14	10	7.7	5.3	5.2	5.9
8	14	15	16	20	26	16	18	10	8.2	5.3	4.4	5.1
9	12	14	19	20	18	16	17	12	8.2	5.0	3.7	5.0
10	11	15	20	18	18	16	18	12	7.7	4.4	3.6	4.8
11	10	14	20	16	18	16	16	12	7.7	5.2	3.6	4.9
12	9.6	13	20	12	15	15	14	11	7.4	5.4	3.7	4.9
13	9.2	13	19	12	15	15	15	11	7.1	5.5	3.5	5.1
14	8.7	17	18	14	15	15	14	10	6.7	5.2	6.4	7.1
15	8.2	16	21	14	18	15	14	10	6.7	6.3	10	7.4
16	7.8	16	21	14	21	13	14	10	7.0	6.5	9.4	7.0
17	7.8	15	20	14	21	7.4	14	10	8.2	6.4	9.0	6.8
18	7.8	14	19	14	18	17	14	11	9.4	6.3	7.7	6.6
19	11	15	24	15	16	16	14	11	9.6	6.0	4.1	6.4
20	11	21	28	16	16	15	13	12	9.4	5.5	3.9	6.2
21	11	20	25	15	17	15	13	12	8.9	5.4	4.7	6.3
22	10	19	34	16	18	15	13	11	8.5	5.7	19	6.2
23	10	18	40	15	17	15	12	12	8.2	5.8	22	6.1
24	9.6	17	45	15	17	14	12	12	8.1	6.2	17	5.8
25	9.3	16	40	14	16	8.1	12	13	7.7	6.4	12	5.6
26	9.1	20	35	14	16	9.9	14	13	7.6	6.3	11	5.6
27	8.7	19	32	16	16	16	15	13	7.6	6.3	8.4	5.6
28	11	19	29	16	16	18	15	13	7.6	6.2	4.2	5.6
29	11	17	26	20	-----	16	14	13	8.0	5.2	3.2	6.0
30	11	24	14	21	-----	15	13	12	8.0	4.8	3.3	7.0
31	10	-----	16	24	-----	15	-----	11	-----	4.5	3.7	-----
TOTAL	303.8	455.9	771	538	543	462.4	429	357	243.4	185.1	221.8	209.0
MEAN	9.80	15.2	24.9	17.4	19.4	14.9	14.3	11.5	8.11	5.97	7.15	6.97
MAX	16	24	45	27	28	18	18	13	9.9	8.8	22	15
MIN	7.4	9.6	14	12	15	7.4	12	10	6.7	4.4	3.2	4.0
CFSM	1.38	2.15	3.52	2.46	2.74	2.10	2.02	1.62	1.15	.84	1.01	.98
IN.	1.60	2.40	4.05	2.83	2.85	2.43	2.25	1.88	1.28	.97	1.17	1.10

CAL YR 1972 TOTAL 5,526.9 MEAN 15.1 MAX 55 MIN 7.1 CFSM 2.13 IN 29.04
WTR YR 1973 TOTAL 4,719.4 MEAN 12.9 MAX 45 MIN 3.2 CFSM 1.82 IN 24.80

INDIAN RIVER BASIN

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 (7.1 km) southeast of Georgetown, and 1.6 miles (2.6 km) upstream from mouth.

DRAINAGE AREA.--5.24 sq mi (13.57 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft (7.480 m) above mean sea level. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 7.04 cfs (0.199 cu m/s), 18.24 in/yr (463 mm/yr).

EXTREMES.--Maximum discharge, 105 cfs (2.97 cu m/s) Aug. 22 (gage height, 3.64 ft or 1.109 m); minimum, 1.9 cfs (0.054 cu m/s) Aug. 7, 13.

Period of record: Maximum discharge, 132 cfs (3.74 cu m/s) June 4, 1948 (gage height, 5.0 ft or 1.52 m, from graph based on gage readings), from rating curve extended above 50 cfs (1.42 cu m/s); minimum observed, 0.13 cfs (0.004 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.2	22	15	9.5	9.6	10	6.9	4.8	3.7	2.7	5.1
2	3.1	5.1	18	14	37	9.5	14	6.7	4.5	4.3	3.5	6.1
3	3.0	5.1	15	12	46	9.7	9.8	7.3	4.4	3.7	2.8	5.5
4	3.0	5.1	14	17	26	10	9.2	8.5	4.4	3.7	2.4	5.3
5	3.0	5.2	13	16	20	9.9	8.5	7.2	4.2	3.4	2.2	5.0
6	3.2	4.9	12	14	17	9.5	7.7	6.7	4.1	3.3	2.2	4.9
7	19.7	4.9	11	12	16	9.5	7.5	6.2	4.0	3.2	2.0	4.9
8	6.7	22	11	11	15	9.5	23	6.1	3.9	3.2	2.0	4.6
9	5.6	16	21	11	15	9.3	18	7.8	3.9	3.1	2.2	4.4
10	5.0	11	20	11	13	9.2	15	6.9	3.7	3.1	2.2	4.4
11	4.9	9.5	17	10	12	9.2	12	6.4	3.7	5.7	2.2	4.2
12	4.8	8.7	15	9.8	11	9.4	11	6.0	3.6	3.2	2.1	4.0
13	4.7	8.1	14	9.3	10	8.9	9.9	5.8	3.6	2.9	2.1	3.9
14	4.6	18	12	9.2	9.8	8.9	9.1	5.6	3.5	2.8	6.8	6.4
15	4.4	17	18	9.2	12	8.7	8.7	5.7	3.4	4.1	9.2	5.7
16	4.3	13	23	8.9	18	8.9	8.4	5.6	3.5	4.2	3.1	4.0
17	4.4	11	17	8.9	15	9.2	8.2	5.5	6.1	3.2	2.7	3.6
18	4.0	10	14	8.9	13	8.4	8.0	5.8	6.7	2.9	2.6	3.5
19	6.1	10	13	9.5	12	8.0	7.9	5.3	5.8	2.9	2.5	3.4
20	5.7	34	12	10	12	7.7	7.6	6.1	4.9	2.8	2.6	3.2
21	4.9	22	12	9.2	12	7.8	7.4	6.2	4.5	2.9	4.7	3.2
22	4.9	18	47	9.3	12	8.2	7.4	5.4	4.7	3.2	74	3.1
23	4.9	15	40	9.6	11	7.4	7.2	5.8	4.6	3.0	20	3.0
24	4.8	13	31	9.0	11	7.3	7.1	5.8	4.4	2.9	11	2.9
25	4.6	12	25	8.6	10	7.3	7.1	6.8	4.2	2.8	8.5	3.1
26	4.4	26	22	8.3	10	9.0	8.2	6.1	4.0	2.8	7.6	2.8
27	4.3	22	21	10	10	14	9.1	5.9	4.0	2.8	6.9	2.7
28	7.7	18	18	10	9.9	9.2	9.0	6.2	3.9	2.7	6.4	2.7
29	6.5	15	16	20	-----	8.2	7.8	5.9	4.0	2.7	5.9	2.7
30	5.5	14	15	13	-----	7.9	7.2	5.4	3.9	2.6	5.6	2.7
31	5.2	-----	15	11	-----	7.9	-----	5.2	-----	2.5	5.3	-----
TOTAL	160.7	398.8	574	344.7	425.2	277.2	291.0	192.8	128.9	100.3	216.0	121.0
MEAN	5.18	13.3	18.5	11.1	15.2	8.94	9.70	6.22	4.30	3.24	6.97	4.03
MAX	19	34	47	20	46	14	23	8.5	6.7	5.7	74	6.4
MIN	3.0	4.9	11	8.3	9.5	7.3	7.1	5.2	3.4	2.5	2.0	2.7
CFSM	.99	2.54	3.53	2.12	2.90	1.71	1.85	1.19	.82	.62	1.33	.77
IN.	1.14	2.83	4.07	2.45	3.02	1.97	2.07	1.37	.92	.71	1.53	.86

CAL YR 1972 TOTAL 3,976.2 MEAN 10.9 MAX 47 MIN 3.0 CFSM 2.08 IN 28.23
WTR YR 1973 TOTAL 3,230.6 MEAN 8.85 MAX 74 MIN 2.0 CFSM 1.69 IN 22.93

PEAK DISCHARGE (BASE, 45 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	1700	2.90	45	2-02	2030	3.44	82
11-20	0730	3.00	52	8-22	1100	3.64	105
12-22	1430	3.27	71				

POCOMOKE RIVER BASIN

27

01485000 Pocomoke River near Willards, Md.

LOCATION.--Lat 38°23'20", long 75°19'30", Worcester County, on left bank 30 ft (9 m) downstream from bridge on State Highway 346, 0.6 mile (1.0 km) upstream from Burnt Mill Branch, 1.3 miles (2.1 km) east of Willards, 1.3 miles (2.1 km) west of Whalesville, and 50.3 miles (80.9 km) upstream from mouth.

DRAINAGE AREA.--60.5 sq mi (156.7 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft (4.252 m) above mean sea level.

AVERAGE DISCHARGE.--23 years (1950-73), 69.3 cfs (1.963 cu m/s), 15.56 in/yr (395 mm/yr).

EXTREMES.--Current year: Maximum discharge, 710 cfs (20.1 cu m/s) Feb. 3 (gage height, 11.60 ft or 3.536 m); minimum, 14 cfs (0.40 cu m/s) Aug. 13, 14 (gage height, 3.15 ft or 0.960 m).
Period of record: Maximum discharge, 924 cfs (26.2 cu m/s) June 30, 1972 (gage height, 13.67 ft or 4.167 m); minimum, 2.2 cfs (0.062 cu m/s) Aug. 18, 19, 1957 (gage height, 1.91 ft or 0.582 m).

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	85	222	108	118	62	108	72	44	34	23	51
2	23	81	178	100	313	60	126	64	38	64	26	68
3	22	76	142	84	693	59	108	58	33	54	35	91
4	21	72	124	136	676	69	89	83	30	48	28	68
5	21	72	112	152	569	70	90	72	27	48	24	57
6	21	66	107	123	394	67	72	63	25	36	21	51
7	319	62	121	99	245	66	66	56	24	29	19	45
8	361	263	102	81	176	65	311	52	23	26	18	40
9	184	522	190	72	168	74	325	64	21	24	17	35
10	116	390	284	67	135	72	202	67	20	22	16	32
11	86	246	259	65	112	70	146	59	20	24	16	30
12	73	171	176	61	95	69	115	51	19	22	15	28
13	67	138	144	58	82	65	98	46	26	20	14	26
14	60	155	123	56	76	61	81	40	25	19	17	38
15	56	209	173	56	99	59	72	37	21	18	33	128
16	51	158	376	54	173	63	67	36	20	22	54	94
17	50	132	233	54	144	70	63	33	21	19	40	69
18	45	121	152	54	106	67	60	34	27	18	28	60
19	50	109	127	56	91	59	57	31	37	17	26	53
20	78	422	119	65	84	53	54	33	34	16	35	46
21	71	439	112	61	82	51	52	41	29	16	64	40
22	65	288	286	59	81	68	51	36	32	18	426	35
23	60	189	446	64	75	72	49	38	54	17	616	32
24	57	148	335	60	69	65	46	57	44	16	605	30
25	55	129	229	56	65	60	44	67	37	15	425	27
26	52	191	176	54	64	73	55	73	32	15	215	26
27	48	206	161	70	69	151	85	67	29	14	136	25
28	72	158	140	118	67	125	152	67	28	27	103	24
29	162	130	118	305	-----	96	114	66	28	98	79	24
30	122	121	106	225	-----	85	85	59	49	35	66	22
31	99	-----	101	144	-----	81	-----	52	-----	26	58	-----
TOTAL	2,593	5,549	5,674	2,817	5,121	2,227	3,043	1,674	897	877	3,298	1,395
MEAN	83.6	185	183	90.9	183	71.8	101	54.0	29.9	28.3	106	46.5
MAX	361	522	446	305	693	151	325	83	54	98	616	128
MIN	21	62	101	54	64	51	44	31	19	14	14	22
CFSM	1.38	3.06	3.02	1.50	3.02	1.19	1.67	.89	.49	.47	1.75	.77
IN.	1.59	3.41	3.49	1.73	3.15	1.37	1.87	1.03	.55	.54	2.03	.86

CAL YR 1972 TOTAL 47,199 MEAN 129 MAX 900 MIN 19 CFSM 2.13 IN 29.02
WTR YR 1973 TOTAL 35,165 MEAN 96.3 MAX 693 MIN 14 CFSM 1.59 IN 21.62

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-09	0300	10.01	551	2-03	1730	11.60	710
11-20	1500	9.70	520	8-23	2400	10.81	631

POCOMOKE RIVER BASIN

01485500 Nassawango Creek near Snow Hill, Md.

LOCATION.--Lat 38°13'44", long 75°28'19", Worcester County, on right bank 15 ft (5 m) downstream from bridge on State Highway 12, 0.5 mile (0.8 km) upstream from Furnace Branch, 0.6 mile (1.0 km) downstream from Millville Creek, 5.5 miles (8.8 km) northwest of Snow Hill, and 7.3 miles (11.7 km) upstream from mouth.

DRAINAGE AREA.--44.9 sq mi (116.3 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft (3.746 m) above mean sea level.

AVERAGE DISCHARGE.--23 years (1950-73), 52.2 cfs (1.478 cu m/s), 15.79 in/yr (401 mm/yr).

EXTREMES.--Maximum discharge, 760 cfs (21.5 cu m/s) Feb. 3 (gage height, 7.00 ft or 2.134 m); minimum, 2.7 cfs (0.076 cu m/s) Aug. 13.

Period of record: Maximum discharge, 1,320 cfs (37.4 cu m/s) June 30, 1972; maximum gage height, 7.82 ft (2.384 m) Aug. 16, 1953; minimum discharge, 0.80 cfs (0.023 cu m/s) Sept. 8, 9, 10, 1966.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	89	110	82	126	49	108	91	50	26	4.2	16
2	18	73	120	80	166	46	130	63	32	19	4.9	26
3	16	61	124	76	610	47	128	47	31	17	21	38
4	14	57	106	88	640	61	108	54	24	15	15	42
5	12	56	89	101	386	62	96	53	19	13	10	41
6	13	53	80	108	232	60	83	50	15	9.5	6.9	34
7	90	50	89	97	169	56	71	41	12	7.0	5.2	26
8	186	116	89	76	130	52	152	35	11	5.7	4.3	18
9	264	353	96	62	120	52	277	45	9.7	4.9	3.7	14
10	175	440	116	52	113	50	267	54	8.2	4.4	3.4	11
11	104	307	156	47	100	54	176	52	7.0	12	3.2	9.8
12	69	191	156	44	82	49	122	43	5.9	21	3.0	8.5
13	48	134	124	41	67	44	95	34	5.6	13	2.8	7.7
14	38	116	100	39	61	40	76	28	7.4	8.4	10	17
15	33	125	97	39	78	38	61	24	7.8	6.2	7.9	45
16	29	125	146	40	106	38	51	22	6.2	8.0	6.0	50
17	26	119	179	42	122	42	44	19	8.2	7.0	5.3	58
18	23	103	149	43	108	44	40	20	24	5.6	4.7	48
19	28	89	110	45	89	42	37	19	39	4.8	4.8	34
20	39	150	91	54	80	39	35	22	31	4.1	35	26
21	41	280	81	52	73	36	34	32	24	6.2	48	20
22	45	286	107	53	68	45	32	30	28	86	381	17
23	44	189	208	56	61	51	31	31	36	59	523	15
24	39	132	272	54	54	56	30	35	35	36	372	13
25	36	106	208	50	51	51	29	57	32	22	228	11
26	33	107	151	48	46	76	50	69	23	13	126	10
27	31	119	128	58	50	209	75	66	17	8.8	74	9.4
28	45	130	115	83	50	230	137	61	15	6.9	45	8.5
29	76	118	103	147	-----	179	156	57	18	6.9	34	8.0
30	89	100	91	207	-----	125	125	59	32	5.6	27	7.5
31	99	-----	81	179	-----	99	-----	64	-----	4.7	20	-----
TOTAL	1,822	4,374	3,872	2,243	4,038	2,122	2,856	1,377	614.0	466.7	2,039.3	689.4
MEAN	58.8	146	125	72.4	144	68.5	95.2	44.4	20.5	15.1	65.8	23.0
MAX	264	440	272	207	640	230	277	91	50	86	523	58
MIN	12	50	80	39	46	36	29	19	5.6	4.1	2.8	7.5
CFSM	1.31	3.25	2.78	1.61	3.21	1.53	2.12	.99	.46	.34	1.47	.51
IN.	1.51	3.62	3.21	1.86	3.35	1.76	2.37	1.14	.51	.39	1.69	.57

CAL YR 1972 TOTAL 35,102.5 MEAN 95.9 MAX 1,150 MIN 5.9 CFSM 2.14 IN 29.08
WTR YR 1973 TOTAL 26,513.4 MEAN 72.6 MAX 640 MIN 2.8 CFSM 1.62 IN 21.97

PEAK DISCHARGE (BASE, 280 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-10	0600	6.34	462	2-03	2200	7.00	760
11-21	2400	5.80	320	4-09	2100	5.73	306
12-24	0700	5.62	284	8-23	0300	6.66	584

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 (1.0 km) upstream from Beaglin Branch, 2 miles (3 km) southeast of Salisbury, and 0.8 mile (1.3 km) upstream from mouth.

DRAINAGE AREA.--19.5 sq mi (50.5 sq km).

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 (2.722 m) above mean sea level (city of Salisbury bench mark). Prior to Sept. 28, 1938, at site on left bank at datum 9.02 ft (2.749 m) higher.

AVERAGE DISCHARGE.--38 years (1929-32, 1938-73), 23.9 cfs (0.68 cu m/s), 16.64 in/yr (423 mm/yr).

EXTREMES.--Current year: Maximum discharge, 417 cfs (11.8 cu m/s) Aug. 22 (gage height, 12.18 ft or 3.712 m); minimum daily, 0.85 cfs (0.024 cu m/s) May 9 (leakage under dam following closing of floodgate).
1929-73: Maximum discharge, not determined, probably occurred Aug. 23, 1933, when dam was partially washed out; maximum known discharge, 1,480 cfs (41.9 cu m/s) Aug. 4, 1948 (gage height, 14.31 ft or 4.362 m, from high-water mark in well); minimum daily discharge recorded, 0.40 cfs (0.011 cu m/s) Dec. 17, 1963 (leakage under dam following closing of floodgate).

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	29	55	35	33	28	38	57	15	14	9.8	17
2	60	26	50	34	86	26	42	17	14	13	9.8	25
3	50	25	44	32	293	27	39	1.0	14	13	10	21
4	40	25	38	40	177	31	36	37	14	16	10	18
5	30	24	31	48	56	29	32	34	13	14	9.0	18
6	60	23	27	47	50	29	31	28	12	12	8.6	17
7	200	24	29	38	49	28	30	104	12	12	8.3	17
8	120	61	26	30	48	26	64	46	12	10	8.3	16
9	65	150	48	29	51	26	85	.85	12	10	8.3	16
10	32	106	61	28	47	25	66	6.6	12	9.6	8.6	16
11	29	48	66	28	42	24	47	29	12	14	10	16
12	26	44	54	26	38	23	36	24	12	14	9.3	16
13	21	39	44	25	36	23	31	21	23	11	9.0	15
14	20	48	38	25	36	22	29	19	23	9.6	14	27
15	18	62	42	24	40	21	25	16	16	10	15	52
16	18	35	67	24	51	24	22	16	13	18	14	31
17	18	34	63	21	54	25	21	16	14	12	11	23
18	17	34	47	20	42	23	16	18	20	10	11	19
19	28	30	40	20	36	21	17	17	24	10	12	18
20	41	80	37	18	35	20	23	19	18	9.3	12	17
21	18	125	35	25	35	21	21	29	15	10	15	17
22	25	94	59	25	34	29	20	21	16	22	330	17
23	26	34	114	25	32	29	20	18	21	18	228	17
24	20	31	97	24	31	26	19	25	18	12	39	16
25	16	34	73	24	28	23	19	28	14	9.8	40	16
26	21	57	46	21	29	30	28	26	14	9.3	32	16
27	14	62	28	24	31	51	37	21	14	9.3	26	16
28	23	56	39	27	29	54	44	23	15	9.3	20	15
29	43	38	38	52	-----	40	38	23	14	9.3	18	15
30	32	38	34	64	-----	33	29	23	18	9.0	18	14
31	31	-----	34	44	-----	31	-----	19	-----	9.0	17	-----
TOTAL	1,272	1,516	1,504	947	1,549	868	1,005	782.45	464	368.5	991.0	574
MEAN	41.0	50.5	48.5	30.5	55.3	28.0	33.5	25.2	15.5	11.9	32.0	19.1
MAX	200	150	114	64	293	54	85	104	24	22	330	52
MIN	14	23	26	18	28	20	16	.85	12	9.0	8.3	14
CFSM	2.10	2.59	2.49	1.56	2.84	1.44	1.72	1.29	.79	.61	1.64	.98
IN.	2.43	2.89	2.87	1.81	2.96	1.66	1.92	1.49	.89	.70	1.89	1.10

CAL YR 1972 TOTAL 15,012.68 MEAN 41.0 MAX 442 MIN .76 CFSM 2.10 IN 28.64
WTR YR 1973 TOTAL 11,840.95 MEAN 32.4 MAX 330 MIN .85 CFSM 1.66 IN 22.59

NANTICOKE RIVER BASIN

01487000 Nanticoke River near Bridgeville, Del.

LOCATION.--Lat 38°43'45", long 75°33'41", Sussex County, on left bank 300 ft (91 m) downstream from highway bridge, 1,100 ft (335 m) downstream from Gum Branch, 2.5 miles (4.0 km) southeast of Bridgeville, and 50.5 miles (81.3 km) upstream from mouth.

DRAINAGE AREA.--75.4 sq mi (195.3 sq km).

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 (4.157 m) 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 (91 m) upstream at same datum. Timber control Sept. 3, 1947 to Dec. 18, 1969.

AVERAGE DISCHARGE.--30 years, 92.6 cfs (2.622 cu m/s), 16.68 in/yr (424 mm/yr).

EXTREMES.--Current year: Maximum discharge, 828 cfs (23.4 cu m/s) Feb. 2 (gage height, 6.97 ft or 2.124 m); minimum, 31 cfs (0.88 cu m/s) Aug. 1.
Period of record: Maximum discharge, 2,360 cfs (66.8 cu m/s) Aug. 5, 1967 (gage height, 8.86 ft or 2.701 m); minimum observed, 6.3 cfs (0.18 cu m/s) Sept. 29, 1943.
Maximum stage known, about 11.0 ft (3.35 m) in September 1935, from information by local residents.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	102	279	239	189	133	135	113	85	55	34	52
2	48	99	223	226	397	132	175	105	81	55	70	58
3	46	98	194	209	620	132	145	103	78	53	87	82
4	46	95	178	252	375	147	150	110	76	75	60	67
5	46	92	168	253	281	142	201	103	73	63	46	60
6	46	89	161	226	235	137	153	99	69	58	42	56
7	81	89	159	204	223	135	141	96	66	56	40	57
8	73	151	151	191	215	135	231	95	65	54	38	52
9	58	209	304	183	227	134	219	110	63	52	36	50
10	52	147	277	174	203	130	223	107	60	50	36	48
11	50	133	248	170	188	129	203	102	58	55	39	48
12	49	125	211	163	175	129	172	98	55	52	39	47
13	49	119	200	155	169	125	158	95	54	49	36	46
14	48	166	185	152	163	122	147	93	53	47	54	55
15	47	219	208	151	177	120	139	92	50	45	85	70
16	47	163	309	146	215	121	134	92	48	46	50	54
17	49	147	231	142	194	130	131	91	74	44	44	49
18	47	138	196	140	175	130	129	94	71	43	41	49
19	58	134	187	151	169	121	126	90	68	41	41	47
20	60	328	183	199	163	117	121	93	63	41	39	46
21	54	249	177	163	161	115	118	96	59	41	43	45
22	52	198	551	157	163	115	117	91	62	43	190	44
23	52	176	682	160	157	110	116	91	62	42	141	43
24	53	162	566	150	150	108	114	92	57	40	86	43
25	53	155	396	143	143	107	111	96	55	37	73	42
26	52	202	329	139	142	117	122	96	52	36	67	43
27	52	200	308	151	141	155	124	95	57	36	64	42
28	163	171	278	178	137	133	137	96	68	35	61	42
29	242	157	249	354	-----	126	125	93	62	34	58	42
30	128	164	236	261	-----	124	118	96	60	34	56	46
31	107	-----	231	207	-----	123	-----	92	-----	33	54	-----
TOTAL	2,060	4,677	8,255	5,789	5,947	3,934	4,435	3,015	1,904	1,445	1,850	1,525
MEAN	66.5	156	266	187	212	127	148	97.3	63.5	46.6	59.7	50.8
MAX	242	328	682	354	620	155	231	113	85	75	190	82
MIN	46	89	151	139	137	107	111	90	48	33	34	42
CFSM	.88	2.07	3.53	2.48	2.81	1.68	1.96	1.29	.84	.62	.79	.67
IN.	1.02	2.31	4.07	2.86	2.93	1.94	2.19	1.49	.94	.71	.91	.75

CAL YR 1972 TOTAL 50,487 MEAN 138 MAX 682 MIN 45 CFSM 1.83 IN 24.91
WTR YR 1973 TOTAL 44,836 MEAN 123 MAX 682 MIN 33 CFSM 1.63 IN 22.12

PEAK DISCHARGE (BASE, 360 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	2300	5.89	366	12-22	1700	6.96	823
11-20	1400	6.01	414	1-29	1400	6.07	438
12-09	1200	5.87	360	2-02	2300	6.97	828

01488500 Marshyhope Creek near Adamsville, Del.

LOCATION.--Lat 38°50'59", long 75°40'24", Kent County, on left bank 45 ft (14 m) upstream from highway bridge, 1.4 miles (2.3 km) upstream from Cattail Branch, 1.6 miles (2.6 km) northeast of Adamsville, and 4.9 miles (7.9 km) northwest of Greenwood.

DRAINAGE AREA.--43.9 sq mi (113.7 sq km). Area at site used prior to Oct. 1, 1971, 44.8 sq mi (116.0 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 28.21 ft (8.598 m) above mean sea level. Prior to Nov. 24, 1953, nonrecording gage and crest-stage gage, and Nov. 24, 1953 to March 1969 recording gage at site on old channel about 240 ft (73 m) southeast of present site at same datum.

AVERAGE DISCHARGE.--27 years (1943-68, 1971-73), 53.3 cfs (1.509 cu m/s), 16.49 in/yr (419 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,480 cfs (41.9 cu m/s) Feb. 2 (gage height, 7.69 ft or 2.344 m), from rating curve extended above 590 cfs (16.7 cu m/s); minimum, 13 cfs (0.37 cu m/s) part of each day Oct. 2-6 (gage height, 2.18 ft or 0.664 m).

Period of record: Maximum discharge, 3,060 cfs (86.7 cu m/s) Aug. 5, 1967 (gage height, 11.98 ft or 3.652 m); minimum, 1.0 cfs (0.28 cu m/s) Sept. 9, 10, 1964, Aug. 20, 1965.

Maximum stage known, 14.5 ft (4.42 m) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	32	306	118	111	53	80	46	41	32	17	26
2	13	32	163	98	602	52	154	44	39	29	243	27
3	13	31	121	84	597	52	101	45	37	29	314	25
4	13	29	100	148	242	67	148	49	36	32	75	31
5	13	28	88	132	160	64	184	44	34	29	39	25
6	13	26	84	104	125	59	107	41	32	27	33	24
7	36	26	87	85	114	58	85	39	31	25	30	25
8	31	152	80	74	109	62	219	38	31	25	28	22
9	18	146	414	68	130	63	163	49	29	24	27	22
10	16	84	276	62	97	57	169	45	29	24	26	21
11	15	65	196	61	82	56	124	40	27	41	26	21
12	15	55	140	57	73	56	94	38	27	29	25	20
13	15	49	124	53	67	52	83	36	26	24	23	20
14	15	228	104	52	65	50	72	34	25	23	36	26
15	15	202	169	53	82	49	65	34	25	23	53	45
16	14	115	258	50	122	49	60	33	25	26	28	28
17	15	88	142	50	93	59	58	33	49	23	25	24
18	14	74	102	49	73	58	55	33	95	22	24	23
19	18	68	93	77	67	50	52	31	61	20	24	22
20	20	381	91	170	67	46	50	34	41	20	33	22
21	17	192	87	94	68	46	48	36	37	20	33	21
22	16	130	576	83	76	46	47	33	39	22	302	21
23	15	100	603	90	76	44	46	33	41	20	141	21
24	15	85	375	77	67	42	45	33	36	19	58	20
25	15	76	223	68	61	42	44	42	33	19	43	20
26	15	132	167	63	60	51	54	43	31	18	38	20
27	15	116	154	95	58	81	60	41	31	18	35	19
28	74	89	126	138	55	59	76	49	30	18	32	19
29	108	76	104	532	-----	52	58	54	43	18	30	20
30	53	94	94	210	-----	50	50	64	44	17	29	22
31	38	-----	95	135	-----	50	-----	48	-----	17	28	-----
TOTAL	718	3,001	5,742	3,230	3,599	1,675	2,651	1,262	1,105	733	1,898	702
MEAN	23.2	100	185	104	129	54.0	88.4	40.7	36.8	23.6	61.2	23.4
MAX	108	381	603	532	602	81	219	64	95	41	314	45
MIN	13	26	80	49	55	42	44	31	25	17	17	19
CFSM	.53	2.28	4.21	2.37	2.94	1.23	2.01	.93	.84	.54	1.39	.53
IN.	.61	2.54	4.87	2.74	3.05	1.42	2.25	1.07	.94	.62	1.61	.59

CAL YR 1972 TOTAL 29,618 MEAN 80.9 MAX 674 MIN 13 CFSM 1.84 IN 25.10
WTR YR 1973 TOTAL 26,316 MEAN 72.1 MAX 603 MIN 13 CFSM 1.64 IN 22.30

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1800	5.08	529	1-29	0800	6.03	840
11-20	0900	5.45	640	2-02	1900	7.69	1,480
12-01	0400	4.82	451	8-03	0900	5.44	637
12-09	0600	5.45	640	8-22	1200	5.06	523
12-22	1300	6.24	914				

NANTICOKE RIVER BASIN

01489000 Faulkner Branch at Federalsburg, Md.

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, on right bank 25 ft (8 m) downstream from highway bridge on Nichols Road, 1.6 miles (2.6 km) northwest of Federalsburg, and 0.9 mile (1.4 km) upstream from mouth.

DRAINAGE AREA.--7.10 sq mi (18.39 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft (5.090 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 8.74 cfs (0.248 cu m/s), 16.72 in/yr (425 mm/yr).

EXTREMES.--Current year: Maximum discharge, 211 cfs (5.98 cu m/s) Feb. 2 (gage height, 3.36 ft or 1.024 m); no flow part of each day July 30-Aug. 1 (result of pumpage for irrigation).
Period of record: Maximum discharge, 792 cfs (22.4 cu m/s) Aug. 25, 1967 (gage height, 5.03 ft or 1.533 m), from rating curve extended above 210 cfs (5.95 cu m/s) on basis of slope-area measurement at gage height 4.10 ft (1.250 m); no flow at times during many years (result of pumpage for irrigation).

REMARKS.--Records good. Diversion for irrigation of about 100 acres (40.5 ha) above station during some years.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	7.0	41	18	18	7.8	8.7	6.2	6.1	1.9	1.2	3.2
2	1.9	6.6	23	16	89	7.7	14	5.9	5.3	1.9	67	3.2
3	1.8	6.3	18	14	78	8.3	9.7	7.6	4.8	2.0	36	3.2
4	1.8	5.8	16	24	32	11	15	8.5	4.5	17	8.6	5.0
5	1.8	5.4	14	20	24	9.6	18	6.8	4.2	4.4	5.6	3.7
6	1.8	5.1	14	17	21	8.8	11	5.9	3.7	3.4	4.7	3.0
7	9.4	5.1	13	14	20	8.6	10	5.4	3.5	3.0	4.1	4.2
8	4.4	29	13	13	20	9.4	31	5.2	3.4	2.6	3.6	3.1
9	3.2	24	45	12	23	9.4	21	8.0	3.1	2.4	3.4	2.9
10	2.6	14	34	11	17	8.5	21	6.4	3.0	2.2	3.1	2.7
11	2.6	13	27	11	15	8.2	16	5.6	2.8	2.6	3.1	2.6
12	2.6	11	21	9.9	13	8.3	14	5.0	2.7	2.4	2.9	2.4
13	2.6	10	19	9.2	13	7.5	12	4.6	2.6	2.0	2.7	2.3
14	2.8	25	17	9.2	13	7.3	11	4.3	2.4	1.9	5.3	6.9
15	2.3	25	26	9.4	16	7.1	9.9	4.4	2.2	1.8	5.2	7.9
16	2.2	16	35	8.9	17	7.3	9.5	4.3	2.3	1.9	3.4	4.3
17	2.4	14	20	8.8	12	11	9.2	4.1	2.4	1.8	3.0	3.6
18	2.1	13	16	8.8	11	9.1	8.8	4.3	3.5	1.6	2.9	3.5
19	3.9	13	16	14	11	7.5	8.4	3.9	3.2	1.4	2.8	3.2
20	3.6	66	16	27	11	6.9	7.9	4.8	2.8	1.4	2.6	3.0
21	3.0	27	16	16	11	6.8	7.4	4.5	2.5	1.4	2.9	2.9
22	2.9	20	85	15	11	6.6	7.3	3.9	3.1	1.7	24	2.8
23	2.9	17	78	15	10	6.0	6.8	4.4	2.9	1.6	9.7	2.6
24	2.8	15	47	13	9.3	5.8	6.5	4.4	2.5	1.3	7.1	2.5
25	2.7	14	30	11	8.6	5.9	6.2	5.5	2.3	1.3	5.8	2.4
26	2.6	27	26	11	8.9	8.2	8.3	4.8	2.2	1.2	5.2	2.4
27	2.5	21	25	18	8.6	9.3	9.4	4.8	2.2	1.1	5.0	2.3
28	22	16	21	22	8.1	7.5	11	5.5	2.2	1.1	4.4	2.2
29	14	14	18	69	-----	6.9	7.8	7.2	2.7	1.1	4.2	2.2
30	8.4	18	17	27	-----	6.7	6.8	13	2.3	.65	3.7	2.2
31	7.1	-----	17	20	-----	6.8	-----	8.3	-----	.05	3.4	-----
TOTAL	128.9	503.3	824	512.2	549.5	245.8	343.6	177.5	93.4	72.10	246.6	98.4
MEAN	4.16	16.8	26.6	16.5	19.6	7.93	11.5	5.73	3.11	2.33	7.95	3.28
MAX	22	66	85	69	89	11	31	13	6.1	17	67	7.9
MIN	1.8	5.1	13	8.8	8.1	5.8	6.2	3.9	2.2	.05	1.2	2.2
CFSM	.59	2.37	3.75	2.32	2.76	1.12	1.62	.81	.44	.33	1.12	.46
IN.	.68	2.64	4.32	2.68	2.88	1.29	1.80	.93	.49	.38	1.29	.52

CAL YR 1972 TOTAL 4,936.13 MEAN 13.5 MAX 138 MIN .31 CFSM 1.90 IN 25.86
WTR YR 1973 TOTAL 3,795.30 MEAN 10.4 MAX 89 MIN .05 CFSM 1.46 IN 19.89

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-20	0845	2.71	115	1-29	0830	2.65	108
12-09	0830	2.19	62	2-02	1815	3.36	211
12-22	1200	2.93	141	8-02	1745	3.00	150

TRANSQUAKING RIVER BASIN

33

01490000 Chicamacomico River near Salem, Md.

LOCATION.--Lat 38°30'43", long 75°52'51", Dorchester County, on left bank 30 ft (9 m) downstream from Big Mill Pond dam, 1.6 miles (2.6 km) east of Salem, 3.5 miles (5.6 km) northwest of Vienna, and 13 miles (21 km) upstream from mouth.

DRAINAGE AREA.--15.0 sq mi (38.8 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft or 3.05 m (from topographic map).

AVERAGE DISCHARGE.--22 years, 18.2 cfs (0.52 cu m/s), 16.48 in/yr (419 mm/yr).

EXTREMES.--Current year: Maximum discharge, 542 cfs (15.3 cu m/s) Aug. 3 (gage height, 4.48 ft or 1.366 m); minimum daily, 4.1 cfs (0.116 cu m/s) July 30, 31.
Period of record: Maximum discharge, 542 cfs (15.3 cu m/s) Aug. 3, 1973 (gage height, 4.48 ft or 1.366 m); minimum daily, 0.5 cfs (0.014 cu m/s) June 11, 1965.

REMARKS.--Records fair except those for July, which are poor. Occasional regulation by Big Mill Pond.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	83	43	40	22	24	21	9.2	7.0	6.0	20
2	12	24	64	40	82	22	26	18	8.6	6.5	139	21
3	11	23	47	34	177	22	22	17	8.5	6.6	447	25
4	10	21	39	55	91	28	22	22	8.5	8.5	155	63
5	10	20	34	63	61	26	29	17	8.2	7.2	59	45
6	11	18	32	47	49	23	22	15	7.8	7.0	34	32
7	31	18	32	37	42	22	19	14	8.0	6.8	24	26
8	27	44	28	31	40	24	58	13	7.8	6.6	18	22
9	15	83	67	29	50	25	60	19	7.3	6.4	15	20
10	12	50	74	27	40	21	52	16	6.9	6.2	13	19
11	12	37	63	25	32	20	47	14	6.6	12	38	18
12	12	32	47	24	30	21	32	12	6.6	12	127	17
13	12	28	40	21	28	18	26	12	6.6	9.0	53	16
14	11	42	36	20	28	18	22	11	6.4	7.5	50	25
15	11	70	39	21	37	17	20	11	6.1	6.6	118	50
16	11	48	68	21	48	18	18	11	6.4	5.9	142	33
17	12	37	49	22	38	24	18	11	7.0	5.4	86	26
18	11	32	36	22	30	26	17	11	8.3	4.9	50	22
19	15	30	32	29	28	20	16	10	9.7	4.8	37	20
20	17	102	32	68	30	17	15	13	8.2	4.6	30	18
21	13	94	32	47	30	17	14	14	7.6	4.7	41	17
22	12	59	136	36	29	18	14	11	7.3	5.2	326	16
23	12	44	190	37	26	16	13	12	7.2	4.7	246	16
24	12	37	136	32	26	16	13	13	6.9	4.3	91	14
25	12	34	83	27	24	16	13	15	6.6	4.2	57	13
26	12	70	64	25	25	20	21	14	6.5	4.3	42	13
27	11	74	62	36	25	25	26	14	7.4	4.6	34	13
28	47	50	54	59	23	22	50	16	8.1	4.4	28	13
29	73	39	46	114	-----	20	34	16	8.0	4.2	24	13
30	36	38	40	81	-----	20	25	13	8.0	4.1	22	12
31	26	-----	38	51	-----	19	-----	10	-----	4.1	21	-----
TOTAL	545	1,322	1,823	1,224	1,209	643	788	436	226.3	190.3	2,573.0	678
MEAN	17.6	44.1	58.8	39.5	43.2	20.7	26.3	14.1	7.54	6.14	83.0	22.6
MAX	73	102	190	114	177	28	60	22	9.7	12	447	63
MIN	10	18	28	20	23	16	13	10	6.1	4.1	6.0	12
CFSM	1.17	2.94	3.92	2.63	2.88	1.38	1.75	.94	.50	.41	5.53	1.51
IN.	1.35	3.28	4.52	3.04	3.00	1.59	1.95	1.08	.56	.47	6.38	1.68

CAL YR 1972 TOTAL 11,329.7 MEAN 31.0 MAX 198 MIN 6.0 CFSM 2.07 IN 28.10
WTR YR 1973 TOTAL 11,657.6 MEAN 31.9 MAX 447 MIN 4.1 CFSM 2.13 IN 28.91

CHOPTANK RIVER BASIN

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 (0.2 km) upstream from Gravelly Branch, 2 miles (3 km) northeast of Greensboro, and 60 miles (97 km) upstream from mouth.

DRAINAGE AREA.--113 sq mi (293 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft (1.070 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 128 cfs (3.625 cu m/s), 15.38 in/yr (391 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,660 cfs (75.3 cu m/s) Feb. 3 (gage height, 9.57 ft or 2.917 m); minimum, 12 cfs (0.34 cu m/s) Sept. 13 (gage height, 1.89 ft or 0.576 m); minimum daily, 14 cfs (0.40 cu m/s) Sept. 12, 13.

Period of record: Maximum discharge, 6,970 cfs (197 cu m/s) Aug. 4, 1967 (gage height, 14.47 ft or 4.410 m), from rating curve extended above 3,600 cfs (102 cu m/s); minimum, 1.2 cfs (0.034 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	164	474	255	381	141	201	177	239	138	22	19
2	34	140	680	276	590	134	352	145	155	85	34	22
3	33	120	504	237	2,320	133	492	126	118	66	56	24
4	32	106	362	262	1,510	156	400	120	115	67	47	25
5	31	104	294	371	795	206	485	116	112	63	35	23
6	32	98	240	332	504	194	452	103	127	54	30	21
7	114	90	236	258	388	171	304	90	105	46	26	20
8	183	154	242	208	380	179	361	83	83	42	24	17
9	186	546	786	172	432	221	656	111	74	39	21	17
10	134	587	1,290	129	399	222	568	145	66	33	20	18
11	97	359	842	105	292	177	541	135	60	48	19	17
12	75	259	533	102	241	168	379	101	53	76	20	14
13	63	208	386	99	211	159	281	83	46	52	18	14
14	48	369	294	111	179	146	231	72	45	39	27	28
15	40	1,430	285	112	220	135	193	68	42	36	29	68
16	38	1,130	469	115	301	130	168	70	42	40	25	58
17	39	655	491	115	297	212	152	66	94	50	22	36
18	37	383	346	118	256	350	143	67	100	46	22	30
19	51	303	262	129	225	315	135	65	123	34	25	27
20	82	489	232	263	163	233	126	71	93	30	23	25
21	81	944	228	362	187	181	115	89	74	31	26	24
22	56	633	388	267	219	158	108	89	108	35	79	24
23	52	398	1,080	243	240	144	105	79	309	38	96	24
24	49	294	1,060	240	233	129	109	86	305	34	66	22
25	49	254	739	210	197	120	108	121	184	31	40	21
26	47	275	496	170	169	162	154	181	111	29	34	20
27	45	316	389	180	161	283	253	190	85	26	31	20
28	66	302	338	329	151	308	316	166	80	24	25	20
29	317	255	284	867	-----	247	313	208	77	25	23	21
30	391	236	243	1,170	-----	192	239	467	136	23	19	27
31	240	-----	231	650	-----	170	-----	411	-----	21	19	-----
TOTAL	2,781	11,601	14,724	8,457	11,641	5,876	8,440	4,101	3,361	1,401	1,003	746
MEAN	89.7	387	475	273	416	190	281	132	112	45.2	32.4	24.9
MAX	391	1,430	1,290	1,170	2,320	350	656	467	309	138	96	68
MIN	31	90	228	99	151	120	105	65	42	21	18	14
CFSM	.79	3.42	4.20	2.42	3.68	1.68	2.49	1.17	.99	.40	.29	.22
IN.	.92	3.82	4.85	2.78	3.83	1.93	2.78	1.35	1.11	.46	.33	.25

CAL YR 1972 TOTAL 84,354 MEAN 230 MAX 2,370 MIN 24 CFSM 2.04 IN 27.77
WTR YR 1973 TOTAL 74,132 MEAN 203 MAX 2,320 MIN 14 CFSM 1.80 IN 24.40

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-15	1245	8.14	1,690	12-23	1345	7.00	1,170
11-21	0800	6.58	1,030	1-30	0245	7.43	1,340
12-10	0245	7.68	1,450	2-03	1315	9.57	2,660

CHOPTANK RIVER BASIN

35

01492000 Beaverdam Branch at Matthews, Md.

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, on left bank 50 ft (15 m) upstream from bridge on State Highway 328, 1 mile (2 km) west of Matthews, 6 miles (10 km) northeast of Easton, and 1.2 miles (1.9 km) upstream from mouth.

DRAINAGE AREA.--5.85 sq mi (15.15 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2.33 ft (0.710 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 7.89 cfs (0.223 cu m/s), 15.65 in/yr (398 mm/yr).

EXTREMES.--Current year: Maximum discharge, 441 cfs (12.5 cu m/s) Feb. 2 (gage height, 5.03 ft or 1.533 m); minimum, 0.11 cfs (0.003 cu m/s) July 31 (gage height, 1.08 ft or 0.329 m).
Period of record: Maximum discharge, 2,200 cfs (62.3 cu m/s) Sept. 12, 1960 (gage height, 10.24 ft or 3.121 m, from high-water mark in gage shelter), from rating curve extended above 440 cfs (12.5 cu m/s) on basis of contracted-opening measurement at gage height 7.15 ft (2.179 m); no flow at times during many years.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	1.7	56	9.1	9.5	5.0	18	5.4	1.9	.66	.38	.22
2	.52	2.0	11	7.4	169	4.9	22	4.5	1.7	.53	8.0	.22
3	.42	1.8	8.1	6.6	77	6.5	8.6	4.7	1.4	5.5	20	.22
4	.39	1.7	7.1	25	21	13	21	5.4	1.4	14	1.4	.26
5	.37	1.6	6.6	11	14	7.4	15	3.6	1.1	1.5	.68	.22
6	.43	1.5	7.0	8.2	12	6.1	7.7	3.1	.96	.89	.44	.26
7	8.0	1.4	6.9	6.4	17	6.5	7.0	2.8	.96	.66	.38	1.5
8	1.7	40	14	5.5	20	10	62	2.7	.96	.53	.32	.34
9	.78	10	82	4.9	22	7.8	17	8.7	.77	.45	.32	.24
10	.54	4.0	40	4.6	10	6.1	28	3.9	.77	.43	.32	.21
11	.52	3.0	17	5.0	7.7	6.1	11	3.6	.68	1.2	.32	.20
12	.54	2.4	11	4.3	6.6	6.1	8.8	3.0	.60	.67	.32	.18
13	.55	2.1	10	3.9	6.5	5.0	8.2	2.2	.68	.45	.26	.16
14	.51	78	8.4	4.2	8.0	4.8	6.9	1.9	.68	.36	10	6.3
15	.49	26	25	5.3	21	4.9	6.4	2.1	.52	.39	3.9	3.0
16	.46	6.9	23	5.4	15	5.2	6.0	2.1	.60	.42	.86	.84
17	.54	5.3	8.2	5.6	6.5	54	6.0	1.9	.88	.34	.52	.53
18	.43	4.4	7.0	5.8	5.5	15	5.8	2.7	6.5	.32	.44	.50
19	2.6	5.5	7.8	8.4	6.1	7.6	5.4	1.9	2.3	.32	.44	.40
20	2.4	74	8.6	11	7.6	6.4	4.9	3.4	1.7	.18	.38	.35
21	1.1	11	8.8	6.1	8.1	6.1	4.4	2.8	1.3	.18	.38	.32
22	.96	7.0	91	6.9	9.2	6.0	4.3	1.8	16	.77	8.2	.35
23	.85	5.9	60	7.6	7.2	5.1	3.9	2.3	4.3	.52	1.9	.34
24	.84	5.2	26	5.9	6.2	4.8	3.7	3.2	1.8	.38	.77	.29
25	.77	4.9	15	5.0	5.6	4.8	3.4	5.1	1.3	.26	.60	.28
26	.72	24	13	4.8	5.9	10	13	3.3	1.1	.26	.44	.32
27	.69	8.6	15	26	5.6	24	37	3.8	.99	.22	.38	.30
28	8.3	6.1	10	22	5.1	8.0	29	6.9	.94	.22	.32	.26
29	5.4	5.1	8.4	93	-----	6.5	8.5	7.4	1.0	.22	.26	.29
30	2.0	24	8.3	16	-----	6.5	6.2	12	.97	.18	.22	.50
31	1.5	-----	9.6	10	-----	7.5	-----	3.7	-----	.18	.22	-----
TOTAL	46.25	375.1	629.8	350.9	514.9	277.7	389.1	121.9	56.76	33.19	63.37	19.40
MEAN	1.49	12.5	20.3	11.3	18.4	8.96	13.0	3.93	1.89	1.07	2.04	.65
MAX	8.3	78	91	93	169	54	62	12	16	14	20	6.3
MIN	.37	1.4	6.6	3.9	5.1	4.8	3.4	1.8	.52	.18	.22	.16
CFSM	.25	2.14	3.47	1.93	3.15	1.53	2.22	.67	.32	.18	.35	.11
IN.	.29	2.39	4.00	2.23	3.27	1.77	2.47	.78	.36	.21	.40	.12

CAL YR 1972 TOTAL 3,997.49 MEAN 10.9 MAX 170 MIN .26 CFSM 1.86 IN 25.42
WTR YR 1973 TOTAL 2,878.37 MEAN 7.89 MAX 169 MIN .16 CFSM 1.35 IN 18.30

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1815	3.03	150	1-29	0700	2.96	143
11-20	0315	2.75	122	2-02	1745	5.03	441
12-09	0615	2.95	142	4-27	2000	2.95	142
12-22	1115	2.84	131				

CHESTER RIVER BASIN

01493000 Unicorn Branch near Millington, Md.

LOCATION.--Lat 39°14'59", long 75°51'40", Kent County, on right bank 20 ft (6 m) upstream from bridge on State Highway 313, 1.4 miles (2.3 km) southwest of Millington, and 0.9 mile (1.4 km) upstream from mouth.

DRAINAGE AREA.--22.3 sq mi (57.8 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft (1.088 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 24.6 cfs (0.697 cu m/s), 14.98 in/yr (380 mm/yr).

EXTREMES.--Current year: Maximum discharge, 467 cfs (13.2 cu m/s) Feb. 3 (gage height, 4.99 ft or 1.521 m); minimum, 0.75 cfs (0.021 cu m/s) Jan. 18 (result of regulation).
Period of record: Maximum discharge, 1,060 cfs (30.0 cu m/s) Sept. 12, 1960 (gage height, 7.17 ft or 2.185 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	99	44	49	24	55	31	22	22	13	11
2	12	13	76	45	126	26	98	28	20	19	99	12
3	12	13	48	44	398	26	81	27	20	18	75	14
4	11	12	45	40	158	38	66	27	24	18	20	13
5	11	12	39	58	89	48	98	25	26	17	17	12
6	12	12	37	49	67	44	57	24	21	16	16	11
7	37	12	41	45	70	43	43	23	18	15	15	11
8	29	36	44	42	74	42	82	22	18	14	15	11
9	15	56	172	34	86	43	96	33	17	14	14	11
10	13	28	131	26	63	42	86	29	16	16	14	11
11	12	21	88	26	50	41	74	24	16	42	13	11
12	13	19	60	26	46	39	51	22	15	17	12	11
13	12	18	50	26	44	36	44	21	19	15	13	10
14	12	70	46	26	43	19	39	20	16	15	14	17
15	11	162	45	26	44	13	36	21	15	15	13	19
16	12	72	70	30	57	22	34	21	24	15	12	13
17	11	42	56	29	50	58	32	21	29	14	13	12
18	11	32	44	28	45	78	32	22	25	14	12	13
19	18	30	39	24	44	45	30	20	25	13	11	12
20	17	98	34	32	41	36	29	23	20	12	10	12
21	14	93	35	33	41	32	28	24	19	12	9.1	12
22	13	52	95	33	41	29	28	21	31	15	16	12
23	13	38	158	29	42	27	28	23	38	13	14	12
24	13	31	140	32	42	26	29	26	23	12	13	12
25	12	29	84	35	41	26	28	44	20	12	12	11
26	12	39	64	24	39	98	51	36	18	12	12	11
27	11	44	57	20	34	89	54	32	17	11	12	11
28	18	34	51	64	29	57	68	48	16	11	12	11
29	19	29	46	163	-----	40	47	52	82	9.8	11	12
30	15	33	44	122	-----	37	35	31	51	11	11	14
31	13	-----	44	64	-----	37	-----	25	-----	11	11	-----
TOTAL	447	1,193	2,082	1,319	1,953	1,261	1,559	846	721	470.8	554.1	365
MEAN	14.4	39.8	67.2	42.5	69.8	40.7	52.0	27.3	24.0	15.2	17.9	12.2
MAX	37	162	172	163	398	98	98	52	82	42	99	19
MIN	11	12	34	20	29	13	28	20	15	9.8	9.1	10
CFSM	.65	1.78	3.01	1.91	3.13	1.83	2.33	1.22	1.08	.68	.80	.55
IN.	.75	1.99	3.47	2.20	3.26	2.10	2.60	1.41	1.20	.79	.92	.61

CAL YR 1972 TOTAL 15,823.0 MEAN 43.2 MAX 616 MIN 11 CFSM 1.94 IN 26.40
WTR YR 1973 TOTAL 12,770.9 MEAN 35.0 MAX 398 MIN 9.1 CFSM 1.57 IN 21.30

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-15	0200	3.96	212	2-03	0430	4.99	467
12-09	1300	4.07	234	8-03	0030	3.91	202
1-29	1700	4.05	230				

01493500 Morgan Creek near Kennedyville, Md.

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, on right bank 200 ft (61 m) upstream from highway bridge, 2 miles (3 km) southwest of Kennedyville, and 4.5 miles (7.2 km) upstream from mouth.

DRAINAGE AREA.--10.5 sq mi (27.2 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft or 4.6 m (from topographic map).

AVERAGE DISCHARGE.--22 years, 10.3 cfs (0.292 cu m/s), 13.32 in/yr (338 mm/yr).

EXTREMES.--Current year: Maximum discharge, 912 cfs (25.8 cu m/s) June 29 (gage height, 6.98 ft or 2.128 m); minimum, 4.9 cfs (0.14 cu m/s) Sept. 12, 13 (gage height, 1.38 ft or 0.421 m).

Period of record: Maximum discharge, 7,500 cfs (212 cu m/s) June 22, 1972 (gage height, 13.07 ft or 3.984 m), from rating curve extended above 590 cfs (16.7 cu m/s) on basis of Type IV culvert and flow-over-road measurement of peak flow; minimum, 0.60 cfs (0.017 cu m/s) Aug. 28, 29, 1966.

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

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.4	60	16	15	11	23	11	9.0	22	11	5.5
2	7.1	10	20	13	259	11	89	10	8.4	11	259	5.9
3	7.0	9.1	12	12	113	13	38	11	8.9	19	59	5.8
4	7.0	8.7	10	27	31	27	59	14	11	104	13	5.9
5	7.2	8.5	9.9	19	17	16	60	10	14	16	8.7	5.8
6	9.1	8.1	14	13	15	12	17	9.6	9.1	9.8	7.9	5.8
7	37	8.0	19	9.2	26	12	13	9.0	8.6	8.8	7.6	5.8
8	21	69	36	8.5	26	16	40	9.2	8.5	8.6	7.2	5.4
9	7.9	51	187	8.3	33	15	29	26	8.0	8.4	7.0	5.6
10	6.6	17	41	8.2	15	12	22	15	7.6	10	6.9	5.6
11	6.8	11	23	9.1	11	12	17	9.5	7.4	46	6.9	5.6
12	7.6	9.7	15	8.8	11	12	13	8.6	7.4	35	6.8	5.5
13	7.8	9.1	14	8.4	11	11	13	8.6	30	10	6.7	5.2
14	7.5	176	12	8.9	13	11	12	8.5	12	8.7	8.5	20
15	7.1	83	23	11	29	11	12	11	7.9	9.0	8.6	24
16	6.8	33	45	12	22	12	11	11	59	9.4	7.5	8.1
17	7.5	19	15	12	13	22	12	9.7	136	8.5	7.1	6.5
18	6.8	15	11	13	8.8	13	12	11	29	8.6	7.0	8.7
19	15	16	14	16	8.4	9.8	11	9.5	16	7.9	7.5	7.5
20	17	165	15	20	11	9.6	11	14	12	7.4	7.5	6.6
21	8.9	43	14	13	15	9.8	10	15	19	8.2	8.3	6.5
22	8.5	19	92	14	17	9.8	11	9.8	64	10	11	6.7
23	8.5	13	53	16	15	9.2	11	14	35	9.3	7.9	6.5
24	8.5	12	37	12	12	9.4	13	18	12	8.1	7.0	6.1
25	8.2	11	20	10	12	10	12	43	10	7.6	6.8	6.0
26	7.6	25	16	10	12	52	49	18	9.9	8.9	6.7	6.3
27	7.6	18	17	22	12	29	26	17	10	7.7	6.4	6.3
28	21	12	15	33	11	15	22	37	10	7.3	6.4	6.5
29	25	11	13	133	-----	11	15	27	383	7.2	5.8	7.8
30	12	20	14	33	-----	13	11	13	139	6.9	5.7	15
31	8.8	-----	17	17	-----	14	-----	12	-----	6.8	5.7	-----
TOTAL	334.0	919.6	903.9	566.4	794.2	450.6	694	450.0	1,101.7	456.1	539.1	228.5
MEAN	10.8	30.7	29.2	18.3	28.4	14.5	23.1	14.5	36.7	14.7	17.4	7.62
MAX	37	176	187	133	259	52	89	43	383	104	259	24
MIN	6.6	8.0	9.9	8.2	8.4	9.2	10	8.5	7.4	6.8	5.7	5.2
CFSM	1.03	2.92	2.78	1.74	2.70	1.38	2.20	1.38	3.50	1.40	1.66	.73
IN.	1.18	3.26	3.20	2.01	2.81	1.60	2.46	1.59	3.90	1.62	1.91	.81

CAL YR 1972 TOTAL 9,001.8 MEAN 24.6 MAX 2,810 MIN 5.3 CFSM 2.34 IN 31.89
WTR YR 1973 TOTAL 7,438.1 MEAN 20.4 MAX 383 MIN 5.2 CFSM 1.94 IN 26.35

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1530	5.31	402	2-02	1715	6.37	681
11-20	0645	4.85	310	6-17	0030	5.35	410
12-09	0200	5.19	378	6-29	1400	6.98	912
1-29	0815	4.18	208	8-02	1015	5.65	470

01495000 Big Elk Creek at Elk Mills, Md.

LOCATION.--Lat 39°39'26", long 75°49'20", Cecil County, on right bank 100 ft (30 m) downstream from highway bridge at Elk Mills, 3.5 miles (5.6 km) north of Elkton, and 7 miles (11 km) upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 sq mi (136.2 sq km).

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 (20.88 m) above mean sea level. Apr. 10, 1932 to May 16, 1946, nonrecording gage at bridge 100 ft (30 m) upstream at same datum.

AVERAGE DISCHARGE.--41 years, 68.3 cfs (1.934 cu m/s), 17.63 in/yr (448 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,010 cfs (56.9 cu m/s) July 4 (gage height, 6.76 ft or 2.060 m), from rating curve extended above 500 cfs (14.2 cu m/s) on basis of slope-area measurement at gage height 13.46 ft (4.103 m); minimum, 24 cfs (0.68 cu m/s) Sept. 14; minimum daily, 26 cfs (0.74 cu m/s) Sept. 13. Period of record: Maximum discharge, 10,600 cfs (300 cu m/s) July 5, 1937 (gage height, 14.5 ft or 4.42 m, from floodmarks), from rating curve extended above 1,700 cfs (48.1 cu m/s) on basis of velocity-area and conveyance studies; minimum, 4.5 cfs (0.13 cu m/s) Jan. 21, 1955 (result of freezeup); minimum daily, 4.8 cfs (0.14 cu m/s) Sept. 8-10, 1966; minimum gage height observed, 2.09 ft (0.637 m) Sept. 19, 22-24, 1932. Maximum stage known, about 19 ft (5.8 m) in June 1884, from information by local residents.

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	42	193	100	84	82	378	112	113	92	75	30
2	35	43	84	80	492	82	437	107	101	78	195	37
3	34	43	72	75	237	95	161	124	96	239	87	36
4	32	40	67	178	129	157	296	127	114	438	60	33
5	36	39	63	101	109	112	193	106	181	201	52	32
6	43	37	185	85	101	107	134	99	100	94	48	31
7	120	37	149	73	137	99	120	93	107	77	45	31
8	50	425	326	70	142	125	353	91	90	70	44	28
9	36	128	369	66	153	104	178	239	84	66	43	28
10	32	64	274	62	96	90	241	132	79	64	43	28
11	32	56	130	58	90	90	149	102	76	86	41	28
12	32	51	102	56	88	94	130	93	75	67	41	27
13	34	47	103	56	88	84	123	91	96	60	40	26
14	32	677	86	58	90	83	116	87	77	57	44	188
15	32	153	177	64	214	81	111	92	71	87	69	227
16	31	77	196	70	125	83	108	90	109	80	58	52
17	34	63	88	66	84	153	107	87	219	63	43	40
18	31	55	81	66	88	107	110	94	94	61	42	40
19	61	71	81	72	83	86	104	84	87	58	41	45
20	57	447	92	84	83	81	98	138	85	56	39	36
21	40	90	99	66	91	79	94	129	81	64	39	34
22	39	69	321	91	94	77	95	91	130	61	41	35
23	37	61	152	128	89	75	103	93	108	58	38	35
24	39	56	114	81	86	73	153	106	83	54	36	35
25	37	53	98	71	83	75	108	136	79	51	36	33
26	36	204	95	68	85	276	431	101	77	51	35	33
27	36	86	100	168	84	120	188	162	75	53	34	34
28	134	65	86	183	82	90	188	562	80	61	33	34
29	86	59	79	488	-----	84	136	171	615	52	31	45
30	50	124	83	115	-----	97	118	183	179	48	30	48
31	42	-----	99	88	-----	94	-----	169	-----	46	31	-----
TOTAL	1,409	3,462	4,244	3,087	3,407	3,135	5,261	4,091	3,561	2,693	1,534	1,389
MEAN	45.5	115	137	99.6	122	101	175	132	119	86.9	49.5	46.3
MAX	134	677	369	488	492	276	437	562	615	438	195	227
MIN	31	37	63	56	82	73	94	84	71	46	30	26
CFSM	.87	2.19	2.60	1.89	2.32	1.92	3.33	2.51	2.26	1.65	.94	.88
IN.	1.00	2.45	3.00	2.18	2.41	2.22	3.72	2.89	2.52	1.90	1.08	.98

CAL YR 1972 TOTAL 38,810 MEAN 106 MAX 3,070 MIN 31 CFSM 2.02 IN 27.45
WTR YR 1973 TOTAL 37,273 MEAN 102 MAX 677 MIN 26 CFSM 1.94 IN 26.36

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1300	6.47	1,810	7-04	0100	6.76	2,010
6-29	1830	6.62	1,910				

NORTHEAST RIVER BASIN

39

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 (1.1 km) northeast of Leslie, 1.5 miles (2.4 km) southeast of Bay View, and 1.7 miles (2.7 km) upstream from confluence with Little Northeast Creek.

DRAINAGE AREA.--24.3 sq mi (62.9 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.0 ft (35.05 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 34.1 cfs (0.966 cu m/s), 19.06 in/yr (484 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,560 cfs (44.2 cu m/s) July 4 (gage height, 5.05 ft or 1.539 m); minimum, 4.5 cfs (0.13 cu m/s) Sept. 13; minimum daily, 4.8 cfs (0.14 cu m/s) Sept. 13.
Period of record: Maximum discharge, 4,800 cfs (136 cu m/s) June 22, 1972 (gage height, 8.41 ft or 2.563 m), from rating curve extended above 2,300 cfs (65.1 cu m/s), on basis of contracted-opening measurement at gage height 7.74 ft (2.359 m); minimum, 1.2 cfs (0.034 cu m/s) Sept. 8, 9, 10, 11, 12, 13, 14, 1966; minimum daily, 1.2 cfs (0.034 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	13	201	54	33	27	280	33	47	34	14	6.0
2	6.7	14	42	36	401	28	543	31	34	26	30	6.0
3	6.3	13	32	31	361	34	91	41	31	132	24	5.7
4	6.0	12	28	152	62	92	193	48	51	582	16	8.2
5	7.2	12	27	57	45	48	157	33	165	90	14	6.4
6	12	11	105	38	40	46	50	30	40	37	12	6.0
7	31	11	142	31	67	40	41	27	32	27	12	6.0
8	15	262	147	30	82	72	289	26	29	24	11	5.7
9	9.5	134	582	29	103	51	103	120	26	22	11	5.4
10	7.8	26	275	27	38	37	145	53	24	21	11	5.4
11	7.6	20	87	26	32	35	59	33	23	21	10	5.1
12	7.8	19	48	25	32	41	43	28	22	20	11	5.1
13	8.2	17	56	25	31	33	39	27	24	18	9.9	4.8
14	8.1	456	41	25	31	31	34	25	22	17	13	99
15	7.2	249	132	25	144	30	32	27	20	21	14	154
16	7.3	39	206	24	65	31	31	28	24	24	11	18
17	7.3	28	40	24	36	86	31	26	75	18	11	13
18	7.4	24	32	25	35	48	33	29	30	17	10	11
19	17	34	33	28	30	32	31	25	26	16	10	12
20	17	474	43	42	28	29	29	54	25	15	9.4	9.9
21	11	53	50	27	30	28	27	50	24	18	9.3	9.4
22	10	31	308	45	33	27	28	29	39	19	10	9.2
23	11	26	105	101	31	26	29	27	36	17	9.4	9.3
24	11	24	62	40	29	25	49	34	25	15	8.3	10
25	11	23	48	30	27	26	34	56	23	14	8.1	10
26	10	216	44	28	28	213	326	35	22	14	8.1	9.3
27	9.8	57	53	115	29	60	103	93	22	14	7.7	8.8
28	58	32	38	155	27	36	98	466	21	17	7.9	8.8
29	44	27	32	501	-----	32	50	146	330	14	6.7	59
30	16	81	33	63	-----	38	36	91	281	13	6.4	67
31	13	-----	52	39	-----	40	-----	223	-----	12	6.6	-----
TOTAL	409.9	2,438	3,124	1,898	1,930	1,422	3,034	1,994	1,593	1,349	352.8	593.5
MEAN	13.2	81.3	101	61.2	68.9	45.9	101	64.3	53.1	43.5	11.4	19.8
MAX	58	474	582	501	401	213	543	466	330	582	30	154
MIN	6.0	11	27	24	27	25	27	25	20	12	6.4	4.8
CFSM	.54	3.35	4.16	2.52	2.84	1.89	4.16	2.65	2.19	1.79	.47	.81
IN.	.63	3.73	4.78	2.91	2.95	2.18	4.64	3.05	2.44	2.07	.54	.91

CAL YR 1972 TOTAL 20,277.5 MEAN 55.4 MAX 2,220 MIN 5.7 CFSM 2.28 IN 31.04
WTR YR 1973 TOTAL 20,138.2 MEAN 55.2 MAX 582 MIN 4.8 CFSM 2.27 IN 30.83

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	2130	4.43	1,130	4-02	0530	4.16	966
12-09	0600	4.61	1,250	6-29	2200	5.00	1,520
2-02	2300	4.43	1,130	7-04	0545	5.05	1,560

PRINCIPIO CREEK BASIN

01496200 Principio Creek near Principio Furnace, Md.

LOCATION.--Lat 39°37'34", long 76°02'27", Cecil County, on left bank, 55 ft (17 m) downstream from highway bridge on Belvedere Road, 3.5 miles (5.6 km) north of Principio Furnace, and 4.9 miles (7.9 km) upstream from mouth.

DRAINAGE AREA.--9.03 sq mi (23.39 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 215 ft or 65.5 m (from topographic map).

AVERAGE DISCHARGE.--6 years, 13.3 cfs (0.377 cu m/s), 20.00 in/yr (508 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,210 cfs (34.3 cu m/s) June 29 (gage height, 6.71 ft or 2.045 m), from rating curve extended as explained below; minimum, 2.4 cfs (0.068 cu m/s) Sept. 9, 10, 12.
Period of record: Maximum discharge, 7,060 cfs (200 cu m/s) Aug. 4, 1969 (gage height, 9.26 ft or 2.822 m), from rating curve extended above 170 cfs (4.81 cu m/s) on basis of slope-area measurements at gage heights 8.89 ft (2.710 m) and 9.26 ft (2.822 m); minimum, 1.6 cfs (0.045 cu m/s) Oct. 4, 5, 1968, July 17, 18, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	4.0	29	16	14	12	184	14	18	13	6.3	3.0
2	3.2	4.2	13	13	171	12	89	13	15	13	9.7	3.0
3	3.1	4.0	12	12	43	16	26	18	14	65	8.3	3.1
4	3.1	4.0	11	45	21	29	86	16	41	27	6.0	3.5
5	3.4	4.0	11	17	18	16	30	13	59	12	5.5	3.1
6	4.5	4.0	51	14	17	16	20	12	16	9.8	5.2	3.0
7	10	4.0	18	12	25	15	18	12	14	9.0	5.0	2.9
8	4.0	102	145	11	36	24	88	12	13	8.5	4.7	2.8
9	3.6	11	55	11	22	16	27	31	12	8.2	4.7	2.7
10	3.2	7.1	93	11	15	13	47	15	12	8.1	4.7	2.7
11	3.4	6.4	22	11	13	14	21	12	11	12	4.7	2.8
12	3.6	5.7	17	10	13	14	19	11	11	8.6	4.5	2.6
13	3.9	5.3	17	9.5	12	12	17	11	12	7.7	4.5	2.5
14	3.9	161	14	8.9	18	12	16	11	11	7.3	7.7	65
15	4.0	22	64	9.1	45	12	15	11	11	9.0	4.8	14
16	4.0	12	32	10	20	12	15	11	25	8.1	4.2	5.0
17	4.0	10	14	11	14	24	15	11	15	7.6	4.1	4.0
18	4.0	9.2	12	11	13	13	15	12	12	7.4	4.0	4.0
19	8.6	29	13	14	12	11	14	10	12	7.0	4.0	3.9
20	5.2	123	16	14	13	11	14	19	11	7.0	3.8	3.7
21	4.2	14	22	11	13	11	13	13	11	7.9	3.9	3.6
22	4.2	12	83	31	14	11	13	11	15	7.5	4.0	3.7
23	4.2	11	29	22	13	11	14	11	12	7.0	3.6	3.7
24	4.7	10	19	13	12	11	15	13	11	6.5	3.5	3.6
25	4.2	9.9	17	12	12	11	16	17	11	6.3	3.5	3.6
26	4.0	65	17	11	12	63	72	12	11	6.5	3.4	3.6
27	4.2	14	18	48	12	17	33	31	10	6.2	3.3	3.6
28	31	12	14	44	12	13	26	118	10	6.3	3.3	3.6
29	7.1	11	13	121	-----	12	16	23	181	5.9	3.1	38
30	4.2	55	13	18	-----	15	14	112	19	5.8	3.1	17
31	4.0	-----	20	15	-----	14	-----	62	-----	5.5	3.0	-----
TOTAL	162.4	745.8	924	616.5	655	493	1,008	698	636	326.7	144.1	221.3
MEAN	5.24	24.9	29.8	19.9	23.4	15.9	33.6	22.5	21.2	10.5	4.65	7.38
MAX	31	161	145	121	171	63	184	118	181	65	9.7	65
MIN	3.1	4.0	11	8.9	12	11	13	10	10	5.5	3.0	2.5
CFSM	.58	2.76	3.30	2.20	2.59	1.76	3.72	2.49	2.35	1.16	.52	.82
IN.	.67	3.07	3.81	2.54	2.70	2.03	4.15	2.88	2.62	1.35	.59	.91

CAL YR 1972 TOTAL 6,851.9 MEAN 18.7 MAX 933 MIN 3.1 CFSM 2.07 IN 28.23
WTR YR 1973 TOTAL 6,630.8 MEAN 18.2 MAX 184 MIN 2.5 CFSM 2.02 IN 27.32

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-08	0830	4.34	365	4-01	1930	5.83	842
11-14	1115	5.38	678	4-04	1445	4.45	392
11-20	0115	5.06	568	5-28	0845	4.71	463
12-08	1900	5.50	720	5-30	2145	6.06	934
12-10	0900	4.70	460	6-29	1315	6.71	1,210
2-02	1345	5.11	584	7-03	2145	4.67	451

SUSQUEHANNA RIVER BASIN

41

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 (1.6 km) southwest of Conowingo, and 9.9 miles (15.9 km) upstream from mouth.

DRAINAGE AREA.--27,100 sq mi (70,190 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft (1.524 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 250,000 cfs (7,080 cu m/s) Dec. 9, gage height, 22.74 ft (6.931 m); minimum, 750 cfs (21.2 cu m/s) Aug. 28, gage height, 7.25 ft (2.210 m).
Period of record: Maximum discharge, 1,130,000 cfs (32,000 cu m/s) June 24, 1972, gage height, 36.83 ft (11.226 m); minimum, 144 cfs (4.08 cu m/s) Mar. 2, 1969, gage height, 6.28 ft (1.914 m).

REMARKS.--Records good. Flow regulated by Conowingo Reservoir beginning October 1928 (usable capacity, 55,070,000 gal (208.4 cu hm) dead storage, 45,290,000,000 gal (171.4 cu hm). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,210	9,450	77,500	66,300	63,500	23,700	49,700	77,900	72,900	37,000	11,000	3,690
2	6,430	9,800	65,400	80,600	59,500	25,800	58,900	59,500	63,000	43,100	18,600	987
3	9,760	10,500	48,200	82,700	82,000	23,800	82,200	56,300	51,600	45,900	21,100	4,750
4	11,900	5,820	56,800	85,200	155,000	10,200	81,600	59,700	52,700	45,200	7,400	14,400
5	12,400	965	55,100	97,800	208,000	36,200	122,000	46,300	53,800	48,000	4,200	14,100
6	10,400	18,200	63,800	82,400	156,000	54,200	166,000	34,500	41,000	41,500	12,800	11,900
7	1,410	17,600	101,000	75,800	115,000	56,400	159,000	47,700	48,100	30,600	12,800	11,100
8	1,300	31,500	139,000	65,100	99,000	65,800	136,000	43,600	57,600	13,900	9,450	4,430
9	17,700	49,700	215,000	55,600	86,700	65,400	138,000	44,400	50,300	28,100	11,100	994
10	12,200	54,900	190,000	51,800	74,200	71,400	135,000	45,200	38,400	22,500	10,700	7,120
11	12,900	70,000	189,000	32,500	63,800	61,000	127,000	49,000	49,100	13,500	6,360	12,900
12	12,600	75,600	159,000	38,000	60,600	65,500	119,000	50,100	35,400	16,400	1,300	13,000
13	11,100	70,700	134,000	16,400	49,700	64,500	108,000	58,500	38,500	17,600	10,700	13,000
14	1,270	69,300	113,000	21,000	48,700	60,200	87,200	57,100	30,400	8,480	10,300	28,700
15	1,200	71,800	102,000	40,500	49,100	63,800	79,700	64,600	38,900	3,270	9,600	26,100
16	11,600	116,000	100,000	42,300	47,400	61,700	72,500	61,200	23,800	17,000	12,300	27,500
17	7,090	118,000	84,700	33,000	31,400	80,600	70,800	60,400	21,200	12,200	16,900	24,300
18	9,690	85,100	81,100	35,600	21,200	81,800	61,100	52,700	32,700	12,200	9,500	27,000
19	13,000	67,700	72,000	33,600	33,200	146,000	55,900	44,000	25,400	14,800	4,550	32,500
20	11,500	66,900	67,500	27,400	35,300	160,000	53,000	47,300	32,500	14,800	23,500	37,700
21	4,700	64,100	57,200	17,900	34,000	124,000	43,200	59,000	28,300	8,160	30,000	29,300
22	1,630	66,800	64,400	36,300	41,500	98,400	15,400	69,600	30,800	3,660	27,100	12,800
23	9,920	48,200	109,000	44,000	36,600	82,200	44,600	71,100	24,800	14,100	25,500	12,900
24	12,500	49,000	155,000	58,200	36,400	70,800	36,800	77,900	22,800	16,200	26,600	30,600
25	14,800	38,000	151,000	57,800	9,250	60,700	40,000	77,400	31,100	16,300	15,000	37,400
26	6,770	45,600	132,000	57,100	31,200	57,100	50,600	65,200	31,700	14,800	9,380	23,200
27	7,640	58,600	118,000	52,000	32,500	61,600	49,900	63,100	26,100	11,200	18,800	7,020
28	1,480	78,600	104,000	46,600	25,100	54,600	51,800	74,600	25,300	4,980	16,300	15,800
29	1,400	71,400	91,000	66,300	-----	55,800	54,900	83,600	42,200	3,150	15,100	9,420
30	12,100	72,800	79,500	82,200	-----	58,200	60,300	84,600	40,700	20,100	12,300	5,230
31	9,560	-----	69,100	73,200	-----	40,600	-----	80,100	-----	14,500	15,100	-----
TOTAL	259,160	1,612.6M	3,244.3M	1,655.2M	1,785.9M	2,042.0M	2,410.1M	1,866.2M	1,161.1M	613,200	435,340	499,841
MEAN	8,360	53,750	104,700	53,390	63,780	65,870	80,340	60,200	38,700	19,780	14,040	16,660
MAX	17,700	118,000	215,000	97,800	208,000	160,000	166,000	84,600	72,900	48,000	30,000	37,700
MIN	1,200	965	48,200	16,400	9,250	10,200	15,400	34,500	21,200	3,150	1,300	987
CFSM	.31	1.98	3.86	1.97	2.35	2.43	2.96	2.22	1.43	.73	.52	.61
IN.	.36	2.21	4.45	2.27	2.45	2.80	3.31	2.56	1.59	.84	.60	.69

CAL YR 1972 TOTAL 24,583,365 MEAN 67,170 MAX 1,120,000 MIN 965 CFSM 2.48 IN 33.75
WTR YR 1973 TOTAL 17,584,926 MEAN 48,180 MAX 215,000 MIN 965 CFSM 1.78 IN 24.14

SUSQUEHANNA RIVER BASIN

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 (91 m) downstream from Love Run, 3.5 miles (5.6 km) west of Rising Sun, and 3.5 miles (5.6 km) upstream from mouth.

DRAINAGE AREA.--193 sq mi (500 sq km).

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 (22.485 m) above mean sea level.

AVERAGE DISCHARGE.--30 years (1932-58, 1969-73), 266 cfs (7.53 cu m/s), 18.72 in/yr (475 mm/yr), adjusted for storage and diversion since October 1951.

EXTREMES.--Current year: Maximum discharge, 4,880 cfs (138 cu m/s) June 29 (gage height, 8.49 ft or 2.588 m); minimum, 56 cfs (1.59 cu m/s) Sept. 12, 13, 14; minimum daily, 59 cfs (1.67 cu m/s) Sept. 12.
Period of record: Maximum discharge, 35,000 cfs (991 cu m/s) Aug. 9, 1942 (gage height, 17.57 ft or 5.355 m), from rating curve extended above 5,000 cfs (142 cu m/s) on basis of velocity-area studies; maximum gage height, 18.92 ft (5.767 m) June 22, 1972; minimum, 18 cfs (0.51 cu m/s) July 30, 31, Aug. 2, 1954; minimum daily, 22 cfs (0.62 cu m/s) Aug. 2, 1954.
Floods of 1884 and 1918 reached stages of 24.3 ft (7.41 m) and 16.5 ft (5.03 m), 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 mil gal or 10.60 cu km). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	101	463	436	354	271	540	367	350	479	138	66
2	85	97	338	353	1,040	270	1,290	349	314	324	359	65
3	77	95	266	304	1,350	289	639	347	296	773	381	79
4	70	88	230	525	629	386	663	365	342	1,900	211	76
5	68	85	207	483	489	360	827	335	458	591	167	71
6	79	83	323	370	440	334	503	314	334	383	148	71
7	148	77	637	310	470	317	419	303	315	291	137	73
8	165	659	749	273	483	353	841	289	292	264	129	69
9	118	703	1,480	268	559	379	781	411	267	246	122	66
10	94	243	761	255	419	313	807	390	250	235	119	66
11	81	161	534	251	363	293	628	318	235	235	115	65
12	74	131	398	251	336	303	477	285	226	237	112	59
13	77	119	378	239	330	286	440	272	280	211	119	61
14	76	1,870	342	243	332	264	400	258	250	204	126	159
15	72	1,270	464	244	619	258	378	260	216	227	116	434
16	70	386	874	245	499	256	369	260	255	288	119	215
17	68	240	458	237	375	331	366	251	594	232	115	131
18	70	189	334	238	328	359	367	269	352	212	108	109
19	94	184	314	249	317	285	355	256	285	199	104	104
20	110	1,240	331	305	310	249	336	287	258	186	104	89
21	101	486	358	269	314	241	317	387	243	195	105	80
22	92	276	852	281	326	236	310	301	667	198	106	86
23	86	215	646	396	313	229	335	268	478	192	100	80
24	86	187	468	330	299	225	457	302	314	179	94	80
25	83	172	407	270	289	222	361	370	291	166	90	78
26	76	705	380	252	287	546	1,110	326	260	163	89	74
27	72	460	387	335	288	441	681	357	241	163	88	69
28	207	267	353	563	277	305	620	1,670	233	172	97	68
29	311	217	318	1,490	-----	268	483	1,010	2,140	157	91	109
30	179	290	303	689	-----	279	402	493	1,550	149	84	117
31	122	-----	375	415	-----	289	-----	435	-----	142	68	-----
TOTAL	3,199	11,296	14,728	11,369	12,435	9,437	16,502	12,105	12,586	9,593	4,061	2,969
MEAN	103	377	475	367	444	304	550	390	420	309	131	99.0
MAX	311	1,870	1,480	1,490	1,350	546	1,290	1,670	2,140	1,900	381	434
MIN	68	77	207	237	277	222	310	251	216	142	68	59
(†)	+49.5	+47.6	+46.4	+42.4	+40.9	+42.7	+44.2	+43.1	+55.4	+32.0	+46.4	+51.3
MEAN‡	152	425	521	409	485	347	594	433	475	341	177	150
CFSM‡	0.79	2.20	2.70	2.12	2.51	1.80	3.08	2.24	2.46	1.77	0.92	0.78
IN‡	0.91	2.45	3.12	2.44	2.62	2.07	3.44	2.59	2.75	2.04	1.06	0.87

† 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 (0.5 km) upstream from highway bridge on Cherry Hill Road, 0.8 mile (1.3 km) southeast of Rocks, 1.2 miles (1.9 km) upstream from Stirrup Run, and 23.5 miles (37.8 km) upstream from mouth.

DRAINAGE AREA.--94.4 sq mi (244.5 sq km).

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 (76.322 m) above mean sea level (city of Baltimore benchmark).

AVERAGE DISCHARGE.--47 years, 122 cfs (3.455 cu m/s), 17.55 in/yr (446 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,180 cfs (90.1 cu m/s) Nov. 14, gage height, 8.07 ft (2.460 m); minimum, 54 cfs (1.53 cu m/s) Sept. 9, 12-14.
Period of record: Maximum discharge, 13,600 cfs (385 cu m/s) Aug. 23, 1933, gage height, 17.7 ft (5.39 m), from floodmarks, from rating curve extended above 3,000 cfs (85.0 cu m/s) on basis of slope-area measurements at gage heights 13.3 ft (4.05 m) and 17.7 ft (5.39 m); minimum, 8 cfs (0.23 cu m/s) Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily, 8.6 cfs (0.24 cu m/s) Sept. 11, 12, 1966.
Maximum stage known since at least 1888, that of Aug. 23, 1933.

REMARKS.--Records good. 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: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	88	216	267	225	191	570	257	242	162	98	64
2	90	94	180	232	711	192	719	247	224	151	128	62
3	86	88	163	218	432	201	324	253	236	249	253	63
4	85	82	152	358	306	229	410	249	236	231	120	63
5	88	79	143	260	274	207	338	234	512	165	105	61
6	106	76	361	237	259	211	272	226	265	147	97	61
7	163	75	275	215	291	204	255	219	313	138	93	61
8	106	479	636	210	297	261	468	218	226	131	91	58
9	90	165	628	210	291	220	328	266	210	127	89	57
10	84	119	415	200	245	203	517	227	196	147	87	58
11	83	108	290	200	230	202	322	216	185	156	101	56
12	83	100	249	190	225	203	293	207	179	139	88	56
13	82	94	241	190	220	191	275	202	203	123	87	54
14	79	1,310	217	190	224	186	258	198	179	118	87	239
15	78	308	377	182	404	187	249	201	168	140	92	234
16	80	188	353	181	266	188	241	203	170	132	96	94
17	78	151	234	181	230	248	239	195	180	121	85	79
18	75	130	215	180	225	203	248	203	174	121	82	81
19	113	145	212	192	220	187	236	191	174	115	81	78
20	103	629	224	210	219	181	227	226	172	133	84	71
21	86	196	222	177	222	177	219	210	198	194	85	69
22	85	161	492	244	223	174	218	188	211	129	83	70
23	83	141	313	273	216	168	239	198	184	121	77	71
24	83	131	267	205	209	166	265	231	168	113	74	68
25	80	124	247	187	201	167	239	310	166	108	74	66
26	77	447	237	182	201	316	571	223	157	112	75	67
27	76	198	239	263	200	211	442	255	153	107	73	65
28	195	164	221	267	194	188	370	906	149	104	70	65
29	135	150	206	662	-----	182	299	357	326	99	67	97
30	100	167	206	283	-----	199	271	281	219	96	65	156
31	90	-----	360	240	-----	194	-----	326	-----	93	64	-----
TOTAL	2,946	6,387	8,791	7,286	7,460	6,237	9,922	7,923	6,375	4,222	2,851	2,444
MEAN	95.0	213	284	235	266	201	331	256	213	136	92.0	81.5
MAX	195	1,310	636	662	711	316	719	906	512	249	253	239
MIN	75	75	143	177	194	166	218	188	149	93	64	54
CFSM	1.01	2.26	3.01	2.49	2.82	2.13	3.51	2.71	2.26	1.44	.97	.86
IN.	1.16	2.52	3.46	2.87	2.94	2.46	3.91	3.12	2.51	1.66	1.12	.96

CAL YR 1972 TOTAL 82,584 MEAN 226 MAX 6,610 MIN 75 CFSM 2.39 IN 32.54
WTR YR 1973 TOTAL 72,844 MEAN 200 MAX 1,310 MIN 54 CFSM 2.12 IN 28.71

PEAK DISCHARGE (BASE, 1,900 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1200	8.07	3,180	4- 1	2030	6.81	2,430
12- 8	2130	6.93	2,500	5-28	0930	6.57	2,280

SUSQUEHANNA RIVER BASIN

01580200 Deer Creek near Kalmia, Md.

LOCATION.--Lat 39°37'16", long 76°17'57", Harford County, on left bank 50 ft (15 m) upstream from bridge on U. S. Highway 1, 1 mile (1.6 km) north of Kalmia, 6.5 miles (10.5 km) northeast of Bel Air, and 12.5 miles (20.1 km) upstream from mouth.

DRAINAGE AREA.--125 sq mi (324 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 145 ft (44 m), from topographic map.

AVERAGE DISCHARGE.--6 years, 196 cfs (5.551 cu m/s), 21.29 in/yr (541 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,220 cfs (120 cu m/s) Nov. 14, gage height, 8.73 ft (2.661 m); minimum, 77 cfs (2.18 cu m/s) Sept. 13, 14, gage height, 2.53 ft (0.771 m).
Period of record: Maximum discharge, 16,800 cfs (476 cu m/s) June 22, 1972, gage height, 16.08 ft (4.901 m); minimum, 29 cfs (0.82 cu m/s) Dec. 7, 1969, result of freezeup.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	121	320	359	292	240	621	319	312	211	136	91
2	117	130	253	298	880	240	1,010	304	281	195	320	91
3	113	124	223	275	731	251	457	311	268	410	382	95
4	110	114	219	486	426	300	575	311	332	383	173	97
5	112	110	217	349	366	265	510	286	683	223	145	91
6	133	109	350	307	337	267	367	273	364	197	135	91
7	201	107	454	274	384	263	348	263	450	182	130	91
8	144	611	668	260	352	337	618	261	298	176	128	85
9	118	243	1,130	260	436	288	516	347	269	170	123	83
10	110	160	618	260	326	260	624	280	251	195	123	83
11	107	144	414	240	300	258	419	262	239	225	133	83
12	108	134	332	240	290	263	371	251	231	193	123	81
13	108	126	318	240	280	244	347	245	268	167	123	79
14	105	1,680	280	240	270	238	325	240	232	161	123	365
15	103	479	478	235	505	241	310	244	217	175	130	370
16	103	254	543	231	381	237	300	248	220	184	130	140
17	104	205	313	229	300	312	296	245	232	162	120	113
18	99	179	279	229	280	264	308	253	224	163	115	111
19	139	186	273	239	280	238	293	235	224	156	113	111
20	142	891	288	275	274	231	279	275	222	181	125	101
21	115	274	288	229	278	226	268	270	225	273	120	99
22	113	223	672	304	281	223	268	235	306	173	118	99
23	111	203	433	403	271	215	279	239	245	163	109	101
24	111	182	358	269	264	211	345	271	218	152	105	97
25	109	174	326	243	256	215	291	433	213	147	105	93
26	106	771	309	234	256	464	749	288	203	151	105	93
27	104	293	314	323	255	278	584	334	198	150	103	93
28	274	228	285	382	245	242	511	1,240	193	142	101	91
29	202	219	266	910	-----	232	379	501	426	137	95	128
30	128	276	263	398	-----	252	338	386	288	133	93	232
31	121	-----	446	319	-----	250	-----	466	-----	130	93	-----
TOTAL	3,909	8,950	11,930	9,540	9,796	8,045	12,906	10,116	8,332	5,860	4,177	3,578
MEAN	126	298	385	308	350	260	430	326	278	189	135	119
MAX	274	1,680	1,130	910	880	464	1,010	1,240	683	410	382	370
MIN	99	107	217	229	245	211	268	235	193	130	93	79
CFSM	1.01	2.38	3.08	2.46	2.80	2.08	3.44	2.61	2.22	1.51	1.08	.95
IN.	1.16	2.66	3.55	2.84	2.92	2.39	3.84	3.01	2.48	1.74	1.24	1.06

CAL YR 1972 TOTAL 109,659 MEAN 300 MAX 10,100 MIN 99 CFSM 2.40 IN 32.63
WTR YR 1973 TOTAL 97,139 MEAN 266 MAX 1,680 MIN 79 CFSM 2.13 IN 28.91

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1330	8.73	4,220	12-8	2400	7.72	3,190

BUSH RIVER BASIN

45

01581700 Winters Run near Benson, Md.

LOCATION.--Lat 39°31'12", long 76°22'24", Harford County, on left bank 30 ft (9 m) downstream from bridge on U. S. Highway 1, 0.1 mile (0.2 km) upstream from Heavenly Waters, 1.2 miles (1.9 km) northeast of Benson, 1.8 miles (2.9 km) southwest of Bel Air, and 10.5 miles (16.9 km) upstream from mouth.

DRAINAGE AREA.--34.8 sq mi (90.1 sq km).

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 195 ft (59 m), from topographic map.

AVERAGE DISCHARGE.--6 years, 55.4 cfs (1.569 cu m/s), 21.62 in/yr (549 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs (45.3 cu m/s) July 3, gage height, 5.46 ft (1.664 m); minimum, 20 cfs (0.57 cu m/s) Sept. 8, 10, 12-14.

Period of record: Maximum discharge, 7,600 cfs (215 cu m/s) June 22, 1972, gage height, 11.60 ft (3.536 m); minimum, 7.2 cfs (0.20 cu m/s) July 5, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	106	92	74	64	280	80	96	67	40	23
2	33	36	69	76	360	64	190	74	86	61	90	23
3	32	34	60	71	140	73	110	78	86	250	57	22
4	32	33	58	146	110	98	140	85	108	120	43	28
5	34	31	55	90	96	76	110	74	140	70	38	24
6	39	29	105	78	90	76	100	72	118	60	33	23
7	62	30	78	69	116	73	92	67	125	54	33	22
8	37	221	315	70	125	104	150	67	92	50	32	21
9	33	60	211	70	114	84	110	100	80	47	32	21
10	32	47	225	70	86	74	115	76	74	46	32	21
11	32	44	114	70	80	71	100	69	71	60	32	21
12	32	40	90	70	80	73	96	65	69	54	32	20
13	32	38	82	70	80	67	92	64	95	46	33	20
14	32	398	73	70	85	64	87	61	67	42	34	142
15	32	92	172	69	162	64	84	63	64	49	34	73
16	30	57	136	62	96	65	83	62	64	46	31	32
17	30	49	80	64	80	80	80	68	65	44	30	27
18	30	43	74	64	80	70	85	68	65	44	31	28
19	44	76	71	73	80	70	80	60	65	40	30	26
20	40	243	78	72	78	60	77	75	65	39	33	25
21	34	69	85	58	78	60	74	65	130	40	32	24
22	32	57	210	124	82	60	76	59	125	40	31	24
23	32	49	118	104	78	57	81	60	75	40	28	26
24	32	47	92	73	74	57	85	83	65	38	27	25
25	30	46	82	65	71	57	76	136	64	37	27	23
26	30	327	80	62	71	165	130	75	59	40	28	23
27	30	80	80	118	71	74	115	85	59	38	26	22
28	70	64	71	135	71	68	100	360	60	37	26	22
29	50	57	69	265	-----	65	88	140	108	34	25	43
30	40	114	71	104	-----	73	86	166	113	33	24	49
31	34	-----	120	82	-----	70	-----	135	-----	33	24	-----
TOTAL	1,119	2,545	3,330	2,706	2,808	2,276	3,172	2,792	2,553	1,699	1,048	923
MEAN	36.1	84.8	107	87.3	100	73.4	106	90.1	85.1	54.8	33.8	30.8
MAX	70	398	315	265	360	165	280	360	140	250	90	142
MIN	30	29	55	58	71	57	74	59	59	33	24	20
CFSM	1.04	2.44	3.07	2.51	2.87	2.11	3.05	2.59	2.45	1.57	.97	.89
IN.	1.20	2.72	3.56	2.89	3.00	2.43	3.39	2.98	2.73	1.82	1.12	.99

CAL YR 1972 TOTAL 31,098 MEAN 85.0 MAX 3,000 MIN 29 CFSM 2.44 IN 33.24
WTR YR 1973 TOTAL 26,971 MEAN 73.9 MAX 398 MIN 20 CFSM 2.12 IN 28.83

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1045	5.02	1,330	4- 1	1900	4.52	1,040
11-26	0530	4.86	1,240	5-28	*0900	4.71	1,150
12- 8	2030	5.22	1,450	7- 3	2015	5.46	1,600
2- 2	1230	4.96	1,300				

* About.

GUNPOWDER RIVER BASIN

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 (0.3 km) north of Blue Mount, 0.6 mile (1.0 km) upstream from mouth, 0.9 mile (1.4 km) downstream from First Mine Branch, and 1.2 miles (1.9 km) south of White Hall.

DRAINAGE AREA.--52.9 sq mi (137.0 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 305 ft (93 m), from topographic map.

AVERAGE DISCHARGE.--29 years, 66.8 cfs (1.892 cu m/s), 17.15 in/yr (436 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,830 cfs (51.8 cu m/s) Nov. 14, gage height, 5.76 ft (1.756 m); minimum, 28 cfs (0.79 cu m/s) Sept. 12, 13, 14.
Period of record: Maximum discharge, 8,280 cfs (234 cu m/s) June 22, 1972, gage height, 18.54 ft (5.651 m), from rating curve extended above 1,300 cfs (36.8 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 cfs (0.054 cu m/s) Aug. 29, 1966; minimum daily, 4.5 cfs (0.13 cu m/s) Sept. 11, 1966.

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	50	102	138	120	105	342	140	118	84	55	35
2	48	53	86	120	336	107	300	134	111	81	74	35
3	46	50	81	114	209	112	169	140	111	132	227	36
4	45	47	76	194	166	124	213	134	112	100	68	38
5	47	45	72	138	150	112	167	126	292	88	59	35
6	55	44	200	126	144	116	142	120	123	79	56	35
7	95	44	118	112	154	112	134	116	126	75	54	34
8	54	250	340	111	170	136	241	118	108	74	52	32
9	48	77	285	100	152	116	165	130	103	72	51	32
10	45	60	227	100	134	109	242	116	99	71	55	32
11	45	55	158	100	126	109	170	111	95	78	58	31
12	46	51	136	95	122	109	156	109	95	72	54	30
13	45	48	129	95	120	103	148	107	116	68	51	30
14	44	571	113	95	124	102	140	105	93	66	50	153
15	43	137	202	98	223	102	134	111	88	76	51	80
16	43	90	161	96	144	105	130	107	94	71	52	46
17	43	78	114	96	126	142	130	107	95	69	48	41
18	41	70	104	96	120	111	136	111	94	67	47	45
19	67	104	104	109	120	103	128	103	92	64	50	40
20	54	265	111	109	118	100	122	130	90	74	50	38
21	48	94	112	95	118	98	120	112	88	78	48	37
22	47	80	251	170	120	96	118	102	102	68	47	37
23	47	72	166	132	116	93	136	109	92	65	44	38
24	46	68	142	109	112	92	134	132	88	62	43	36
25	45	66	130	100	111	93	142	154	98	60	43	35
26	44	185	128	98	111	166	283	116	86	61	43	36
27	44	91	126	150	109	109	245	138	83	58	41	35
28	90	81	114	144	107	100	194	426	85	56	40	35
29	59	74	109	306	-----	96	161	174	165	54	38	57
30	50	87	107	150	-----	114	148	145	96	52	37	60
31	47	-----	197	130	-----	105	-----	152	-----	52	36	-----
TOTAL	1,574	3,087	4,501	3,826	3,982	3,397	5,190	4,135	3,238	2,227	1,722	1,284
MEAN	50.8	103	145	123	142	110	173	133	108	71.8	55.5	42.8
MAX	95	571	340	306	336	166	342	426	292	132	227	153
MIN	41	44	72	95	107	92	118	102	83	52	36	30
CFSM	.96	1.95	2.74	2.33	2.68	2.08	3.27	2.51	2.04	1.36	1.05	.81
IN.	1.11	2.17	3.17	2.69	2.80	2.39	3.65	2.91	2.28	1.57	1.21	.90

CAL YR 1972 TOTAL 46,753 MEAN 128 MAX 4,730 MIN 41 CFSM 2.42 IN 32.88
WTR YR 1973 TOTAL 38,163 MEAN 105 MAX 571 MIN 30 CFSM 1.98 IN 26.84

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1130	5.76	1,830	5-28	0900	4.87	1,390
12- 8	2100	4.69	1,310	6- 5	0200	4.38	1,170
4- 1	1930	4.31	1,140				

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 Long-necker Road, 1.1 miles (1.8 km) upstream from mouth, 1.6 miles (2.6 km) northeast of Glyndon, and 2.6 miles (4.2 km) northeast of Reisterstown.

DRAINAGE AREA.--2.09 sq mi (5.41 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 420 ft (128 m), from topographic map.

AVERAGE DISCHARGE.--26 years, 2.26 cfs (0.0640 cu m/s), 14.68 in/yr (373 mm/yr).

EXTREMES.--Current year: Maximum discharge, 148 cfs (4.19 cu m/s) Apr. 1, gage height, 3.59 ft (1.094 m), from rating curve extended as explained below; minimum, 0.48 cfs (0.014 cu m/s) Sept. 19, gage height, 1.99 ft (0.607 m), result of regulation.
Period of record: Maximum discharge, 515 cfs (14.6 cu m/s) June 22, 1972, gage height, 4.80 ft (1.463 m), from rating curve extended above 40 cfs (1.13 cu m/s) on basis of slope-area measurement at gage height 3.96 ft (1.207 m); no flow many days in August and September 1966.

REMARKS.--Records good.

REVISIONS.--WSP 1502: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.4	5.0	5.6	4.9	4.4	23	5.1	5.1	3.7	2.9	1.3
2	2.8	2.4	3.7	5.0	14	4.4	10	5.1	4.8	3.7	2.9	1.3
3	2.6	2.2	3.1	4.7	7.7	5.0	6.7	5.3	4.7	8.8	4.4	1.4
4	2.4	2.0	3.0	7.0	6.2	5.3	10	5.1	6.3	4.9	2.6	1.6
5	2.4	2.0	3.0	5.4	5.7	4.9	7.0	4.9	5.9	3.6	2.2	1.4
6	2.6	1.8	5.3	4.9	5.7	5.1	6.0	4.7	5.1	3.3	2.1	1.4
7	4.8	1.6	4.2	4.5	6.4	5.0	5.7	4.2	6.3	3.1	2.1	1.3
8	2.2	8.7	10	4.2	7.2	6.1	9.5	4.2	4.8	2.7	2.1	1.2
9	2.0	2.6	7.5	4.0	6.2	5.2	6.5	4.7	4.4	2.7	2.0	1.2
10	1.8	2.0	6.0	3.8	5.5	4.9	8.3	4.2	4.1	2.6	2.1	1.2
11	1.8	1.8	5.5	3.8	5.1	4.9	6.2	4.0	3.9	3.1	2.1	1.2
12	1.8	1.6	5.0	3.8	4.9	4.8	6.0	3.8	3.8	2.7	2.1	1.0
13	1.8	1.6	4.9	3.7	4.7	4.7	5.8	3.8	4.1	2.6	2.1	.80
14	1.8	17	4.7	3.8	5.5	4.7	5.5	3.8	3.7	2.4	2.1	9.9
15	1.8	3.9	8.8	3.8	7.7	4.7	5.3	4.0	3.6	2.7	2.1	3.0
16	1.8	2.6	6.5	3.8	5.5	4.8	5.1	3.8	3.8	2.6	2.0	2.1
17	1.8	2.2	5.0	4.1	4.9	5.9	4.9	3.8	3.9	2.6	2.0	1.8
18	1.6	2.0	4.7	4.3	4.4	4.8	5.3	3.8	3.9	2.6	2.0	1.7
19	2.8	4.1	4.7	4.9	4.4	4.6	5.1	3.6	4.0	2.4	2.2	1.1
20	2.2	8.5	4.9	4.7	4.7	4.4	4.9	4.4	3.8	2.4	2.0	1.7
21	2.2	4.1	5.5	4.1	4.7	4.4	4.7	4.0	3.7	2.4	2.0	1.6
22	2.0	3.0	11	6.3	4.9	4.3	4.7	3.6	7.5	2.6	2.8	1.5
23	2.0	2.4	6.7	5.5	4.7	4.2	5.1	3.8	4.5	2.4	2.0	1.5
24	2.2	2.2	5.7	4.8	4.7	4.0	4.9	6.5	4.1	2.2	1.8	1.5
25	2.0	2.2	5.4	4.4	4.4	4.2	7.0	7.5	4.3	2.2	1.8	1.6
26	2.0	6.4	5.2	4.4	4.4	7.4	9.8	4.7	4.1	2.2	1.8	1.6
27	2.0	3.6	5.1	6.5	4.4	4.9	9.4	5.1	3.8	2.2	1.6	1.5
28	3.4	3.4	4.7	7.0	4.4	4.4	6.7	18	3.8	2.6	1.6	1.6
29	2.6	3.0	4.4	9.0	-----	4.2	5.8	6.7	5.9	1.9	1.6	2.0
30	2.4	4.0	4.5	5.5	-----	5.1	5.3	6.3	4.0	2.1	1.8	1.9
31	2.0	-----	8.0	5.0	-----	4.8	-----	6.1	-----	2.2	1.5	-----
TOTAL	70.4	107.3	171.7	152.3	157.9	150.5	210.2	158.6	135.7	90.2	66.4	53.90
MEAN	2.27	3.58	5.54	4.91	5.64	4.85	7.01	5.12	4.52	2.91	2.14	1.80
MAX	4.8	17	11	9.0	14	7.4	23	18	7.5	8.8	4.4	9.9
MIN	1.6	1.6	3.0	3.7	4.4	4.0	4.7	3.6	3.6	1.9	1.5	.80
CFSM	1.09	1.71	2.65	2.35	2.70	2.32	3.35	2.45	2.16	1.39	1.02	.86
IN.	1.25	1.91	3.06	2.71	2.81	2.68	3.74	2.82	2.42	1.61	1.18	.96

CAL YR 1972 TOTAL 1,803.30 MEAN 4.93 MAX 109 MIN 1.6 CFSM 2.36 IN 32.10
WTR YR 1973 TOTAL 1,525.10 MEAN 4.18 MAX 23 MIN .80 CFSM 2.00 IN 27.15

PEAK DISCHARGE (BASE, 90 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4- 1	1715	3.59	148	5-28	0715	3.31	94

GUNPOWDER RIVER BASIN

01583500 Western Run at Western Run, Md.

LOCATION.--Lat 39°30'38", long 76°40'37", Baltimore County, on right bank 100 ft (30 m) downstream from bridge on Western Run Road, 0.3 mile (0.5 km) southeast of Western Run, 2.5 miles (4.0 km) northwest of Cockeysville, 3.2 miles (5.1 km) upstream from Beaverdam Run, and 5.0 miles (8.0 km) upstream from mouth.

DRAINAGE AREA.--59.8 sq mi (154.9 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft (80.095 m), Baltimore County bench mark.

AVERAGE DISCHARGE.--29 years, 66.2 cfs (1.875 cu m/s), 15.03 in/yr (382 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs (50.7 cu m/s) Dec. 8, gage height, 6.18 ft (1.884 m); minimum, 32 cfs (0.91 cu m/s) Sept. 12, 13, 14.

Period of record: Maximum discharge, 38,000 cfs (1,080 cu m/s) June 22, 1972, gage height, 26.0 ft (7.92 m), from floodmarks, from rating curve extended above 3,200 cfs (90.6 cu m/s) on the basis of slope-area measurements at gage heights 8.55 ft (2.606 m), 9.88 ft (3.011 m), and 26.0 ft (7.92 m), and contracted-opening measurement at gage height 26.0 ft (7.92 m); minimum, 2.4 cfs (0.068 cu m/s) Sept. 12, 1966.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	56	125	167	138	116	470	154	139	90	60	38
2	53	65	110	142	383	117	380	146	128	88	80	38
3	50	55	100	133	249	126	217	155	123	124	183	39
4	50	50	100	220	188	143	286	147	156	124	71	44
5	50	48	95	157	168	126	220	136	193	92	63	39
6	55	46	250	141	161	134	180	130	130	83	59	38
7	110	46	150	125	192	130	168	127	146	79	56	37
8	61	260	600	115	205	190	288	129	120	76	55	35
9	51	90	340	110	184	144	201	141	113	74	53	35
10	48	65	280	110	152	130	259	126	107	73	54	35
11	48	60	200	105	140	128	189	121	103	87	60	34
12	50	55	170	105	133	126	175	117	101	76	55	33
13	48	55	150	105	131	118	165	114	106	71	58	33
14	47	590	140	110	140	116	155	113	97	69	54	181
15	45	170	260	110	246	116	149	118	92	74	56	91
16	45	120	210	110	162	117	144	116	95	74	53	54
17	45	100	135	110	135	163	144	116	99	71	51	47
18	43	90	124	110	133	123	148	120	98	70	51	47
19	75	110	124	120	127	113	140	113	98	67	52	43
20	59	320	135	120	130	110	134	140	96	65	53	42
21	51	130	137	110	131	108	128	122	93	67	51	41
22	50	110	330	200	132	106	128	112	138	68	52	41
23	50	100	214	160	126	103	135	115	106	66	47	41
24	50	90	175	126	122	102	141	151	96	63	45	39
25	48	90	160	116	120	104	171	249	151	61	46	39
26	47	240	153	113	121	201	312	145	126	62	47	40
27	47	120	150	175	120	127	289	156	97	60	44	39
28	108	110	136	168	117	113	227	479	93	63	42	38
29	68	100	127	337	-----	110	180	210	160	57	41	69
30	55	110	127	169	-----	132	163	172	101	56	40	91
31	50	-----	227	145	-----	121	-----	180	-----	55	39	-----
TOTAL	1,718	3,651	5,734	4,344	4,486	3,913	6,086	4,670	3,501	2,305	1,771	1,461
MEAN	55.4	122	185	140	160	126	203	151	117	74.4	57.1	48.7
MAX	110	590	600	337	383	201	470	479	193	124	183	181
MIN	43	46	95	105	117	102	128	112	92	55	39	33
CFSM	.93	2.04	3.09	2.34	2.68	2.11	3.39	2.53	1.96	1.24	.95	.81
IN.	1.07	2.27	3.57	2.70	2.79	2.43	3.79	2.91	2.18	1.43	1.10	.91

CAL YR 1972 TOTAL 51,187 MEAN 140 MAX 7,000 MIN 43 CFSM 2.34 IN 31.84
WTR YR 1973 TOTAL 43,640 MEAN 120 MAX 600 MIN 33 CFSM 2.01 IN 27.15

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1400	6.03	1,720	4- 1	2100	5.56	1,490
12- 8	*2300	6.18	1,790	5-28	1100	5.16	1,310

*About.

GUNPOWDER RIVER BASIN

49

01585100 Whitmarsh 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 (1.6 km) southwest of White Marsh, and 3 miles (4.8 km) upstream from mouth.

DRAINAGE AREA.--7.61 sq mi (19.71 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft (11.875 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 10.5 cfs (0.297 cu m/s), 18.74 in/yr (476 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,670 cfs (47.3 cu m/s) July 3, gage height, 8.63 ft (2.630 m); minimum, 0.90 cfs (0.025 cu m/s) Sept. 11, 12, gage height, 1.28 ft (0.390 m).

Period of record: Maximum discharge, 8,000 cfs (227 cu m/s) Aug. 1, 1971, gage height, 14.05 ft (4.282 m), from rating curve extended above 1,300 cfs (36.8 cu m/s) on basis of computation of flow-through-culvert at gage height 10.04 ft (3.060 m) and computation of flow-through-culvert and over road at gage height 14.05 ft (4.282 m); no flow for part of Mar. 20, 1965, caused by construction work above station; minimum daily, 0.10 cfs (0.003 cu m/s) Sept. 11, 1966.

REVISIONS.--The figures of maximum discharge for some water years have been revised as shown in the following table. They supersede figures published in the Water Resources Data reports indicated.

Report	Water Year	Date	Discharge (cfs)	Gage height (feet)
WRD Md. and Del.	1963, 1967	Sept. 12, 1960	1,260	6.60
WRD Md. and Del.	1967	Aug. 25, 1967	1,140	6.00
WRD Md. and Del.	1968	Sept. 10, 1968	1,060	5.62
WRD Md. and Del.	1970	Dec. 10, 1969	752	4.34

REMARKS.--Records good. Low flow affected by operations of sand and gravel plant in vicinity of gage.

REVISIONS.--The figures of peak discharge for water years 1967 and 1968 have been revised as shown below.

They supersede figures published in WRD Md. and Del., 1967 and 1968.

REVISED PEAK DISCHARGE.--1967: Mar. 7 (0730) 978 cfs (5.21 ft); July 3 (0100) 998 cfs (5.29 ft); Aug. 4 (0100) 740 cfs (4.30 ft); Aug. 25 (0415) 1,140 cfs (6.00 ft); Aug. 27 (2300) 1,060 cfs (5.60 ft). 1968: Jan. 14 (1200) 872 cfs (4.79 ft); May 28 (1700) 767 cfs (4.39 ft); Sept. 10 (2200) 1,060 cfs (5.62 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	7.6	26	13	9.6	6.0	138	8.7	7.3	4.6	7.0	1.3
2	3.0	7.1	12	9.2	162	5.6	71	7.9	6.3	4.3	11	1.4
3	2.6	4.3	9.2	8.0	30	11	21	19	14	211	10	10
4	2.5	3.7	8.0	40	14	14	130	12	49	47	3.2	5.9
5	2.9	3.3	7.0	12	11	8.0	25	8.0	24	12	2.6	2.0
6	3.9	3.1	31	9.0	12	9.2	13	6.8	9.5	7.6	2.5	1.8
7	15	3.2	13	7.5	18	9.2	12	6.2	7.4	5.7	2.4	1.6
8	3.5	156	206	7.0	41	36	81	6.1	6.2	4.9	2.3	1.4
9	2.6	12	70	6.0	19	15	19	18	5.7	4.6	3.0	1.4
10	2.2	6.9	33	5.9	11	11	28	7.5	4.7	4.3	2.6	1.4
11	2.3	5.9	15	5.7	9.5	10	12	6.0	4.4	16	2.1	1.3
12	2.9	4.8	12	4.9	9.5	10	11	5.2	4.1	5.8	3.4	1.2
13	2.7	4.5	12	5.1	9.5	8.2	9.1	4.9	8.2	4.0	3.0	1.2
14	2.5	207	9.2	5.9	17	7.3	8.3	4.9	3.9	3.4	4.4	46
15	2.3	21	70	6.0	42	7.5	7.8	5.7	3.6	6.3	3.3	6.9
16	2.3	9.8	33	5.7	13	7.6	7.6	5.5	16	4.0	2.1	2.9
17	2.4	7.6	26	5.5	12	27	7.5	5.5	7.2	3.5	2.0	2.2
18	2.1	6.3	12	5.5	8.6	9.4	8.7	6.2	5.0	3.6	2.1	3.3
19	13	44	9.2	11	7.5	7.0	7.4	4.7	4.7	3.1	2.1	2.0
20	4.6	128	12	8.0	7.5	6.4	6.7	14	4.5	2.9	4.8	1.9
21	3.2	14	20	5.5	7.5	6.1	6.5	7.5	4.8	3.3	2.5	1.8
22	3.1	9.3	116	22	11	5.9	6.5	5.0	79	5.4	3.0	2.0
23	3.2	7.2	37	12	11	5.5	9.5	7.9	11	3.5	1.8	2.1
24	3.6	6.4	25	7.5	6.5	5.2	8.9	36	7.0	2.7	1.7	1.9
25	2.8	7.3	17	7.0	7.5	6.2	27	48	5.4	2.6	1.7	1.8
26	2.8	165	14	6.0	6.8	94	76	12	4.9	3.1	1.8	1.9
27	2.8	16	14	47	6.6	19	75	26	5.2	2.6	1.7	1.9
28	54	10	12	53	6.0	9.9	25	130	4.7	2.3	1.5	2.0
29	8.9	8.0	9.2	107	-----	7.8	12	26	25	2.3	1.3	8.5
30	4.7	64	9.0	20	-----	12	9.9	13	6.6	2.4	1.4	6.0
31	3.9	-----	22	11	-----	17	-----	11	-----	2.5	1.4	-----
TOTAL	172.0	953.3	920.8	478.9	526.6	414.0	880.4	485.2	349.3	391.3	95.7	127.0
MEAN	5.55	31.8	29.7	15.4	18.8	13.4	29.3	15.7	11.6	12.6	3.09	4.23
MAX	54	207	206	107	162	94	138	130	79	211	11	46
MIN	2.1	3.1	7.0	4.9	6.0	5.2	6.5	4.7	3.6	2.3	1.3	1.2
CFSM	.73	4.18	3.90	2.02	2.47	1.76	3.85	2.06	1.52	1.66	.41	.56
IN.	.84	4.66	4.50	2.34	2.57	2.02	4.30	2.37	1.71	1.91	.47	.62

CAL YR 1972 TOTAL 6,464.5 MEAN 17.7 MAX 820 MIN 1.4 CFSM 2.33 IN 31.60
WTR YR 1973 TOTAL 5,794.5 MEAN 15.9 MAX 211 MIN 1.2 CFSM 2.09 IN 28.33

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0700	5.31	1,000	4- 1	1900	4.06	668
11-14	1100	5.22	980	4- 4	1415	5.29	998
11-20	0115	4.55	812	5-28	0745	4.53	808
11-26	0545	5.09	948	6-22	1315	4.37	761
12- 8	1930	5.92	1,120	7- 3	2015	8.63	1,670
2- 2	1200	3.93	626				

01585200 West Branch Herring Run at Idlewylde, Md.

LOCATION.--Lat 39°22'25", long 76°35'05", Baltimore County, on left bank 40 ft (12 m) downstream from bridge on Regeater Avenue, at Idlewylde, 0.1 mile (0.2 km) north of Baltimore city limits, 1 mile (1.6 km) upstream from mouth, and 1.3 miles (2.1 km) east of State Highway 45.

DRAINAGE AREA.--2.13 sq mi (5.52 sq km).

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 (12 m) upstream at datum 3.24 ft (0.988 m) higher. Altitude of gage is 285 ft (87 m), from topographic map.

AVERAGE DISCHARGE.--14 years (1957-64, 1966 to current year), 2.53 cfs (0.0716 cu m/s), 16.13 in/yr (410 mm/yr).

EXTREMES.--Current year: Maximum discharge, 348 cfs (9.86 cu m/s) June 16, gage height, 3.67 ft (1.119 m); minimum, 0.28 cfs (0.008 cu m/s) Oct. 18, Sept. 10; minimum daily, 0.51 cfs (0.014 cu m/s) Sept. 10, 11, 25. Period of record: Maximum discharge, 1,740 cfs (49.3 cu m/s) Sept. 11, 1971, gage height, 6.80 ft (2.073 m), from rating curve extended above 90 cfs (2.55 cu m/s) on basis of slope-area measurement at gage height 6.37 ft (1.942 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	3.0	3.1	2.5	2.4	1.9	28	2.3	2.2	1.9	7.5	.64
2	.71	1.7	2.1	2.2	36	1.8	9.4	2.2	2.1	1.5	3.6	1.8
3	.70	.79	1.9	3.2	4.6	5.4	3.5	5.6	2.2	7.8	5.1	8.0
4	.66	.76	1.7	9.4	3.2	2.9	21	2.3	13	1.8	.98	1.1
5	.75	.70	1.6	2.4	3.0	2.1	4.2	3.4	2.6	1.5	.93	.86
6	1.6	.67	8.9	2.2	4.8	2.6	3.3	2.6	3.1	1.4	.99	.98
7	6.6	.69	2.0	2.0	4.1	2.7	4.2	2.0	2.1	1.3	.85	.59
8	.75	33	35	1.8	10	9.8	16	4.1	1.8	1.3	1.1	.59
9	.62	2.8	6.4	1.8	3.1	2.5	3.6	9.6	1.8	1.2	.83	.64
10	.60	2.3	6.4	1.8	2.7	2.4	9.3	2.1	1.6	1.2	.83	.51
11	1.3	2.2	2.6	1.7	2.4	2.6	3.0	4.3	1.8	4.2	.80	.51
12	2.1	2.0	2.7	1.6	2.2	2.0	3.0	7.2	1.6	1.4	3.0	.52
13	.62	2.0	2.7	1.6	2.2	1.9	2.7	4.2	1.9	1.3	1.4	.61
14	.59	40	2.1	1.6	10	1.8	2.6	1.8	1.4	2.0	2.7	22
15	.53	3.8	19	1.6	5.3	2.2	2.5	3.9	1.5	5.2	.87	1.1
16	.55	3.1	3.4	1.6	2.6	5.9	2.5	1.8	11	1.2	.78	.77
17	.58	2.5	2.5	1.6	2.2	4.5	2.5	3.3	1.8	1.2	.79	.69
18	.58	2.1	2.2	1.6	2.2	1.9	3.3	1.8	1.6	1.1	.80	1.6
19	7.9	21	2.2	5.1	2.2	1.7	2.4	1.7	1.5	1.0	.80	.59
20	.73	9.7	3.2	1.8	2.2	1.7	2.3	8.7	1.5	1.6	.96	.60
21	.67	3.2	9.8	1.6	2.9	1.7	2.2	2.0	2.7	1.4	1.0	.59
22	.65	1.8	20	11	2.9	1.6	2.1	1.6	16	2.4	.87	.60
23	.84	1.5	7.0	2.3	2.1	1.5	3.0	3.6	2.1	.95	.65	.78
24	.72	1.4	3.2	1.8	2.0	1.6	2.1	16	1.9	.94	.59	.54
25	.61	5.7	3.1	1.7	2.0	7.4	14	6.2	1.6	.94	.70	.51
26	.62	27	3.6	1.8	2.0	15	13	2.2	1.5	1.2	.72	.64
27	.60	2.5	2.5	14	1.9	2.5	15	8.3	1.9	.94	.62	.53
28	22	2.0	2.3	14	1.9	2.0	3.8	22	1.7	.94	.70	.57
29	1.2	1.7	2.1	17	-----	2.0	2.6	5.1	14	.95	.67	5.7
30	.84	16	3.4	2.9	-----	4.8	2.5	5.3	3.8	.86	.61	.95
31	.74	-----	7.1	2.4	-----	6.0	-----	2.6	-----	.88	.60	-----
TOTAL	58.73	197.61	175.8	119.6	125.1	106.4	189.6	149.8	105.3	53.50	43.34	56.11
MEAN	1.89	6.59	5.67	3.86	4.47	3.43	6.32	4.83	3.51	1.73	1.40	1.87
MAX	22	40	35	17	36	15	28	22	16	7.8	7.5	22
MIN	.53	.67	1.6	1.6	1.9	1.5	2.1	1.6	1.4	.86	.59	.51
CFSM	.89	3.09	2.66	1.81	2.10	1.61	2.97	2.27	1.65	.81	.66	.88
IN.	1.03	3.45	3.07	2.09	2.18	1.86	3.31	2.62	1.84	.93	.76	.98

CAL YR 1972 TOTAL 1,593.68 MEAN 4.35 MAX 137 MIN .53 CFSM 2.04 IN 27.83
WTR YR 1973 TOTAL 1,380.89 MEAN 3.78 MAX 40 MIN .51 CFSM 1.77 IN 24.12

PEAK DISCHARGE (BASE, 290 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6-16	1815	3.67	348	9-3	2030	3.54	315
6-22	1100	3.47	298				

01585300 Stemmers Run at Rossville, Md.

NOTE.--Station discontinued September 30, 1972, owing to relocation of stream channel in vicinity of gage. Station reestablished October 1, 1973.

01585400 Brien Run at Stemmers Run, Md.

LOCATION.--Lat 39°20'01", long 76°28'23", Baltimore County, on right bank 0.2 mile (0.3 km) upstream from mouth and 0.3 mile (0.5 km) north of Stemmers Run.

DRAINAGE AREA.--1.97 sq mi (5.10 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (3.0 m), from topographic map.

AVERAGE DISCHARGE.--15 years, 2.44 cfs (0.0691 cu m/s), 16.82 in/yr (427 mm/yr).

EXTREMES.--Current year: Maximum discharge, 998 cfs (28.3 cu m/s) July 3, gage height, 6.72 ft (2.048 m); minimum, 0.50 cfs (0.014 cu m/s) Aug. 8, 9.

Period of record: Maximum discharge, 3,500 cfs (99.1 cu m/s) Aug. 1, 1971, gage height, 10.75 ft (3.277 m), from high-water mark in well, from rating curve extended above 180 cfs (5.10 cu m/s) on basis of computation of peak flow through culvert and over road at site 0.8 mile (1.3 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	1.1	5.7	2.3	1.4	.85	58	1.2	.86	.88	3.3	.68
2	.67	.85	1.6	1.4	39	.85	22	1.2	.83	.76	2.0	.73
3	.58	.67	1.2	1.6	5.6	2.1	3.6	10	2.6	133	1.5	7.8
4	.58	.58	1.2	12	1.9	2.5	33	3.2	13	15	.68	1.5
5	.58	.58	1.0	2.5	1.6	1.4	5.5	1.7	5.3	2.2	.63	.76
6	.58	.58	7.5	1.6	2.3	1.8	2.1	1.2	1.3	1.7	.58	.71
7	3.0	.58	2.2	1.1	3.3	1.6	1.5	1.1	.97	.94	.58	.67
8	.58	30	49	1.0	11	10	22	1.1	.86	.84	.57	.68
9	.58	1.5	15	.95	3.5	2.2	4.3	3.8	.80	.81	.57	.67
10	.58	.86	7.3	.85	1.6	1.3	7.2	1.2	.73	.79	.58	.67
11	.58	.82	2.8	.76	1.1	1.4	2.2	1.1	.73	2.8	.58	.69
12	.58	.76	1.9	.76	1.0	1.3	1.7	1.1	.82	.97	1.5	.67
13	.58	.76	2.1	.76	1.0	1.1	1.6	1.1	.87	.83	.68	.67
14	.58	45	1.6	.76	5.2	.90	1.5	1.1	.88	.81	2.9	16
15	.58	3.6	23	.85	9.9	.91	1.4	1.5	.88	1.2	.80	1.7
16	.58	1.3	6.0	.85	2.5	2.8	1.4	1.0	8.4	.93	.75	.85
17	.58	.98	1.6	.95	1.3	7.0	1.3	1.2	1.8	.77	.67	1.0
18	.58	.85	1.4	.95	1.2	1.5	1.3	1.0	1.3	.82	.65	1.2
19	3.0	17	1.4	2.3	1.1	1.1	1.1	.92	.90	.76	.63	.76
20	.76	27	2.5	1.4	1.1	.85	1.0	3.3	.85	.86	2.1	.76
21	.67	2.0	7.3	1.1	1.4	.85	.95	.95	1.9	.81	.88	.76
22	.67	1.1	37	5.2	1.9	.82	.95	.85	18	1.2	.90	.68
23	.67	.93	9.3	2.5	1.1	.76	2.7	1.4	2.7	.81	.84	.72
24	.67	.86	3.3	1.4	.95	.76	1.5	10	1.2	.68	.74	.67
25	.67	1.6	2.3	1.1	.85	2.7	8.5	11	.94	.69	.80	.72
26	.67	32	2.5	1.1	.95	29	30	2.4	1.1	.80	.76	.69
27	.67	2.5	2.3	15	.85	2.2	25	5.3	1.9	.72	1.1	.67
28	14	1.2	1.6	15	.85	1.2	6.0	27	1.1	.68	1.8	.76
29	.95	.92	1.3	30	-----	.97	2.2	3.9	9.9	.70	1.4	3.0
30	.95	20	1.6	3.0	-----	2.7	1.5	1.8	1.4	.67	.67	1.1
31	.67	-----	4.4	1.9	-----	5.6	-----	.98	-----	.67	.67	-----
TOTAL	37.97	198.48	208.9	112.94	105.45	91.02	253.00	104.60	84.82	176.10	32.81	48.94
MEAN	1.22	6.62	6.74	3.64	3.77	2.94	8.43	3.37	2.83	5.68	1.06	1.63
MAX	14	45	49	30	39	29	58	27	18	133	3.3	16
MIN	.58	.58	1.0	.76	.85	.76	.95	.85	.73	.67	.57	.67
CFSM	.62	3.36	3.42	1.85	1.91	1.49	4.28	1.71	1.44	2.88	.54	.83
IN.	.72	3.75	3.94	2.13	1.99	1.72	4.78	1.98	1.60	3.33	.62	.92

CAL YR 1972 TOTAL 1,431.93 MEAN 3.91 MAX 234 MIN .50 CFSM 1.98 IN 27.04
WTR YR 1973 TOTAL 1,455.03 MEAN 3.99 MAX 133 MIN .57 CFSM 2.03 IN 27.48

PEAK DISCHARGE (BASE, 150 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0615	2.73	158	4-1	2100	3.26	224
11-14	1015	2.89	177	4-4	1345	2.89	177
11-20	0015	2.76	161	7-3	2030	6.72	998
12- 8	2000	3.41	243				

01585500 Cranberry Branch near Westminster, Md.

LOCATION.--Lat 39°35'35", long 76°58'05", Carroll County, on left bank 80 ft (24 m) upstream from small wooden bridge, 0.7 mile (1.1 km) upstream from mouth, and 1.8 miles (2.9 km) northeast of Westminster.

DRAINAGE AREA.--3.29 sq mi (8.52 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 670 ft (204 m), from topographic map.

AVERAGE DISCHARGE.--24 years, 3.50 cfs (0.0991 cu m/s), 14.45 in/yr (367 mm/yr), unadjusted for storage.

EXTREMES.--Current year: Maximum discharge, 109 cfs (3.09 cu m/s) Dec. 8, gage height, 3.30 ft (1.006 m); minimum daily, 0.50 cfs (0.014 cu m/s) Sept. 13, 27, 28.

Period of record: Maximum discharge, 1,510 cfs (42.8 cu m/s) June 22, 1972, gage height, 5.85 ft (1.783 m), from rating curve extended above 200 cfs (5.66 cu m/s) on the basis of computation of flow through culvert at gage height 5.54 ft (1.689 m); minimum daily, 0.27 cfs (0.008 cu m/s) Dec. 3, 1969.

REMARKS.--Records good. Occasional small diversion to and releases from Cranberry Reservoir located offstream 1 mile (1.6 km) above station since August 1957, capacity, 113,700,000 gal (430,400 cu m).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.2	6.6	3.0	2.0	4.2	10	5.6	4.9	3.7	3.0	.55
2	2.0	3.4	5.3	1.8	27	4.4	8.7	5.2	4.4	3.2	3.2	.55
3	.69	2.5	4.7	1.9	9.1	5.7	5.2	5.6	4.2	8.0	2.8	11
4	.69	1.4	4.1	10	5.3	5.8	13	4.9	5.2	4.0	2.2	3.4
5	.75	1.3	3.9	3.0	5.3	4.7	7.0	4.4	4.9	3.3	1.9	.78
6	.80	1.3	18	2.2	7.7	4.8	5.3	4.0	4.2	3.0	1.8	.69
7	2.4	1.3	6.5	1.4	9.4	4.9	5.1	3.9	4.4	2.8	1.8	.60
8	1.4	15	29	1.2	13	5.9	16	4.2	3.5	2.7	1.8	.55
9	1.3	2.6	16	1.2	7.7	4.4	6.6	4.9	3.4	2.4	1.5	.55
10	1.3	2.1	16	1.2	6.0	4.0	12	3.9	3.2	2.4	1.5	.55
11	1.3	2.0	8.7	1.2	5.1	4.3	5.9	3.2	3.0	3.5	1.6	.55
12	1.2	1.7	6.1	1.0	4.8	4.0	5.4	1.2	3.9	2.2	1.8	.55
13	.67	2.1	3.4	1.0	4.6	3.7	4.9	1.2	5.2	2.0	1.9	.50
14	.77	26	2.8	1.2	7.4	3.2	4.4	1.8	3.4	5.4	1.5	18
15	.75	3.0	16	1.2	13	2.7	4.0	2.0	3.0	16	.78	2.8
16	.83	3.7	5.9	1.2	6.7	5.3	3.9	1.8	3.2	16	.69	1.3
17	1.3	3.3	3.2	1.3	4.6	8.1	4.0	3.9	3.2	19	.69	.96
18	1.7	2.9	2.8	1.3	4.2	3.6	4.4	4.2	3.4	18	.69	1.9
19	3.4	12	2.8	3.6	4.3	3.1	3.9	4.0	3.2	11	.87	.96
20	2.7	14	2.2	2.0	4.7	2.8	3.7	8.0	3.0	2.5	.69	.69
21	2.6	4.5	5.0	1.2	4.9	2.7	3.5	5.4	5.4	2.8	.69	.60
22	3.0	3.9	21	7.7	4.9	2.6	3.4	4.0	7.3	3.0	1.1	.60
23	3.9	3.5	7.2	3.2	4.6	2.4	6.4	4.4	3.7	2.8	.78	.60
24	3.3	3.3	3.8	1.8	4.5	2.4	4.4	10	3.4	2.5	.69	.55
25	2.9	3.3	3.0	1.3	4.4	3.3	10	9.0	3.0	2.5	.69	.55
26	2.8	17	3.3	1.2	4.5	8.9	16	5.4	2.8	2.5	.69	.55
27	2.6	4.7	2.7	6.7	4.3	3.3	20	7.6	2.7	2.4	.60	.50
28	4.6	4.4	1.9	8.1	4.2	2.7	9.7	23	2.8	2.1	.60	.50
29	3.1	3.9	1.5	18	-----	2.6	6.9	8.3	14	2.1	.60	6.1
30	2.7	5.2	1.5	2.9	-----	5.3	6.1	6.6	6.9	2.1	.69	2.4
31	2.6	-----	7.1	2.2	-----	4.0	-----	5.9	-----	3.8	.55	-----
TOTAL	63.05	158.5	222.0	96.2	188.2	129.8	219.8	167.5	128.8	159.7	40.39	60.38
MEAN	2.03	5.28	7.16	3.10	6.72	4.19	7.33	5.40	4.29	5.15	1.30	2.01
MAX	4.6	26	29	18	27	8.9	20	23	14	19	3.2	18
MIN	.67	1.3	1.5	1.0	2.0	2.4	3.4	1.2	2.7	2.0	.55	.50
CFSM	.62	1.60	2.18	.94	2.04	1.27	2.23	1.64	1.30	1.57	.40	.61
IN.	.71	1.79	2.51	1.09	2.13	1.47	2.49	1.89	1.46	1.81	.46	.68

CAL YR 1972 TOTAL 2,919.35 MEAN 7.98 MAX 440 MIN .67 CFSM 2.43 IN 33.01
WTR YR 1973 TOTAL 1,634.32 MEAN 4.48 MAX 29 MIN .50 CFSM 1.36 IN 18.48

PEAK DISCHARGE (BASE, 80 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	0945	3.11	98	5-28	0715	2.90	85
12- 6	1630	3.01	92	6-29	2245	3.15	100
12- 8	1915	3.30	109	9- 3	2145	3.00	91

01586000 North Branch Patapsco River at Cedarhurst, Md.

LOCATION.--Lat 39°30'00", long 76°53'00", Carroll County, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mile (1.3 km) downstream from Roaring Run, 8 miles (12.9 km) southeast of Westminster, and 16.5 miles (26.5 km) upstream from mouth.

DRAINAGE AREA.--56.6 sq mi (146.6 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 425 ft (130 m), from topographic map.

AVERAGE DISCHARGE.--28 years, 62.0 cfs (1.756 cu m/s), 14.88 in/yr (378 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,630 cfs (46.2 cu m/s) Dec. 8, gage height, 6.39 ft (1.948 m); minimum, 10 cfs (0.28 cu m/s) Sept. 2, gage height, 1.50 ft (0.457 m).

Period of record: Maximum discharge, 27,800 cfs (787 cu m/s) June 22, 1972, gage height, 20.75 ft (6.325 m), from high-water mark in well, from rating curve extended above 2,800 cfs (79.5 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 cfs (0.054 cu m/s) Sept. 10, 1966, result of filling pond above station; minimum daily, 3.1 cfs (0.088 cu m/s) Sept. 10, 12, 1966.

REMARKS.--Records good. 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 (430,400 cu m). Records do not include a mean discharge of 1.53 cfs (0.043 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	41	109	138	119	93	274	139	129	76	50	26
2	37	51	81	117	375	92	258	130	110	71	49	28
3	30	39	69	109	245	100	169	135	110	81	265	34
4	29	35	59	203	174	116	249	128	133	93	61	100
5	30	30	53	134	155	100	180	119	158	71	51	37
6	35	27	210	121	145	105	150	110	120	60	45	32
7	82	26	129	107	189	102	140	105	130	58	44	31
8	39	254	435	100	202	124	265	105	100	56	42	29
9	30	70	380	94	188	102	169	115	95	53	39	28
10	30	40	280	91	148	95	250	104	90	52	42	27
11	28	35	169	89	130	97	167	99	85	65	41	25
12	29	32	141	83	120	94	156	90	85	57	46	25
13	29	29	132	80	110	86	145	88	85	49	46	23
14	26	539	115	82	120	84	132	85	80	48	41	265
15	24	134	243	89	229	84	129	90	78	61	44	98
16	24	77	179	87	143	86	123	82	80	56	40	51
17	26	60	120	87	110	183	121	83	83	54	37	40
18	24	50	108	87	105	109	129	92	82	53	34	44
19	68	86	109	108	106	95	119	84	81	48	50	39
20	47	329	120	109	108	90	114	120	79	47	45	35
21	35	88	129	86	109	91	108	101	83	56	39	33
22	34	63	382	153	110	87	106	86	122	53	41	33
23	34	52	217	135	105	82	120	91	85	49	35	35
24	34	46	170	106	101	81	123	148	79	44	33	31
25	30	42	150	93	96	84	160	207	72	42	33	30
26	29	218	140	90	97	184	317	116	70	43	35	31
27	29	83	130	150	94	108	320	132	65	42	32	30
28	62	71	120	144	94	93	214	510	65	39	31	30
29	47	57	111	355	-----	91	167	201	133	38	29	53
30	34	70	106	150	-----	124	149	155	194	36	28	85
31	30	-----	187	131	-----	106	-----	163	-----	45	27	-----
TOTAL	1,112	2,774	5,083	3,708	4,027	3,168	5,223	4,013	2,961	1,696	1,475	1,408
MEAN	35.9	92.5	164	120	144	102	174	129	98.7	54.7	47.6	46.9
MAX	82	539	435	355	375	184	320	510	194	93	265	265
MIN	24	26	53	80	94	81	106	82	65	36	27	23
CFSM	.63	1.63	2.90	2.12	2.54	1.80	3.07	2.28	1.74	.97	.84	.83
IN.	.73	1.82	3.34	2.44	2.65	2.08	3.43	2.64	1.95	1.11	.97	.93

CAL YR 1972 TOTAL 45,372 MEAN 124 MAX 6,000 MIN 24 CFSM 2.19 IN 29.82
WTR YR 1973 TOTAL 36,648 MEAN 100 MAX 539 MIN 23 CFSM 1.77 IN 24.09

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1200	6.37	1,620	5-28	1000	5.79	1,390
11-20	0145	4.92	1,040	8- 3	0345	5.30	1,190
12- 8	2130	6.39	1,630				

PATAPSCO RIVER BASIN

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 (2.1 km) upstream from Piney Run, 2.5 miles (4.0 km) upstream from confluence with North Branch, and 3.2 miles (5.1 km) southeast of Sykesville.

DRAINAGE AREA.--64.4 sq mi (166.8 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 289.15 ft (88.133 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 70.2 cfs (1.988 cu m/s), 14.80 in/yr (376 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,100 cfs (59.5 cu m/s) Dec. 8, gage height, 6.55 ft (1.996 m); minimum, 27 cfs (0.76 cu m/s) Sept. 13, 14.

Period of record: Maximum discharge, 26,900 cfs (762 cu m/s) June 22, 1972, gage height, 28.14 ft (8.577 m), from floodmarks, from rating curve extended above 1,900 cfs (53.8 cu m/s) on basis of slope-area measurements at gage height 7.88 ft (2.402 m) and 28.14 ft (8.577 m), and contracted-opening measurements at gage heights 10.12 ft (3.085 m) and 19.40 ft (5.913 m); minimum, 0.40 cfs (0.011 cu m/s) Sept. 9-12, 1966.

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	43	139	145	127	106	443	157	127	74	45	32
2	46	50	106	124	387	106	345	148	115	74	59	32
3	46	43	82	115	245	118	192	160	109	75	73	36
4	45	39	74	196	176	130	274	157	133	80	50	57
5	46	37	70	142	157	115	215	142	176	71	46	36
6	51	36	184	127	148	130	168	133	118	65	43	34
7	90	36	148	112	215	124	154	130	142	63	41	33
8	51	240	556	110	220	172	286	127	106	61	41	31
9	44	63	492	100	192	130	176	145	97	61	40	31
10	42	48	220	95	154	118	256	130	92	59	53	31
11	42	44	151	95	142	118	180	121	90	63	51	29
12	44	41	130	90	142	118	168	112	87	59	43	28
13	43	40	124	90	139	109	160	109	87	55	51	27
14	40	580	109	95	133	106	148	106	80	53	133	304
15	38	139	245	97	262	106	142	106	77	61	75	100
16	37	74	192	97	164	106	136	106	95	59	50	51
17	39	61	121	97	130	164	133	103	90	59	46	45
18	37	55	115	97	125	118	139	109	85	59	46	43
19	65	85	112	103	125	106	133	106	85	55	73	40
20	56	380	124	115	130	103	127	106	82	51	51	38
21	45	112	130	92	124	100	121	112	80	53	48	37
22	43	85	415	133	124	100	121	103	188	61	46	37
23	43	70	240	136	121	95	124	97	100	57	43	38
24	46	62	176	106	115	92	133	154	85	51	40	36
25	42	60	151	95	109	95	192	256	80	50	40	34
26	41	235	145	92	112	184	352	139	77	51	40	36
27	40	112	142	136	112	118	457	139	75	51	38	34
28	82	85	127	139	109	103	274	598	75	51	37	34
29	58	72	118	345	-----	97	200	215	130	46	34	36
30	43	112	115	151	-----	124	164	148	87	45	33	41
31	40	-----	196	133	-----	115	-----	157	-----	43	33	-----
TOTAL	1,477	3,139	5,449	3,800	4,439	3,626	6,113	4,631	3,050	1,816	1,542	1,421
MEAN	47.6	105	176	123	159	117	204	149	102	58.6	49.7	47.4
MAX	90	580	556	345	387	184	457	598	188	80	133	304
MIN	37	36	70	90	109	92	121	97	75	43	33	27
CFSM	.74	1.63	2.73	1.91	2.47	1.82	3.17	2.31	1.58	.91	.77	.74
IN.	.85	1.81	3.15	2.20	2.56	2.09	3.53	2.68	1.76	1.05	.89	.82

CAL YR 1972 TOTAL 57,852 MEAN 158 MAX 800 MIN 36 CFSM 2.45 IN 33.42
WTR YR 1973 TOTAL 40,503 MEAN 111 MAX 598 MIN 27 CFSM 1.72 IN 23.40

PEAK DISCHARGE (BASE, 950 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1130	5.56	1,680	4-27	1400	4.39	1,170
11-20	0230	3.96	970	5-28	1000	5.42	1,630
12- 8	2245	6.55	2,100	9-14	1630	4.03	1,000
4- 1	1900	6.12	1,910				

01589000 Patapsco River at Hollolfield, Md.

LOCATION.--Lat 39°18'36", long 76°47'34", Baltimore County, on left bank at downstream side of highway bridge, at Hollolfield, 0.3 mile (0.5 km) downstream from Dogwood Run, 3.0 miles (4.8 km) north of Ellicott City, and 28 miles (45 km) upstream from mouth.

DRAINAGE AREA.--285 sq mi (738 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 190 ft (58 m), from topographic map. June 26 to Dec. 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

EXTREMES.--Current year: Maximum discharge, 4,900 cfs (139 cu m/s) Dec. 8, gage height, 7.00 ft (2.134 m); minimum, 47 cfs (1.36 cu m/s) Sept. 13.
Period of record: Maximum discharge, 80,600 cfs (2,280 cu m/s) June 22, 1972, gage height, 31.3 ft (9.54 m), from floodmarks, from rating curve extended above 13,000 cfs (368 cu m/s) on basis of slope-area measurement of peak flow; minimum, 6 cfs (0.17 cu m/s) Sept. 6, 1944; minimum daily, 9.6 cfs (0.27 cu m/s) Aug. 12, 1963.

REMARKS.--Records fair prior to Dec. 8 and good thereafter. Flow regulated by Liberty Reservoir 11 miles (18 km) upstream beginning July 22, 1954, usable capacity, 42,070 mil gal (159.2 cu hm); dead storage, 1,260 mil gal (4.769 cu hm). 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 for 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	90	380	580	440	286	1,450	580	514	272	96	55
2	80	100	280	460	1,470	284	1,850	520	410	233	120	55
3	75	95	240	375	1,390	310	1,050	514	355	212	117	60
4	75	90	220	617	845	395	1,180	532	365	245	94	85
5	80	80	220	544	642	362	1,100	455	696	224	85	65
6	85	80	420	450	546	391	752	410	445	185	80	60
7	180	75	600	370	723	380	610	370	496	150	78	55
8	95	650	1,200	316	738	563	1,140	350	385	132	75	50
9	80	300	2,670	280	853	456	888	430	312	120	75	50
10	70	200	1,480	260	595	380	1,080	380	264	114	75	50
11	65	180	1,030	250	503	354	824	350	233	118	108	48
12	70	170	638	240	407	360	659	316	203	118	81	48
13	70	160	526	240	376	323	617	288	197	108	91	48
14	70	1,500	405	260	383	295	520	280	188	100	140	470
15	70	500	720	260	859	290	475	288	176	122	172	238
16	70	240	968	260	683	286	450	284	209	112	89	90
17	70	190	568	260	487	494	425	264	230	104	91	75
18	70	170	390	260	385	450	445	304	221	107	81	70
19	120	220	345	260	357	379	430	280	230	98	110	65
20	130	700	375	300	348	306	405	308	224	95	89	62
21	80	260	395	240	351	283	370	355	212	98	83	61
22	75	220	1,590	340	378	286	350	296	496	112	84	61
23	75	190	1,100	360	343	279	350	280	390	106	75	62
24	80	160	776	280	329	227	420	375	312	95	70	60
25	75	170	610	240	308	223	508	1,050	264	90	70	58
26	75	600	538	240	311	633	1,530	624	236	91	70	58
27	75	300	532	360	312	469	1,610	526	209	90	65	58
28	170	220	435	360	292	353	1,360	2,050	197	90	65	57
29	180	200	360	1,200	-----	308	912	1,420	380	84	60	60
30	100	260	336	650	-----	369	696	832	340	82	60	74
31	90	-----	580	500	-----	382	-----	712	-----	80	60	-----
TOTAL	2,795	8,370	20,927	11,612	15,654	11,156	24,456	16,023	9,389	3,987	2,709	2,408
MEAN	90.2	279	675	375	559	360	815	517	313	129	87.4	80.3
MAX	180	1,500	2,670	1,200	1,470	633	1,850	2,050	696	272	172	470
MIN	65	75	220	240	292	223	350	264	176	80	60	48
(†)	41,560	43,380	43,580	43,530	43,440	43,490	43,590	43,590	43,490	42,720	41,760	40,940
(‡)	174	208	201	201	200	200	204	213	205	189	192	179

CAL YR 1972 TOTAL 191,249 MEAN 523 MAX 30,000 MIN 65 ‡ 188
WTR YR 1973 TOTAL 129,486 MEAN 355 MAX 2,670 MIN 48 ‡ 197

† Month-end contents, in millions of gallons in Libert Reservoir (contents on Sept. 30, 1972, 42,390 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.

PATAPSCO RIVER BASIN

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 (0.8 km) upstream from mouth, and 2 miles (3 km) south of Baltimore city limits.

DRAINAGE AREA.--2.47 sq mi (6.40 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 45 ft (14 m) from topographic map.

AVERAGE DISCHARGE.--16 years, 3.23 cfs (0.091 cu m/s), 17.76 in/yr (451 mm/yr).

EXTREMES.--Current year: Maximum discharge, 730 cfs (20.7 cu m/s) July 2, gage height, 4.37 ft (1.332 m), from rating curve extended as explained below; minimum daily, 1.0 cfs (0.028 cu m/s) Sept. 8-13.

Period of record: Maximum discharge, 1,340 cfs (37.9 cu m/s) June 22, 1972, gage height, 6.35 ft (1.935 m), from rating curve extended above 250 cfs (7.08 cu m/s) on basis of slope-area measurement of flood of July 20, 1956 (prior to establishment of station) at gage height 5.7 ft (1.74 m), from floodmarks, discharge, 1,090 cfs (30.9 cu m/s); minimum daily, 0.30 cfs (0.008 cu m/s) 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	4.2	4.4	3.1	2.9	2.1	50	2.8	2.4	2.6	9.0	1.3
2	1.4	2.2	2.8	2.6	52	2.1	15	2.8	2.2	34	3.0	2.0
3	1.6	1.6	2.4	3.5	5.7	7.5	5.0	7.0	2.0	24	2.0	24
4	1.6	1.3	2.4	10	3.7	4.0	38	3.4	14	6.0	1.6	2.2
5	1.7	1.2	2.4	3.0	3.3	3.5	5.0	2.6	4.0	3.0	1.4	1.3
6	2.8	1.4	9.7	2.6	4.6	3.5	3.5	2.4	2.2	2.2	1.2	1.2
7	7.2	1.5	2.8	2.3	5.0	4.0	5.0	2.2	3.0	2.2	1.2	1.1
8	1.2	43	50	2.3	11	12	12	2.4	2.0	2.0	1.2	1.0
9	1.3	2.2	9.8	2.3	3.7	3.0	5.0	8.0	2.0	2.0	1.2	1.0
10	1.5	1.9	8.6	2.3	2.9	2.6	10	2.6	1.8	2.0	2.0	1.0
11	1.5	1.7	3.8	2.3	2.6	3.0	4.0	2.4	1.8	6.0	1.6	1.0
12	1.6	1.3	3.4	2.2	2.5	2.8	4.5	2.2	1.6	2.2	4.0	1.0
13	1.5	1.5	3.3	2.0	2.5	2.4	3.6	2.0	1.6	2.2	1.8	1.0
14	1.3	58	2.8	1.9	9.7	2.4	3.2	2.0	1.5	3.0	26	36
15	1.1	3.6	22	2.1	6.4	2.4	3.0	3.0	1.4	5.0	2.4	2.0
16	1.3	2.5	4.5	2.1	3.1	6.0	3.0	2.2	4.0	2.2	1.8	1.6
17	1.5	2.4	2.8	2.1	2.3	4.0	3.0	3.0	1.8	2.0	2.2	1.5
18	1.8	1.9	2.8	2.1	2.2	2.4	3.2	2.4	2.0	2.0	1.8	2.0
19	8.8	31	2.9	5.1	2.1	2.2	2.6	2.0	1.6	1.8	1.6	1.2
20	1.5	13	4.4	2.3	2.2	2.2	2.6	4.0	1.6	6.0	1.7	1.1
21	1.3	3.0	13	1.9	2.6	2.2	2.4	2.2	3.0	2.6	2.0	1.1
22	1.1	2.5	33	7.5	2.7	2.0	2.4	1.8	22	3.0	2.0	1.1
23	1.3	2.1	8.5	2.8	2.4	2.0	5.0	3.0	24	2.0	1.4	1.2
24	1.5	1.9	4.2	2.3	2.5	2.0	2.6	6.0	3.0	1.8	1.4	1.1
25	1.4	4.7	3.7	2.2	2.4	9.0	14	4.0	2.2	1.6	1.4	1.5
26	1.4	31	4.3	2.1	2.2	15	24	3.0	2.0	1.6	1.3	1.1
27	1.4	3.1	3.3	19	2.2	3.0	22	6.0	1.8	2.4	1.4	1.1
28	36	2.6	2.9	18	2.2	2.4	5.0	10	1.8	2.2	1.4	1.2
29	1.7	2.4	2.7	22	-----	2.4	3.5	6.0	15	2.2	1.4	3.0
30	1.6	21	3.6	3.6	-----	5.0	3.0	4.0	6.0	2.0	1.4	1.6
31	1.6	-----	6.2	3.0	-----	7.0	-----	3.0	-----	2.0	1.4	-----
TOTAL	93.7	251.7	233.4	142.6	149.6	126.1	265.1	110.4	135.3	135.8	85.2	98.5
MEAN	3.02	8.39	7.53	4.60	5.34	4.07	8.84	3.56	4.51	4.38	2.75	3.28
MAX	36	58	50	22	52	15	50	10	24	34	26	36
MIN	1.1	1.2	2.4	1.9	2.1	2.0	2.4	1.8	1.4	1.6	1.2	1.0
CFSM	1.22	3.40	3.05	1.86	2.16	1.65	3.58	1.44	1.83	1.77	1.11	1.33
IN.	1.41	3.79	3.52	2.15	2.25	1.90	3.99	1.66	2.04	2.05	1.28	1.48

CAL YR 1972 TOTAL 2,162.9 MEAN 5.91 MAX 200 MIN 1.1 CFSM 2.39 IN 32.57
WTR YR 1973 TOTAL 1,827.4 MEAN 5.01 MAX 58 MIN 1.0 CFSM 2.03 IN 27.52

PEAK DISCHARGE (BASE, 330 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0515	3.09	337	7- 2	1245	4.37	730
4- 1	1730	3.40	440	7- 3	1900	3.82	560
6-22	1115	3.53	470	8-14	1600	4.07	640
6-23	1830	3.32	420	9- 3	2130	3.70	530

NOTE.--Fragmentary or no gage-height record Mar. 3 to Sept. 3, Sept. 15-30.

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 rail-road siding, 0.4 mile (0.6 km) upstream from small right bank tributary, 1.2 miles (1.9 km) north of Owings Mills, and 21 miles (34 km) upstream from mouth.

DRAINAGE AREA.--4.90 sq mi (12.69 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 520 ft (158 m), from topographic map.

AVERAGE DISCHARGE.--15 years, 5.00 cfs (0.142 cu m/s), 13.86 in/yr (352 mm/yr).

EXTREMES.--Current year: Maximum discharge, 432 cfs (12.2 cu m/s) Dec. 8, gage height, 3.15 ft (0.960 m), from rating curve extended above 100 cfs (2.83 cu m/s); minimum daily, 3.1 cfs (0.088 cu m/s) Sept. 13.
Period of record: Maximum discharge, about 5,500 cfs (156 cu m/s) June 22, 1972, gage height, 5.70 ft (1.737 m), from floodmarks, by contracted-opening and flow-over-road computation of peak flow at road crossing 0.5 mile (0.8 km) downstream, adjusted for flow from intervening area; minimum daily, 0.5 cfs (0.014 cu m/s) Sept. 5, 8, 1966.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.5	11	9.5	7.0	6.0	79	8.0	7.6	6.0	6.8	4.3
2	3.6	6.0	7.3	7.3	54	6.0	24	7.3	7.0	5.7	5.3	4.6
3	3.4	5.5	6.6	7.0	12	8.3	10	11	7.6	26	8.3	7.4
4	3.4	5.5	6.3	19	8.0	8.3	32	8.4	19	9.5	4.8	4.9
5	3.4	5.5	6.0	8.4	7.3	6.6	12	7.3	12	6.6	4.6	3.6
6	4.0	5.0	22	7.0	8.8	8.7	8.4	7.0	10	5.7	4.3	3.6
7	17	5.0	8.5	6.0	12	7.3	9.0	6.6	13	5.1	4.0	3.6
8	4.3	43	91	5.5	16	23	30	7.3	7.6	5.1	4.0	3.6
9	4.0	6.6	21	5.5	8.8	8.8	11	9.6	6.6	5.4	3.8	3.8
10	3.8	5.4	23	5.5	6.6	7.3	21	7.0	6.6	5.4	3.9	3.8
11	3.8	5.1	9.5	5.0	5.7	7.0	9.5	6.3	6.0	6.4	4.3	3.6
12	3.8	4.8	8.0	5.0	5.7	6.6	9.1	6.3	6.0	5.1	6.3	3.6
13	3.6	4.8	8.0	5.0	6.0	6.0	8.8	6.3	8.3	4.6	4.3	3.1
14	3.3	86	7.3	5.0	11	6.6	8.0	6.3	5.7	4.3	4.5	4.9
15	3.3	11	32	5.0	16	6.6	7.6	7.3	5.4	5.1	4.3	7.4
16	3.3	7.3	12	5.0	7.3	7.9	7.3	6.6	9.1	4.6	3.8	5.1
17	3.3	6.6	6.6	5.5	5.7	12	7.6	7.9	6.3	4.8	3.8	4.6
18	3.3	6.0	6.0	5.7	5.5	6.6	8.8	7.3	6.0	4.6	4.3	5.4
19	9.9	25	6.6	8.6	5.5	6.0	7.6	6.6	5.7	4.3	6.6	4.6
20	4.6	29	10	6.3	5.5	6.0	7.6	11	5.4	4.3	4.8	4.6
21	4.0	8.0	15	5.1	6.0	5.7	7.3	7.6	5.4	4.3	4.6	4.6
22	4.0	6.6	37	16	6.3	5.4	7.3	6.6	20	5.0	4.6	4.6
23	4.0	6.3	12	8.8	6.0	5.4	11	8.4	7.3	4.3	4.0	4.3
24	3.8	6.0	8.8	6.3	5.7	5.4	8.4	26	6.3	4.0	3.8	4.3
25	3.6	6.4	8.0	5.4	5.4	6.3	21	22	16	4.0	4.0	4.3
26	3.3	34	8.1	5.1	6.0	21	37	9.8	8.4	4.6	4.0	4.3
27	3.3	8.0	7.6	17	6.0	6.6	32	13	6.6	3.8	3.8	4.3
28	17	6.6	6.6	17	6.0	5.7	14	55	7.0	3.8	4.0	4.3
29	6.0	6.3	6.6	31	-----	5.4	9.8	12	16	3.8	4.3	8.3
30	4.8	18	6.8	8.4	-----	10	8.8	13	7.0	3.6	4.3	5.1
31	4.3	-----	24	7.3	-----	8.5	-----	10	-----	3.6	4.3	-----
TOTAL	152.2	385.8	449.2	264.2	261.8	247.0	474.9	334.8	260.9	173.4	142.5	182.6
MEAN	4.91	12.9	14.5	8.52	9.35	7.97	15.8	10.8	8.70	5.59	4.60	6.09
MAX	17	86	91	31	54	23	79	55	20	26	8.3	49
MIN	3.3	4.8	6.0	5.0	5.4	5.4	7.3	6.3	5.4	3.6	3.8	3.1
CFSM	1.00	2.63	2.96	1.74	1.91	1.63	3.22	2.20	1.78	1.14	.94	1.24
IN.	1.16	2.93	3.41	2.01	1.99	1.88	3.61	2.54	1.98	1.32	1.08	1.39

CAL YR 1972 TOTAL 4,215.1 MEAN 11.5 MAX 750 MIN 3.3 CFSM 2.35 IN 32.00
WTR YR 1973 TOTAL 3,329.3 MEAN 9.12 MAX 91 MIN 3.1 CFSM 1.86 IN 25.28

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0600	2.31	156	2- 2	1100	2.28	148
11-14	1130	2.89	342	4- 1	1830	3.03	390
11-19	2400	2.37	171	4- 4	1300	2.26	144
11-26	0430	2.29	151	5-28	0830	2.60	240
12- 6	1600	2.22	135	6-22	1230	2.22	135
12- 8	2030	3.15	432	6-25	1830	2.26	144
12-22	0200	2.17	124	7- 3	1930	2.50	208
12-31	0800	2.15	120	9-14	1600	2.52	214

PATAPSCO RIVER BASIN

01589300 Gwynns Falls at Villa Nova, Md.

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, on right bank 300 ft (91 m) downstream from bridge on Essex Road, 300 ft (91 m) north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 miles (1.8 km) west of Baltimore city limits, and 11.5 miles (18.5 km) upstream from mouth.

DRAINAGE AREA.--32.5 sq mi (84.2 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 361.32 ft (110.130 m) above mean sea level (Baltimore County bench mark). Prior to Aug. 27, 1963 and Oct. 25, 1972 to Sept. 20, 1973, water-stage recorder, and June 26, 1972, to Oct. 24, 1972, nonrecording gage at site 300 ft (91 m) upstream at same datum.

AVERAGE DISCHARGE.--16 years, 34.8 cfs (0.986 cu m/s), 14.54 in/yr (369 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,390 cfs (39.4 cu m/s) April 1, gage height, 8.16 ft (2.487 m); minimum daily, 9.0 cfs (0.25 cu m/s) Sept. 13.
 Period of record: Maximum discharge, 16,200 cfs (459 cu m/s) June 22, 1972, gage height, 21.5 ft (6.55 m), from floodmarks, from rating curve extended above 1,900 cfs (53.8 cu m/s) on basis of contracted-opening measurement at peak flow; minimum, 1.7 cfs (0.048 cu m/s) Sept. 7, 8, 1966.
 Flood of July 21, 1956, reached a stage of 12.6 ft (3.84 m), discharge, 5,270 cfs (149 cu m/s) on basis of contracted-opening measurement.

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	27	76	57	46	39	553	57	51	36	38	13
2	19	36	39	40	494	40	350	54	45	32	49	18
3	18	24	31	35	136	59	95	70	43	65	37	14
4	18	21	29	126	69	67	275	59	70	170	22	23
5	18	20	27	49	59	49	110	52	92	32	20	13
6	21	19	108	38	59	61	70	49	46	26	18	12
7	90	19	55	30	92	55	63	46	71	24	18	13
8	24	311	324	28	138	162	292	45	42	23	18	11
9	19	40	305	26	83	64	92	68	37	23	18	10
10	18	25	127	24	55	51	206	48	33	22	17	11
11	18	22	56	24	46	50	78	45	32	27	15	10
12	18	19	42	24	44	49	67	42	32	23	32	9.5
13	18	18	40	24	42	44	63	41	31	20	30	9.0
14	18	543	35	24	64	43	57	41	30	23	24	235
15	18	77	200	23	146	43	55	48	30	27	21	41
16	18	36	97	23	64	48	53	45	53	23	18	15
17	18	28	41	23	44	114	52	46	46	20	23	12
18	19	25	36	24	42	53	56	51	36	20	18	15
19	65	96	32	45	42	44	53	43	36	20	25	11
20	26	257	45	39	41	43	51	77	36	21	24	11
21	22	43	72	25	44	41	48	55	46	20	18	11
22	21	32	305	102	47	40	48	43	122	26	19	11
23	20	26	96	61	43	38	55	57	70	22	15	12
24	24	24	59	35	41	37	60	141	53	20	13	11
25	20	27	50	28	39	43	142	239	60	19	13	11
26	18	283	47	27	39	219	314	67	58	22	14	12
27	18	47	47	120	40	60	273	102	38	20	14	11
28	145	34	38	105	39	47	119	427	38	18	14	11
29	35	29	32	314	-----	43	70	93	138	18	13	46
30	24	122	32	62	-----	73	60	75	58	18	15	71
31	21	-----	120	49	-----	64	-----	92	-----	18	14	-----
TOTAL	871	2,330	2,643	1,654	2,138	1,883	3,880	2,418	1,573	898	647	713.5
MEAN	28.1	77.7	85.3	53.4	76.4	60.7	129	78.0	52.4	29.0	20.9	23.8
MAX	145	543	324	314	494	219	553	427	138	170	49	235
MIN	18	18	27	23	39	37	48	41	30	18	13	9.0
CFSM	.86	2.39	2.62	1.64	2.35	1.87	3.97	2.40	1.61	.89	.64	.73
IN.	1.00	2.67	3.03	1.89	2.45	2.16	4.44	2.77	1.80	1.03	.74	.82

CAL YR 1972 TOTAL 28,145.0 MEAN 76.9 MAX 5,000 MIN 18 CFSM 2.37 IN 32.22
 WTR YR 1973 TOTAL 21,648.5 MEAN 59.3 MAX 553 MIN 9.0 CFSM 1.82 IN 24.78

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0830	6.28	820	2- 2	1415	6.86	1,060
11-14	1115	7.54	1,140	4- 1	1815	8.16	1,390
11-20	0145	5.95	738	4-26	0330	5.59	738
11-26	0415	5.92	730	5-28	0700	6.26	905
12- 9	0030	7.76	1,190	9-14	1545	3.74	679

PATAPSCO RIVER BASIN

59

01589330 Dead Run at Franklinton, 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 Franklinton, 0.3 mile (0.5 km) west of Baltimore city limits, 1.2 miles (1.9 km) southwest of Woodlawn, and 2.5 miles (4.0 km) upstream from mouth.

DRAINAGE AREA.--5.52 sq mi (14.30 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 310 ft (94 m), from topographic map.

AVERAGE DISCHARGE.--14 years, 6.88 cfs (0.195 cu m/s), 16.93 in/yr (430 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,520 cfs (43.0 cu m/s) April 1, gage height, 6.55 ft (1.996 m); minimum, 0.84 cfs (0.024 cu m/s) many days in October and September, gage height, 0.72 ft (0.219 m).
Period of record: Maximum discharge, 7,400 cfs (210 cu m/s) June 22, 1972, gage height, 12.5 ft (3.81 m), from floodmarks, from rating curve extended above 1,600 cfs (45.3 cu m/s) on basis of contracted-opening measurement of peak flow at bridge 0.6 mile (1.0 km) downstream, adjusted for flow from intervening area; minimum, 0.10 cfs (0.003 cu m/s) Sept. 11-12, 1966, gage height, 0.57 ft (0.174 m).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	8.0	12	7.1	3.7	2.6	200	3.6	3.0	2.8	13	1.1
2	.98	4.4	4.4	4.4	150	2.7	43	3.6	2.7	2.9	3.7	1.9
3	.84	2.2	4.0	6.3	12	13	9.5	12	2.5	14	1.9	3.7
4	.98	1.6	3.6	31	4.9	6.4	96	4.4	22	3.0	1.4	1.8
5	1.3	1.4	3.6	5.2	4.4	4.8	11	3.5	5.3	2.2	1.2	1.1
6	2.6	1.2	24	4.0	8.1	5.1	4.9	3.1	2.7	1.8	1.1	1.1
7	16	1.2	5.5	3.3	11	6.6	6.9	2.9	3.8	1.8	1.2	1.4
8	1.2	115	155	2.9	27	29	60	3.1	2.3	1.7	1.2	.98
9	.98	4.0	25	2.9	7.1	4.7	8.1	13	2.2	1.7	1.2	.89
10	.84	2.9	22	2.6	4.0	3.7	41	3.2	2.0	1.7	1.8	.86
11	.98	2.9	6.4	2.6	3.2	4.3	6.3	3.0	2.0	11	1.4	.87
12	.98	2.2	6.3	2.6	2.9	3.8	7.1	2.8	1.9	1.8	6.3	.87
13	.98	2.2	6.3	2.3	2.9	3.3	4.9	2.5	1.8	1.8	1.6	.85
14	.98	158	4.4	2.6	19	3.3	4.4	2.5	1.7	8.9	28	108
15	.84	9.5	63	2.6	17	3.3	4.0	5.5	1.5	15	2.2	2.3
16	.98	4.0	13	2.6	4.9	8.0	4.0	2.6	5.2	1.8	1.5	1.4
17	1.2	3.2	4.4	2.9	2.9	10	4.0	5.7	2.0	1.7	2.0	1.3
18	1.2	2.9	4.0	2.9	2.9	3.3	4.4	2.9	2.2	1.6	1.5	2.5
19	18	62	4.0	14	2.9	2.9	3.6	2.3	1.8	1.5	1.3	1.2
20	1.6	41	8.5	4.0	2.9	2.8	3.6	11	1.8	17	1.4	1.1
21	1.2	4.9	29	2.6	3.6	2.7	3.3	2.4	5.2	2.9	1.7	1.1
22	1.2	4.0	79	29	4.9	2.6	3.3	2.0	94	5.2	1.7	1.1
23	1.2	3.2	23	7.2	3.2	2.5	6.3	6.7	23	1.8	1.2	1.2
24	1.2	3.2	8.1	4.0	2.9	2.5	4.0	35	3.6	1.5	1.2	1.1
25	1.2	11	7.1	3.2	2.9	20	33	19	2.4	1.4	1.2	1.5
26	1.2	106	8.8	3.1	2.7	52	65	4.0	2.2	1.4	1.1	1.1
27	1.2	6.3	6.3	38	2.9	5.7	76	19	2.0	1.9	1.2	1.1
28	69	4.4	4.4	44	2.7	3.4	11	92	2.0	1.6	1.2	1.2
29	2.6	3.6	4.0	55	-----	3.3	4.4	15	57	1.5	1.2	4.9
30	2.2	41	5.5	4.9	-----	10	4.0	7.3	8.3	1.2	1.2	3.6
31	1.6	-----	22	3.6	-----	14	-----	4.1	-----	1.3	1.5	-----
TOTAL	138.66	617.4	576.6	303.4	319.5	242.3	737.0	299.7	270.1	117.4	89.3	153.12
MEAN	4.47	20.6	18.6	9.79	11.4	7.82	24.6	9.67	9.00	3.79	2.88	5.10
MAX	69	158	155	55	150	52	200	92	94	17	28	108
MIN	.84	1.2	3.6	2.3	2.7	2.5	3.3	2.0	1.5	1.2	1.1	.85
CFSM	.81	3.73	3.37	1.77	2.07	1.42	4.46	1.75	1.63	.69	.52	.92
IN.	.93	4.16	3.89	2.04	2.15	1.63	4.97	2.02	1.82	.79	.60	1.03

CAL YR 1972 TOTAL 4,400.50 MEAN 12.0 MAX 360 MIN .84 CFSM 2.17 IN 29.66
WTR YR 1973 TOTAL 3,864.48 MEAN 10.6 MAX 200 MIN .84 CFSM 1.92 IN 26.04

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	0500	4.16	708	4- 1	1730	6.55	1,520
11-14	0915	4.26	738	4- 4	1245	4.35	765
11-26	0415	4.19	717	5-28	0630	4.41	783
12- 8	1900	4.81	903	6-22	1130	5.67	1,180
2- 2	1045	4.12	696	6-29	0145	4.14	702

PATAPSCO RIVER BASIN

01589440 Jones Falls at Sorrento, Md.

LOCATION.--Lat 39°23'30", long 76°39'42", Baltimore County, on right bank 0.3 mile (0.5 km) downstream from bridge on State Highway 25 (Falls Road), 0.4 mile (0.6 km) downstream from Slaughterhouse Branch and Sorrento, and 18 miles (29 km) upstream from mouth.

DRAINAGE AREA.--25.2 sq mi (65.3 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (73 m) from topographic map. January 1958 to April 1966, nonrecording gage at site 450 ft (140 m) upstream at same datum.

AVERAGE DISCHARGE.--7 years, 33.2 cfs (0.940 cu m/s), 17.89 in/yr (454 mm/yr).

EXTREMES.--Current year: Maximum discharge, 790 cfs (22.4 cu m/s) April 1, gage height, 6.82 ft (2.079 m); minimum, 9.0 cfs (0.25 cu m/s) Sept. 15.

Period of record: Maximum discharge, 13,800 cfs (391 cu m/s) June 22, 1972, gage height, 18.11 ft. (5.520 m), from floodmarks, from rating curve extended above 1,400 cfs (39.6 cu m/s) on basis of slope-area measurement of peak flow; minimum, 1.8 cfs (0.051 cu m/s) Sept. 7, 8, 1966, gage height, 1.16 ft (0.354 m).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	61	52	45	44	273	60	58	42	28	14
2	20	29	44	44	281	44	202	58	53	40	34	16
3	19	24	40	42	107	52	93	63	52	45	31	18
4	19	23	37	81	73	56	173	59	83	45	25	19
5	20	22	35	51	63	48	97	55	85	37	24	15
6	22	20	66	45	62	52	76	53	53	35	21	15
7	42	20	47	40	70	50	70	51	65	33	20	14
8	24	195	214	38	87	77	164	52	49	32	20	13
9	19	43	169	36	67	55	85	60	46	31	20	12
10	18	32	105	34	56	51	140	52	43	30	20	13
11	19	29	70	34	51	51	79	50	41	35	20	12
12	19	27	59	34	46	49	72	48	40	31	24	11
13	18	25	55	34	46	46	67	47	40	30	23	10
14	19	257	48	35	58	45	64	47	38	28	21	94
15	18	74	123	36	89	46	62	51	37	32	21	29
16	18	47	86	36	59	47	60	48	48	30	20	21
17	18	40	53	36	50	69	60	48	46	29	19	18
18	16	36	48	36	48	50	61	49	42	28	20	19
19	35	69	49	44	47	47	58	47	40	27	20	16
20	23	159	52	42	49	45	57	63	39	26	21	16
21	21	50	58	36	50	44	55	51	48	28	20	15
22	21	41	180	69	51	43	55	46	85	30	20	16
23	20	36	86	53	48	43	56	51	85	27	18	16
24	20	34	64	42	47	43	57	84	68	25	17	15
25	19	34	58	39	46	45	85	133	50	25	18	13
26	19	200	53	38	46	114	172	62	46	25	19	14
27	19	56	51	75	46	54	155	78	41	25	17	14
28	104	45	46	72	45	47	92	252	40	23	16	14
29	35	39	42	153	-----	45	69	82	109	23	14	20
30	26	78	43	55	-----	56	63	84	59	22	14	22
31	23	-----	70	47	-----	54	-----	83	-----	22	13	-----
TOTAL	756	1,811	2,212	1,509	1,833	1,612	2,872	2,067	1,629	941	638	554
MEAN	24.4	60.4	71.4	48.7	65.5	52.0	95.7	66.7	54.3	30.4	20.6	18.5
MAX	104	257	214	153	281	114	273	252	109	45	34	94
MIN	16	20	35	34	45	43	55	46	37	22	13	10
CFSM	.97	2.40	2.83	1.93	2.60	2.06	3.80	2.65	2.15	1.21	.82	.73
IN.	1.12	2.67	3.27	2.23	2.71	2.38	4.24	3.05	2.40	1.39	.94	.82

CAL YR 1972 TOTAL 22,417 MEAN 61.2 MAX 2,600 MIN 16 CFSM 2.43 IN 33.09
WTR YR 1973 TOTAL 18,434 MEAN 50.5 MAX 281 MIN 10 CFSM 2.00 IN 27.21

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1015	6.49	708	4-1	2245	6.82	790
12- 8	2000	6.56	725				

SOUTH RIVER BASIN

61

01590000 North River near Annapolis, Md.

LOCATION.--Lat 38°59'09", long 76°37'21", Anne Arundel County, on left bank 500 ft (150 m) downstream from bridge on State Highway 450, 0.8 mile (1.3 km) upstream from mouth, and 7 miles (11 km) west of Annapolis.

DRAINAGE AREA.--8.5 sq mi (22 sq km), 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 (2.051 m) above mean sea level. Prior to Nov. 2, 1933, staff gage at same site and datum.

AVERAGE DISCHARGE.--41 years (1932-73), 10.2 cfs (0.289 cu m/s), 16.30 in/yr (414 mm/yr).

EXTREMES.--Current year: Maximum discharge, 100 cfs (2.83 cu m/s) July 4, gage height, 2.23 ft (0.680 m); minimum, 4.3 cfs (0.12 cu m/s) Aug. 30, 31, Sept. 1, 2, gage height, 1.01 ft (0.308 m).
Period of record: Maximum discharge, 5,000 cfs (142 cu m/s) Aug. 2, 1944, gage height, 6.22 ft (1.896 m), from rating curve extended above 260 cfs (7.36 cu m/s) on basis of velocity-area studies; minimum, 0.90 cfs (0.025 cu m/s) Sept. 12, 1966, gage height, 0.78 ft (0.238 m).

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	9.4	26	13	13	11	25	14	12	8.5	15	4.6
2	7.2	9.9	14	12	37	11	55	14	11	7.9	13	4.7
3	6.7	9.1	12	11	33	12	27	15	10	14	8.5	6.9
4	6.6	8.6	12	19	19	18	30	16	12	62	7.5	35
5	6.7	8.3	11	14	16	13	30	13	18	16	6.6	9.8
6	7.3	8.0	14	12	15	15	20	12	10	10	6.2	7.4
7	23	8.0	15	11	20	14	17	12	9.5	8.9	5.9	12
8	11	28	20	10	18	17	30	12	9.0	8.2	5.5	6.9
9	7.4	17	56	9.0	20	14	23	16	8.5	7.8	5.5	6.0
10	6.6	10	26	9.0	15	13	21	13	8.0	7.5	5.3	5.8
11	6.7	9.5	19	9.0	13	13	18	11	7.5	9.8	5.3	5.6
12	7.1	9.0	15	8.5	11	13	16	11	7.5	9.2	5.2	5.4
13	7.3	8.8	15	8.5	11	12	16	11	7.5	7.5	5.0	5.3
14	7.1	37	13	9.5	12	12	15	10	7.0	7.1	5.3	17
15	6.8	29	19	10	23	12	14	13	6.5	7.6	13	17
16	6.7	14	23	11	16	12	14	13	7.5	8.0	6.9	7.9
17	7.2	11	13	11	11	16	14	11	8.0	7.3	5.9	6.6
18	6.6	10	12	12	12	13	14	12	9.0	7.3	5.9	6.7
19	13	12	13	14	13	11	13	11	9.0	6.9	8.3	6.2
20	12	53	14	11	15	11	13	14	8.0	6.6	6.6	5.9
21	8.5	20	13	14	14	11	13	13	13	7.3	6.9	5.7
22	8.0	14	42	12	13	11	13	11	40	8.3	9.5	6.1
23	8.0	12	28	11	12	11	13	14	14	7.6	6.8	6.0
24	8.0	11	20	11	12	10	14	17	11	7.1	5.8	5.8
25	7.7	11	16	10	13	11	14	30	10	6.7	5.9	5.7
26	7.4	27	15	10	13	45	31	18	9.0	6.9	5.5	5.7
27	7.3	16	15	20	12	21	29	16	8.5	6.5	5.2	5.6
28	22	12	13	20	11	15	24	32	8.5	6.2	5.2	5.7
29	19	11	12	34	-----	13	17	20	16	6.2	5.0	6.1
30	10	17	12	17	-----	15	15	15	11	5.9	4.8	6.6
31	8.7	-----	14	13	-----	15	-----	13	-----	5.8	4.6	-----
TOTAL	287.1	460.6	562	396.5	443	441	608	453	326.5	302.6	211.6	241.7
MEAN	9.26	15.4	18.1	12.8	15.8	14.2	20.3	14.6	10.9	9.76	6.83	8.06
MAX	23	53	56	34	37	45	55	32	40	62	15	35
MIN	6.6	8.0	11	8.5	11	10	13	10	6.5	5.8	4.6	4.6
CFSM	1.09	1.81	2.13	1.51	1.86	1.67	2.39	1.72	1.28	1.15	.80	.95
IN.	1.26	2.02	2.46	1.74	1.94	1.93	2.66	1.98	1.43	1.32	.93	1.06

CAL YR 1972 TOTAL 5,323.8 MEAN 14.5 MAX 100 MIN 5.6 CFSM 1.71 IN 23.30
WTR YR 1973 TOTAL 4,733.6 MEAN 13.0 MAX 62 MIN 4.6 CFSM 1.53 IN 20.72

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-20	0530	2.07	82	7-4	0230	2.23	100
12-9	0130	2.13	88				

NOTE.--No gage-height record May 25 to June 27.

PATUXENT RIVER BASIN

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 (1 km) upstream from Cattail Creek, 0.8 mile (1.3 km) upstream from Triadelphia Reservoir, 1.1 miles (1.8 km) northeast of Unity, and 97 miles (155 km) upstream from mouth.

DRAINAGE AREA.--34.8 sq mi (90.1 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 364.76 ft (111.179 m) 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.--29 years, 38.0 cfs (1.076 cu m/s), 14.83 in/yr (377 mm/yr).

EXTREMES.--Current year: Maximum discharge, 965 cfs (27.3 cu m/s) Apr. 1, gage height, 6.00 ft (1.829 m); minimum, 12 cfs (0.34 cu m/s) Sept. 2, gage height, 2.12 ft (0.646 m).
Period of record: Maximum discharge, 21,800 cfs (595 cu m/s) Sept. 11, 1971, gage height, 18.60 ft (5.669 m), from rating curve extended above 870 cfs (24.6 cu m/s) on basis of slope-area measurement at gage height 13.58 ft (4.139 m); minimum, 0.20 cfs (0.006 cu m/s) Sept. 10, 11, 12, 1966, gage height, 1.66 ft (0.506 m).

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	67	65	65	51	256	88	65	36	21	13
2	17	25	50	60	245	51	210	82	59	76	34	13
3	16	22	42	55	135	58	110	92	56	74	31	42
4	16	20	38	100	97	64	177	84	60	68	23	73
5	16	18	36	70	85	56	122	75	81	43	20	22
6	17	18	97	60	82	65	96	70	60	36	18	20
7	31	17	75	55	108	61	88	66	67	34	17	18
8	19	95	221	55	118	87	160	67	53	32	17	17
9	17	34	286	55	102	67	105	83	49	30	16	16
10	16	25	116	55	83	59	150	66	45	30	20	18
11	16	23	83	50	70	59	103	62	43	33	19	14
12	16	21	70	50	65	58	99	58	41	30	16	14
13	16	20	65	50	65	53	92	55	40	28	16	14
14	16	266	58	50	72	52	83	53	38	27	36	195
15	15	76	142	48	129	51	78	56	36	35	29	58
16	15	42	107	47	85	51	74	52	52	32	19	31
17	16	35	60	47	65	82	73	53	48	31	17	26
18	15	30	60	46	60	60	72	57	43	31	28	26
19	27	52	60	55	60	52	68	51	43	28	58	23
20	23	187	65	57	62	50	65	59	41	27	27	22
21	19	54	90	45	63	48	62	55	40	29	30	21
22	18	41	280	67	63	47	61	48	98	44	26	21
23	18	34	120	67	60	45	61	51	53	34	20	21
24	18	31	90	53	57	44	63	86	42	29	18	20
25	17	30	80	47	55	45	96	116	38	27	17	19
26	17	132	75	46	56	96	192	71	37	27	17	20
27	17	57	75	72	54	60	328	70	36	25	16	19
28	48	44	65	77	52	51	161	324	35	23	15	19
29	30	37	60	203	-----	48	113	121	71	21	14	19
30	21	58	60	85	-----	67	97	84	41	21	14	21
31	19	-----	80	70	-----	62	-----	75	-----	20	13	-----
TOTAL	602	1,565	2,873	1,962	2,313	1,800	3,515	2,430	1,511	1,061	682	875
MEAN	19.4	52.2	92.7	63.3	82.6	58.1	117	78.4	50.4	34.2	22.0	29.2
MAX	48	266	286	203	245	96	328	324	98	76	58	195
MIN	15	17	36	45	52	44	61	48	35	20	13	13
CFSM	.56	1.50	2.66	1.82	2.37	1.67	3.36	2.25	1.45	.98	.63	.84
IN.	.64	1.67	3.07	2.10	2.47	1.92	3.76	2.60	1.62	1.13	.73	.94

CAL YR 1972 TOTAL 28,155 MEAN 76.9 MAX 2,400 MIN 15 CFSM 2.21 IN 30.10
WTR YR 1973 TOTAL 21,189 MEAN 58.1 MAX 328 MIN 13 CFSM 1.67 IN 22.65

PEAK DISCHARGE (BASE, 770 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	0100	5.97	952	4- 1	1900	6.00	965
12-22	*	*	*				

* Unknown, discharge probably greater than base.

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 (180 m) downstream from T. Howard Duckett Reservoir, 0.7 mile (1.1 km) upstream from Walker Branch, 1.3 miles (2.1 km) northwest of Laurel, and 81 miles (130 km) upstream from mouth.

DRAINAGE AREA.--132 sq mi (342 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 153.5 ft (46.79 m) above 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 (0.5 km) downstream at different datum. Oct. 1, 1955, to Sept. 30, 1956, non-recording gage at present site at datum 1.2 ft (0.37 m) lower. Oct. 1, 1956 to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957, to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972, to Sept. 4, 1973, nonrecording gage at present site and datum.

EXTREMES.--Current year: Maximum discharge, 990 cfs (28.0 cu m/s) Apr. 3-6, 27, 28 and May 28, 29, gage height, 7.5 ft (2.29 m); minimum daily discharge, 8.2 cfs (0.23 cu m/s) Aug. 28 to Sept. 3.
Period of record: Maximum discharge, about 26,000 cfs (736 cu m/s) June 22, 1972, gage height, about 25 ft (7.6 m), from floodmarks, from rating curve extended above 6,600 cfs (187 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 0.10 cfs (0.003 cu m/s) Sept. 25, 1964 (valve closed for repair); minimum daily, 1.1 cfs (0.031 cu m/s) 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 mil gal (47.31 cu hm); dead storage, 80 mil gal (302,800 cu m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	258	185	185	185	245	354	185	270	24	8.2
2	18	18	185	185	275	135	444	420	185	270	24	8.2
3	18	18	185	185	320	80	660	268	185	316	24	8.2
4	18	18	185	185	320	80	990	185	144	443	24	13
5	18	18	185	185	326	103	990	185	152	237	24	18
6	18	18	142	185	345	115	555	185	192	185	24	19
7	18	18	115	185	345	115	270	185	220	185	24	19
8	18	18	211	185	445	159	270	185	185	117	24	19
9	18	18	502	185	429	185	287	270	185	24	24	19
10	18	18	510	185	270	185	368	219	185	24	24	19
11	18	18	342	185	270	185	369	185	150	24	24	19
12	18	18	227	160	270	185	357	185	42	24	24	19
13	18	227	320	92	270	185	316	185	23	24	22	19
14	18	270	320	80	270	185	330	185	23	24	20	100
15	18	270	320	80	270	185	370	138	23	24	20	90
16	18	202	320	80	270	203	266	115	23	24	20	24
17	18	80	320	80	270	270	185	115	23	58	20	22
18	18	80	320	80	231	270	185	115	23	80	20	22
19	18	98	320	80	241	228	185	93	23	80	20	22
20	18	249	320	80	219	138	185	98	23	46	20	24
21	18	185	320	84	185	115	185	115	81	24	20	24
22	18	185	320	135	185	115	185	115	115	61	20	24
23	18	185	320	185	185	115	140	115	115	80	20	24
24	18	185	320	185	185	115	110	137	115	80	20	24
25	18	185	320	185	185	115	210	235	92	80	20	24
26	18	185	320	185	224	176	415	270	43	44	20	24
27	18	185	320	185	226	185	840	270	23	24	14	24
28	18	185	320	185	185	185	825	570	23	24	8.2	24
29	18	262	320	185	-----	185	270	850	108	24	8.2	24
30	18	312	236	185	-----	185	270	293	270	24	8.2	24
31	18	-----	185	185	-----	185	-----	185	-----	24	8.2	-----
TOTAL	558	3,746	8,908	4,731	7,401	5,052	11,277	7,025	3,179	2,968	616.8	751.6
MEAN	18.0	125	287	153	264	163	376	227	106	95.7	19.9	25.1
MAX	18	312	510	185	445	270	990	850	270	443	24	100
MIN	18	18	115	80	185	80	110	93	23	24	8.2	8.2

CAL YR 1972 TOTAL 85,679.0 MEAN 234 MAX 13,000 MIN 15
WTR YR 1973 TOTAL 56,213.4 MEAN 154 MAX 990 MIN 8.2

PATUXENT RIVER BASIN

01593500 Little Patuxent River at Guilford, Md.

LOCATION.--Lat 39°10'04", long 76°51'07", Howard County, on left bank 75 ft (23 m) upstream from bridge on State Highway 32, 1 mile (1.6 km) west of Guilford, 3 miles (4.8 km) upstream from Middle Patuxent River, 4 miles (6.4 km) north of Laurel, and 20.1 miles (32.3 km) upstream from mouth.

DRAINAGE AREA.--38.0 sq mi (98.4 sq km).

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 (79.2 m), from topographic map. Prior to June 25, 1946, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years, 41.4 cfs (1.172 cu m/s), 14.80 in/yr (376 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,880 cfs (53.2 cu m/s) Apr. 1, gage height, 10.08 ft (3.072 m); minimum, 12 cfs (0.34 cu m/s) Sept. 12, 13, 14, gage height, 2.65 ft (0.808 m).

Period of record: Maximum discharge, 12,400 cfs (351 cu m/s) June 22, 1972, gage height, 18.38 ft (5.602 m), from high-water mark in well, from rating curve extended above 1,800 cfs (51.0 cu m/s) on basis of contracted-opening measurement at gage height 13.26 ft (4.042 m) and contracted-opening and flow-over-embankment measurement at gage height, 18.38 ft (5.602 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	34	122	85	66	50	585	73	52	51	84	15
2	19	43	61	67	523	51	614	70	47	80	113	16
3	19	31	50	59	197	71	119	87	44	182	34	18
4	20	27	45	138	92	90	352	79	50	168	27	27
5	18	24	43	83	80	67	157	66	87	51	24	16
6	19	23	104	69	79	79	98	60	47	40	22	15
7	61	23	88	55	124	76	88	57	55	34	22	15
8	26	446	265	50	159	159	258	56	44	31	21	14
9	20	70	494	48	113	85	110	86	39	30	20	14
10	17	41	131	46	77	69	214	61	36	29	20	14
11	17	36	87	44	65	69	98	52	34	38	20	13
12	18	33	72	44	65	68	90	47	33	33	19	13
13	19	32	73	44	60	57	87	45	32	27	24	13
14	18	618	60	46	71	56	78	45	30	26	51	180
15	17	152	233	46	168	56	74	51	28	88	54	64
16	18	64	136	46	87	57	72	46	32	33	25	24
17	20	49	65	48	65	115	71	47	44	28	22	19
18	20	43	60	50	60	70	73	52	35	28	22	21
19	61	94	60	75	55	56	70	45	35	26	35	19
20	36	411	76	82	56	49	67	67	34	33	32	17
21	26	78	87	52	61	48	61	57	33	52	24	16
22	24	55	482	139	72	47	61	43	256	77	24	16
23	24	46	147	115	60	45	63	53	74	37	21	17
24	24	43	100	72	56	43	68	92	50	29	19	16
25	22	43	86	58	52	47	113	151	38	27	19	15
26	21	344	81	56	55	328	421	71	35	26	19	15
27	20	84	81	129	56	92	339	80	33	25	18	15
28	240	58	70	126	53	67	136	367	34	23	17	15
29	57	50	62	384	-----	60	88	111	158	23	16	16
30	32	151	64	88	-----	89	77	72	288	22	15	23
31	27	-----	107	70	-----	81	-----	63	-----	21	15	-----
TOTAL	1,003	3,246	3,692	2,514	2,727	2,397	4,802	2,352	1,837	1,418	898	711
MEAN	32.4	108	119	81.1	97.4	77.3	160	75.9	61.2	45.7	29.0	23.7
MAX	240	618	494	384	523	328	614	367	288	182	113	180
MIN	17	23	43	44	52	43	61	43	28	21	15	13
CFSM	.85	2.84	3.13	2.13	2.56	2.03	4.21	2.00	1.61	1.20	.76	.62
IN.	.98	3.18	3.61	2.46	2.67	2.35	4.70	2.30	1.80	1.39	.88	.70

CAL YR 1972 TOTAL 34,434 MEAN 94.1 MAX 4,680 MIN 17 CFSM 2.48 IN 33.71
WTR YR 1973 TOTAL 27,597 MEAN 75.6 MAX 618 MIN 13 CFSM 1.99 IN 27.02

PEAK DISCHARGE (BASE, 800 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	1100	7.79	893	2- 2	1700	7.80	895
11-14	1330	8.73	1,110	4- 1	2000	10.08	1,880
11-20	0400	7.40	823	6-30	0230	7.99	930
12- 8	2300	8.62	1,080	7- 3	2300	7.52	845

PATUXENT RIVER BASIN

65

01594500 Western Branch near Largo, Md.

LOCATION.--Lat 38°52'24", long 76°47'54", Prince Georges County, on right bank 200 ft (61 m) upstream from culvert on State Highway 202, 200 ft (61 m) downstream from small tributary, 0.1 mile (0.2 km) upstream from Southwest Branch, 2.3 miles (3.7 km) southeast of Largo, 4.8 miles (7.7 km) northwest of Upper Marlboro, and 11 miles (17.6 km) upstream from mouth.

DRAINAGE AREA.--30.2 sq mi (78.2 sq km).

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1502.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 46.50 ft (14.173 m) above mean sea level (levels by private consultant engineers).

AVERAGE DISCHARGE.--24 years, 31.7 cfs (0.898 cu m/s), 14.26 in/yr (362 mm/yr).

EXTREMES.--Current year: Maximum discharge, 837 cfs (23.7 cu m/s) Dec. 9, gage height, 6.74 ft (2.054 m), from rating curve extended above 400 cfs (11.3 cu m/s); minimum, 3.5 cfs (0.099 cu m/s) Aug. 13, gage height, 1.45 ft (0.442 m).

Period of record: Maximum discharge, 1,760 cfs (49.8 cu m/s) Aug. 27, 1971, gage height, 8.97 ft (2.734 m), from rating curve extended above 400 cfs (11.3 cu m/s); no flow Sept. 8-13, 1966.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	26	126	49	42	29	128	40	26	17	32	5.1
2	8.8	27	59	43	330	29	280	35	22	47	41	11
3	7.5	19	44	39	273	35	132	43	19	122	22	8.2
4	7.2	15	36	94	93	53	206	44	19	430	16	7.8
5	6.7	13	32	61	64	41	186	34	25	76	11	7.4
6	6.2	12	51	45	57	53	77	30	20	34	8.6	7.2
7	65	11	50	34	101	47	56	27	19	24	7.5	13
8	16	191	159	31	93	74	167	26	17	18	6.0	6.6
9	9.1	77	530	28	93	65	101	38	17	15	5.5	6.2
10	6.5	36	194	27	62	47	85	29	18	27	5.1	6.0
11	5.8	25	90	27	47	44	62	27	14	117	4.3	5.6
12	6.0	19	63	24	44	41	52	23	12	27	4.1	5.4
13	6.1	17	56	24	42	36	47	21	10	18	3.9	5.3
14	6.3	322	48	25	44	33	41	20	11	14	5.1	28
15	6.4	211	111	28	93	32	38	22	9.4	12	6.0	22
16	5.1	66	119	27	66	32	36	22	11	12	5.1	10
17	5.3	42	59	27	44	61	36	22	16	10	4.5	8.2
18	4.6	32	47	28	39	51	35	22	15	11	6.2	7.4
19	30	62	45	36	39	37	34	20	14	9.0	22	6.4
20	18	477	46	41	37	31	33	29	13	8.3	15	6.1
21	10	118	48	29	39	29	31	26	28	12	50	5.9
22	8.5	54	393	36	43	30	31	20	80	62	20	5.9
23	7.8	41	209	41	38	26	29	35	53	24	11	5.9
24	7.6	35	90	31	35	25	28	62	32	16	8.6	5.7
25	6.9	34	63	26	32	28	38	102	32	12	7.8	5.6
26	6.4	176	55	26	33	275	172	53	20	11	7.2	5.7
27	6.3	72	54	89	32	95	250	45	16	8.9	6.8	5.6
28	191	48	46	94	30	55	153	184	15	7.5	6.2	5.7
29	107	36	43	253	-----	42	67	88	48	6.8	5.6	6.0
30	36	103	43	90	-----	47	47	46	25	5.5	5.4	9.8
31	20	-----	50	49	-----	52	-----	33	-----	5.5	5.3	-----
TOTAL	648.1	2,417	3,059	1,502	1,985	1,575	2,678	1,268	676.4	1,219.5	364.8	244.7
MEAN	20.9	80.6	98.7	48.5	70.9	50.8	89.3	40.9	22.5	39.3	11.8	8.16
MAX	191	477	530	253	330	275	280	184	80	430	50	28
MIN	4.6	11	32	24	30	25	28	20	9.4	5.5	3.9	5.1
CFSM	.69	2.67	3.27	1.61	2.35	1.68	2.96	1.35	.75	1.30	.39	.27
IN.	.80	2.98	3.77	1.85	2.45	1.94	3.30	1.56	.83	1.50	.45	.30

CAL YR 1972 TOTAL 22,609.8 MEAN 61.8 MAX 1,100 MIN 3.4 CFSM 2.05 IN 27.85
WTR YR 1973 TOTAL 17,637.5 MEAN 48.3 MAX 530 MIN 3.9 CFSM 1.60 IN 21.73

PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1500	6.07	638	12-22	0800	5.86	585
11-20	0050	6.43	744	2- 2	1550	5.99	618
12- 9	0200	6.74	837	7- 4	0230	6.65	810

PATUXENT RIVER BASIN

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 (3.2 km) northwest of Huntingtown, 2.8 miles (4.5 km) southeast of Lower Marlboro, and 3.5 miles (5.6 km) upstream from mouth.

DRAINAGE AREA.--3.85 sq mi (9.97 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map.

AVERAGE DISCHARGE.--16 years (1957-73), 4.14 cfs (0.117 cu m/s), 14.60 in/yr (371 mm/yr).

EXTREMES.--Current year: Maximum discharge, 67 cfs (1.90 cu m/s) Nov. 14, gage height, 4.16 ft (1.268 m); minimum daily, 0.15 cfs (0.004 cu m/s) Sept. 30.

Period of record: Maximum discharge, 1,120 cfs (31.7 cu m/s) June 14, 1960, gage height, 7.96 ft (2.426 m), from rating curve extended above 150 cfs (4.25 cu m/s) 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 CURIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.2	6.0	6.0	5.3	6.0	7.4	5.9	2.8	1.9	5.5	.55
2	1.2	2.1	4.6	5.5	23	6.0	7.1	5.7	2.6	1.9	4.8	.50
3	1.1	1.9	4.3	5.5	13	7.6	5.9	5.7	2.4	2.6	6.0	.45
4	1.1	1.8	4.1	8.2	11	8.4	11	5.5	4.0	3.2	2.6	.45
5	1.0	1.7	4.0	5.7	10	6.6	7.7	5.3	3.0	2.0	2.1	.45
6	1.3	1.7	5.9	5.3	10	6.3	6.9	5.2	2.6	1.6	1.9	.40
7	2.3	1.7	4.4	4.9	11	6.4	7.0	5.1	2.4	1.3	1.6	.80
8	1.3	8.4	9.8	4.8	10	7.2	18	5.1	2.2	1.2	1.4	.55
9	1.1	2.7	12	4.8	9.5	6.2	9.5	5.4	2.0	1.1	1.3	.45
10	1.0	2.2	10	4.6	9.0	5.9	10	5.0	1.9	1.2	1.2	.40
11	1.1	2.0	7.2	4.7	9.0	6.2	8.9	4.6	1.8	2.0	1.1	.34
12	1.1	1.9	6.8	4.4	8.5	5.9	8.5	4.2	1.7	1.4	1.1	.31
13	1.1	1.8	6.6	4.2	8.5	5.6	8.0	4.0	1.7	1.1	1.1	.24
14	1.1	18	6.2	4.2	9.0	5.5	7.5	3.8	1.8	.93	2.9	1.6
15	1.1	5.5	9.1	4.5	9.5	5.5	7.0	4.0	1.5	.88	1.6	.62
16	1.1	4.4	7.1	4.4	9.0	5.9	7.0	3.8	1.8	.92	1.4	.37
17	1.2	4.1	6.4	4.4	8.0	7.8	6.5	3.6	2.7	.74	1.1	.28
18	1.0	3.7	6.0	4.4	8.0	6.0	6.0	3.6	5.6	.66	8.6	.33
19	2.2	5.5	5.5	5.5	7.5	5.7	6.0	3.6	3.6	.66	2.3	.26
20	1.6	14	5.5	5.0	7.5	5.6	6.0	4.6	3.1	.58	1.6	.25
21	1.4	5.8	5.5	4.4	7.5	5.9	6.0	4.0	5.8	1.9	2.0	.24
22	1.4	5.1	16	4.6	7.3	5.7	5.5	3.8	6.1	3.0	1.8	.27
23	1.4	4.6	10	4.3	6.7	5.3	5.5	3.6	3.7	2.0	1.5	.20
24	1.4	4.4	9.1	4.1	6.4	5.3	5.5	5.5	3.0	1.6	1.4	.18
25	1.5	4.5	8.0	4.1	6.3	5.5	6.0	7.5	2.7	1.4	1.3	.18
26	1.4	7.0	8.0	4.1	6.4	8.0	8.8	6.5	2.6	1.3	1.2	.22
27	1.4	4.5	7.5	8.6	6.2	5.8	11	6.0	2.7	1.1	1.1	.22
28	5.0	4.1	7.0	6.7	6.1	5.4	7.4	8.0	2.6	1.1	1.0	.24
29	2.3	4.0	6.5	11	-----	5.3	6.3	5.0	2.7	1.0	.85	.23
30	1.8	7.4	7.0	5.8	-----	5.6	6.0	3.8	2.1	.82	.75	.15
31	1.7	-----	7.0	5.4	-----	5.8	-----	3.0	-----	.66	.65	-----
TOTAL	46.1	138.7	223.1	164.1	249.2	189.9	229.9	150.4	85.2	43.75	64.75	11.73
MEAN	1.49	4.62	7.20	5.29	8.90	6.13	7.66	4.85	2.84	1.41	2.09	.39
MAX	5.0	18	16	11	23	8.4	18	8.0	6.1	3.2	8.6	1.6
MIN	1.0	1.7	4.0	4.1	5.3	5.3	5.5	3.0	1.5	.58	.65	.15
CFSM	.39	1.20	1.87	1.37	2.31	1.59	1.99	1.26	.74	.37	.54	.10
IN.	.45	1.34	2.16	1.59	2.41	1.83	2.22	1.45	.82	.42	.63	.11

CAL YR 1972 TOTAL 2,294.11 MEAN 6.27 MAX 69 MIN .93 CFSM 1.63 IN 22.17
WTR YR 1973 TOTAL 1,596.83 MEAN 4.37 MAX 23 MIN .15 CFSM 1.14 IN 15.43

PEAK DISCHARGE (BASE, 60 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1100	4.16	67	8-18	1815	4.10	65
2- 2	1430	4.00	61				

POTOMAC RIVER BASIN

67

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 (0.5 km) southeast of Steyer, 0.4 mile (0.6 km) downstream from Steyer Run, 2.0 miles (3.2 km) northeast of Gorman, and at mile 81.8 (131.6 km).

DRAINAGE AREA.--73.0 sq mi (189.1 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft (693.728 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 167 cfs (4.729 cu m/s), 31.07 in/yr (789 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,420 cfs (125 cu m/s) Dec. 9, gage height, 7.87 ft (2.399 m); minimum, 13 cfs (0.37 cu m/s) Sept. 12, gage height, 2.21 ft (0.674 m).

Period of record: Maximum discharge, 6,240 cfs (177 cu m/s) Mar. 5, 1963, gage height, 9.13 ft (2.783 m), from rating curve extended 3,000 cfs (85.0 cu m/s); minimum, 2.9 cfs (0.082 cu m/s) Sept. 10, 1965, gage height, 2.03 ft (0.619 m).

Flood of Oct. 15, 1954, reached a stage of 13.0 ft (3.96 m), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	150	211	120	140	140	231	384	122	63	248	27
2	24	300	180	107	450	196	533	298	103	56	204	24
3	18	250	201	97	480	478	372	281	89	49	97	22
4	16	200	301	331	340	510	614	238	89	43	64	21
5	250	150	372	204	250	418	553	198	167	47	56	21
6	700	120	553	167	220	341	404	165	127	44	35	41
7	1,600	105	525	131	200	274	326	144	156	38	30	30
8	540	550	425	110	230	235	574	141	108	34	25	21
9	350	540	2,330	96	230	195	415	481	87	33	22	20
10	200	370	1,700	90	130	168	470	319	79	31	20	20
11	150	300	977	80	110	151	371	283	67	29	25	17
12	170	240	575	76	98	139	314	231	60	29	27	13
13	150	200	440	60	94	123	269	196	116	26	27	14
14	120	670	340	66	100	107	291	168	70	22	70	245
15	75	733	531	70	200	101	409	145	56	28	120	112
16	65	411	569	64	160	98	476	129	52	40	64	47
17	60	305	377	64	140	147	506	118	219	31	110	38
18	52	233	305	64	130	153	471	108	858	23	450	139
19	54	305	248	90	140	145	380	92	259	19	150	85
20	48	733	460	130	130	139	361	104	165	22	120	51
21	46	415	520	84	122	149	440	114	125	40	100	39
22	44	322	1,560	94	114	130	301	90	294	120	90	33
23	42	256	707	100	107	133	349	82	168	94	74	74
24	46	204	455	86	102	182	509	94	126	74	60	74
25	44	183	340	76	98	237	560	118	106	33	66	46
26	40	420	280	80	94	309	610	99	92	31	56	36
27	38	322	233	230	107	322	856	91	113	29	46	33
28	44	268	187	280	99	229	1,060	245	124	24	40	31
29	52	248	157	230	-----	190	791	246	89	28	35	32
30	60	218	142	170	-----	205	521	177	73	26	32	150
31	50	-----	139	150	-----	184	-----	145	-----	21	29	-----
TOTAL	5,178	9,721	16,340	3,797	4,815	6,528	14,337	5,724	4,359	1,227	2,592	1,556
MEAN	167	324	527	122	172	211	478	185	145	39.6	83.6	51.9
MAX	1,600	733	2,330	331	480	510	1,060	481	858	120	450	245
MIN	16	105	139	60	94	98	231	82	52	19	20	13
CFSM	2.29	4.44	7.22	1.67	2.36	2.89	6.55	2.53	1.99	.54	1.15	.71
IN.	2.64	4.95	8.33	1.93	2.45	3.33	7.31	2.92	2.22	.63	1.32	.79

CAL YR 1972 TOTAL 93,126.6 MEAN 254 MAX 2,330 MIN 9.0 CFSM 3.48 IN 47.46
WTR YR 1973 TOTAL 76,174.0 MEAN 209 MAX 2,330 MIN 13 CFSM 2.86 IN 38.82

PEAK DISCHARGE (BASE, 2,200 CFS).--Dec. 9 (0130) 4,420 cfs (7.87 ft).

NOTE.--No gage-height record Oct. 1 to Nov. 13, and Aug. 1 to Sept. 6.

POTOMAC RIVER BASIN

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

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, on left bank 100 ft (30 m) downstream from highway bridge on U. S. Highway 50, 1.0 mile (1.6 km) west of Mt. Storm, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--48.8 sq mi (126.4 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft (778.624 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 94.2 cfs (2.668 cu m/s), 26.21 in/yr (666 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,470 cfs (41.6 cu m/s) Oct. 8, gage height, 6.26 ft (1.908 m); minimum, 7.5 cfs (0.21 cu m/s) July 19, 20; minimum gage height, 2.79 ft (0.850 m) July 13, 14.
Period of record: Maximum discharge, 3,120 cfs (88.4 cu m/s) Mar. 19, 1963, from rating curve extended above 1,000 cfs (28.3 cu m/s); maximum gage height, 8.41 ft (2.563 m) Mar. 5, 1963, ice jam; minimum discharge, 1.8 cfs (0.051 cu m/s) July 13, 1968, gage height, 1.98 ft (0.604 m).

REMARKS.--Records fair. Flow regulated by Stony River Reservoir, 14.0 miles (22.5 km) upstream from station, capacity, 1,948,000,000 gal (7.373 cu hm), of which 1,681,000,000 gal (6.363 cu hm) is controlled above minimum pool. Since 1963, minor regulation by Virginia Electric and Power Company dam 4.0 miles (6.4 km) upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	95	122	130	66	63	108	349	102	40	56	19
2	56	97	115	154	190	74	203	304	97	36	43	17
3	54	73	122	146	157	149	150	283	93	32	24	17
4	54	64	151	229	125	164	202	260	91	27	19	16
5	252	59	177	176	118	185	238	235	149	26	17	18
6	441	56	232	151	120	193	220	207	146	24	16	20
7	528	56	219	133	120	441	203	185	164	22	14	16
8	739	214	551	122	135	421	534	179	135	20	12	18
9	488	149	744	111	130	232	412	200	125	19	11	13
10	130	113	755	96	118	89	400	115	115	18	11	13
11	197	108	587	80	106	95	344	113	106	18	14	13
12	243	104	475	66	100	97	305	104	214	17	13	13
13	206	102	404	58	95	93	275	97	179	16	13	13
14	108	277	343	51	100	93	267	91	120	16	20	48
15	47	291	313	45	127	91	283	85	102	16	29	29
16	50	229	276	44	113	91	276	78	91	12	22	20
17	55	209	239	44	97	120	256	70	111	14	29	18
18	50	193	216	44	84	151	242	63	321	9.2	84	26
19	51	219	197	55	76	226	224	58	158	8.1	48	21
20	48	449	268	56	69	193	194	60	135	12	47	19
21	47	409	302	51	63	174	132	54	122	18	44	18
22	44	347	744	50	59	154	125	47	125	20	36	18
23	42	295	546	50	56	130	149	44	106	33	31	27
24	42	253	392	47	54	64	188	46	89	19	28	24
25	41	165	113	47	53	79	238	54	74	15	30	21
26	41	165	118	44	56	85	272	52	65	16	26	21
27	39	138	122	125	56	83	555	50	60	15	25	19
28	45	135	122	113	56	73	631	130	61	12	24	19
29	48	133	122	95	-----	70	500	120	54	15	21	23
30	48	127	127	80	-----	73	407	106	47	12	20	35
31	47	-----	130	72	-----	73	-----	106	-----	15	19	-----
TOTAL	4,341	5,324	9,344	2,765	2,699	4,319	8,533	3,945	3,557	592.3	846	612
MEAN	140	177	301	89.2	96.4	139	284	127	119	19.1	27.3	20.4
MAX	739	449	755	229	190	441	631	349	321	40	84	48
MIN	39	56	113	44	53	63	108	44	47	8.1	11	13
(+)	1,152	1,184	1,170	1,159	1,170	1,202	1,375	1,285	1,297	1,383	1,466	1,443

CAL YR 1972 TOTAL 55,649.0 MEAN 152 MAX 2,020 MIN 24 CFSM 3.11 IN 42.41
WTR YR 1973 TOTAL 46,877.3 MEAN 128 MAX 755 MIN 8.1 CFSM 2.62 IN 35.72

† 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 (1.0 km) downstream from bridge on State Highway 38 in Kitzmiller, 1.5 miles (2.4 km) downstream from Wolfden Run, and at mile 68.9 (110.9 km).

DRAINAGE AREA.--225 sq mi (583 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft (479.225 m) above mean sea level. Prior to Oct. 15, 1954, at site 0.3 mile (0.5 km) upstream at datum 7.58 ft (2.310 m) higher. Oct. 15, 1954, to Nov. 20, 1955, nonrecording gage at bridge 0.5 mile (0.8 km) upstream at datum 21.51 ft (6.556 m) higher.

AVERAGE DISCHARGE.--24 years, 440 cfs (12.46 cu m/s), 26.56 in/yr (675 mm/yr).

EXTREMES.--Current year: Maximum discharge, 14,800 cfs (419 cu m/s) Dec. 8, gage height, 9.06 ft (2.761 m); minimum, 27 cfs (0.76 cu m/s) Sept. 13, gage height, 2.42 ft (0.738 m).
Period of record: Maximum discharge, 33,400 cfs (946 cu m/s) Oct. 15, 1954, gage height, 13.73 ft (4.185 m), from floodmarks, present site and datum; minimum, 4.6 cfs (0.13 cu m/s) 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 (48.3 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	460	626	516	396	371	719	1,310	420	158	480	70
2	70	745	572	495	1,270	510	1,400	1,080	363	140	451	62
3	58	549	632	445	1,280	1,130	1,020	992	325	124	195	58
4	49	525	873	1,020	873	1,380	1,450	896	300	108	128	54
5	668	358	1,120	720	752	1,240	1,480	758	500	110	98	54
6	2,130	307	1,370	580	700	1,190	1,170	642	442	98	80	89
7	3,320	277	1,430	470	656	1,220	960	565	626	84	70	68
8	1,560	1,570	3,510	420	758	1,170	2,120	532	411	76	58	51
9	1,070	1,540	7,060	380	758	920	1,550	1,060	344	68	54	48
10	598	1,040	4,520	360	596	626	1,610	765	304	64	50	48
11	449	831	2,880	330	500	572	1,340	670	264	65	59	44
12	495	693	2,020	311	435	532	1,160	585	318	59	64	38
13	457	596	1,590	233	425	475	992	510	626	53	64	36
14	354	1,570	1,290	220	430	430	968	446	325	48	170	399
15	211	1,830	1,050	240	550	405	1,160	399	248	64	297	325
16	187	1,170	1,200	233	500	384	1,260	359	219	94	160	128
17	178	936	1,000	220	400	544	1,140	322	415	72	258	87
18	158	784	900	230	350	596	1,090	304	1,700	57	1,000	236
19	161	824	800	263	392	650	936	264	694	47	374	195
20	154	2,090	1,290	366	354	608	808	274	495	51	284	118
21	142	1,470	1,500	227	338	632	984	293	394	100	261	91
22	137	1,170	4,520	260	311	560	724	236	521	248	225	78
23	134	968	2,480	270	299	522	765	216	411	208	185	124
24	143	810	1,750	227	277	554	1,210	242	311	156	158	172
25	135	700	1,130	202	256	680	1,310	322	261	86	170	106
26	125	1,060	952	208	274	745	1,740	284	228	77	143	86
27	117	928	838	638	322	778	2,600	270	255	76	122	74
28	135	784	726	771	284	602	3,000	718	359	62	106	70
29	158	752	638	650	-----	522	2,260	779	242	72	94	71
30	182	662	590	465	-----	538	1,630	565	190	70	84	318
31	153	-----	572	415	-----	505	-----	495	-----	57	77	-----
TOTAL	13,979	27,999	51,429	12,385	14,736	21,591	40,556	17,153	12,511	2,852	6,019	3,398
MEAN	451	933	1,659	400	526	696	1,352	553	417	92.0	194	113
MAX	3,320	2,090	7,060	1,020	1,280	1,380	3,000	1,310	1,700	248	1,000	399
MIN	49	277	572	202	256	371	719	216	190	47	50	36

CAL YR 1972 TOTAL 264,190 MEAN 722 MAX 7,060 MIN 49 CFSM 3.21 IN 43.67
WTR YR 1973 TOTAL 224,608 MEAN 615 MAX 7,060 MIN 36 CFSM 2.73 IN 37.13

PEAK DISCHARGE (BASE, 3,400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 7	0215	7.57	6,380	4-27	1915	7.26	4,590
12- 8	2315	9.06	14,800	8-18	0515	6.79	3,420
12-22	0615	7.48	5,890				

POTOMAC RIVER BASIN

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 (0.6 km) upstream from Folly Run, and 4.0 miles (6.4 km) southwest of Piedmont, W. Va.

DRAINAGE AREA.--266 sq mi (689 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 1,151.93 ft (351.108 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 526 cfs (14.90 cu m/s), 26.85 in/yr (682 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,800 cfs (362 cu m/s) Dec. 8, gage height, 9.86 ft (3.005 m); minimum, 40 cfs (1.13 cu m/s) Sept. 14, gage height, 2.10 ft (0.640 m).

Period of record: Maximum discharge, 12,800 cfs (362 cu m/s) Dec. 8, 1972, gage height, 9.86 ft (3.005 m); minimum, 10 cfs (0.28 cu m/s) Oct. 2, 3, 1968, gage height, 1.69 ft (0.515 m).

REMARKS.--Records good. Regulation at low flow by Stony River Reservoir, 39 miles (63 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	438	738	526	444	360	752	1,530	532	185	474	74
2	81	895	674	500	1,330	532	1,480	1,270	450	160	601	69
3	66	657	737	444	1,510	1,170	1,110	1,160	392	144	226	64
4	59	500	1,010	1,050	1,000	1,550	1,570	1,050	414	126	144	61
5	723	414	1,340	829	850	1,370	1,670	895	636	122	110	61
6	2,580	350	1,570	671	775	1,340	1,290	752	552	119	92	79
7	3,810	310	1,700	526	722	1,310	1,070	664	858	105	81	81
8	1,680	1,890	2,370	468	812	1,260	2,470	636	545	92	72	61
9	1,140	1,760	7,270	398	858	1,010	1,900	1,260	438	88	64	53
10	657	1,200	4,760	392	664	678	1,940	944	376	83	62	52
11	456	966	3,040	350	552	615	1,600	812	325	83	64	52
12	526	805	2,070	335	474	573	1,380	692	320	79	61	47
13	486	688	1,640	254	462	512	1,180	615	880	70	70	42
14	392	1,730	1,300	266	474	456	1,120	512	414	66	112	398
15	223	2,150	1,200	274	664	426	1,320	462	306	66	365	474
16	198	1,320	1,400	254	580	404	1,460	409	266	108	188	150
17	191	1,080	1,200	246	444	566	1,300	360	480	90	208	97
18	172	900	1,020	250	420	671	1,290	345	1,900	77	1,220	242
19	172	878	906	266	432	692	1,090	302	883	64	456	258
20	172	2,410	1,230	398	392	657	936	302	608	61	320	139
21	158	1,700	1,510	238	365	692	1,140	335	462	99	279	110
22	155	1,330	5,250	274	330	615	865	274	566	279	246	105
23	152	1,110	2,680	288	320	559	858	238	506	221	194	139
24	160	933	1,880	250	306	594	1,460	262	360	160	160	208
25	158	801	1,190	205	274	715	1,500	370	288	130	163	144
26	147	1,180	997	223	292	760	2,200	335	246	96	141	119
27	139	1,110	874	643	350	828	3,110	320	254	92	122	101
28	147	918	749	872	310	636	3,560	865	462	80	99	92
29	182	890	652	730	-----	538	2,620	1,070	297	90	90	101
30	205	778	599	519	-----	559	1,900	745	223	86	81	330
31	175	-----	581	444	-----	519	-----	615	-----	75	77	-----
TOTAL	15,667	32,091	54,137	13,383	16,406	23,167	47,141	20,401	15,239	3,396	6,642	4,003
MEAN	505	1,070	1,746	432	586	747	1,571	658	508	110	214	133
MAX	3,810	2,410	7,270	1,050	1,510	1,550	3,560	1,530	1,900	279	1,220	474
MIN	59	310	581	205	274	360	752	238	223	61	61	42

CAL YR 1972 TOTAL 289,452 MEAN 791 MAX 7,270 MIN 52 CFSM 2.97 IN 40.37
WTR YR 1973 TOTAL 251,673 MEAN 690 MAX 7,270 MIN 42 CFSM 2.59 IN 35.21

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-7	0215	8.13	7,040	12-22	0700	7.86	6,340
12-8	2315	9.86	12,800	4-27	2015	7.51	5,420

POTOMAC RIVER BASIN

71

01596500 Savage River near Barton, Md.

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, on right bank 0.9 mile (1.4 km) upstream from Bear Pen Run, 1.5 miles (2.4 km) downstream from Popular Lick Run, 5.4 miles (8.7 km) northwest of Barton, and 10 miles (16 km) upstream from mouth.

DRAINAGE AREA.--49.1 sq mi (127.2 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,605 ft (489 m), from topographic map.

AVERAGE DISCHARGE.--25 years, 73.3 cfs (2.076 cu m/s), 20.27 in/yr (515 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,210 cfs (34.3 cu m/s) Apr. 27, gage height, 3.81 ft (1.161 m); minimum, 4.5 cfs (0.13 cu m/s) Sept. 13, 14, gage height, 1.19 ft (0.363 m).
Period of record: Maximum discharge, 7,510 cfs (213 cu m/s) Oct. 15, 1954, gage height, 8.45 ft (2.576 m), from rating curve extended above 1,600 cfs (45.3 cu m/s) on basis of slope-area measurement of peak flow; minimum, 0.40 cfs (0.011 cu m/s) Sept. 3, 4, 1966, gage height, 0.96 ft (0.293 m).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	18	91	55	89	50	119	192	70	42	102	11
2	7.6	27	78	48	470	80	290	137	58	34	139	9.4
3	6.0	42	78	41	547	210	234	114	51	28	66	8.5
4	5.5	45	136	73	284	492	488	94	45	24	44	8.2
5	54	42	354	91	181	402	514	78	45	22	32	7.6
6	84	37	501	87	135	354	289	66	40	19	25	7.7
7	300	33	494	76	109	270	201	57	50	16	21	6.9
8	125	367	354	68	107	221	538	57	37	14	18	6.1
9	73	275	908	60	100	178	443	203	32	13	15	6.0
10	48	182	682	50	85	145	369	220	27	15	14	6.0
11	36	131	443	45	75	128	283	170	24	16	15	5.5
12	32	96	266	40	70	114	216	128	25	12	13	5.5
13	28	76	187	35	68	96	161	106	52	11	12	5.1
14	23	231	133	30	64	84	134	86	32	9.3	22	26
15	21	306	130	27	85	76	131	74	25	10	22	20
16	18	193	133	25	60	71	127	64	27	11	15	12
17	17	133	111	23	43	125	113	58	31	9.7	13	9.4
18	15	96	105	25	40	148	99	51	96	8.3	15	74
19	14	87	96	30	40	136	84	45	71	7.5	12	41
20	14	193	114	25	43	122	71	45	58	7.2	62	27
21	13	213	193	21	48	119	63	41	47	8.9	49	21
22	13	161	845	21	40	104	56	34	47	32	35	17
23	12	111	488	24	38	89	66	32	38	29	27	22
24	13	85	275	22	33	85	108	33	31	19	31	19
25	12	73	190	21	30	87	182	39	27	16	37	15
26	11	114	142	25	35	93	432	35	24	33	26	13
27	10	145	114	258	42	84	628	35	27	19	22	12
28	12	133	91	302	39	71	875	77	63	15	19	11
29	15	111	75	222	-----	64	466	99	80	12	16	14
30	15	100	65	158	-----	68	289	93	54	10	14	25
31	13	-----	62	128	-----	64	-----	83	-----	9.2	12	-----
TOTAL	1,070.1	3,856	7,934	2,156	3,000	4,430	8,069	2,646	1,334	532.1	965	471.9
MEAN	34.5	129	256	69.5	107	143	269	85.4	44.5	17.2	31.1	15.7
MAX	300	367	908	302	547	492	875	220	96	42	139	74
MIN	5.5	18	62	21	30	50	56	32	24	7.2	12	5.1
CFSM	.70	2.63	5.21	1.42	2.18	2.91	5.48	1.74	.91	.35	.63	.32
IN.	.81	2.92	6.01	1.63	2.27	3.36	6.11	2.00	1.01	.40	.73	.36

CAL YR 1972 TOTAL 41,171.3 MEAN 112 MAX 1,370 MIN 2.8 CFSM 2.28 IN 31.19
WTR YR 1973 TOTAL 36,464.1 MEAN 99.9 MAX 908 MIN 5.1 CFSM 2.03 IN 27.63

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	1045	3.64	1,060	2- 2	2130	3.35	805
12-22	1030	3.67	1,080	4-27	2230	3.81	1,210

POTOMAC RIVER BASIN

01597000 Crabtree Creek near Swanton, Md.

LOCATION.--Lat 39°30'00", long 79°09'35", Garrett County, on left bank 0.5 mile (0.8 km) upstream from mouth, 1.0 mile (1.6 km) downstream from Springlick Run, and 5.0 miles (8.0 km) northeast of Swanton.

DRAINAGE AREA.--16.7 sq mi (43.3 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,529.06 ft (466.058 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--25 years, 28.3 cfs (0.801 cu m/s), 23.01 in/yr (584 mm/yr).

EXTREMES.--Current year: Maximum discharge, 440 cfs (12.5 cu m/s) Dec. 9, gage height, 2.64 ft (0.805 m); minimum, 1.8 cfs (0.051 cu m/s) Sept. 7, 8, 9, gage height, 0.72 ft (0.219 m).
Period of record: Maximum discharge, 3,260 cfs (92.3 cu m/s) July 12, 1949, gage height, 5.01 ft (1.527 m), from rating curve extended above 210 cfs (5.95 cu m/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.1 cfs (0.003 cu m/s) Dec. 3, 1953, gage height, 0.56 ft (0.171 m); minimum daily, 0.8 cfs (0.023 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	11	41	23	36	26	39	72	37	8.5	17	2.1
2	2.3	19	36	20	95	40	83	54	32	7.7	12	2.0
3	2.1	22	35	18	137	115	76	48	27	7.1	6.6	1.9
4	2.1	20	52	38	100	174	119	40	23	7.0	5.0	1.9
5	20	17	109	42	72	140	144	34	21	8.7	4.3	1.9
6	37	14	137	42	56	115	93	29	17	6.4	3.6	1.9
7	85	14	151	37	47	95	74	25	15	5.7	3.4	1.9
8	38	96	170	33	46	82	143	27	13	5.2	3.0	1.8
9	24	89	376	28	45	69	143	54	12	4.9	2.8	2.0
10	15	68	254	25	41	59	109	64	11	4.9	2.7	2.2
11	12	52	176	22	38	52	87	64	10	5.6	3.6	1.9
12	11	39	112	19	33	47	74	58	10	4.5	3.1	1.9
13	9.9	32	84	17	30	40	62	49	11	4.2	2.9	1.8
14	8.4	83	62	15	27	35	56	41	8.8	3.9	4.0	9.8
15	7.2	108	65	13	29	31	59	36	7.9	4.5	3.7	4.5
16	6.6	78	66	12	27	29	61	31	8.8	4.3	3.1	2.6
17	6.6	56	57	11	18	36	56	28	13	4.0	3.8	2.3
18	5.8	42	48	12	17	39	50	24	33	3.6	5.0	13
19	6.0	41	43	14	16	36	43	21	18	3.4	3.3	5.4
20	5.2	86	57	12	17	36	38	21	15	3.7	3.2	3.8
21	5.0	96	90	10	19	37	37	17	14	5.7	3.1	3.2
22	4.7	73	287	10	17	36	33	15	23	8.5	3.0	2.9
23	4.7	53	174	11	16	33	40	15	17	5.7	2.7	5.9
24	5.2	42	107	10	15	33	59	17	15	4.3	2.7	4.9
25	4.7	36	79	9.5	14	36	89	18	14	3.7	2.9	3.5
26	4.3	48	62	9.9	15	36	158	19	12	3.8	2.5	3.2
27	4.0	52	50	59	18	32	210	22	14	3.5	2.5	2.9
28	5.8	52	41	86	17	27	250	42	14	3.2	2.5	2.7
29	5.8	47	33	77	-----	23	147	58	11	3.0	2.4	3.2
30	5.6	45	29	58	-----	24	98	55	9.6	2.9	2.3	6.1
31	5.2	-----	27	45	-----	22	-----	46	-----	4.2	2.2	-----
TOTAL	361.9	1,531	3,110	838.4	1,058	1,635	2,730	1,144	487.1	156.3	124.9	105.1
MEAN	11.7	51.0	100	27.0	37.8	52.7	91.0	36.9	16.2	5.04	4.03	3.50
MAX	85	108	376	86	137	174	250	72	37	8.7	17	13
MIN	2.1	11	27	9.5	14	22	33	15	7.9	2.9	2.2	1.8
CFSM	.70	3.05	5.99	1.62	2.26	3.16	5.45	2.21	.97	.30	.24	.21
IN.	.81	3.41	6.93	1.87	2.36	3.64	6.08	2.55	1.09	.35	.28	.23

CAL YR 1972 TOTAL 15,386.1 MEAN 42.0 MAX 376 MIN 1.8 CFSM 2.52 IN 34.27
WTR YR 1973 TOTAL 13,281.7 MEAN 36.4 MAX 376 MIN 1.8 CFSM 2.18 IN 29.59

PEAK DISCHARGE (BASE, 330 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	0215	2.64	440	4-28	0045	2.44	343
12-22	0945	2.44	343				

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 (1.1 km) downstream from Savage River Dam, 1.1 miles (1.8 km) downstream from Crabtree Creek, 3.2 miles (5.1 km) northwest of Bloomington, and 3.7 miles (6.0 km) upstream from mouth.

DRAINAGE AREA.--106 sq mi (275 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft (389.047 m) above mean sea level, Corps of Engineers bench mark.

AVERAGE DISCHARGE.--25 years, 163 cfs (4.616 cu m/s), 20.88 in/yr (530 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,140 cfs (88.9 cu m/s) Feb. 20, gage height, 5.90 ft (1.798 m); minimum, 5.4 cfs (0.15 cu m/s) Oct. 5, gage height, 0.85 ft (0.259 m).
Period of record: Maximum discharge, 6,530 cfs (185 cu m/s) Oct. 16, 1954, gage height, 7.70 ft (2.347 m); minimum, 0.35 cfs (0.010 cu m/s) Oct. 27, 1966, gage height, 0.57 ft (0.174 m); minimum daily, 0.6 cfs (0.017 cu m/s) 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 (24.7 cu hm).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	90	305	302	348	94	16	489	193	73	48	325
2	68	90	305	299	502	95	17	344	161	58	28	318
3	68	90	302	169	781	98	18	296	136	51	27	28
4	83	90	178	97	781	108	74	244	120	43	27	98
5	73	90	299	97	767	398	466	202	112	45	27	118
6	82	90	489	98	585	728	653	169	98	33	40	97
7	83	90	1,250	98	290	967	653	149	105	29	50	59
8	82	97	1,370	98	290	1,040	659	149	81	27	65	61
9	80	401	401	98	290	715	843	369	69	31	78	69
10	468	612	1,360	239	219	540	941	507	60	39	100	92
11	713	601	2,280	305	97	531	754	420	52	45	116	103
12	504	595	2,380	229	97	376	312	324	52	42	116	103
13	103	585	1,740	95	217	290	122	267	92	52	92	103
14	103	585	322	95	287	176	122	219	66	57	78	74
15	103	585	44	95	132	98	191	189	48	57	103	65
16	103	585	94	95	12	98	122	163	48	57	73	61
17	105	580	94	95	12	102	284	147	61	57	19	61
18	103	635	355	95	12	102	221	127	178	57	345	39
19	102	545	522	95	64	102	122	112	145	69	198	26
20	102	275	297	95	794	103	122	115	115	77	65	26
21	102	281	171	95	43	79	122	103	94	77	45	26
22	102	512	625	80	30	63	122	83	108	29	26	26
23	102	575	1,330	81	46	44	86	80	86	15	14	26
24	95	466	1,290	81	46	32	62	89	69	24	14	38
25	92	398	1,240	60	46	32	129	94	58	26	14	60
26	92	398	443	58	46	33	1,080	90	51	39	14	60
27	90	217	70	69	46	21	1,380	94	49	44	14	60
28	92	95	100	312	77	14	2,100	182	100	44	23	60
29	92	229	100	526	-----	14	1,120	287	136	55	35	60
30	90	308	235	521	-----	14	702	278	100	70	48	60
31	90	-----	306	512	-----	14	-----	236	-----	77	48	-----
TOTAL	4,235	10,840	20,297	5,284	6,957	7,121	13,615	6,617	2,843	1,499	1,990	2,402
MEAN	137	361	655	170	248	230	454	213	94.8	48.4	64.2	80.1
MAX	713	635	2,380	526	794	1,040	2,100	507	193	77	345	325
MIN	68	90	44	58	12	14	16	80	48	15	14	26
(†)	9,290	6,680	5,020	4,580	4,330	9,990	20,250	20,140	20,090	18,950	17,870	14,820

CAL YR 1972 TOTAL 95,383 MEAN 261 MAX 2,380 MIN 15 CFSM 2.46 IN 33.42
WTR YR 1973 TOTAL 83,700 MEAN 229 MAX 2,380 MIN 12 CFSM 2.16 IN 29.32

† Month-end contents, in acre-ft, in Savage River Reservoir (contents on Sept. 30, 1972, 13,080 acre-ft).
Records furnished by Corps of Engineers.

POTOMAC RIVER BASIN

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 (0.3 km) downstream from Savage River, 0.5 mile (0.8 km) northwest of Luke, and at mile 53.3 (85.8 km).

DRAINAGE AREA.--404 sq mi (1,046 sq km).

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 (288.417 m) above mean sea level, adjustment of 1912. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 miles (1.8 km) downstream at datum about 35 feet (about 11 m) lower.

AVERAGE DISCHARGE.--30 years (1899-1905, 1949-1973), 695 cfs (19.68 cu m/s), 23.36 in/yr (593 mm/yr), adjusted for storage since 1949.

EXTREMES.--Current year: Maximum discharge, 12,500 cfs (354 cu m/s) Dec. 8, gage height, 10.47 ft (3.191 m); minimum, 77 cfs (2.18 cu m/s) Sept. 3, gage height, 1.09 ft (0.332 m).
Period of record: Maximum discharge, 39,400 cfs (1,120 cu m/s) Oct. 15, 1954, gage height, 17.15 ft (5.227 m); minimum daily, 6 cfs (0.17 cu m/s) Sept. 4, 1904.

REMARKS.--Records good. Flow regulated since 1913 by Stony River Reservoir, 45 miles (72.4 km) above station (see station 01595200), and since December 1950, by Savage River Reservoir, 5 miles (8.0 km) 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 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	461	997	858	835	488	795	2,120	729	272	459	370
2	149	930	932	810	1,830	618	1,560	1,640	624	231	621	368
3	134	703	974	658	2,450	1,210	1,210	1,450	549	203	286	84
4	136	574	1,110	1,140	1,860	1,720	1,740	1,300	534	179	188	142
5	608	493	1,580	976	1,650	1,820	2,290	1,100	721	175	147	164
6	2,560	434	1,930	790	1,410	2,180	2,080	934	643	162	136	160
7	3,960	398	2,910	644	1,040	2,340	1,810	808	934	141	134	148
8	1,700	1,920	3,830	591	1,130	2,400	3,350	764	621	127	137	115
9	1,260	2,100	8,190	520	1,180	1,850	2,970	1,540	507	120	141	118
10	1,030	1,760	6,400	520	913	1,290	3,080	1,470	438	121	154	131
11	1,040	1,490	5,690	600	664	1,210	2,520	1,230	379	129	176	145
12	980	1,320	4,790	560	592	1,030	1,820	1,040	383	124	184	140
13	585	1,190	3,700	410	600	854	1,350	898	906	120	163	134
14	510	2,150	1,980	380	600	696	1,260	762	499	123	166	387
15	344	2,760	1,760	420	782	581	1,510	676	367	124	478	575
16	308	1,890	1,960	390	717	561	1,600	603	328	161	285	228
17	299	1,600	1,370	360	540	708	1,530	544	483	150	177	166
18	282	1,460	1,410	372	460	817	1,520	507	2,050	137	1,400	292
19	279	1,420	1,490	380	500	818	1,200	448	1,050	125	661	307
20	280	2,680	1,610	504	640	796	1,040	448	718	132	390	176
21	261	1,970	1,690	355	452	808	1,230	471	576	169	331	137
22	258	1,800	5,570	371	388	711	972	388	662	325	277	121
23	254	1,630	4,460	391	393	638	913	351	608	212	215	147
24	255	1,360	3,460	352	376	648	1,500	385	451	258	182	247
25	250	1,170	2,670	292	348	761	1,590	495	373	147	189	197
26	238	1,480	1,670	300	363	795	3,470	446	323	130	169	165
27	229	1,340	1,030	649	419	876	4,640	438	313	136	143	149
28	236	976	911	1,190	407	677	6,450	933	546	127	133	141
29	272	1,050	793	1,270	-----	591	4,240	1,380	448	121	130	142
30	289	1,030	846	1,040	-----	607	2,840	1,030	337	161	137	364
31	274	-----	916	979	-----	575	-----	881	-----	151	128	-----
TOTAL	19,434	41,539	78,629	19,072	23,539	31,674	64,080	27,480	18,100	4,993	8,517	6,160
MEAN	627	1,385	2,536	615	841	1,022	2,136	886	603	161	275	205
MAX	3,960	2,760	8,190	1,270	2,450	2,400	6,450	2,120	2,050	325	1,400	575
MIN	134	398	793	292	348	488	795	351	313	120	128	84

CAL YR 1972 TOTAL 408,238 MEAN 1,115 MAX 8,190 MIN 120 CFSM 2.76 IN 37.46
WTR YR 1973 TOTAL 343,217 MEAN 940 MAX 8,190 MIN 84 CFSM 2.33 IN 31.58

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 (1.9 km) upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 sq mi (187.5 sq km).

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 (292.291 m) above mean sea level, Westvaco Corporation bench mark. May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mile (1.3 km) downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft (29 m) downstream at present datum.

AVERAGE DISCHARGE.--44 years (1929-73), 78.8 cfs (2.232 cu m/s), 14.78 in/yr. (375 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,270 cfs (64.3 cu m/s) July 31, gage height, 8.01 ft (2.441 m); minimum, 9.1 cfs (0.26 cu m/s) Oct. 3, 4, 5, gage height, 3.13 ft (0.954 m).
Period of record: Maximum discharge, 8,500 cfs (241 cu m/s) Mar. 17, 1936, gage height, 9.6 ft (2.93 m), site then in use, from rating curve extended above 2,000 cfs (56.6 cu m/s) on basis of slope-area measurement of peak flow; minimum, 1.6 cfs (0.045 cu m/s) Sept. 29 to Oct. 13, 1930.
Flood of Mar. 29, 1924, reached a stage of about 10 ft (3.0 m), from floodmarks, at site 95 ft (29 m) downstream.

REMARKS.--Records good. Records include about 0.5 cfs (0.014 cu m/s) of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge 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, 1965-73 by the U. S. Geological Survey and in the water years 1958 and 1959 by the Maryland Geological Survey.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	29	117	115	97	69	143	308	107	47	316	20
2	11	40	114	103	475	81	167	260	94	39	177	19
3	9.6	38	126	92	450	185	148	238	85	33	88	18
4	9.6	33	193	109	332	268	356	199	78	30	58	17
5	107	28	300	125	256	276	340	162	80	29	42	17
6	111	25	445	128	208	324	264	143	109	25	34	16
7	260	25	394	113	190	284	221	132	134	22	29	16
8	80	379	465	101	212	260	570	132	83	19	25	15
9	51	169	796	88	188	212	430	212	71	18	22	14
10	37	116	690	85	150	185	500	157	60	26	21	13
11	30	98	500	77	128	167	384	148	52	28	22	12
12	28	82	380	74	111	155	328	134	60	18	19	12
13	27	69	348	60	105	132	276	123	81	15	18	12
14	23	289	268	56	105	119	242	111	52	14	35	71
15	20	255	332	52	111	111	218	101	46	16	36	36
16	19	166	304	48	99	109	193	94	50	17	24	17
17	18	133	221	45	69	185	177	88	51	15	21	15
18	17	108	190	48	68	167	170	81	165	14	34	125
19	19	117	175	54	60	145	153	75	81	13	66	44
20	18	308	180	46	62	136	136	74	66	14	171	30
21	17	202	218	39	71	136	123	74	56	16	123	25
22	16	164	685	39	65	121	113	71	59	42	76	22
23	16	133	495	42	62	109	123	68	51	38	58	24
24	18	111	372	39	58	103	145	68	44	22	48	27
25	16	103	324	38	55	101	235	85	37	17	48	22
26	15	216	272	39	59	101	380	72	37	25	39	19
27	14	172	228	190	63	90	791	75	41	17	33	17
28	18	150	190	177	58	80	774	215	101	14	29	14
29	20	134	160	157	-----	75	535	177	97	12	25	14
30	19	122	139	115	-----	88	398	143	55	12	22	22
31	16	-----	125	105	-----	87	-----	130	-----	202	22	-----
TOTAL	1,093.2	4,014	9,746	2,599	3,967	4,661	9,033	4,150	2,183	869	1,781	745
MEAN	35.3	134	314	83.8	142	150	301	134	72.8	28.0	57.5	24.8
MAX	260	379	796	190	475	324	791	308	165	202	316	125
MIN	9.6	25	114	38	55	69	113	68	37	12	18	12
CFSM	.49	1.85	4.34	1.16	1.96	2.07	4.16	1.85	1.01	.39	.79	.34
IN.	.56	2.06	5.01	1.34	2.04	2.39	4.64	2.13	1.12	.45	.92	.38

CAL YR 1972 TOTAL 51,336.6 MEAN 140 MAX 941 MIN 9.1 CFSM 1.93 IN 26.38
WTR YR 1973 TOTAL 44,841.2 MEAN 123 MAX 796 MIN 9.6 CFSM 1.70 IN 23.04

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-27	1800	6.93	1,530	7-31	2115	8.01	2,270

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 (4.5 km) downstream from Mill Run, and at mile 32.6 (52.4 km).

DRAINAGE AREA.--596 sq mi (1,544 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft (197.581 m) above mean sea level, Corps of Engineers bench mark. Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250 ft (76 m) downstream at same datum.

AVERAGE DISCHARGE.--35 years, 869 cfs (24.61 cu m/s), 19.80 in/yr (503 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 16,500 cfs (467 cu m/s) Dec. 9, gage height, 15.44 ft (4.706 m); minimum, 98 cfs (2.78 cu m/s) Sept. 4, gage height, 1.77 ft (0.539 m).

Period of record: Maximum discharge, 37,000 cfs (1,050 cu m/s) Oct. 16, 1954, gage height, 23.23 ft (7.081 m); minimum, 31 cfs (0.88 cu m/s) Dec. 18, 19, 1943, gage height, 1.37 ft (0.418 m), result of freezeup.

Flood of Mar. 29, 1924, reached a stage of about 24 ft (7.3 m), discharge, about 55,000 cfs or about 1,560 cu m/s. Flood of Mar. 17, 1936, reached a stage of about 23.5 ft (7.16 m), from floodmarks (discharge, about 50,000 cfs or about 1,420 cu m/s).

REMARKS.--Records good. Some regulation at low flow by Stony River Reservoir, 66 miles (106 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	352	1,320	1,130	1,220	661	1,070	2,740	1,100	405	845	294
2	192	1,040	1,260	1,060	2,200	796	2,000	2,190	940	342	973	424
3	166	874	1,310	957	3,530	1,180	1,760	1,900	820	297	518	295
4	152	716	1,460	1,480	2,570	2,160	2,130	1,750	761	267	319	125
5	340	596	2,000	1,500	2,170	2,100	3,060	1,490	979	242	236	199
6	2,430	521	2,340	1,200	1,940	2,620	2,670	1,280	1,060	235	193	208
7	4,660	470	3,570	1,010	1,520	2,660	2,290	1,130	1,710	203	185	204
8	1,960	2,160	3,640	900	1,590	2,790	4,140	1,050	1,120	183	174	149
9	1,630	2,370	11,800	794	1,690	2,360	3,960	1,620	857	168	180	143
10	1,150	2,080	7,960	799	1,420	1,730	4,050	1,830	714	156	176	148
11	1,150	1,730	6,770	902	1,090	1,580	3,360	1,520	613	181	212	168
12	1,180	1,540	5,390	862	900	1,440	2,630	1,350	558	170	216	172
13	713	1,380	4,070	580	880	1,190	2,000	1,190	1,180	154	222	163
14	619	2,240	2,560	535	900	1,060	1,840	1,050	830	154	206	326
15	469	3,420	2,410	580	1,080	877	1,940	950	594	154	513	917
16	370	2,300	2,840	552	1,080	841	1,990	866	502	170	432	369
17	356	1,910	1,980	518	690	1,080	1,840	792	511	213	252	237
18	337	1,720	1,760	526	620	1,290	1,950	735	2,180	177	1,210	400
19	334	1,630	1,880	532	693	1,200	1,590	666	1,510	159	1,030	497
20	333	3,280	1,870	667	1,320	1,200	1,410	628	1,030	158	678	292
21	314	2,550	2,030	579	738	1,210	1,490	657	830	174	655	213
22	304	2,180	6,930	513	596	1,100	1,300	598	766	366	476	179
23	301	1,970	5,630	548	586	993	1,180	518	879	339	357	194
24	303	1,690	4,020	537	567	955	1,750	524	636	329	291	286
25	297	1,440	3,130	474	530	1,010	1,720	698	520	230	275	278
26	283	1,870	2,290	418	521	1,070	4,300	675	454	181	264	225
27	270	1,940	1,500	701	587	1,140	5,710	648	429	193	222	200
28	279	1,390	1,320	1,630	577	963	9,480	1,410	673	174	192	185
29	308	1,390	1,150	1,690	-----	836	5,590	2,090	717	151	180	178
30	322	1,360	1,110	1,400	-----	833	3,590	1,560	511	161	176	310
31	330	-----	1,190	1,280	-----	832	-----	1,350	-----	185	172	-----
TOTAL	22,079	50,109	98,490	26,854	33,805	41,757	83,790	37,455	25,984	6,671	12,030	7,978
MEAN	712	1,670	3,177	866	1,207	1,347	2,793	1,208	866	215	388	266
MAX	4,660	3,420	11,800	1,690	3,530	2,790	9,480	2,740	2,180	405	1,210	917
MIN	152	352	1,110	418	521	661	1,070	518	429	151	172	125
CAL YR 1972	TOTAL 509,429	MEAN 1,392	MAX 11,800	MIN 138	CFSM 2.34	IN 31.71						
WTR YR 1973	TOTAL 447,002	MEAN 1,225	MAX 11,800	MIN 125	CFSM 2.06	IN 27.90						

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, 2.0 miles (3.2 km) upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 sq mi (640 sq km).

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 (195.343 m) above mean sea level, Corps of Engineers bench mark. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft (213 m) 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 (61 m) upstream at present datum.

AVERAGE DISCHARGE.--44 years (1929-73), 316 cfs (8.949 cu m/s), 17.37 in/yr (441 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,890 cfs (110 cu m/s) Apr. 28, gage height, 6.53 ft (1.990 m); minimum, 32 cfs (0.91 cu m/s) Sept. 13, gage height, 1.64 ft (0.500 m).
Period of record: Maximum discharge, 38,100 cfs (1,080 cu m/s) Mar. 17, 1936, gage height, 20.2 ft (6.16 m), from floodmarks at present site, from rating curve extended above 6,500 cfs (184 cu m/s) on basis of slope-area measurements at gage heights 13.45 ft (4.100 m) and 20.2 ft (6.16 m); minimum, 9 cfs (0.25 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	53	464	317	494	200	442	960	520	138	470	49
2	41	72	436	283	2,040	300	842	748	420	116	511	46
3	38	99	454	252	2,510	580	980	638	370	105	217	44
4	38	101	534	430	1,500	960	1,520	560	340	98	144	42
5	47	91	801	422	1,010	1,000	2,340	464	310	95	107	44
6	120	81	1,420	361	784	1,000	1,440	392	310	88	88	46
7	300	75	1,580	287	695	900	976	338	440	79	83	43
8	140	808	1,540	266	715	800	2,010	321	530	74	77	38
9	64	590	3,250	246	671	720	2,150	605	400	68	66	38
10	47	390	3,420	259	620	660	1,990	610	300	69	60	37
11	42	292	2,130	231	580	580	1,560	622	180	69	61	35
12	45	233	1,380	220	500	520	1,240	545	172	66	58	33
13	50	186	1,080	192	430	460	960	482	224	61	54	33
14	46	707	836	196	350	420	782	415	164	57	66	114
15	42	1,010	1,020	214	350	380	666	366	138	57	82	103
16	40	664	1,050	197	320	360	585	321	142	59	64	62
17	40	474	814	183	270	600	520	302	162	57	55	48
18	37	353	679	179	340	700	487	275	374	54	82	224
19	44	354	601	188	330	660	464	244	234	52	121	135
20	44	756	594	211	290	593	397	237	190	51	184	82
21	42	686	657	148	270	559	352	234	164	62	237	67
22	41	596	2,240	222	260	508	325	201	154	96	152	60
23	41	469	2,090	325	250	452	330	185	136	72	108	74
24	42	369	1,340	258	230	409	340	207	120	62	94	85
25	46	320	958	224	210	386	366	294	108	60	88	64
26	44	728	767	238	210	401	1,030	247	99	72	76	57
27	41	726	649	717	210	366	1,360	286	150	61	68	53
28	47	669	540	993	200	309	3,490	953	257	55	62	50
29	48	571	448	938	-----	280	2,440	1,100	294	51	57	51
30	50	491	387	705	-----	306	1,410	842	172	47	54	55
31	49	-----	356	584	-----	308	-----	660	-----	63	50	-----
TOTAL	1,806	13,014	34,515	10,486	16,639	16,677	33,794	14,654	7,574	2,214	3,696	1,912
MEAN	58.3	434	1,113	338	594	538	1,126	473	252	71.4	119	63.7
MAX	300	1,010	3,420	993	2,510	1,000	3,490	1,100	530	138	511	224
MIN	37	53	356	148	200	200	325	185	99	47	50	33
CFSM	.24	1.76	4.51	1.37	2.40	2.18	4.56	1.92	1.02	.29	.48	.26
IN.	.27	1.96	5.20	1.58	2.51	2.51	5.09	2.21	1.14	.33	.56	.29

CAL YR 1972 TOTAL 202,707 MEAN 554 MAX 8,840 MIN 27 CFSM 2.24 IN 30.53
WTR YR 1973 TOTAL 156,981 MEAN 430 MAX 3,490 MIN 33 CFSM 1.74 IN 23.64

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-10	1115	6.51	3,870	4-28	1000	6.53	3,890

POTOMAC RIVER BASIN

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 (3.4 km) downstream from Wills Creek, 2.0 miles (3.2 km) south of Cumberland, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--875 sq mi (2,266 sq km).

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 miles (3.2 km) upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft (178.375 m) above mean sea level, Corps of Engineers bench mark. Prior to June 18, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--44 years, 1,225 cfs (34.69 cu m/s), 19.01 in/yr (483 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 19,400 cfs (549 cu m/s) Dec. 9, gage height, 15.66 ft (4.773 m); minimum, 147 cfs (4.16 cu m/s) Sept. 4, gage height, 2.24 ft (0.683 m).
Period of record: Maximum discharge, 88,200 cfs (2,500 cu m/s) Mar. 17, 1936, gage height, 29.1 ft (8.87 m), from rating curve extended above 33,000 cfs (935 cu m/s) on basis of slope-area measurement of peak flow; minimum (river only), 12 cfs (0.34 cu m/s) Sept. 22, 1932, gage height, 2.38 ft (0.725 m); minimum daily (including flow in canal), 38 cfs (1.08 cu m/s) Sept. 24, 1932.
Maximum stage known, 29.2 ft (8.90 m) June 1, 1889, discharge, about 89,000 cfs or about 2,520 cu m/s.
Flood of Mar. 29, 1924, reached a stage of 28.4 ft (8.66 m), discharge, about 82,000 cfs or about 2,320 cu m/s.

REMARKS.--Records good. Regulation by Stony River Reservoir, about 79 miles (127 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	402	1,960	1,580	1,870	930	1,490	4,240	1,820	579	1,190	230
2	257	932	1,850	1,450	3,960	1,100	2,970	3,390	1,500	498	1,630	490
3	229	968	1,920	1,340	6,970	1,590	3,060	2,910	1,270	448	890	490
4	205	824	2,150	1,950	4,670	3,360	3,900	2,650	1,170	408	538	170
5	402	689	3,000	2,220	3,580	3,350	5,970	2,230	1,280	378	402	242
6	2,440	616	3,950	1,710	3,100	4,100	4,590	1,890	1,390	366	325	278
7	5,450	560	5,790	1,440	2,490	4,030	3,650	1,640	2,370	318	297	266
8	2,470	2,820	5,480	1,260	2,520	4,190	6,080	1,510	1,620	284	284	225
9	1,810	3,260	14,700	1,120	2,630	3,630	7,090	2,300	1,200	254	266	181
10	1,200	2,710	11,800	1,060	2,220	2,780	6,800	2,890	1,010	242	260	192
11	1,190	2,090	10,200	1,230	1,760	2,430	5,650	2,430	880	254	284	203
12	1,190	1,800	7,690	1,170	1,460	2,240	4,420	2,150	780	254	311	219
13	851	1,560	5,960	910	1,300	1,830	3,360	1,850	1,380	230	304	208
14	698	2,710	4,150	810	1,360	1,640	2,960	1,610	1,120	214	332	420
15	576	5,160	3,600	880	1,530	1,350	2,830	1,430	780	219	579	1,090
16	450	3,400	4,610	840	1,510	1,290	2,870	1,270	700	230	588	538
17	423	2,700	3,270	780	980	1,760	2,610	1,170	800	284	390	353
18	402	2,300	2,730	780	900	2,110	2,750	1,090	2,790	248	1,110	642
19	396	2,210	2,820	800	960	1,970	2,280	1,000	1,840	225	1,410	730
20	396	4,320	2,700	940	1,430	1,910	1,970	950	1,260	214	990	455
21	382	3,740	3,000	830	1,350	1,850	1,970	970	1,040	248	1,000	346
22	364	3,150	7,930	800	900	1,700	1,790	880	980	434	720	284
23	364	2,780	8,950	960	850	1,510	1,630	770	1,050	506	538	290
24	364	2,340	6,180	890	830	1,400	2,300	810	800	408	441	384
25	358	1,960	4,730	780	780	1,410	2,320	1,050	670	366	408	402
26	352	2,800	3,610	730	780	1,510	5,900	1,020	588	290	390	339
27	334	3,120	2,400	1,450	840	1,560	7,360	1,020	660	278	339	290
28	346	2,300	2,060	2,840	840	1,340	14,200	2,450	1,040	248	297	266
29	364	2,110	1,760	2,960	-----	1,170	8,940	3,640	1,050	219	266	260
30	382	2,040	1,580	2,360	-----	1,180	5,650	2,790	730	197	248	304
31	396	-----	1,670	2,050	-----	1,190	-----	2,320	-----	248	248	-----
TOTAL	25,352	68,371	144,200	40,920	54,370	63,410	129,360	58,320	35,568	9,589	17,275	10,787
MEAN	818	2,279	4,652	1,320	1,942	2,045	4,312	1,881	1,186	309	557	360
MAX	5,450	5,160	14,700	2,960	6,970	4,190	14,200	4,240	2,790	579	1,630	1,090
MIN	205	402	1,580	730	780	930	1,490	770	588	197	248	170

CAL YR 1972 TOTAL 763,050 MEAN 2,085 MAX 14,700 MIN 191 CFSM 2.38 IN 32.35
WTR YR 1973 TOTAL 657,522 MEAN 1,801 MAX 14,700 MIN 170 CFSM 2.06 IN 27.94

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	1115	15.66	19,400	4-28	0645	14.03	16,600
12-23	0300	10.52	10,800				

POTOMAC RIVER BASIN

79

01603500 Evitts Creek near Centerville, Pa.

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, on left bank 2.0 miles (3.2 km) upstream from Thomas W. Koon Dam, 3.0 miles (4.8 km) south of Centerville, 7.0 miles (11.3 km) upstream from Rock Gully Creek, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--30.2 sq mi (78.2 sq km).

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 (313.209 m) above mean sea level, city of Cumberland bench mark.

AVERAGE DISCHARGE.--41 years, 31.2 cfs (0.884 cu m/s), 14.03 in/yr (356 mm/yr).

EXTREMES.--Current year: Maximum discharge, 505 cfs (14.3 cu m/s) Feb. 2, gage height, 2.95 ft (0.899 m); minimum, 4.2 cfs (0.12 cu m/s) Oct. 4, 5, gage height, 1.14 ft (0.347 m).
Period of record: Maximum discharge, 5,240 cfs (148 cu m/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 cfs (11.3 cu m/s) on basis of slope-area measurements at gage heights 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum, 0.70 cfs (0.020 cu m/s) Dec. 17, 1958, gage height, 0.79 ft (0.241 m), result of freezeup.
Maximum stage known, about 8 ft (2.4 m), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	5.8	32	37	50	22	59	92	54	14	21	5.3
2	4.9	9.0	40	33	130	23	92	80	46	13	18	5.1
3	4.5	9.0	44	30	290	26	63	80	40	12	8.4	5.1
4	4.4	7.5	44	63	200	58	198	70	37	11	6.7	18
5	5.5	6.2	55	46	150	70	153	59	37	14	6.0	9.4
6	14	5.8	118	34	110	90	110	50	40	11	5.5	6.2
7	33	5.5	95	35	94	78	95	46	46	9.8	6.0	5.8
8	16	86	150	35	100	72	325	44	29	9.0	6.5	5.1
9	7.5	22	305	35	96	68	187	74	25	8.4	5.8	4.9
10	5.5	13	259	35	90	64	237	52	22	9.4	5.3	4.9
11	4.9	11	150	32	88	56	150	47	20	11	6.2	4.7
12	5.1	9.8	113	32	76	50	124	44	19	8.1	7.2	4.5
13	5.8	8.7	103	33	60	46	101	40	23	7.5	7.0	4.4
14	5.1	68	84	32	50	42	86	37	18	7.0	8.4	24
15	4.9	50	126	30	50	37	74	35	16	7.5	31	13
16	4.7	23	110	26	50	34	66	33	18	7.8	9.0	7.0
17	4.7	19	70	23	26	92	63	37	18	7.2	7.0	6.0
18	4.4	16	59	23	33	130	57	34	28	6.7	11	44
19	5.3	23	57	23	31	84	54	31	19	6.2	9.4	13
20	5.1	72	57	26	29	60	47	32	16	6.2	12	9.4
21	4.9	34	59	21	28	41	43	30	14	7.2	19	8.4
22	4.9	26	209	22	27	38	40	26	14	8.4	13	7.8
23	5.1	21	126	37	25	35	46	25	20	7.8	10	13
24	5.5	19	103	31	24	33	52	30	16	7.0	8.7	9.4
25	5.3	20	86	27	23	32	74	44	13	6.2	8.4	7.5
26	5.1	110	76	26	23	35	115	31	13	7.2	7.5	7.2
27	4.7	50	66	54	23	32	187	32	14	6.5	7.2	6.7
28	5.5	46	57	130	22	28	225	124	38	5.8	6.7	6.5
29	5.8	40	47	100	-----	26	140	84	33	5.3	6.0	7.2
30	5.5	33	43	78	-----	33	110	72	18	5.1	5.8	8.4
31	5.1	-----	41	60	-----	31	-----	68	-----	5.1	5.5	-----
TOTAL	208.5	869.3	2,984	1,249	1,998	1,566	3,373	1,583	764	258.4	295.2	281.9
MEAN	6.73	29.0	96.3	40.3	71.4	50.5	112	51.1	25.5	8.34	9.52	9.40
MAX	33	110	305	130	290	130	325	124	54	14	31	44
MIN	4.4	5.5	32	21	22	22	40	25	13	5.1	5.3	4.4
CFSM	.22	.96	3.19	1.33	2.36	1.67	3.71	1.69	.84	.28	.32	.31
IN.	.26	1.07	3.68	1.54	2.46	1.93	4.15	1.95	.94	.32	.36	.35

CAL YR 1972 TOTAL 21,885.0 MEAN 59.8 MAX 1,580 MIN 3.8 CFSM 1.98 IN 26.96
WTR YR 1973 TOTAL 15,430.3 MEAN 42.3 MAX 325 MIN 4.4 CFSM 1.40 IN 19.01

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-2	†	2.95	505	4-8	1315	2.94	498

† Unknown.
Note: No gage-height record Jan. 13 to Mar. 21.

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 (3.2 km) east of Springfield, and at mile 13.4 (21.6 km).

DRAINAGE AREA.--1,471 sq mi (3,810 sq km).

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 (171.304 m) above mean sea level. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 miles (18.0 km) upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 miles (16.1 km) 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.--49 years (1899-1901, 1903-5, 1928-73), 1,264 cfs (35.80 cu m/s), 11.67 in/yr (296 mm/yr).

EXTREMES.--Current year: Maximum discharge, 46,100 cfs (1,310 cu m/s) Oct. 6, gage height, 21.11 ft (6.434 m), from rating curve extended as explained below; minimum, 190 cfs (5.38 cu m/s) Sept. 13, 14, gage height, 1.52 ft (0.463 m).

Period of record: Maximum discharge, 143,000 cfs (4,050 cu m/s) Mar. 18, 1936, gage height, 34.2 ft (10.42 m), from rating curve extended above 18,000 cfs (510 cu m/s) on basis of measurement made about 10 miles (16 km) upstream from station, adjusted for storage and inflow and slope-area measurement at gage height 29.84 ft (9.095 m); minimum, 29 cfs (0.82 cu m/s) Jan. 28, 1956, result of freezeup, July 30, 1966; minimum gage height, 0.39 ft (0.119 m) July 30, 1966.

Flood in November 1877 reached a stage of about 34 ft (10.4 m), from floodmarks, discharge, 140,000 cfs (3,960 cu m/s).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	617	2,540	1,660	1,840	988	1,920	4,780	2,340	526	258	281
2	248	837	2,420	1,500	3,090	1,060	4,420	3,740	1,810	425	331	257
3	266	1,300	2,290	1,340	13,700	1,210	4,260	3,140	1,490	379	367	238
4	235	1,310	2,080	2,730	8,950	1,840	4,110	2,990	1,300	397	318	228
5	258	1,180	2,070	3,080	5,430	2,680	5,430	2,550	1,920	365	280	215
6	18,500	1,040	2,290	2,580	4,000	3,420	4,400	2,190	2,300	340	251	222
7	24,600	915	3,600	2,190	3,460	3,530	3,540	1,910	2,260	318	232	222
8	10,300	2,700	4,930	1,820	3,470	3,220	5,010	1,710	1,520	301	223	222
9	5,280	5,210	15,300	1,590	3,810	3,020	9,000	1,770	1,200	285	276	214
10	3,340	3,950	13,300	1,400	3,420	2,770	9,190	1,820	994	278	281	208
11	2,300	2,970	9,970	1,200	2,860	2,470	7,500	1,640	852	317	281	201
12	1,720	2,320	6,640	1,100	2,360	2,210	5,440	1,540	755	293	272	197
13	1,410	1,820	4,920	1,000	2,050	1,980	4,460	1,430	1,390	334	265	193
14	1,190	2,600	3,820	983	1,900	1,730	4,160	1,310	1,080	293	274	241
15	989	6,440	4,550	1,050	1,860	1,570	3,680	1,200	773	270	621	347
16	849	4,850	6,670	984	2,200	1,470	3,440	1,100	653	277	609	323
17	752	3,540	4,870	909	1,860	2,070	3,350	1,040	607	295	513	338
18	684	2,770	3,670	851	1,420	6,630	3,460	1,020	638	313	2,310	287
19	646	2,290	3,180	834	1,300	4,810	3,190	1,010	674	287	1,180	257
20	673	7,540	2,850	871	1,390	3,630	2,820	921	687	256	1,210	235
21	725	7,080	2,740	893	1,290	3,090	2,460	866	581	246	1,240	222
22	647	4,930	9,300	797	1,210	2,820	2,150	814	601	274	1,050	216
23	604	3,740	12,100	868	1,140	2,440	1,990	761	669	298	697	219
24	581	2,930	7,330	1,290	1,080	2,160	2,010	746	682	343	547	219
25	560	2,370	5,190	1,190	1,010	2,070	2,130	906	544	382	569	224
26	537	2,940	4,030	1,090	934	2,180	5,370	1,110	473	342	764	227
27	509	4,900	3,360	1,290	932	2,440	8,160	1,130	442	410	673	221
28	504	4,000	2,830	2,770	988	2,510	19,700	1,640	458	421	511	211
29	534	3,320	2,370	3,050	-----	2,220	11,000	5,230	496	329	400	205
30	595	2,790	2,010	2,610	-----	2,010	6,520	4,250	536	281	343	215
31	606	-----	1,790	2,080	-----	1,840	-----	3,090	-----	258	309	-----
TOTAL	80,862	95,199	155,010	47,600	78,954	78,088	154,270	59,354	30,725	10,133	17,455	7,105
MEAN	2,608	3,173	5,000	1,535	2,820	2,519	5,142	1,915	1,024	327	563	237
MAX	24,600	7,540	15,300	3,080	13,700	6,630	19,700	5,230	2,340	526	2,310	347
MIN	220	617	1,790	797	932	988	1,920	746	442	246	223	193
CFSM	1.77	2.16	3.40	1.04	1.92	1.71	3.50	1.30	.70	.22	.38	.16
IN.	2.04	2.41	3.92	1.20	2.00	1.97	3.90	1.50	.78	.26	.44	.18

CAL YR 1972 TOTAL 901,917 MEAN 2,464 MAX 24,600 MIN 180 CFSM 1.68 IN 22.81
WTR YR 1973 TOTAL 814,755 MEAN 2,232 MAX 24,600 MIN 193 CFSM 1.52 IN 20.60

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 6	2345	21.11	46,100	2- 3	1030	12.40	15,900
12- 9	2000	13.31	17,900	4-10	1345	9.47	10,200
12-22	2300	12.02	15,000	4-28	1000	14.93	22,000

POTOMAC RIVER BASIN

81

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 (3.2 km) upstream from Sawpit Run, 3.0 miles (4.8 km) northeast of Oldtown, and 4.0 miles (6.4 km) upstream from mouth.

DRAINAGE AREA.--148 sq mi (383 sq km).

PERIOD OF RECORD.--July 1928 to September 1935, June 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (168 m), from topographic map. July 1928, to September 1935, nonrecording gage on upstream side of highway bridge at datum 0.08 ft (0.024 m) lower.

AVERAGE DISCHARGE.--13 years (1928-35, 1967-73), 150 cfs (4.248 cu m/s), 13.76 in/yr (350 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,040 cfs (57.8 cu m/s) Feb. 3, gage height, 8.31 ft (2.533 m); minimum, 11 cfs (0.31 cu m/s) Sept. 12, gage height, 1.99 ft (0.607 m).
 Period of record: Maximum discharge, 11,700 cfs (331 cu m/s) June 22, 1972, gage height, 14.13 ft (4.307 m); minimum, 0.9 cfs (0.025 cu m/s) Aug. 2, 3, 7-14, 1930, gage height, 1.49 ft (0.454 m).
 Flood of Mar. 17 or 18, 1936, reached a stage of 19.08 ft (5.816 m), from floodmarks, discharge, 27,000 cfs (765 cu m/s), from rating curve extended above 9,500 cfs (269 cu m/s) on basis of contracted-opening measurement of peak flow.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	15	222	172	250	92	368	406	263	159	23	23
2	17	16	213	146	1,110	97	720	325	206	115	31	21
3	14	22	304	130	1,680	112	486	294	170	89	34	20
4	12	26	298	361	834	219	990	279	184	74	25	20
5	17	26	376	439	538	258	1,350	223	499	62	20	24
6	39	22	631	335	400	470	646	192	419	62	17	22
7	167	20	1,180	230	359	403	444	168	695	51	16	20
8	95	454	810	190	370	371	1,100	155	272	44	15	18
9	44	307	1,710	155	360	318	1,070	391	180	39	14	17
10	29	138	1,420	155	330	272	1,110	315	137	37	15	16
11	21	94	1,080	140	299	242	766	258	115	34	14	15
12	18	71	690	140	260	223	562	215	97	36	12	15
13	16	57	512	135	220	192	441	188	91	32	15	15
14	16	298	409	140	180	172	330	163	82	28	34	38
15	15	645	700	125	180	159	282	145	69	27	46	103
16	14	290	993	110	170	148	244	133	63	27	57	47
17	12	179	577	96	110	495	258	130	67	27	32	30
18	12	131	380	96	140	716	270	136	95	25	25	124
19	13	118	320	96	135	460	242	120	98	23	81	168
20	13	743	283	110	120	333	215	114	72	22	74	82
21	13	421	255	88	125	270	192	120	62	23	532	58
22	13	275	1,030	90	120	228	178	100	56	36	248	44
23	13	196	916	152	110	194	200	89	57	33	134	42
24	14	151	600	135	106	166	333	88	127	27	88	44
25	14	125	447	113	97	155	341	184	91	23	63	39
26	13	694	363	111	95	154	866	168	148	23	53	32
27	13	617	310	389	98	145	1,040	163	131	22	44	29
28	12	313	252	726	91	124	1,500	986	100	21	37	27
29	14	270	205	573	-----	112	822	966	517	18	33	26
30	15	238	181	380	-----	117	541	505	265	14	28	27
31	15	-----	174	290	-----	124	-----	354	-----	15	26	-----
TOTAL	758	6,972	17,841	6,548	8,887	7,541	17,907	8,073	5,428	1,268	1,886	1,206
MEAN	24.5	232	576	211	317	243	597	260	181	40.9	60.8	40.2
MAX	167	743	1,710	726	1,680	716	1,500	986	695	159	532	168
MIN	12	15	174	88	91	92	178	88	56	14	12	15
CFSM	.17	1.57	3.89	1.43	2.14	1.64	4.03	1.76	1.22	.28	.41	.27
IN.	.19	1.75	4.48	1.65	2.23	1.90	4.50	2.03	1.36	.32	.47	.30

CAL YR 1972 TOTAL 107,204.8 MEAN 293 MAX 8,140 MIN 9.6 CFSM 1.98 IN 26.95
 WTR YR 1973 TOTAL 84,315.0 MEAN 231 MAX 1,710 MIN 12 CFSM 1.56 IN 21.19

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-7	0145	7.36	1,680	4-8	1730	7.51	1,660
12-9	0530	7.74	1,870	4-28	0100	7.94	1,860
2-3	0445	8.31	2,040	5-28	1945	7.56	1,680
4-4	2345	8.26	2,020				

POTOMAC RIVER BASIN

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 (76 m) upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 miles (5.3 km) downstream from Little Cacapon River, and at mile 277 (446 km).

DRAINAGE AREA.--3,109 sq mi (8,052 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft (148.706 m) above mean sea level, Corps of Engineers bench mark. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft (76 m) downstream at same datum.

AVERAGE DISCHARGE.--35 years, 3,148 cfs (89.15 cu m/s), 13.76 in/yr (350 mm/yr).

EXTREMES.--Current year: Maximum discharge, 47,600 cfs (1,350 cu m/s) Apr. 28, gage height, 24.31 ft (7.410 m); minimum, 467 cfs (13.2 cu m/s) Sept. 12, gage height, 3.54 ft (1.079 m).
Period of record: Maximum discharge, 111,000 cfs (3,140 cu m/s) Oct. 16, 1942, gage height, 38.36 ft (11.692 m); minimum, 164 cfs (4.64 cu m/s) Sept. 10, 11, 1966.
Maximum stage known, 54.0 ft (16.46 m) Mar. 18, 1936, discharge, 240,000 cfs (6,800 cu m/s), from rating curve extended above 85,000 cfs (2,410 cu m/s) on basis of slope-area measurement of peak flow at site 5.0 miles (8.0 km) 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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	661	1,210	5,460	4,330	4,860	2,460	4,540	11,300	5,450	1,750	868	731
2	600	1,470	5,270	3,960	8,710	2,650	9,140	8,930	4,440	1,420	2,120	810
3	594	2,630	5,510	3,620	25,800	3,100	9,870	7,540	3,760	1,210	1,890	892
4	554	2,670	5,390	5,860	18,900	5,110	10,300	7,000	3,350	1,100	1,270	730
5	583	2,400	5,930	7,770	11,900	6,580	16,300	6,070	4,460	1,050	962	534
6	9,040	2,140	7,170	6,170	9,070	8,380	12,000	5,280	4,810	951	777	589
7	33,200	1,910	11,200	5,150	7,800	8,860	9,290	4,680	7,130	881	668	605
8	17,100	4,150	12,000	4,350	7,770	8,600	12,200	4,260	4,880	794	623	582
9	8,630	9,840	33,800	3,790	8,680	7,940	20,800	5,120	3,680	731	604	544
10	5,490	7,900	35,200	3,540	7,640	6,850	20,500	5,960	2,980	724	668	494
11	4,210	6,020	27,200	3,400	6,320	6,010	17,700	5,230	2,530	764	652	487
12	3,490	4,990	18,300	3,210	5,210	5,570	12,900	4,710	2,200	773	676	483
13	3,020	4,210	13,600	2,800	4,640	4,970	10,300	4,280	2,670	727	673	485
14	2,380	5,030	10,500	2,420	4,490	4,420	8,860	3,850	3,290	692	690	586
15	2,050	13,000	10,200	2,590	4,450	4,000	8,000	3,480	2,260	643	1,390	1,610
16	1,700	10,100	17,000	2,500	4,660	3,700	7,560	3,170	1,870	644	1,800	1,550
17	1,480	7,370	11,500	2,320	4,070	4,650	7,230	2,960	1,750	702	1,410	1,030
18	1,360	5,920	8,350	2,220	3,160	10,200	7,350	2,880	2,570	756	2,820	1,020
19	1,300	5,160	7,460	2,190	3,170	8,850	6,860	2,710	4,020	695	3,960	1,530
20	1,260	12,500	6,860	2,340	3,210	7,040	6,050	2,530	2,790	626	3,050	1,160
21	1,320	13,800	6,760	2,380	3,740	6,160	5,450	2,520	2,260	608	4,230	850
22	1,270	9,600	19,000	2,140	2,960	5,700	5,120	2,330	2,010	748	3,600	705
23	1,180	7,760	28,800	2,380	2,770	5,110	4,720	2,120	2,090	1,060	2,420	665
24	1,170	6,300	17,700	2,780	2,660	4,550	5,630	2,020	2,190	937	1,780	686
25	1,140	5,260	12,600	2,670	2,500	4,310	5,930	2,700	1,780	987	1,500	769
26	1,110	6,660	9,850	2,450	2,360	4,450	14,100	2,960	1,560	907	1,630	728
27	1,060	9,480	7,590	3,140	2,350	4,630	18,300	2,900	1,440	919	1,530	661
28	1,020	7,870	6,370	7,130	2,440	4,670	43,000	5,620	1,580	941	1,260	611
29	1,060	6,670	5,490	7,740	-----	4,180	27,200	11,300	2,770	808	1,050	584
30	1,100	5,850	4,800	6,610	-----	3,910	15,700	9,120	2,170	670	900	594
31	1,200	-----	4,530	5,430	-----	3,830	-----	6,910	-----	601	801	-----
TOTAL	111,332	189,870	381,390	119,380	176,290	171,440	362,900	152,440	90,740	26,819	48,272	23,305
MEAN	3,591	6,329	12,300	3,851	6,296	5,530	12,100	4,917	3,025	865	1,557	777
MAX	33,200	13,800	35,200	7,770	25,800	10,200	43,000	11,300	7,130	1,750	4,230	1,610
MIN	554	1,210	4,530	2,140	2,350	2,460	4,540	2,020	1,440	601	604	483
CAL YR 1972	TOTAL 2,125,400	MEAN 5,807	MAX 53,400	MIN 414	CFSM 1.87	IN 25.36						
WTR YR 1973	TOTAL 1,854,178	MEAN 5,080	MAX 43,000	MIN 483	CFSM 1.63	IN 22.18						

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 7	0700	22.09	39,900	2- 3	1345	18.95	29,800
12- 9	2330	23.01	43,000	4- 9	0545	16.51	22,700
12-23	0115	20.24	33,900	4-28	1400	24.31	47,600

01610155 Sideling Hill Creek near Bellegrave, Md.

LOCATION.--Lat 39°38'58", long 78°20'40", Washington County, on left bank at Highway bridge on Pearre Road, 4.0 miles (6.4 km) south of Bellegrave, and 1.2 miles (1.9 km) upstream from mouth.

DRAINAGE AREA.--102 sq mi (264 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 450 ft (137 m), from topographic map.

AVERAGE DISCHARGE.--6 years, 124 cfs (3.512 cu m/s), 16.51 in/yr (419 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,690 cfs (76.2 cu m/s) Apr. 4, gage height, 5.61 ft (1.710 m); minimum, 0.39 cfs (0.011 cu m/s) Sept. 13, 14, gage height, 0.97 ft (0.296 m).

Period of record: Maximum discharge, 14,200 cfs (402 cu m/s) June 22, 1972, gage height, 12.44 ft (3.792 m); minimum, no flow for many days in August and September 1968.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1970: 1967-69(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.9	153	115	185	40	158	206	153	76	1.6	4.9
2	3.5	5.9	144	102	1,010	41	645	162	112	50	1.6	3.5
3	4.1	12	184	90	1,650	45	479	141	87	36	1.6	2.9
4	4.0	15	206	218	605	82	1,050	139	74	29	3.7	2.5
5	4.4	15	242	355	326	113	1,260	112	76	24	5.9	2.1
6	5.0	14	580	210	233	201	456	96	62	18	4.2	1.7
7	72	13	942	140	205	222	274	83	267	18	2.9	1.3
8	68	308	538	120	217	217	929	76	137	14	2.3	1.2
9	35	222	1,290	96	210	191	927	316	87	11	1.6	.92
10	20	123	1,110	96	190	167	690	314	62	8.4	1.3	.81
11	14	85	781	88	180	148	505	227	47	8.4	1.0	.62
12	10	66	394	88	150	136	326	168	38	7.2	1.0	.54
13	8.0	50	283	86	130	119	236	132	35	5.5	13	.39
14	7.2	252	222	88	110	102	176	106	34	5.2	17	6.8
15	5.9	520	442	80	110	93	142	89	25	4.6	12	36
16	5.2	226	879	70	105	86	120	77	19	4.0	11	28
17	4.6	153	412	60	60	266	110	71	19	3.7	10	14
18	4.0	112	260	58	75	437	107	77	28	3.5	11	36
19	4.0	97	210	57	64	284	97	66	47	2.9	19	107
20	4.0	454	180	70	61	204	83	59	34	2.3	14	52
21	4.0	303	153	94	61	160	72	60	27	1.9	58	33
22	4.0	210	611	55	61	131	66	51	23	3.5	102	24
23	4.0	153	672	115	56	108	76	44	20	4.2	60	19
24	4.2	118	372	112	51	91	155	43	25	4.9	38	19
25	4.6	97	260	107	47	82	170	132	39	5.2	27	19
26	4.9	508	214	54	43	80	558	134	83	4.9	20	14
27	4.9	436	191	278	44	77	671	124	62	4.0	16	11
28	4.9	256	153	612	39	63	936	648	45	3.2	12	9.7
29	4.9	198	128	506	-----	53	460	774	260	2.7	9.6	8.6
30	4.9	160	112	356	-----	52	274	344	137	2.3	7.5	8.5
31	4.9	-----	112	253	-----	58	-----	214	-----	1.6	5.9	-----
TOTAL	336.6	5,186.8	12,430	4,829	6,278	4,149	12,208	5,285	2,164	370.1	491.7	468.98
MEAN	10.9	173	401	156	224	134	407	170	72.1	11.9	15.9	15.6
MAX	72	520	1,290	612	1,650	437	1,260	774	267	76	102	107
MIN	3.5	4.9	112	54	39	40	66	43	19	1.6	1.0	.39
CFSM	.11	1.70	3.93	1.53	2.20	1.31	3.99	1.67	.71	.12	.16	.15
IN.	.12	1.89	4.53	1.76	2.29	1.51	4.45	1.93	.79	.13	.18	.17

CAL YR 1972 TOTAL 74,824.55 MEAN 204 MAX 9,200 MIN .32 CFSM 2.00 IN 27.29
WTR YR 1973 TOTAL 54,197.18 MEAN 148 MAX 1,650 MIN .39 CFSM 1.45 IN 19.77

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 6	2230	4.37	1,560	4- 8	1845	4.40	1,580
12-15	2400	3.78	1,100	4-28	0100	3.88	1,170
2- 3	0245	5.27	2,350	5-28	2130	3.91	1,190
4- 4	2100	5.61	2,690				

POTOMAC RIVER BASIN

01613000 Potomac River at Hancock, Md.

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, on left bank 0.2 mile (0.3 km) downstream from Little Tonoloway Creek, 0.5 mile (0.8 km) downstream from bridge on U. S. Highway 522 at Hancock, 1.1 miles (1.8 km) upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239 (385 km).

DRAINAGE AREA.--4,073 sq mi (10,549 sq km).

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 (116.879 m) 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.--41 years, 4,023 cfs (113.9 cu m/s), 13.41 in/yr (341 mm/yr).

EXTREMES.--Current year: Maximum discharge, 54,600 cfs (1,550 cu m/s) Apr. 28, gage height, 21.06 ft (6.419 m); minimum, 557 cfs (15.8 cu m/s) Sept. 13, gage height, 2.74 ft (0.835 m).

Period of record: Maximum discharge, 340,000 cfs (9,630 cu m/s) Mar. 18, 1936, gage height, 47.6 ft (14.518 m), from rating curve extended above 120,000 cfs (3,400 cu m/s) on basis of slope-area measurement of peak flow; minimum observed, 180 cfs (5.10 cu m/s) Oct. 4, 1932, gage height, 2.01 ft (0.613 m). Maximum stage known prior to 1932, about 40 ft (12.2 m) in May 1889 (discharge, about 220,000 cfs or about 6,230 cu m/s).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	1,510	7,090	5,640	6,840	2,900	4,750	15,400	7,900	2,850	839	1,060
2	762	1,530	6,650	5,240	8,410	2,960	9,820	12,000	6,290	2,250	1,310	953
3	701	2,390	6,750	4,740	27,000	3,240	14,800	9,900	5,150	1,790	2,370	989
4	684	3,410	6,930	5,350	27,800	4,050	13,100	8,960	4,400	1,510	1,820	1,040
5	681	3,130	6,890	10,600	16,900	6,780	21,600	8,230	4,550	1,370	1,320	873
6	782	2,760	8,040	9,410	12,400	8,440	17,200	7,080	5,580	1,260	1,040	678
7	32,500	2,450	12,800	7,670	10,300	10,300	13,000	6,200	7,820	1,160	873	708
8	25,100	2,920	13,900	6,280	9,630	10,000	13,100	5,540	7,530	1,050	767	717
9	12,000	11,100	31,600	5,240	11,200	9,610	25,200	5,710	5,260	941	718	682
10	7,740	10,800	46,400	4,680	10,700	8,760	24,400	7,380	4,100	879	713	647
11	5,380	8,240	34,600	4,450	8,980	7,560	25,300	7,150	3,390	1,200	791	586
12	4,300	6,560	23,800	4,220	7,320	6,880	17,900	6,170	2,920	1,010	786	574
13	3,680	5,460	17,400	3,810	6,230	6,330	14,200	5,530	2,610	965	827	564
14	3,040	5,070	13,800	3,340	5,750	5,570	11,500	4,940	3,490	925	810	724
15	2,550	13,200	11,300	3,220	5,680	5,040	10,400	4,430	3,330	853	915	1,010
16	2,200	14,600	20,800	3,320	5,630	4,550	9,490	4,020	2,550	783	1,930	2,000
17	1,850	10,000	16,800	3,090	5,660	4,770	9,030	3,720	2,210	818	1,960	1,580
18	1,660	7,950	11,500	2,910	4,390	9,600	8,810	3,590	2,150	890	1,580	1,240
19	1,560	6,630	9,520	2,820	3,850	12,000	8,880	3,470	3,640	922	3,990	1,510
20	1,480	11,300	8,850	2,860	3,980	9,160	7,880	3,320	3,770	900	3,960	1,700
21	1,440	19,200	8,180	2,960	4,160	7,830	7,050	3,170	2,940	800	4,080	1,280
22	1,530	13,400	14,300	2,930	4,070	7,000	6,510	3,080	2,510	813	5,500	970
23	1,470	10,200	37,500	2,810	3,520	6,420	6,020	2,800	2,270	965	4,230	870
24	1,390	8,470	24,900	3,360	3,310	5,700	6,870	2,600	2,430	1,290	2,950	790
25	1,350	6,990	17,000	3,640	3,150	5,190	7,580	2,900	2,420	1,190	2,250	808
26	1,310	7,070	13,200	3,350	2,970	5,060	14,300	3,750	2,060	1,240	3,080	878
27	1,270	12,000	10,700	3,460	2,840	5,250	21,100	3,820	1,870	1,150	2,790	838
28	1,230	11,400	8,760	7,460	2,860	5,470	43,400	4,940	1,890	1,140	2,200	776
29	1,230	9,150	7,530	11,000	-----	5,130	40,700	12,900	2,800	1,380	1,750	720
30	1,270	7,930	6,500	10,000	-----	4,660	22,300	13,600	3,560	1,080	1,420	698
31	1,410	-----	5,850	8,120	-----	4,480	-----	9,770	-----	888	1,200	-----
TOTAL	124,315	236,820	469,840	157,980	225,530	200,690	456,190	196,070	113,390	36,262	60,769	28,463
MEAN	4,010	7,894	15,160	5,096	8,055	6,474	15,210	6,325	3,780	1,170	1,960	949
MAX	32,500	19,200	46,400	11,000	27,800	12,000	43,400	15,400	7,900	2,850	5,500	2,000
MIN	681	1,510	5,850	2,810	2,840	2,900	4,750	2,600	1,870	783	713	564
CFSM	.98	1.94	3.72	1.25	1.98	1.59	3.73	1.55	.93	.29	.48	.23
IN.	1.14	2.16	4.29	1.44	2.06	1.83	4.17	1.79	1.04	.33	.56	.26

CAL YR 1972 TOTAL 2,772,166 MEAN 7,574 MAX 108,000 MIN 490 CFSM 1.86 IN 25.32
WTR YR 1973 TOTAL 2,306,319 MEAN 6,319 MAX 46,400 MIN 564 CFSM 1.55 IN 21.06

PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 7	1415	17.98	40,900	4- 5	1245	13.23	23,200
12-10	0515	20.14	50,400	4-11	0315	14.65	28,100
12-23	0845	17.94	40,800	4-28	2115	21.06	54,600
2- 3	2115	16.62	35,400				

01614500 Conococheague Creek at Fairview, Md.

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, on right bank 0.7 mile (1.1 km) upstream from highway bridge in Fairview, 2.0 miles (3.2 km) upstream from Rockdale Run, 6.5 miles (10.5 km) northwest of Hagerstown, and 19.1 miles (30.7 km) upstream from mouth.

DRAINAGE AREA.--494 sq mi (1,280 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 391.77 ft (119.411 m) above mean sea level, adjustment of 1912. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mile (1.1 km) downstream at datum 2.85 ft (0.869 m) lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft (46 m) downstream from former site at datum 4.84 ft (1.475 m) lower than present datum.

AVERAGE DISCHARGE.--45 years, 572 cfs (16.20 cu m/s), 15.72 in/yr (399 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,830 cfs (165 cu m/s) Feb. 3, gage height, 8.80 ft (2.682 m); minimum, 131 cfs (3.71 cu m/s) Oct. 16, gage height, 1.53 ft (0.466 m).
Period of record: Maximum discharge, 32,400 cfs (918 cu m/s) June 23, 1972, gage height, 24.5 ft (7.47 m), from floodmark, from rating curve extended above 1,500 cfs (425 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 21 cfs (0.60 cu m/s) Aug. 8, Sept. 12, 1966; minimum daily, 25 cfs (0.71 cu m/s) Nov. 28, 1930.
Maximum stage known prior to 1928, about 16.5 ft (5.03 m), present datum, sometime in 1889, from information by local residents, discharge, about 22,000 cfs or about 620 cu m/s.

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	137	734	1,270	1,300	584	1,230	1,590	1,610	1,130	229	233
2	177	158	742	1,090	2,810	590	4,080	1,410	1,320	911	312	222
3	169	165	908	978	5,320	627	2,440	1,570	1,140	794	296	213
4	162	160	892	2,000	3,210	998	2,790	1,530	1,080	1,090	262	211
5	155	148	912	2,030	2,380	1,050	4,620	1,270	1,000	1,390	235	220
6	160	142	1,440	1,600	1,950	1,540	2,640	1,110	1,170	1,080	220	202
7	257	141	2,920	1,290	1,850	1,410	2,070	993	2,650	771	214	202
8	277	655	1,960	1,060	2,090	1,330	3,050	923	1,600	657	257	189
9	204	809	3,890	940	2,210	1,190	3,470	1,420	1,180	586	259	184
10	168	398	3,650	860	1,750	1,050	3,340	1,530	970	531	254	178
11	153	293	3,170	800	1,450	965	2,920	1,220	838	514	243	178
12	146	256	2,350	760	1,220	932	2,260	1,060	819	479	279	172
13	146	216	2,050	680	1,100	855	1,900	960	3,500	441	299	170
14	146	994	1,700	640	1,050	785	1,610	872	1,500	407	239	866
15	144	1,880	2,120	660	1,200	737	1,410	799	1,040	394	516	2,460
16	137	932	3,100	646	1,100	713	1,260	740	886	391	377	922
17	140	609	1,970	608	920	1,050	1,210	720	884	378	264	564
18	140	459	1,560	582	850	1,540	1,210	834	868	360	307	600
19	146	402	1,410	574	840	1,200	1,080	729	789	341	1,090	1,280
20	151	1,720	1,370	586	800	1,010	958	701	692	324	521	658
21	148	1,170	1,320	533	800	908	874	773	632	329	1,600	502
22	146	762	3,240	636	820	829	818	652	2,150	345	1,430	429
23	146	588	3,240	1,390	780	755	810	585	1,450	327	762	433
24	151	483	2,350	996	735	692	1,020	598	960	301	547	517
25	148	419	1,920	828	688	657	971	1,070	1,750	279	447	399
26	144	2,480	1,690	765	658	738	2,300	983	1,190	274	386	353
27	140	2,060	1,600	1,300	636	692	2,430	911	856	277	342	322
28	137	1,230	1,390	2,000	598	599	3,260	3,250	835	259	310	299
29	137	981	1,210	2,450	-----	551	2,380	3,860	2,470	242	282	295
30	142	784	1,080	1,950	-----	592	1,850	2,590	1,650	235	257	896
31	140	-----	1,150	1,510	-----	603	-----	2,000	-----	227	245	-----
TOTAL	4,951	21,631	59,038	34,012	41,115	27,772	62,261	39,253	39,479	16,064	13,281	14,369
MEAN	160	721	1,904	1,097	1,468	896	2,075	1,266	1,316	518	428	479
MAX	277	2,480	3,890	2,450	5,320	1,540	4,620	3,860	3,500	1,390	1,600	2,460
MIN	137	137	734	533	598	551	810	585	632	227	214	170
CFSM	.32	1.46	3.85	2.22	2.97	1.81	4.20	2.56	2.66	1.05	.87	.97
IN.	.37	1.63	4.45	2.56	3.10	2.09	4.69	2.96	2.97	1.21	1.00	1.08

CAL YR 1972 TOTAL 418,936 MEAN 1.145 MAX 26,700 MIN 137 CFSM 2.32 IN 31.55
WTR YR 1973 TOTAL 373,226 MEAN 1.023 MAX 5,320 MIN 137 CFSM 2.07 IN 28.11

PEAK DISCHARGE (BASE, 4,300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-3	0730	8.80	5,830	5-29	0100	7.91	4,710
4-2	1200	7.78	4,570	6-13	0500	8.10	4,930
4-5	0115	8.50	5,440				

POTOMAC RIVER BASIN

01617800 Marsh Run at Grimes, Md.

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, on right bank 220 ft (67 m) upstream from bridge on Sprecher Road, 0.1 mile (0.2 km) downstream from unnamed tributary, 0.5 mile (0.8 km) southwest of Grimes, 1.5 miles (2.4 km) upstream from mouth, and 2.2 miles (3.5 km) southwest of Fairplay.

DRAINAGE AREA.--18.9 sq mi (49.0 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (110 m), from topographic map.

AVERAGE DISCHARGE.--10 years, 11.9 cfs (0.337 cu m/s), 8.55 in/yr (217 mm/yr).

EXTREMES.--Current year: Maximum discharge, 114 cfs (3.23 cu m/s) June 5, gage height, 2.41 ft (0.735 m); minimum daily, 3.0 cfs (0.085 cu m/s) Sept. 12, 13, occurred during period of no gage-height record.
Period of record: Maximum discharge, 268 cfs (7.59 cu m/s) June 22, 1972, gage height, 3.44 ft (1.049 m); minimum daily, 0.40 cfs (0.011 cu m/s) Jan. 31, 1966, result of freezeup.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	8.0	13	31	27	23	21	34	21	17	10	4.2
2	8.8	8.4	13	27	50	23	26	32	21	16	11	4.0
3	8.4	8.0	13	26	51	24	22	32	20	17	10	3.8
4	8.4	7.7	12	42	41	24	33	31	32	17	9.8	3.8
5	8.4	7.3	12	34	38	24	34	28	53	17	9.4	4.4
6	8.4	7.0	16	30	38	28	28	27	28	16	9.4	4.0
7	12	7.0	16	27	42	25	26	26	25	15	9.0	3.6
8	9.5	22	28	26	42	26	42	26	21	15	9.0	3.4
9	8.8	11	53	24	39	24	33	28	21	14	9.0	3.2
10	8.4	9.2	40	24	33	22	40	26	19	14	10	3.2
11	8.4	8.8	33	23	31	22	33	25	18	15	9.8	3.2
12	8.8	8.0	30	22	29	21	32	24	18	14	9.8	3.0
13	8.8	7.7	29	21	29	20	29	22	18	12	11	3.0
14	8.4	23	26	21	31	20	25	21	18	12	9.8	4.0
15	8.0	15	40	21	41	20	24	21	17	14	18	24
16	8.0	11	37	21	34	20	25	21	18	13	11	6.0
17	8.0	10	26	21	28	27	24	22	18	14	10	4.2
18	7.7	9.5	24	21	26	23	28	23	18	13	11	4.8
19	9.5	12	24	22	26	21	24	21	18	13	12	4.3
20	8.8	24	27	22	26	21	22	22	17	13	13	3.7
21	8.8	14	31	20	27	20	20	22	26	12	20	3.6
22	8.4	12	63	29	26	20	20	20	25	13	14	3.6
23	8.8	11	49	29	26	19	20	20	21	12	10	3.8
24	8.8	10	40	24	24	19	26	22	20	12	9.0	4.0
25	8.4	10	37	22	24	19	22	28	19	11	8.0	3.8
26	8.0	21	35	21	24	21	26	22	18	11	7.0	3.6
27	7.7	15	33	32	24	19	32	21	18	11	6.0	3.6
28	9.5	14	31	32	24	18	50	40	20	9.8	5.5	3.6
29	8.8	13	29	39	-----	18	42	31	28	11	5.0	3.6
30	8.0	13	28	29	-----	21	38	25	19	10	4.6	5.0
31	7.7	-----	34	27	-----	20	-----	25	-----	10	4.4	-----
TOTAL	267.6	357.6	922	810	901	672	867	788	653	413.8	305.5	136.0
MEAN	8.63	11.9	29.7	26.1	32.2	21.7	28.9	25.4	21.8	13.3	9.85	4.53
MAX	12	24	63	42	51	28	50	40	53	17	20	24
MIN	7.7	7.0	12	20	24	18	20	20	17	9.8	4.4	3.0
CFSM	.46	.63	1.57	1.38	1.70	1.15	1.53	1.34	1.15	.70	.52	.24
IN.	.53	.70	1.81	1.59	1.77	1.32	1.71	1.55	1.29	.81	.60	.27

CAL YR 1972 TOTAL 8,817.0 MEAN 24.1 MAX 223 MIN 7.0 CFSM 1.28 IN 17.35
WTR YR 1973 TOTAL 7,093.5 MEAN 19.4 MAX 63 MIN 3.0 CFSM 1.03 IN 13.96

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	0115	1.95	68	4-28	*	*	*
12-22	0900	1.95	68	6- 5	0030	2.41	114
2- 2	2145	1.91	64				

* Unknown, discharge probably greater than base.

01618000 Potomac River at Shepherdstown, W. Va.

LOCATION.--Lat 39°26'04", long 77°48'07", Jefferson County, on right bank 0.1 mile (0.2 km) downstream from Rumsey Bridge at Shepherdstown, 3.3 miles (5.3 km) upstream from Antietam Creek, and at mile 184 (296 km).

DRAINAGE AREA.--5,936 sq mi (15,374 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft (85.649 m) above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--34 years (1928-53, 1964-73), 5,908 cfs (167.3 cu m/s), 13.52 in/yr (343 mm/yr).

EXTREMES.--Current year: Maximum discharge, 65,000 cfs (1,840 cu m/s) Apr. 29, gage height, 17.06 ft (5.200 m); minimum, 1,190 cfs (33.7 cu m/s) Aug. 10, gage height, 1.99 ft (0.607 m).

Period of record: Maximum discharge, 335,000 cfs (9,490 cu m/s) Mar. 19, 1936, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 200,000 cfs (5,660 cu m/s) on basis of slope-area measurement of peak flow; minimum, 170 cfs (4.81 cu m/s) Aug. 1, 1966; minimum daily, 185 cfs (5.24 cu m/s) July 31, 1966.

Floods in June 1889 and May 1924 reached stages of 39.2 ft (11.95 m) and 29.8 ft (9.08 m) respectively, from floodmarks, discharges, about 290,000 cfs (8.210 cu m/s) and 168,000 cfs (4,760 cu m/s) respectively, from rating curve extended as explained above.

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1,400	2,450	10,100	9,720	11,800	4,930	6,700	24,500	13,400	5,760	1,650	2,200	
2	1,400	2,860	9,570	9,440	11,900	4,950	19,000	18,700	10,800	4,480	1,510	1,900	
3	1,300	2,980	9,490	8,670	32,500	5,040	24,000	15,500	8,870	3,730	1,940	1,700	
4	1,200	3,410	9,890	9,190	45,000	5,610	20,200	13,800	7,980	3,310	2,930	1,800	
5	1,200	4,250	9,800	14,100	30,100	7,790	31,000	12,500	8,940	3,150	2,470	1,900	
6	1,200	4,040	10,100	16,300	21,100	10,900	31,600	10,000	8,970	3,370	2,000	1,700	
7	30,000	3,660	16,300	13,100	17,300	13,700	22,500	9,000	11,300	2,800	1,720	1,300	
8	50,000	4,440	20,100	10,800	15,900	14,200	18,600	8,500	13,000	2,500	1,600	1,400	
9	25,000	6,900	31,700	9,170	17,300	13,900	29,000	8,000	9,350	2,290	1,440	1,400	
10	15,000	14,500	62,400	7,790	17,900	12,900	36,200	11,000	7,220	2,160	1,300	1,300	
11	10,000	11,400	51,900	7,000	15,300	11,500	36,600	10,000	5,950	2,100	1,390	1,200	
12	8,000	8,950	38,800	6,800	12,600	10,300	31,500	9,000	5,120	2,190	1,440	1,100	
13	6,000	7,480	27,900	6,200	10,600	9,660	23,600	8,000	6,260	2,150	1,560	1,200	
14	5,000	7,750	21,700	5,850	9,730	8,830	19,100	7,500	6,000	1,950	1,790	1,600	
15	4,500	12,300	17,500	5,420	9,780	8,090	15,900	7,000	5,970	1,940	2,340	3,000	
16	4,000	20,800	25,900	5,400	9,960	7,510	14,300	6,200	4,850	1,870	3,490	4,200	
17	3,500	15,300	29,800	5,510	9,470	7,260	13,100	5,810	4,200	1,890	3,620	3,400	
18	3,000	11,300	20,600	5,380	8,430	9,390	12,700	5,650	3,910	1,790	3,720	3,000	
19	2,600	9,320	15,400	5,350	7,090	15,700	12,400	5,530	3,930	1,750	4,550	2,800	
20	2,400	11,700	13,600	5,440	6,720	13,700	11,300	5,260	5,760	1,810	6,110	3,350	
21	2,200	23,800	12,600	5,240	6,730	11,200	10,200	5,240	4,880	1,780	5,760	3,010	
22	2,200	20,800	16,600	5,280	7,220	9,910	9,310	5,060	4,420	1,760	8,680	2,530	
23	2,400	14,800	45,700	5,790	6,570	9,130	8,810	4,700	5,500	1,820	8,260	2,060	
24	2,400	11,900	42,000	6,550	5,920	8,310	9,370	4,390	4,180	1,910	6,090	1,980	
25	2,200	9,890	28,100	6,660	5,730	7,570	10,700	4,800	4,030	2,150	4,780	1,910	
26	2,000	10,400	21,400	6,450	5,430	7,330	18,300	6,040	4,790	2,060	3,980	1,780	
27	2,000	17,800	17,600	6,610	5,120	7,320	30,100	6,320	3,690	2,050	4,580	1,760	
28	2,200	17,700	14,400	11,100	4,970	7,340	46,800	8,720	3,480	2,020	3,940	1,770	
29	2,400	13,900	12,300	17,500	-----	7,280	59,100	21,800	5,090	1,880	3,440	1,630	
30	2,200	11,600	10,900	18,700	-----	6,860	36,800	23,200	7,410	2,000	3,000	1,620	
31	2,200	-----	9,870	14,600	-----	6,590	-----	17,700	-----	1,800	2,600	-----	
TOTAL	201,100	318,380	684,020	271,110	368,170	284,700	668,790	309,420	199,250	74,220	103,680	61,500	
MEAN	6,487	10,610	22,070	8,745	13,150	9,184	22,290	9,981	6,642	2,394	3,345	2,050	
MAX	50,000	23,800	62,400	18,700	45,000	15,700	59,100	24,500	13,400	5,760	8,680	4,200	
MIN	1,200	2,450	9,490	5,240	4,970	4,930	6,700	4,390	3,480	1,750	1,300	1,100	
CFSM	1.09	1.79	3.72	1.47	2.22	1.55	3.76	1.68	1.12	.40	.56	.35	
IN.	1.26	2.00	4.29	1.70	2.31	1.78	4.19	1.94	1.25	.47	.65	.39	
CAL YR 1972	TOTAL 4,270,780			MEAN 11,670		MAX 172,000		MIN 950		CFSM 1.97		IN 26.76	
WTR YR 1973	TOTAL 3,544,340			MEAN 9,711		MAX 62,400		MIN 1,100		CFSM 1.64		IN 22.21	

PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-8	*	*	*	2-4	0600	14.10	48,300
11-21	1630	9.65	26,000	4-5	2030	11.96	37,400
12-10	0930	17.02	64,800	4-11	1630	12.12	38,200
12-17	0030	11.27	34,800	4-29	0500	17.06	65,000
12-23	1830	15.10	53,800	5-29	1930	9.09	24,100

* Unknown, discharge greater than base.

01619000 Antietam Creek near Waynesboro, Pa.

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., on right bank 100 ft (30 m) upstream from highway bridge at Rocky Forge, 0.4 mile (0.6 km) downstream from Pennsylvania-Maryland State line, 0.7 mile (1.1 km) downstream from confluence of west and east branches, 1.9 miles (3.1 km) northeast of Leitersburg, Md., 2.5 miles (4.0 km) southwest of Waynesboro, Pa., and 36.6 miles (58.9 km) upstream from mouth.

DRAINAGE AREA.--93.5 sq mi (242.2 sq km).

PERIOD OF RECORD.--May 1948 to September 1951, October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 550.64 ft (167.835 m) above mean sea level (Corps of Engineers bench mark). May 1948 to September 1951, nonrecording gage and crest-stage gage 100 ft (30 m) downstream at present datum.

AVERAGE DISCHARGE.--11 years (1948-51, 1965-73), 113 cfs (3.200 cu m/s), 16.41 in/yr (417 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,460 cfs (41.4 cu m/s) May 29, gage height, 6.51 ft (1.984 m); minimum, 43 cfs (1.22 cu m/s) Oct. 27, 28, 31, Nov. 1, 5, 6, 7, gage height, 3.24 ft (0.988 m).
Period of record: Maximum discharge, 5,430 cfs (154 cu m/s) June 22, 1972, gage height, 12.33 ft (3.758 m), from rating curve extended above 2,700 cfs (76.5 cu m/s); minimum daily, 11 cfs (0.31 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	45	75	174	170	125	170	281	372	143	87	67
2	53	48	71	150	447	125	208	254	309	140	86	65
3	51	48	75	146	474	131	181	263	263	143	100	65
4	50	45	78	276	359	150	318	233	241	167	81	65
5	48	44	71	220	281	143	341	208	258	381	76	64
6	53	43	167	189	267	167	267	189	208	167	74	64
7	67	43	174	167	281	150	241	177	200	146	71	64
8	54	153	193	157	318	163	437	174	170	137	70	61
9	50	71	336	150	295	153	352	200	160	131	69	61
10	47	57	224	143	241	146	395	174	150	125	73	61
11	47	54	181	137	216	146	318	160	143	125	74	60
12	47	51	157	131	200	150	281	150	181	119	90	59
13	47	50	150	125	189	140	254	146	470	116	83	58
14	47	177	137	122	196	137	224	140	170	110	71	360
15	45	116	216	122	272	134	208	137	150	116	137	167
16	47	71	204	116	229	137	193	134	153	113	80	90
17	47	62	150	113	177	272	208	146	150	108	71	81
18	45	59	137	113	163	208	200	150	153	106	77	100
19	56	75	137	116	160	177	181	131	143	103	83	84
20	50	160	146	116	157	163	163	143	137	100	93	76
21	47	82	150	108	157	160	153	137	143	100	327	73
22	45	67	424	150	153	153	150	125	425	100	113	71
23	47	62	345	153	146	143	177	122	196	98	96	73
24	47	59	276	125	140	137	189	137	160	93	88	70
25	45	57	241	116	137	134	245	185	170	91	84	67
26	44	167	216	113	137	167	393	143	153	89	82	66
27	44	98	200	167	131	140	478	143	140	89	80	65
28	48	80	174	163	128	131	455	547	146	84	75	64
29	47	75	153	309	-----	125	373	969	304	81	73	78
30	45	71	146	212	-----	143	318	550	160	79	71	90
31	44	-----	208	189	-----	134	-----	528	-----	77	69	-----
TOTAL	1,511	2,290	5,612	4,788	6,221	4,684	8,071	7,176	6,178	3,777	2,804	2,489
MEAN	48.7	76.3	181	154	222	151	269	231	206	122	90.5	83.0
MAX	67	177	424	309	474	272	478	969	470	381	327	360
MIN	44	43	71	108	128	125	150	122	137	77	69	58
CFSM	.52	.82	1.94	1.65	2.37	1.62	2.88	2.47	2.20	1.30	.97	.89
IN.	.60	.91	2.23	1.90	2.48	1.86	3.21	2.86	2.46	1.50	1.12	.99

CAL YR 1972 TOTAL 63,148 MEAN 173 MAX 3,590 MIN 43 CFSM 1.85 IN 25.12
WTR YR 1973 TOTAL 55,601 MEAN 152 MAX 969 MIN 43 CFSM 1.63 IN 22.12

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-29	0315	6.51	1,460	6-13	0615	5.29	857

01619500 Antietam Creek near Sharpsburg, Md.

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, on left bank 400 ft (120 m) downstream from Burnside Bridge, 1 mile (1.6 km) southeast of Sharpsburg, and 4 miles (6.4 km) upstream from mouth.

DRAINAGE AREA.--281 sq mi (728 sq km).

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 (94.793 m) 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 (1.9 km) upstream at datum about 12 feet (3.7 m) higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge at present datum.

AVERAGE DISCHARGE.--50 years (1897-1903, 1904-5, 1930-73), 265 cfs (7.505 cu m/s) 12.81 in/yr (325 mm/yr), adjusted for inflow since 1930.

EXTREMES.--Current year: Maximum discharge, 2,870 cfs (81.3 cu m/s) June 4, gage height, 7.40 ft (2.256 m); minimum, 138 cfs (3.91 cu m/s) Oct. 15, 16, Nov. 6, 7; minimum gage height, 2.51 ft (0.765 m) Nov. 6, 7. Period of record: Maximum discharge, 12,600 cfs (357 cu m/s) July 20, 1956, gage height, 16.73 ft (5.099 m); minimum, 9.4 cfs (0.266 cu m/s) Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily, 37 cfs (1.05 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	146	241	563	527	406	447	740	740	393	221	202
2	175	153	241	495	794	402	549	676	642	371	241	196
3	169	151	231	473	1,200	402	522	657	586	363	241	187
4	166	148	231	638	904	424	605	647	959	380	227	187
5	164	143	231	638	784	419	843	591	1,030	428	208	187
6	166	141	269	577	720	451	691	558	652	478	202	184
7	211	141	442	536	740	433	628	531	591	367	202	181
8	187	303	527	509	754	442	774	513	540	346	211	178
9	166	284	969	486	813	438	848	549	500	330	202	172
10	155	178	710	473	696	419	813	527	473	326	208	172
11	153	161	600	456	647	411	764	491	456	330	248	175
12	150	153	518	442	609	411	691	469	438	318	214	169
13	148	148	486	419	586	402	657	456	784	303	342	166
14	145	318	456	411	577	393	609	438	572	292	231	415
15	140	388	554	406	681	388	572	433	465	299	311	647
16	143	238	681	397	681	384	549	419	451	303	288	303
17	148	193	527	388	558	513	549	428	451	303	227	252
18	145	178	478	380	527	647	572	460	442	288	224	259
19	166	178	465	380	518	509	531	415	433	280	273	259
20	166	402	469	384	509	473	500	415	411	269	262	221
21	151	303	478	363	500	456	478	433	411	266	491	214
22	146	231	1,030	397	495	447	465	393	614	273	429	208
23	148	208	994	495	478	424	465	380	549	266	294	205
24	153	193	803	411	465	406	540	388	438	255	266	205
25	151	187	705	375	442	397	518	500	419	245	252	202
26	146	358	652	363	433	469	828	438	411	241	241	196
27	146	375	624	419	428	442	930	402	384	238	231	190
28	166	269	572	513	415	397	1,160	614	388	231	224	187
29	164	248	527	686	-----	384	930	1,240	563	224	217	184
30	148	238	495	647	-----	415	803	994	460	221	208	231
31	146	-----	536	558	-----	415	-----	940	-----	221	208	-----
TOTAL	4,915	6,755	16,742	14,678	17,481	13,419	19,831	17,135	16,253	9,448	7,844	6,734
MEAN	159	225	540	473	624	433	661	553	542	305	253	224
MAX	211	402	1,030	686	1,200	647	1,160	1,240	1,030	478	491	647
MIN	140	141	231	363	415	384	447	380	384	221	202	166
(†)	-13.6	-13.4	-7.3	-6.6	-7.1	-6.8	-6.5	-6.1	-7.2	-11.8	-13.8	-13.8
MEAN ‡	145	212	533	466	617	426	655	547	535	293	239	210
CFSM ‡	.52	.75	1.90	1.66	2.20	1.52	2.33	1.95	1.90	1.04	.85	.75
IN ‡	.60	.84	2.19	1.91	2.29	1.75	2.60	2.25	2.12	1.20	.98	.84

CAL YR 1972 TOTAL 186,754 MEAN 510 MAX 8,520 MIN 140 MEAN‡ 501 CFSM‡ 1.78 IN‡ 24.23
WTR YR 1973 TOTAL 151,235 MEAN 414 MAX 1,240 MIN 140 MEAN‡ 404 CFSM‡ 1.44 IN‡ 19.55

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-29	1730	5.61	1,620	6-4	1800	7.40	2,870

† Pumpage, in cubic feet per second, from Potomac River for municipal supply of Hagerstown.

‡ Adjusted for pumpage.

POTOMAC RIVER BASIN

01636500 Shenandoah River at Millville, W. Va.

LOCATION.--Lat 39°16'55", long 77°47'22", Jefferson County, on left bank 0.4 mile (0.6 km) downstream from Cat-tail Run, 1.0 mile (1.6 km) upstream from Millville, 5.0 miles (8.0 km) upstream from Harpers Ferry, and at mile 5.0' (8.0 km).

DRAINAGE AREA.--3,040 sq mi (7,874 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft (89.306 m) above mean sea level, adjustment of 1912. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mile (1.3 km) downstream at datum 0.32 ft (0.098 m) higher.

AVERAGE DISCHARGE.--58 years (1895-1908, 1928-73), 2,655 cfs (75.19 cu m/s), 11.86 in/yr (301 mm/yr).

EXTREMES.--Current year: Maximum discharge, 86,200 cfs (2,440 cu m/s) Oct. 7, gage height, 20.02 ft (6.102 m); minimum, 558 cfs (15.8 cu m/s) July 16, gage height, 1.44 ft (0.439 m), minimum daily discharge, 732 cfs (20.7 cu m/s) Sept. 29.

Period of record: Maximum discharge, 230,000 cfs (6,510 cu m/s) Oct. 16, 1942, gage height, 32.4 ft (9.88 m), from floodmarks; minimum, about 59 cfs (1.67 cu m/s) Oct. 4, 1930, gage height, 0.39 ft (0.119 m); minimum daily, 194 cfs (5.49 cu m/s) July 24, 1930.

Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft or 8.035 m (discharge, 151,000 cfs or 4,280 cu m/s).

REMARKS.--Records good. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mile (0.8 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,070	2,940	6,220	5,170	5,770	2,920	4,890	9,000	6,080	2,540	1,220	1,240
2	1,060	3,060	6,020	5,030	5,780	2,870	8,360	7,390	4,900	2,270	1,000	1,150
3	1,100	3,530	5,590	4,620	16,000	2,860	11,700	6,390	4,120	1,960	1,250	1,100
4	1,160	3,500	5,000	4,520	22,400	2,970	9,430	5,780	3,610	1,830	1,200	1,020
5	1,060	3,250	4,600	5,030	13,800	3,180	8,850	5,310	3,340	1,730	1,150	1,120
6	6,560	3,010	4,350	5,410	10,000	3,900	8,120	4,780	3,990	1,660	1,140	972
7	70,700	2,810	4,770	4,960	8,610	4,990	6,990	4,310	6,200	1,530	977	1,270
8	38,900	3,170	6,540	4,600	8,330	5,770	6,950	4,000	4,980	1,580	1,070	917
9	15,500	6,350	11,800	4,240	8,000	6,200	9,800	3,850	4,060	1,400	1,030	959
10	9,400	8,020	13,700	4,010	7,260	6,570	11,600	3,800	3,450	1,370	1,000	908
11	6,690	6,330	11,500	3,820	6,480	6,080	11,200	3,840	3,040	1,370	1,280	899
12	5,210	5,230	9,540	3,640	5,800	5,520	9,730	3,630	2,720	1,410	1,450	894
13	4,330	4,450	8,040	3,440	5,310	5,000	8,300	3,460	2,390	1,300	1,120	855
14	3,740	4,820	7,060	3,310	4,990	4,550	7,480	3,320	2,240	1,270	1,210	1,120
15	3,300	16,000	6,580	3,200	4,920	4,160	6,710	3,160	2,100	1,270	1,170	1,210
16	2,950	16,500	8,580	3,180	5,310	3,910	6,020	3,000	1,970	1,260	1,220	1,120
17	2,730	9,920	10,200	3,100	5,440	4,300	5,530	2,880	1,860	1,550	1,420	1,080
18	2,490	7,450	7,970	3,030	4,780	6,940	5,310	2,860	1,920	1,510	1,550	1,160
19	2,450	6,290	6,780	2,940	4,330	11,700	5,290	2,760	1,890	1,470	1,430	990
20	2,450	8,350	6,220	2,980	4,160	8,490	5,020	2,710	2,270	1,320	1,570	923
21	2,460	16,600	5,850	2,990	4,050	6,780	4,590	2,650	2,230	1,330	2,430	853
22	2,450	11,800	8,580	3,050	3,900	5,940	4,290	2,560	1,990	1,520	3,220	834
23	2,270	8,860	18,300	3,590	3,720	5,470	4,060	2,420	2,010	1,570	2,870	835
24	2,150	7,260	16,300	5,780	3,570	5,030	3,940	2,340	2,640	1,650	2,190	848
25	2,050	6,200	11,600	6,050	3,390	4,660	3,820	2,560	2,740	1,650	1,830	881
26	1,960	6,180	9,280	5,180	3,260	4,530	5,480	2,670	2,360	1,470	2,680	810
27	1,920	10,900	7,990	4,730	3,120	4,920	7,410	2,660	2,080	2,190	3,150	828
28	2,010	11,200	7,060	6,510	3,000	6,030	14,500	3,080	2,020	2,360	2,230	823
29	2,760	8,500	6,270	8,610	-----	5,550	20,200	8,950	2,530	1,550	1,810	732
30	3,840	7,020	5,610	7,920	-----	5,110	12,700	13,000	2,950	1,230	1,640	831
31	3,400	-----	5,190	6,710	-----	4,800	-----	8,220	-----	1,010	1,450	-----
TOTAL	210,120	219,500	253,090	141,350	185,480	161,700	238,270	137,340	90,680	49,130	49,957	29,182
MEAN	6,778	7,317	8,164	4,560	6,624	5,216	7,942	4,430	3,023	1,585	1,612	973
MAX	70,700	16,600	18,300	8,610	22,400	11,700	20,200	13,000	6,200	2,540	3,220	1,270
MIN	1,060	2,810	4,350	2,940	3,000	2,860	3,820	2,340	1,860	1,010	977	732
CFSM	2.23	2.41	2.69	1.50	2.18	1.72	2.61	1.46	.99	.52	.53	.32
IN.	2.57	2.69	3.10	1.73	2.27	1.98	2.92	1.68	1.11	.60	.61	.36

CAL YR 1972 TOTAL 1,859,699 MEAN 5,081 MAX 97,300 MIN 919 CFSM 1.67 IN 22.76
WTR YR 1973 TOTAL 1,765,799 MEAN 4,838 MAX 70,700 MIN 732 CFSM 1.59 IN 21.61

PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-7	1700	20.02	86,200	2-4	0115	11.19	26,400
11-15	2130	10.32	22,400	4-29	0500	10.39	22,800
11-21	1145	9.49	19,000	5-30	0100	8.55	15,500
12-23	1645	10.22	22,000				

01637500 Catoctin Creek near Middletown, Md.

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, on right bank 300 ft (91 m) downstream from bridge on State Highway 17, 1.3 miles (2.1 km) south of Middletown, 2.2 miles (3.5 km) downstream from Little Catoctin Creek and 14.8 miles (23.8 km) upstream from mouth.

DRAINAGE AREA.--66.9 sq mi (173.3 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft (117.3 m), from topographic map.

AVERAGE DISCHARGE.--26 years, 72.3 cfs (2.048 cu m/s), 14.68 in/yr (373 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,610 cfs (45.6 cu m/s) Dec. 8, gage height, 4.83 ft (1.472 m); minimum, 4.1 cfs (0.12 cu m/s) Sept. 12, 13, 14, gage height, 0.92 ft (0.280 m).

Period of record: Maximum discharge, 11,200 cfs (317 cu m/s) June 22, 1972, gage height, 12.28 ft (3.743 m), from rating curve extended above 1,500 cfs (42.5 cu m/s) on basis of slope-area measurement at gage height 11.18 ft (3.408 m); no flow Aug. 27 to Sept. 12, 1966.

REMARKS.--Records fair.

REVISIONS (WATER YEARS).--WSP 1432: 1947-48.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	9.4	66	130	186	63	184	221	137	39	10	7.1
2	6.5	11	65	110	681	64	220	193	136	35	11	6.7
3	6.0	11	72	100	547	75	193	183	133	34	12	6.6
4	5.5	11	68	250	370	110	298	165	270	42	11	6.8
5	6.0	9.1	60	150	292	91	339	142	297	35	9.7	6.0
6	7.5	8.1	120	110	258	118	256	120	170	28	9.2	6.1
7	9.0	7.5	148	90	274	109	212	110	140	24	7.5	6.1
8	16	111	491	85	307	136	416	100	120	22	7.6	5.4
9	9.0	43	759	85	290	127	285	150	110	20	9.5	5.1
10	7.0	20	499	85	230	120	322	138	95	20	7.5	5.0
11	6.5	16	320	95	180	117	251	117	80	19	10	4.8
12	6.0	14	240	85	150	114	229	98	70	19	9.8	4.6
13	6.0	12	199	85	150	103	204	82	60	19	18	4.2
14	6.0	280	165	85	156	97	174	71	55	18	13	87
15	6.0	103	360	120	222	91	156	66	48	16	12	62
16	6.0	49	260	80	182	89	139	59	48	19	9.7	20
17	6.5	35	180	75	130	141	187	54	53	24	9.5	13
18	7.0	28	150	70	120	128	206	63	49	40	16	15
19	10	50	150	67	110	101	183	52	48	26	30	15
20	20	237	170	69	112	88	162	51	44	20	50	12
21	10	106	250	56	110	81	143	51	58	17	153	10
22	7.5	66	800	119	101	74	129	42	179	17	43	9.7
23	7.5	49	500	148	94	68	116	37	79	22	24	10
24	7.5	41	350	100	83	65	127	40	56	18	17	10
25	7.1	36	250	84	76	68	139	129	45	15	15	9.2
26	7.0	201	200	80	74	112	327	74	40	13	13	8.8
27	6.6	110	170	130	72	88	505	64	38	13	12	8.8
28	20	81	150	174	65	74	441	337	39	12	11	8.3
29	25	70	130	469	-----	72	320	220	114	11	9.4	8.8
30	13	63	120	269	-----	88	259	171	54	11	8.4	14
31	9.8	-----	160	219	-----	91	-----	162	-----	10	7.6	-----
TOTAL	281.5	1,888.1	7,622	3,874	5,622	2,963	7,122	3,562	2,865	678	586.4	396.1
MEAN	9.08	62.9	246	125	201	95.6	237	115	95.5	21.9	18.9	13.2
MAX	25	280	800	469	681	141	505	337	297	42	153	87
MIN	5.5	7.5	60	56	65	63	116	37	38	10	7.5	4.2
CFSM	.14	.94	3.68	1.87	3.00	1.43	3.54	1.72	1.43	.33	.28	.20
IN.	.16	1.05	4.24	2.15	3.13	1.65	3.96	1.98	1.59	.38	.33	.22

CAL YR 1972 TOTAL 56,414.8 MEAN 154 MAX 4.320 MIN 5.5 CFSM 2.30 IN 31.37
 WTR YR 1973 TOTAL 37,460.1 MEAN 103 MAX 800 MIN 4.2 CFSM 1.54 IN 20.83

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 8	2030	4.83	1,610	2-17	1430	4.01	1,200
12-22	*	*	*	6- 4	1830	4.08	1,230

* Unknown, discharge probably greater than base.

NOTE.--No gage-height record Dec. 14 to Jan. 18, July 6 to Aug. 6.

POTOMAC RIVER BASIN

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 (0.5 km) downstream from Catoclin Creek (Virginia), 6 miles (9.7 km) upstream from Monocacy River, and at mile 159.5 (256.6 km).

DRAINAGE AREA.--9,651 sq mi (24,996 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 200.54 ft (61.125 m) 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 (0.137 m) higher.

AVERAGE DISCHARGE.--78 years, 9,251 cfs (262.0 cu m/s), 13.02 in/yr (331 mm/yr).

EXTREMES.--Current year: Maximum discharge, 106,000 cfs (3,000 cu m/s) Oct. 8, gage height, 18.28 ft (5.572 m); minimum, 2,220 cfs (62.9 cu m/s) Sept. 13, 14, gage height, 1.18 ft (0.360 m).
Period of record: Maximum discharge, 480,000 cfs (13,600 cu m/s) Mar. 19, 1936, gage height, 41.03 ft (12.506 m), from rating curve extended above 300,000 cfs (8,500 cu m/s) on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum, 530 cfs (15.0 cu m/s) Sept. 11, 12, 1966, gage height, 0.27 ft (0.082 m).
Flood of June 2, 1889, reached a stage of 40.2 ft (12.25 m), from floodmarks (discharge, about 460,000 cfs or about 13,000 cu m/s, 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 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,460	5,320	18,000	16,100	20,200	8,670	13,600	39,800	23,700	10,500	3,300	3,750
2	2,510	5,350	16,700	15,500	20,200	8,630	20,000	31,000	18,800	8,560	3,140	3,340
3	2,540	6,000	16,100	14,300	41,700	8,730	35,200	25,700	15,500	7,230	3,190	3,110
4	2,660	6,430	15,900	14,300	72,000	9,410	34,500	22,500	14,400	6,390	4,190	2,920
5	2,540	7,770	15,500	18,800	50,800	11,100	39,400	20,500	16,000	6,140	4,470	2,980
6	2,490	7,380	15,500	23,900	36,200	15,400	44,200	18,300	15,200	6,090	3,840	2,920
7	59,000	6,670	20,200	20,600	29,800	19,300	33,800	16,200	18,000	5,650	3,360	3,060
8	85,900	7,480	29,500	17,400	26,800	21,900	29,300	14,700	20,900	5,010	3,070	2,670
9	42,300	10,800	43,300	15,100	27,300	22,400	39,300	14,000	16,800	4,580	2,980	2,360
10	24,200	23,400	78,300	13,200	27,900	21,600	50,800	15,200	13,300	4,290	2,830	2,420
11	16,500	19,800	70,500	12,000	24,500	19,700	50,300	16,600	11,200	4,270	2,710	2,390
12	12,400	15,600	53,500	11,500	20,700	17,700	44,200	15,400	9,800	4,140	3,440	2,360
13	10,100	12,900	39,900	10,500	17,700	16,300	35,200	13,900	9,210	4,220	3,130	2,270
14	8,720	13,200	31,800	10,000	16,200	15,000	29,200	12,900	11,100	3,890	3,310	2,890
15	7,670	23,800	27,500	9,420	16,000	13,700	25,100	12,000	9,440	3,800	3,520	4,270
16	6,590	39,600	32,900	9,400	16,400	12,700	22,300	11,000	8,800	3,730	4,050	6,430
17	5,930	29,600	43,300	9,590	16,200	12,800	20,600	10,300	7,670	3,980	4,080	4,950
18	5,360	21,300	32,600	9,390	14,500	15,900	20,000	10,100	7,190	4,120	5,140	4,750
19	5,070	17,100	25,000	9,190	12,800	27,600	19,600	9,860	7,050	3,820	4,970	3,980
20	4,980	19,600	21,800	9,130	12,100	25,600	18,900	9,530	8,510	3,660	7,700	4,610
21	4,750	37,700	20,400	8,830	12,000	20,600	17,100	9,380	9,180	3,670	8,830	4,430
22	4,730	27,200	26,900	9,070	12,000	17,900	15,700	9,130	8,300	4,010	11,900	3,790
23	4,510	27,000	58,600	10,000	11,600	16,300	14,900	8,660	9,130	4,110	12,900	3,350
24	4,440	21,300	67,500	12,700	10,700	15,100	14,700	8,160	8,320	3,980	9,520	3,080
25	4,220	17,700	45,800	13,900	10,100	13,900	16,100	8,770	8,360	4,330	7,280	3,040
26	4,000	17,900	35,200	12,700	9,640	13,400	22,200	9,860	8,360	4,240	6,190	2,910
27	3,860	27,300	29,000	12,000	9,230	13,500	38,900	10,600	7,530	4,020	8,490	2,790
28	4,170	31,700	24,500	16,300	8,830	14,700	56,300	14,000	6,700	5,900	7,090	2,760
29	4,540	25,500	20,700	28,000	-----	14,500	86,500	27,800	8,170	4,220	5,810	2,700
30	5,780	20,700	18,100	30,000	-----	13,700	59,300	39,700	12,100	3,710	4,930	2,570
31	6,010	-----	16,500	24,900	-----	13,000	-----	31,700	-----	3,460	4,310	-----
TOTAL	360,930	563,100	1,011,000	447,720	604,100	490,740	967,200	517,250	348,720	149,720	163,670	99,850
MEAN	11,640	18,770	32,610	14,440	21,580	15,830	32,240	16,690	11,620	4,830	5,280	3,328
MAX	85,900	39,600	78,300	30,000	72,000	27,600	86,500	39,800	23,700	10,500	12,900	6,430
MIN	2,460	5,320	15,500	8,830	8,830	8,630	13,600	8,160	6,700	3,460	2,710	2,270
CFSM	1.21	1.94	3.38	1.50	2.24	1.64	3.34	1.73	1.20	.50	.55	.34
IN.	1.39	2.17	3.90	1.73	2.33	1.89	3.73	1.99	1.34	.58	.63	.38

CAL YR 1972 TOTAL 6,780,580 MEAN 18,530 MAX 296,000 MIN 2,160 CFSM 1.92 IN 26.14
WTR YR 1973 TOTAL 5,724,000 MEAN 15,680 MAX 86,500 MIN 2,270 CFSM 1.62 IN 22.06

PEAK DISCHARGE (BASE, 35,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 8	0400	18.28	106,000	2- 4	1100	14.65	76,200
11-16	0900	9.51	41,600	4- 5	2400	10.63	48,300
11-21	1930	10.02	44,600	4-10	0500	11.32	52,600
12-10	1530	15.62	84,000	4-29	1100	16.58	91,600
12-17	0700	10.20	45,700	5-30	0800	9.38	40,800
12-23	2330	15.04	79,300				

01639000 Monocacy River at Bridgeport, Md.

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, on right bank 60 ft (18 m) downstream from bridge on State Highway 97 at Bridgeport, 0.9 mile (1.4 km) upstream from Cattail Branch, 3.4 miles (5.5 km) northwest of Taneytown, 4.8 miles (7.7 km) downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52.0 miles (83.7 km) upstream from mouth.

DRAINAGE AREA.--173 sq mi (448 sq km).

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 (103.885 m) 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 (0.5 km) downstream at datum 0.98 ft (0.299 m) lower.

AVERAGE DISCHARGE.--31 years 197 cfs (5,579 cu m/s), 15.46 in/yr (393 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,060 cfs (143 cu m/s) Sept. 15, gage height, 12.32 ft (3.755 m); minimum, 4.2 cfs (0.12 cu m/s) Sept. 13, 14, gage height, 1.86 ft (0.567 m).

Period of record: Maximum discharge, 21,500 cfs (603 cu m/s) June 22, 1972, gage height, 24.05 ft (7.330 m), from rating curve extended above 7,000 cfs (198 cu m/s) on basis of slope-conveyance study; no flow July 24-29, 1966.

Flood of Aug. 24, 1933, reached a stage of about 25 ft (7.6 m), 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.

REVISIONS (WATER YEARS).--WSP 1382: 1944(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	210	529	245	92	886	270	280	100	13	6.1
2	17	17	308	281	1,910	95	1,090	227	211	66	23	6.7
3	15	24	444	207	1,680	126	460	207	174	82	39	5.8
4	12	24	313	1,090	640	499	1,320	207	160	214	32	20
5	11	20	223	559	402	374	1,100	166	397	212	20	22
6	9.5	18	975	315	324	610	420	139	176	130	15	15
7	13	26	1,100	195	613	447	309	117	134	59	13	8.9
8	23	367	764	180	764	729	1,450	107	104	45	16	8.0
9	19	176	2,100	120	679	445	713	225	88	34	13	6.8
10	12	70	859	110	332	297	1,120	187	75	34	13	6.0
11	8.8	52	531	100	253	252	479	135	65	32	12	5.6
12	8.7	37	340	85	176	267	322	106	59	32	12	5.0
13	9.1	28	458	75	156	214	277	92	218	29	14	4.5
14	8.4	1,190	301	75	146	180	219	82	108	23	14	345
15	7.7	607	1,090	84	523	163	194	79	67	21	20	2,590
16	5.9	211	1,220	82	514	154	171	75	57	23	46	198
17	5.6	128	315	81	197	689	160	70	62	24	21	88
18	6.2	95	239	81	161	446	201	109	58	23	18	69
19	11	101	185	83	147	240	183	84	68	22	57	122
20	17	1,470	225	99	141	193	147	76	57	21	77	63
21	22	315	298	74	141	170	126	126	52	17	99	44
22	38	183	2,720	404	141	154	116	83	261	18	40	36
23	76	134	1,290	886	132	136	147	65	157	20	26	31
24	75	116	597	366	116	119	269	83	81	20	20	32
25	75	102	419	234	101	113	366	489	72	17	16	30
26	48	2,010	342	210	101	643	1,860	265	65	16	14	25
27	36	521	358	1,040	101	306	2,180	235	52	14	13	23
28	36	277	250	922	91	193	1,140	2,560	62	15	12	22
29	28	264	193	2,380	-----	157	492	1,480	494	14	10	21
30	28	195	178	535	-----	227	327	544	253	11	8.4	122
31	19	-----	490	344	-----	238	-----	416	-----	8.8	7.0	-----
TOTAL	716.9	8,794	19,335	11,826	10,927	8,968	18,244	9,106	4,167	1,396.8	753.4	3,981.4
MEAN	23.1	293	624	381	390	289	608	294	139	45.1	24.3	133
MAX	76	2,010	2,720	2,380	1,910	729	2,180	2,560	494	214	99	2,590
MIN	5.6	16	178	74	91	92	116	65	52	8.8	7.0	4.5
CFSM	.13	1.69	3.61	2.20	2.25	1.67	3.51	1.70	.80	.26	.14	.77
IN.	.15	1.89	4.16	2.54	2.35	1.93	3.92	1.96	.90	.30	.16	.86

CAL YR 1972 TOTAL 132,594.8 MEAN 362 MAX 16,700 MIN 5.6 CFSM 2.09 IN 28.51

WTR YR 1973 TOTAL 98,215.5 MEAN 269 MAX 2,720 MIN 4.5 CFSM 1.55 IN 21.12

PEAK DISCHARGE (BASE, 4,800 CFS).--Sept. 15 (time unknown) 5,060 cfs (12.32 ft).

POTOMAC RIVER BASIN

01639500 Big Pipe Creek at Bruceville, Md.

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, on left bank 300 ft (91 m) downstream from bridge on State Highway 194, 800 ft (240 m) downstream from Bruceville, 3.5 miles (5.6 km) upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 sq mi (264 sq km).

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 (104 m), from topographic map.

AVERAGE DISCHARGE.--26 years, 106 cfs (3.002 cu m/s), 14.11 in/yr (358 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,610 cfs (73.9 cu m/s) Dec. 8, gage height, 7.56 ft (2.304 m), from peak-stage indicator; minimum, 17 cfs (0.48 cu m/s) Sept. 13, gage height, 0.93 ft (0.283 m); minimum daily, 22 cfs (0.62 cu m/s) Sept. 13.

Period of record: Maximum discharge, 22,800 cfs (646 cu m/s) June 22, 1972, gage height, 17.86 ft (5.444 m), from rating curve extended above 3,500 cfs (99.1 cu m/s) on basis of contracted-opening measurement of peak flow; minimum daily, 1.0 cfs (0.028 cu m/s) Sept. 12, 1966.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Occasional diversion for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	46	241	243	200	130	395	241	174	113	53	26
2	46	65	227	191	1,000	134	448	218	154	101	70	25
3	42	57	199	173	800	153	268	210	143	116	60	26
4	40	46	162	477	400	220	587	203	152	125	51	35
5	39	42	138	262	350	171	392	182	313	99	46	33
6	46	38	493	215	300	195	260	168	156	88	42	30
7	98	37	363	179	350	182	226	157	146	80	39	28
8	60	341	450	170	400	249	611	153	151	76	37	27
9	43	138	1,200	160	350	191	337	175	124	72	38	23
10	37	69	700	150	300	165	690	152	114	70	35	25
11	37	59	300	140	250	160	334	140	107	76	35	24
12	38	55	260	130	200	161	282	129	102	85	54	23
13	40	48	239	130	150	143	250	126	188	67	52	22
14	36	664	187	130	150	136	219	121	113	62	41	132
15	35	292	617	130	350	135	200	137	99	66	45	194
16	33	133	455	134	300	134	185	127	97	77	43	56
17	35	101	231	133	250	273	178	122	106	68	39	41
18	33	84	200	125	200	171	198	149	102	70	117	41
19	56	144	176	138	170	142	175	122	101	62	104	43
20	78	650	215	172	150	131	160	146	97	57	72	36
21	47	202	265	123	150	125	148	153	117	63	46	34
22	44	144	1,220	174	150	122	146	120	340	64	44	33
23	43	114	532	231	150	116	149	116	136	62	40	34
24	44	100	338	156	140	110	185	168	136	54	36	35
25	41	91	277	133	140	113	251	356	104	51	34	32
26	38	468	251	130	140	378	828	176	96	51	35	34
27	37	215	248	305	140	188	980	176	103	49	33	33
28	62	164	205	326	130	151	537	987	93	46	32	31
29	85	144	181	933	-----	140	337	335	271	43	29	33
30	50	134	174	300	-----	207	270	224	268	42	26	99
31	43	-----	303	250	-----	175	-----	213	-----	41	24	-----
TOTAL	1,481	4,885	11,047	6,643	7,760	5,201	10,226	6,202	4,403	2,196	1,452	1,288
MEAN	47.8	163	356	214	277	168	341	200	147	70.8	46.8	42.9
MAX	98	664	1,220	933	1,000	378	980	987	340	125	117	194
MIN	33	37	138	123	130	110	146	116	93	41	24	22
CFSM	.47	1.60	3.49	2.10	2.72	1.65	3.34	1.96	1.44	.69	.46	.42
IN.	.54	1.78	4.03	2.42	2.83	1.90	3.73	2.26	1.61	.80	.53	.47

CAL YR 1972 TOTAL 84,773 MEAN 232 MAX 14,400 MIN 33 CFSM 2.27 IN 30.92
WTR YR 1973 TOTAL 62,784 MEAN 172 MAX 1,220 MIN 22 CFSM 1.69 IN 22.90

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-8	*2400	7.56	2,610	4-27	1300	6.63	2,050
12-22	0530	6.69	2,080	5-28	0900	5.90	1,670

* About.

† From peak-stage indicator.

NOTE.--No gage-height record Dec. 8-12, Jan. 30 to Mar. 1.

01640500 Owens Creek at Lantz, Md.

LOCATION.--Lat 39°40'36", long 77°27'50", Frederick County, on right bank 0.5 mile (0.8 km) west of Lantz Post Office (Deerfield station on Western Maryland Railway), 1.5 miles (2.4 km) south of Sabillasville, 4.5 miles (7.2 km) northwest of Thurmont, and 14.2 miles (22.8 km) upstream from mouth.

DRAINAGE AREA.--5.93 sq mi (15.36 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 965 ft (294 m), from topographic map.

AVERAGE DISCHARGE.--42 years, 8.87 cfs (0.251 cu m/s), 20.31 in/yr (516 mm/yr), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 160 cfs (4.53 cu m/s) Sept. 14, gage height, 3.04 ft (0.927 m); minimum, 0.53 cfs (0.015 cu m/s) Oct. 15, 18.

Period of record: Maximum discharge, 3,270 cfs (92.6 cu m/s) Dec. 1, 1934, gage height, 8.4 ft (2.56 m), from rating curve extended above 750 cfs (21.2 cu m/s) on basis of slope-area measurements at gage heights 5.11 ft (1.558 m) and 6.30 ft (1.920 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	1.1	3.4	15	16	8.0	28	28	23	6.0	2.6	2.4
2	.66	2.0	3.7	13	75	8.2	29	24	19	5.6	2.4	2.3
3	.62	1.3	6.1	12	53	11	24	24	17	6.2	2.3	2.2
4	.60	1.0	6.0	30	34	15	41	21	17	5.9	1.8	2.1
5	.69	.91	4.2	17	28	13	34	18	26	10	1.6	2.0
6	1.3	.78	20	15	24	17	27	16	15	5.2	1.4	1.9
7	3.6	.71	13	13	23	17	25	15	13	4.8	1.4	1.8
8	.97	17	28	11	34	18	61	16	11	4.3	1.3	1.6
9	.63	2.7	38	10	27	16	39	18	10	4.0	1.3	1.5
10	.59	1.6	22	9.0	21	15	43	14	9.1	3.9	5.2	1.6
11	.61	1.4	15	8.5	18	15	32	13	8.3	4.2	2.7	1.4
12	.61	1.2	13	8.1	16	14	28	12	18	3.6	14	1.3
13	.60	1.0	13	8.2	16	12	23	11	20	3.2	6.1	1.2
14	.58	28	10	8.1	15	12	21	11	9.4	3.0	6.6	51
15	.56	6.8	21	7.9	27	11	19	11	7.6	3.5	5.3	9.8
16	.56	2.9	16	7.4	18	11	17	10	8.5	3.4	2.8	4.3
17	.58	2.2	12	7.5	13	32	18	13	8.0	3.4	2.2	3.3
18	.56	1.9	9.8	7.4	13	21	18	13	8.4	3.2	4.7	6.4
19	1.4	5.5	9.8	8.0	12	18	15	10	7.6	2.8	4.4	3.6
20	1.1	15	13	7.5	12	16	14	12	6.8	2.6	19	3.0
21	.91	4.6	16	6.1	12	15	13	11	6.9	2.9	55	2.7
22	.83	3.1	63	18	12	14	12	9.4	22	3.2	12	2.7
23	.83	2.5	38	13	11	13	17	9.4	9.8	2.9	7.2	2.7
24	.91	2.2	26	9.5	9.9	12	16	17	7.3	2.4	5.4	2.4
25	.74	2.2	22	8.4	9.2	12	29	25	8.3	2.3	4.6	2.4
26	.68	23	21	8.3	9.2	25	45	17	6.5	2.4	4.0	2.5
27	.68	6.9	19	18	8.7	14	71	21	6.0	2.1	3.5	2.3
28	2.4	4.9	16	19	8.2	13	54	70	6.4	1.9	3.1	2.1
29	1.6	4.0	14	42	-----	12	39	38	18	1.8	2.7	3.9
30	.98	3.5	13	22	-----	17	32	34	7.3	1.8	2.6	3.9
31	.78	-----	19	18	-----	15	-----	31	-----	1.7	2.5	-----
TOTAL	29.10	151.90	544.0	405.9	575.2	462.2	884	592.8	361.2	114.2	191.7	132.3
MEAN	.94	5.06	17.5	13.1	20.5	14.9	29.5	19.1	12.0	3.68	6.18	4.41
MAX	3.6	28	63	42	75	32	71	70	26	10	55	51
MIN	.56	.71	3.4	6.1	8.2	8.0	12	9.4	6.0	1.7	1.3	1.2
CFSM	.16	.85	2.95	2.21	3.46	2.51	4.97	3.22	2.02	.62	1.04	.74
IN.	.18	.95	3.41	2.55	3.61	2.90	5.55	3.72	2.27	.72	1.20	.83

CAL YR 1972 TOTAL 5,752.12 MEAN 15.7 MAX 482 MIN .56 CFSM 2.65 IN 36.08
WTR YR 1973 TOTAL 4,444.50 MEAN 12.2 MAX 75 MIN .56 CFSM 2.06 IN 27.88

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6-12	2200	2.86	126	9-14	1500	3.04	160
8-21	0115	2.98	148				

01641000 Hunting Creek at Jintown, Md.

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, on right bank just downstream from highway bridge, 0.4 mile (0.6 km) southwest of Jintown, about 2.2 miles (3.5 km) southeast of Thurmont, 2.2 miles (3.5 km) upstream from Little Hunting Creek, and 5.2 miles (8.4 km) upstream from mouth.

DRAINAGE AREA.--18.4 sq mi (47.7 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 355 ft (108 m), from topographic map.

AVERAGE DISCHARGE.--24 years, 24.4 cfs (0.691 cu m/s), 18.01 in/yr (457 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs (34.6 cu m/s) Aug. 18, gage height, 5.05 ft (1.539 m), from rating curve extended above 500 cfs (14.2 cu m/s); minimum, 3.0 cfs (0.085 cu m/s) Nov. 6, gage height, 1.57 ft (0.479 m).

Period of record: Maximum discharge, 1,330 cfs (37.7 cu m/s) June 22, 1972, gage height, 5.26 ft (1.603 m), from rating curve extended above 500 cfs (14.2 cu m/s); minimum, 0.4 cfs (0.011 cu m/s) Sept. 9, 1966, gage height, 1.48 ft (0.451 m).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.5	16	53	60	27	102	70	57	15	5.2	4.5
2	3.8	8.1	15	43	347	25	108	61	47	12	5.5	4.0
3	3.8	5.0	14	39	216	39	86	58	42	14	4.9	4.0
4	3.8	4.0	12	74	127	57	137	52	57	14	4.3	4.0
5	4.0	3.6	10	59	97	47	108	46	56	15	3.9	4.0
6	4.5	3.4	42	49	85	58	83	40	40	12	3.7	4.5
7	6.2	3.5	25	40	91	53	71	36	33	10	3.6	4.0
8	4.0	4.3	97	36	98	69	160	38	28	9.0	3.7	4.0
9	4.0	7.4	95	32	99	56	114	50	25	8.1	3.6	3.6
10	3.6	5.2	58	30	77	50	115	36	21	7.8	6.3	3.6
11	4.0	4.9	35	30	64	49	86	31	20	11	6.7	3.6
12	4.0	4.4	28	26	54	47	72	27	19	8.3	12	3.2
13	4.0	4.1	24	26	50	42	63	24	24	7.3	7.8	3.2
14	3.6	124	19	24	54	39	55	22	18	6.7	6.8	137
15	3.6	20	91	23	84	37	49	22	16	7.8	9.0	27
16	3.6	11	92	21	72	37	45	21	16	7.7	6.6	13
17	3.6	7.5	60	22	52	65	44	22	16	10	6.3	9.1
18	3.6	6.3	44	22	44	54	47	24	17	8.5	133	10
19	7.5	27	38	23	42	44	41	21	17	7.4	20	7.9
20	4.0	44	43	23	42	40	36	24	15	6.8	15	6.7
21	4.0	13	61	19	42	37	32	22	34	6.9	69	6.1
22	4.0	9.5	242	86	38	34	30	18	55	7.1	20	5.9
23	4.0	7.8	150	66	37	32	35	17	25	6.9	12	5.7
24	4.0	6.9	106	44	34	29	39	42	18	6.3	9.0	5.7
25	3.6	7.3	81	35	31	30	71	79	17	5.8	7.5	5.5
26	3.6	83	70	32	31	60	139	52	16	5.8	6.6	5.6
27	3.6	19	67	64	29	40	268	84	14	5.6	6.1	5.5
28	9.5	15	56	79	27	32	180	341	14	5.0	5.9	5.3
29	5.0	12	46	170	-----	30	112	157	36	4.8	5.0	6.9
30	4.5	11	41	96	-----	41	84	96	20	4.6	5.0	7.6
31	4.0	-----	59	72	-----	41	-----	73	-----	4.6	5.0	-----
TOTAL	133.0	525.4	1,837	1,458	2,124	1,341	2,612	1,706	833	261.8	419.0	320.7
MEAN	4.29	17.5	59.3	47.0	75.9	43.3	87.1	55.0	27.8	8.45	13.5	10.7
MAX	9.5	124	242	170	347	69	268	341	57	15	133	137
MIN	3.6	3.4	10	19	27	25	30	17	14	4.6	3.6	3.2
CFSM	.23	.95	3.22	2.55	4.13	2.35	4.73	2.99	1.51	.46	.73	.58
IN.	.27	1.06	3.71	2.95	4.29	2.71	5.28	3.45	1.68	.53	.85	.65

CAL YR 1972 TOTAL 16,770.0 MEAN 45.8 MAX 1,100 MIN 2.8 CFSM 2.49 IN 33.90
WTR YR 1973 TOTAL 13,570.9 MEAN 37.2 MAX 347 MIN 3.2 CFSM 2.02 IN 27.44

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	0700	3.42	518	4-27	1100	3.79	666
12- 8	1900	3.12	398	5-28	0600	3.78	662
12-22	0330	3.08	383	8-18	1830	5.05	1,220
2- 2	1430	3.51	554	9-14	1600	3.26	454
4- 4	1430	3.20	430				

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 (15 m) downstream from Little Fishing Creek, 2.8 miles (4.5 km) west of Lewistown, and 9.9 miles (15.9 km) upstream from mouth.

DRAINAGE AREA.--7.29 sq mi (18.88 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 735 ft (224 m), from topographic map.

AVERAGE DISCHARGE.--26 years, 10.9 cfs (0.309 cu m/s), 20.30 in/yr (516 mm/yr).

EXTREMES.--Current year: Maximum discharge, 94 cfs (2.66 cu m/s) May 28, gage height, 2.28 ft (0.695 m); minimum, 1.9 cfs (0.054 cu m/s) Oct. 25-28, Nov. 5-7, Sept. 8, 9, 10, 11.
Period of record: Maximum discharge, 610 cfs (17.3 cu m/s) June 21, 1972, gage height, 4.01 ft (1.222 m), from rating curve extended above 100 cfs (2.83 cu m/s) on basis of slope-area measurement at gage height 3.73 ft (1.137 m); minimum, 0.6 cfs (0.017 cu m/s) Sept. 10, 11, 12, 1966.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.3	6.8	25	29	13	26	36	36	8.0	4.1	2.3
2	2.2	3.1	6.5	22	56	12	29	32	31	8.0	4.1	2.3
3	2.2	2.2	6.8	22	61	15	29	30	27	8.8	3.8	2.3
4	2.0	2.0	7.2	28	52	17	38	28	31	8.4	3.6	2.3
5	2.2	2.0	6.8	25	45	15	36	25	32	8.4	3.6	2.2
6	2.9	1.9	8.0	23	40	18	34	23	25	7.6	4.6	2.2
7	4.1	1.9	14	22	39	17	33	22	23	6.8	3.6	2.2
8	2.3	12	12	22	40	22	48	21	21	6.5	3.3	2.0
9	2.2	3.1	48	21	37	21	43	23	20	6.1	3.1	2.0
10	2.0	2.5	40	20	33	21	45	20	19	5.8	3.6	2.0
11	2.0	2.7	36	20	31	22	40	19	17	6.5	3.8	2.2
12	2.0	2.3	31	18	29	22	37	18	16	5.8	4.3	2.3
13	2.0	2.2	29	17	28	21	33	17	15	5.5	4.1	2.3
14	2.0	20	26	17	27	20	30	16	14	5.3	3.6	2.3
15	2.0	6.5	33	16	29	20	28	16	13	5.8	3.6	5.8
16	2.0	3.8	31	15	26	19	27	15	13	5.5	3.1	4.1
17	2.0	3.3	27	14	22	22	26	16	12	7.4	3.1	3.1
18	2.0	2.9	26	13	21	19	25	15	12	6.1	7.2	3.8
19	3.1	2.9	25	13	20	17	23	14	11	5.8	6.1	2.9
20	2.3	12	25	13	20	17	22	15	11	5.4	4.3	2.7
21	2.0	5.4	27	12	20	16	20	13	16	5.8	9.2	2.7
22	2.0	4.3	56	20	19	15	20	12	21	5.8	4.6	2.7
23	2.0	4.1	54	17	18	15	20	12	13	5.1	3.6	2.7
24	2.0	3.8	51	15	17	15	20	17	12	4.8	3.3	2.7
25	2.0	3.6	44	14	15	15	23	26	11	4.8	3.1	2.7
26	1.9	13	40	14	15	18	34	22	10	4.6	2.9	2.7
27	1.9	8.8	38	19	14	15	51	29	9.7	4.6	2.9	2.7
28	4.3	7.6	32	20	13	13	58	73	9.7	4.3	2.7	2.5
29	2.5	7.2	28	40	-----	13	48	66	13	4.1	2.5	2.9
30	2.0	6.5	26	34	-----	16	41	54	9.2	4.1	2.5	3.3
31	2.0	-----	28	32	-----	16	-----	44	-----	3.8	2.5	-----
TOTAL	70.4	155.9	869.1	623	816	537	987	789	523.6	185.3	120.4	101.6
MEAN	2.27	5.20	28.0	20.1	29.1	17.3	32.9	25.5	17.5	5.98	3.88	3.39
MAX	4.3	20	56	40	61	22	58	73	36	8.8	9.2	23
MIN	1.9	1.9	6.5	12	13	12	20	12	9.2	3.8	2.5	2.0
CFSM	.31	.71	3.84	2.76	3.99	2.37	4.51	3.50	2.40	.82	.53	.47
IN.	.36	.80	4.43	3.18	4.16	2.74	5.04	4.03	2.67	.95	.61	.52

CAL YR 1972 TOTAL 7,050.8 MEAN 19.3 MAX 299 MIN 1.9 CFSM 2.65 IN 35.98
WTR YR 1973 TOTAL 5,778.3 MEAN 15.8 MAX 73 MIN 1.9 CFSM 2.17 IN 29.49

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

POTOMAC RIVER BASIN

01642500 Linganore Creek near Frederick, Md.

LOCATION.--Lat 39°24'55", long 77°20'00", Frederick County, on left bank 2.4 miles (3.9 km) upstream from mouth and 4 miles (6.4 km) east of Frederick.

DRAINAGE AREA.--82.3 sq mi (213.2 sq km).

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 (82 m) from topographic map. Prior to Mar. 27, 1932, nonrecording gage at Frederick pumping station, 1.5 miles (2.4 km) downstream at datum about 20 ft (6.1 m) lower. Sept. 12, 1934, to Sept. 25, 1946, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years (1934-73), 82.9 cfs (2.348 cu m/s), 13.68 in/yr (347 mm/yr).

EXTREMES.--Current year: Maximum discharge, 880 cfs (24.9 cu m/s) June 4, gage height, 5.32 ft (1.622 m); minimum, 1.4 cfs (0.040 cu m/s) Nov. 24, gage height, 1.10 ft (0.335 m), result of regulation.
Period of record: Maximum discharge, 20,100 (569 cu m/s) June 22, 1972, gage height, 19.46 ft (5.931 m), from high-water mark in well, from rating curve extended above 1,500 cfs (42.5 cu m/s) on basis of slope-area measurement at gage height 10.01 ft (3.051 m) and contracted-opening measurement at gage height 19.46 ft (5.931) at site 2.6 miles (4.2 km) upstream, adjusted for flow from intervening area; minimum discharge, 1.4 cfs (0.040 cu m/s) Nov. 24, 1972, gage height, 1.10 ft (0.335 m), result of regulation.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Linganore Reservoir 0.5 mile (0.8 km) upstream beginning September 1972, total capacity, 883,200,000 gal (3.343 cu hm).

REVISIONS (WATER YEARS).--WSP 891: 1938-39. WSP 1432: 1934, 1936, 1937(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	38	67	207	179	119	340	220	74	72	39	28
2	23	50	110	159	290	119	380	200	108	68	53	27
3	18	46	111	143	373	131	220	190	70	84	143	32
4	20	38	83	253	355	174	500	170	313	115	72	40
5	30	34	68	227	340	141	340	160	325	90	49	31
6	36	30	159	177	320	167	220	150	163	71	39	27
7	39	40	222	145	318	150	200	140	141	63	37	27
8	64	93	238	131	328	200	500	130	125	59	36	27
9	46	31	453	125	340	160	300	150	114	57	34	25
10	18	30	266	120	325	140	600	130	106	54	33	25
11	14	50	42	110	298	140	300	125	99	56	33	22
12	13	45	153	110	233	140	260	141	94	53	34	21
13	14	40	161	100	185	130	260	133	90	49	40	21
14	14	300	135	100	181	120	219	112	84	48	37	215
15	22	200	377	105	288	120	191	106	81	51	53	165
16	28	100	370	103	275	120	180	106	81	53	40	53
17	18	80	193	103	183	220	160	108	85	53	35	39
18	20	70	258	103	163	140	170	90	217	55	71	35
19	40	100	233	112	159	130	160	68	161	49	258	34
20	60	300	433	129	155	120	150	82	14	45	105	31
21	38	140	421	97	157	110	140	109	20	45	66	30
22	36	121	466	123	159	100	140	97	71	49	52	30
23	34	93	466	157	149	100	140	73	94	49	43	31
24	36	53	452	114	139	95	160	77	99	44	39	30
25	34	54	439	97	131	95	220	155	91	41	37	29
26	32	199	424	97	131	320	700	163	96	41	39	28
27	30	152	403	157	129	160	800	159	35	40	36	28
28	50	48	376	183	120	130	450	219	67	39	34	27
29	65	62	348	348	-----	120	300	273	187	37	32	28
30	42	63	310	343	-----	180	240	147	90	35	30	34
31	36	-----	253	280	-----	150	-----	88	-----	35	29	-----
TOTAL	1,010	2,700	8,490	4,758	6,403	4,441	8,940	4,271	3,395	1,700	1,678	1,220
MEAN	32.6	90.0	274	153	229	143	298	138	113	54.8	54.1	40.7
MAX	65	300	466	348	373	320	800	273	325	115	258	215
MIN	13	30	42	97	120	95	140	68	14	35	29	21
CFSM	.40	1.09	3.33	1.86	2.78	1.74	3.62	1.68	1.37	.67	.66	.49
IN.	.46	1.22	3.84	2.15	2.89	2.01	4.04	1.93	1.53	.77	.76	.55

CAL YR 1972 TOTAL 71,579 MEAN 196 MAX 11,500 MIN 13 CFSM 2.38 IN 32.35
WTR YR 1973 TOTAL 49,006 MEAN 134 MAX 800 MIN 13 CFSM 1.63 IN 22.15

PEAK DISCHARGE (BASE, 1,400 CFS).--No peak above base.

NOTE.--No gage-height record, Mar. 7 to Apr. 13.

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 (0.3 km) upstream from Jug Bridge on U. S. Highway 40, 0.4 mile (0.6 km) downstream from Linganore Creek, 2 miles (3.2 km) east of Frederick, and 16.9 miles (27.2 km) upstream from mouth.

DRAINAGE AREA.--817 sq mi (2,116 sq km).

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 site 0.2 mile (0.3 km) downstream. Datum of gage is 231.92 ft (70.689 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--44 years, 890 cfs (25.20 cu m/s), 14.79 in/yr (376 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs (346 cu m/s) Dec. 9, Apr. 28, gage height, 13.19 ft (4.020 m); minimum, 124 cfs (3.51 cu m/s) Sept. 13, 14.
Period of record: Maximum discharge, 81,600 (2,310 cu m/s) June 23, 1972, gage height, 35.9 ft (10.94 m), from floodmark; minimum daily, 19 cfs (0.54 cu m/s) Sept. 7-13, 1966.
Flood in June 1889 reached a stage of 30 ft (9.1 m), from floodmarks, discharge, 56,000 cfs (1,590 cu m/s).

REMARKS.--Records good. Water-quality records for the current water year are published in Part 2 of this report as Monocacy River at Reich's Ford Bridge near Frederick, Maryland.

REVISIONS (WATER YEARS).--WSP 711: 1930.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	214	1,060	2,660	1,880	840	2,640	2,330	1,800	966	223	166
2	257	232	1,480	1,770	4,060	840	5,380	2,060	1,460	650	278	166
3	211	254	1,570	1,410	9,860	906	3,290	1,830	1,200	830	424	175
4	193	244	1,350	3,160	4,280	1,910	3,060	1,670	1,280	1,360	352	217
5	181	232	1,100	3,270	2,960	1,840	6,490	1,430	2,750	1,090	299	199
6	190	217	1,460	2,010	2,420	2,140	2,900	1,260	1,790	924	247	184
7	244	204	5,040	1,520	2,860	2,050	2,220	1,140	1,290	635	226	184
8	296	1,020	2,730	1,150	3,370	2,420	4,060	1,070	1,090	521	214	166
9	264	1,810	10,100	1,050	4,180	2,440	5,090	1,240	924	467	217	151
10	235	590	5,020	1,000	2,550	1,720	4,650	1,320	812	432	208	139
11	190	392	3,380	950	1,970	1,490	3,680	1,070	730	416	202	136
12	166	332	2,160	900	1,550	1,470	2,520	948	675	445	211	133
13	163	289	2,080	800	1,400	1,340	2,210	867	862	404	388	124
14	163	2,600	1,830	800	1,350	1,170	1,830	806	936	364	289	1,040
15	157	4,530	2,650	851	2,260	1,090	1,590	796	665	344	282	6,000
16	154	1,460	6,220	801	3,040	1,040	1,430	779	600	364	271	1,070
17	166	801	2,370	790	1,710	1,550	1,320	746	610	388	271	517
18	163	610	1,600	785	1,250	2,850	1,400	807	697	408	352	384
19	187	585	1,400	796	1,250	1,470	1,380	768	697	360	1,660	396
20	229	4,700	1,500	906	1,150	1,220	1,180	735	521	328	665	380
21	264	2,280	1,900	790	1,190	1,090	1,050	845	575	313	2,330	296
22	235	1,140	8,300	936	1,170	1,030	996	774	1,610	324	818	257
23	229	878	7,680	3,420	1,090	948	972	640	1,400	324	454	244
24	278	665	4,140	1,890	1,030	878	1,300	690	1,250	306	340	229
25	278	605	2,990	1,340	948	851	1,290	2,450	730	285	289	220
26	244	3,940	2,560	1,120	912	2,060	6,510	1,940	667	275	261	214
27	238	3,760	2,440	1,480	906	1,990	6,180	1,440	540	271	241	208
28	360	1,390	2,090	4,160	862	1,230	9,010	6,970	620	261	220	202
29	408	1,220	1,740	7,250	-----	1,030	3,820	7,200	1,700	244	202	201
30	274	1,000	1,550	4,530	-----	1,180	2,760	3,100	1,770	235	187	290
31	223	-----	1,720	2,340	-----	1,470	-----	2,300	-----	223	175	-----
TOTAL	7,122	38,194	93,210	56,635	63,458	45,553	92,208	52,021	32,251	14,757	12,796	14,288
MEAN	230	1,273	3,007	1,827	2,266	1,469	3,074	1,678	1,075	476	413	476
MAX	408	4,700	10,100	7,250	9,860	2,850	9,010	7,200	2,750	1,360	2,330	6,000
MIN	154	204	1,060	785	862	840	972	640	521	223	175	124
CFSM	.28	1.56	3.68	2.24	2.77	1.80	3.76	2.05	1.32	.58	.51	.58
IN.	.32	1.74	4.24	2.58	2.89	2.07	4.20	2.37	1.47	.67	.58	.65
CAL YR 1972	TOTAL 679,504	MEAN 1,857	MAX 74,000	MIN 154	CFSM 2.27	IN 30.94						
WTR YR 1973	TOTAL 522,493	MEAN 1,431	MAX 10,100	MIN 124	CFSM 1.75	IN 23.79						

PEAK DISCHARGE (BASE, 8,800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	1330	13.19	12,200	4-26	1530	11.12	9,120
12-22	2200	12.89	11,700	4-28	0600	13.19	12,200
1-29	1900	11.49	9,640	5-29	0030	12.80	11,600
2- 3	0830	12.95	11,800				

01643500 Bennett Creek at Park Mills, Md.

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, on left bank 75 ft (23 m) downstream from highway bridge, 0.2 mile (0.3 km) south of Park Mills, 1.8 miles (2.9 km) upstream from mouth, and 3.7 miles (6.0 km) southwest of Urbana.

DRAINAGE AREA.--62.8 sq mi (162.7 sq km).

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 (73.2 m) from topographic map. Oct. 1, 1959 to July 21, 1966, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--17 years (1948-58, 1966-73), 69.9 cfs (1.980 cu m/s), 15.11 in/yr (384 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs (50.7 cu m/s) Dec. 8, gage height, 6.06 ft (1.847 m); minimum, 18 cfs (0.51 cu m/s) part of each day Sept. 2, 12-14, gage height, 1.12 ft (0.341 m).
Period of record: Maximum discharge, 32,200 cfs (912 cu m/s) June 21, 1972, gage height, 22.1 ft (6.74 m), from floodmark, from rating curve extended above 2,700 cfs (76.5 cu m/s) on basis of contracted-opening measurements at gage heights 11.15 ft (3.399 m), 14.33 ft (4.368 m), and 22.1 ft (6.74 m); minimum, 0.30 cfs (0.008 cu m/s) Sept. 8, 1966, gage height, 0.80 ft (0.244 m).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	25	112	115	105	74	220	145	92	44	29	19
2	22	29	89	98	444	75	500	130	82	56	42	19
3	21	26	72	91	275	85	180	137	77	179	63	19
4	20	23	64	182	176	100	400	125	144	134	33	120
5	20	23	58	125	145	80	280	111	148	60	29	26
6	21	22	201	108	135	110	190	102	87	50	28	23
7	46	22	138	90	218	100	143	96	78	45	26	23
8	23	134	499	85	246	130	308	95	71	42	26	21
9	20	42	524	80	195	110	187	114	66	41	23	20
10	19	29	223	80	140	100	348	93	62	39	23	20
11	19	26	146	75	120	90	198	87	58	39	23	19
12	20	24	117	75	110	90	177	82	54	36	22	19
13	20	23	107	70	100	85	156	78	54	34	22	19
14	19	385	92	68	110	80	134	75	50	33	28	396
15	19	117	269	69	200	80	122	78	48	41	34	85
16	19	62	201	67	120	80	115	73	54	38	24	42
17	19	49	110	67	110	120	111	74	58	37	23	33
18	19	42	95	67	100	100	109	77	54	35	32	32
19	35	88	100	75	100	90	102	70	54	32	60	28
20	29	370	111	78	96	80	96	81	53	31	28	27
21	23	92	136	63	97	75	92	75	50	32	61	25
22	22	68	598	90	98	70	94	66	79	55	38	25
23	22	56	306	94	91	65	92	68	60	39	28	25
24	23	50	205	74	85	65	95	95	54	33	25	24
25	22	46	166	65	81	80	149	155	48	31	24	23
26	21	288	147	64	82	130	334	91	47	31	24	24
27	21	106	134	105	81	100	713	86	45	30	23	23
28	70	78	116	130	76	85	324	561	45	30	23	23
29	39	65	102	395	-----	80	208	178	117	27	21	23
30	26	78	97	149	-----	110	166	119	51	27	20	25
31	24	-----	133	117	-----	100	-----	111	-----	26	20	-----
TOTAL	768	2,488	5,468	3,111	3,936	2,819	6,339	3,528	2,040	1,407	925	1,250
MEAN	24.8	82.9	176	100	141	90.9	211	114	68.0	45.4	29.8	41.7
MAX	70	385	598	395	444	130	713	561	148	179	63	396
MIN	19	22	58	63	76	65	90	66	45	26	20	19
CFSM	.39	1.32	2.80	1.59	2.25	1.45	3.36	1.82	1.08	.72	.47	.66
IN.	.45	1.47	3.24	1.84	2.33	1.67	3.75	2.09	1.21	.83	.55	.74
CAL YR 1972	TOTAL 49,363		MEAN 135	MAX 5,500	MIN 19	CFSM 2.15	IN 29.24					
WTR YR 1973	TOTAL 34,079		MEAN 93.4	MAX 713	MIN 19	CFSM 1.49	IN 20.19					

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-8	2330	6.06	1,790	4-27	1515	5.89	1,700
4-2	*	*	*	5-28	1130	5.14	1,400
4-4	*	*	*				

* Unknown, discharge probably greater than base.

NOTE.--No gage-height record Mar. 2 to Apr. 6.

01645000 Seneca Creek at Dawsonville, Md.

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, on right bank 60 ft (18 m) downstream from bridge on State Highway 28, 150 ft (46 m) downstream from mouth of Great Seneca Creek, 0.5 mile (0.8 km) east of Dawsonville, and 5.8 miles (9.3 km) upstream from mouth.

DRAINAGE AREA.--101 sq mi (262 sq km).

PERIOD OF RECCRD.--September 1930 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.15 ft (65.273 m) 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 (18 m) upstream at same datum.

AVERAGE DISCHARGE.--43 years, 96.9 cfs (2.744 cu m/s), 13.03 in/yr (331 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,020 cfs (85.5 cu m/s) Sept. 14, gage height, 7.94 ft (2.420 m); minimum, 35 cfs (0.99 cu m/s) Sept. 13, 14, gage height, 1.94 ft (0.591 m).
Period of record: Maximum discharge, 26,100 cfs (739 cu m/s) June 22, 1972, gage height, 16.4 ft (5.00 m), from high-water mark in gage house, from rating curve extended above 3,000 cfs (850 cu m/s) on basis of contracted-opening and flow-over-road measurement at gage height 12.17 ft (3.709 m) at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft (4.974 m) at site 5.0 mile (8.0 km) downstream, adjusted for flow from intervening area; minimum observed, 1.7 cfs (0.048 cu m/s) Sept. 28, 29, 1930, gage height, 0.56 ft (0.171 m).
Flood of Sept. 12, 1971, reached a stage of 16.32 ft (4.974 m), from high-water mark in gage house, discharge, 25,900 cfs (733 cu m/s), from rating curve extended as explained above.

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	60	226	197	158	127	583	214	170	79	59	40
2	54	70	145	161	913	127	849	200	160	150	88	40
3	52	64	125	147	350	143	257	219	150	145	75	39
4	50	58	115	268	229	162	606	225	260	492	64	162
5	50	56	107	184	199	142	328	188	380	121	58	55
6	50	54	278	160	191	176	241	174	160	95	54	52
7	116	54	234	139	282	158	215	165	140	84	52	58
8	62	370	660	130	292	228	383	159	130	80	51	43
9	52	118	1,190	130	261	178	246	210	120	78	50	41
10	48	82	276	130	197	155	457	171	110	76	57	40
11	48	74	205	130	170	149	256	155	110	90	76	37
12	48	68	174	120	160	149	240	145	100	75	50	38
13	52	64	163	120	160	137	231	141	100	65	46	36
14	50	1,040	146	120	168	132	207	138	100	63	46	1,280
15	46	242	525	114	320	132	195	145	95	108	51	496
16	44	127	311	114	203	131	186	136	110	77	47	103
17	46	104	165	113	140	212	178	142	130	89	44	80
18	44	91	147	113	150	156	175	145	110	83	59	75
19	91	159	146	131	150	136	169	134	100	67	203	66
20	74	741	167	141	151	129	164	157	100	67	64	60
21	54	163	197	113	154	126	158	145	95	100	166	58
22	52	127	1,230	152	158	124	155	129	200	223	103	58
23	52	109	380	168	146	118	152	137	140	99	66	56
24	52	98	255	129	140	113	153	190	110	79	59	55
25	52	95	215	115	134	114	209	280	100	72	56	52
26	50	500	196	114	136	226	553	170	95	71	55	52
27	49	172	191	191	136	153	1,400	150	95	67	52	52
28	181	133	167	206	130	131	485	1,030	90	61	50	52
29	110	116	153	681	-----	125	273	300	189	56	47	52
30	67	186	148	204	-----	175	231	220	90	54	44	54
31	60	-----	266	168	-----	161	-----	180	-----	55	42	-----
TOTAL	1,920	5,395	8,903	5,103	5,978	4,625	9,935	6,294	4,039	3,121	2,034	3,382
MEAN	61.9	180	287	165	214	149	331	203	135	101	65.6	113
MAX	181	1,040	1,230	681	913	228	1,400	1,030	380	492	203	1,280
MIN	44	54	107	113	130	113	152	129	90	54	42	36
CFSM	.61	1.78	2.84	1.63	2.12	1.48	3.28	2.01	1.34	1.00	.65	1.12
IN.	.71	1.99	3.28	1.88	2.20	1.70	3.66	2.32	1.49	1.15	.75	1.25

CAL YR 1972 TOTAL 87,811 MEAN 240 MAX 9,900 MIN 44 CFSM 2.38 IN 32.34
WTR YR 1973 TOTAL 60,729 MEAN 166 MAX 1,400 MIN 36 CFSM 1.64 IN 22.37

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1115	6.88	1,960	4- 2	0545	6.69	1,820
11-20	0130	6.15	1,530	4- 4	1745	5.87	1,410
12- 9	0200	7.88	2,950	4-27	1230	7.89	2,960
12-22	0645	6.94	2,000	5-28	1245	7.14	2,170
2- 2	1600	6.42	1,660	9-14	0615	7.94	3,020

NOTE.--Fragmentary or no gage-height record May 25 to June 28.

POTOMAC RIVER BASIN

01645200 Watts Branch at Rockville, Md.

LOCATION.--Lat 39°05'03", long 77°10'38", Montgomery County, on left bank 0.2 mile (0.3 km) south of State Highway 28, 1.3 miles (2.1 km) west of post office in Rockville, and 9.4 miles (15.0 km) upstream from mouth.

DRAINAGE AREA.--3.70 sq mi (9.58 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (100 m), from topographic map.

AVERAGE DISCHARGE.--16 years, 3.94 cfs (0.112 cu m/s), 14.46 in/yr (367 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs (35.4 cu m/s) June 4, gage height, 6.76 ft (2.060 m), from rating curve extended as explained below; minimum, 0.35 cfs (0.010 cu m/s) May 11, gage height, 1.16 ft (0.354 m).

Period of record: Maximum discharge, 2,900 cfs (81.1 cu m/s) June 21, 1972, gage height, 7.22 ft (2.201 m) in gage well, 7.83 ft (2.387 m) from floodmarks, from rating curve extended above 280 cfs (7.93 cu m/s) on basis of combined computation of peak flow through culvert and slope-area measurement of tributary inflow; minimum, 0.10 cfs (0.003 cu m/s) Sept. 2, 1966, gage height, 1.10 ft (0.335 m).

REMARKS.--Records good. Some regulation of low flow from unknown cause.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3.2	5.1	5.8	4.3	3.8	68	4.8	3.1	2.2	4.0	1.2
2	1.5	2.5	3.5	4.6	49	3.8	38	4.4	2.9	5.1	3.0	1.9
3	1.6	1.7	3.2	5.6	7.8	8.4	6.4	11	2.7	4.4	2.6	18
4	1.7	1.7	3.0	14	5.6	5.4	33	4.7	87	2.5	2.0	3.3
5	1.7	1.6	2.7	5.1	5.2	5.3	7.2	4.2	9.2	2.2	1.8	1.4
6	2.5	1.6	19	4.4	9.9	5.9	5.6	4.1	4.5	2.0	1.8	7.7
7	8.8	1.5	4.3	3.9	10	6.0	6.3	4.1	13	1.9	1.7	1.9
8	1.7	35	55	3.7	15	11	22	6.6	3.9	1.9	1.6	1.3
9	1.7	2.4	18	3.7	6.3	5.0	6.1	8.2	3.5	1.9	1.8	1.3
10	1.8	2.0	11	3.6	5.0	4.4	18	3.9	3.2	12	1.6	1.3
11	2.3	1.9	4.9	3.6	4.5	4.6	5.6	3.9	3.2	3.2	1.7	1.4
12	2.7	1.8	4.3	3.3	4.3	4.3	7.1	3.6	3.2	1.8	1.7	1.3
13	2.5	1.7	4.3	3.3	4.3	4.1	5.5	3.4	3.1	1.8	1.5	1.3
14	1.7	46	3.7	3.3	13	4.0	4.9	3.6	2.9	1.8	1.8	79
15	1.4	4.2	30	3.5	10	4.1	4.7	3.9	2.9	3.9	1.5	3.5
16	1.4	2.7	6.0	3.4	5.6	5.6	4.1	3.5	4.3	1.8	1.4	2.5
17	1.4	2.7	4.0	3.5	4.1	21	4.0	5.5	4.7	2.0	1.4	2.3
18	2.5	2.3	3.7	3.5	4.1	4.9	4.1	3.6	3.1	1.7	4.9	2.5
19	7.9	31	3.7	5.7	4.1	4.2	3.9	3.4	2.8	1.6	2.0	1.9
20	1.7	17	6.1	4.1	4.2	4.0	3.8	6.2	2.7	49	7.5	1.8
21	1.7	3.5	18	3.4	5.0	4.0	3.7	3.8	2.9	24	32	1.7
22	1.7	3.0	49	11	4.4	3.8	3.6	3.2	8.8	9.2	2.3	2.1
23	1.7	2.7	12	5.1	4.1	3.6	5.1	5.2	2.6	3.0	1.6	2.0
24	1.6	2.6	6.3	3.9	4.0	3.5	3.8	13	2.4	2.5	1.5	1.7
25	1.5	6.5	5.6	3.6	3.8	4.9	22	7.7	2.5	2.4	1.5	1.6
26	1.5	31	6.7	3.5	4.1	18	29	4.2	2.5	2.6	1.4	1.5
27	1.5	3.8	5.3	12	4.0	4.6	65	7.0	2.4	2.3	1.4	1.5
28	23	3.2	4.3	17	3.8	4.3	9.7	36	2.4	2.2	1.4	1.5
29	2.3	2.9	4.0	20	-----	4.3	5.8	5.6	10	2.0	1.3	1.6
30	1.8	18	4.6	4.8	-----	7.5	5.2	3.9	2.2	1.9	1.3	1.6
31	1.7	-----	20	4.3	-----	7.2	-----	3.4	-----	2.1	1.2	-----
TOTAL	90.0	241.7	331.3	180.2	209.5	185.5	411.2	189.6	204.6	158.9	94.2	153.6
MEAN	2.90	8.06	10.7	5.81	7.48	5.98	13.7	6.12	6.82	5.13	3.04	5.12
MAX	23	46	55	20	49	21	68	36	87	49	32	79
MIN	1.4	1.5	2.7	3.3	3.8	3.5	3.6	3.2	2.2	1.6	1.2	1.2
CFSM	.78	2.18	2.89	1.57	2.02	1.62	3.70	1.65	1.84	1.39	.82	1.38
IN.	.90	2.43	3.33	1.81	2.11	1.87	4.13	1.91	2.06	1.60	.95	1.54

CAL YR 1972 TOTAL 2,976.3 MEAN 8.13 MAX 312 MIN 1.2 CFSM 2.20 IN 29.92
WTR YR 1973 TOTAL 2,450.3 MEAN 6.71 MAX 87 MIN 1.2 CFSM 1.81 IN 24.64

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	0815	5.62	240	7-10	2145	5.77	260
12- 8	1830	5.99	298	7-20	2100	6.41	615
4- 1	1700	6.38	580	9- 3	2115	6.06	330
4-27	0845	6.14	370	9-14	1300	6.06	330
6- 4	1915	6.76	1,250				

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 (1.6 km) upstream from District of Columbia boundary line, 1.2 miles (1.9 km) upstream from Chain Bridge, 1.8 miles (2.9 km) east of Langley, Fairfax County, Virginia, and at mile 117.4 (188.9 km).

DRAINAGE AREA.--11,560 sq mi (29,940 sq km).

PERIOD OF RECORD.--March 1930 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft (11.567 m) 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 (1.6 km) upstream on right bank at same datum.

AVERAGE DISCHARGE.--43 years, 11,080 cfs (313.8 cu m/s), 13.02 in/yr (331 mm/yr), adjusted for diversions. 42 years, 10,920 cfs (309.3 cu m/s), 12.83 in/yr (326 mm/yr), adjusted for diversions; figure in Water Resources Data for Maryland and Delaware, 1972, in error.

EXTREMES.--Current year: Maximum discharge, 86,500 cfs (2,450 cu m/s) Oct. 8, gage height, 9.08 ft (2.768 m); minimum daily, 2,170 cfs (61.5 cu m/s) Sept. 13, does not include diversion of 540 cfs (15.3 cu m/s) for municipal use.

Period of record: Maximum discharge, 484,000 cfs (13,700 cu m/s) Mar. 19, 1936, gage height, 28.1 ft (8.56 m), site then in use; minimum daily observed at gaging station, 121 cfs (3.43 cu m/s) Sept. 9, 1966, does not include diversion of 489 cfs (13.8 cu m/s) for municipal use; minimum daily (adjusted), 601 cfs (17.0 cu m/s) Sept. 10, 1966, includes diversion of 449 cfs (12.7 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,640	6,060	21,800	20,200	24,400	9,730	16,700	45,300	27,800	12,400	3,670	4,000
2	2,700	5,550	19,000	19,100	25,100	9,540	27,000	34,900	21,800	10,400	3,530	3,800
3	2,770	5,640	18,100	17,200	40,400	9,610	36,600	29,200	17,900	8,560	3,530	4,000
4	2,700	6,060	17,400	17,100	67,200	10,500	40,400	25,800	15,600	8,410	3,790	3,600
5	2,750	6,590	16,900	20,700	58,800	12,000	42,400	23,100	19,400	7,500	4,100	3,150
6	2,800	7,510	16,600	25,300	41,800	14,900	48,800	20,800	17,400	6,650	4,290	2,850
7	22,100	7,110	21,800	24,500	35,200	19,300	39,300	18,500	16,600	6,410	3,900	2,850
8	78,300	8,810	30,200	20,500	31,700	23,600	33,900	16,500	20,400	5,720	3,500	2,830
9	49,900	9,920	50,400	17,500	32,100	25,200	38,700	15,900	19,300	4,970	3,080	2,650
10	28,500	17,200	68,700	15,000	31,500	24,200	53,100	15,500	15,100	4,750	2,930	2,290
11	18,900	22,200	73,000	13,500	28,500	22,500	52,900	17,200	12,500	4,660	2,760	2,250
12	13,800	17,600	57,900	13,000	24,500	20,300	49,300	17,000	10,800	4,450	2,680	2,210
13	10,800	14,200	44,700	12,500	21,000	18,600	40,100	15,200	9,610	4,320	3,110	2,170
14	9,170	16,500	36,000	11,700	18,500	17,000	33,300	14,100	10,400	4,280	3,150	4,980
15	7,880	24,000	31,600	10,800	18,900	15,500	28,500	13,300	10,300	4,060	3,360	9,660
16	6,920	37,400	36,700	10,200	19,600	14,400	25,300	12,400	9,480	4,060	3,460	10,500
17	6,070	34,500	44,700	10,200	18,900	15,000	22,800	11,600	8,690	4,060	3,720	6,710
18	5,500	24,600	38,100	10,200	16,600	16,900	21,600	11,200	7,840	4,190	4,020	5,090
19	5,330	19,400	29,200	10,100	15,000	23,200	21,100	10,900	7,540	4,060	5,490	4,650
20	5,130	24,900	24,800	9,910	14,000	28,700	20,600	10,800	7,440	3,920	6,430	4,130
21	5,010	32,400	23,300	9,900	13,500	23,700	19,000	10,500	9,070	4,530	10,000	4,390
22	4,870	41,300	36,100	9,610	13,300	20,100	17,300	10,400	8,990	5,720	13,100	4,300
23	4,740	31,100	54,000	11,800	13,400	17,900	16,100	10,100	9,690	5,070	12,800	3,790
24	4,540	24,100	72,200	13,900	12,500	16,600	15,800	9,600	9,940	4,580	11,600	3,370
25	4,430	20,000	53,500	14,800	11,700	15,300	16,500	10,600	8,770	4,290	8,540	3,060
26	4,380	23,100	40,700	14,500	11,100	15,100	25,000	12,400	8,230	4,350	6,820	2,980
27	4,200	28,600	33,800	13,700	10,600	16,000	46,300	12,400	8,270	4,360	6,240	2,930
28	5,200	33,800	29,200	15,800	10,200	15,400	60,900	20,100	7,090	4,350	7,340	2,820
29	5,690	29,400	24,600	31,500	-----	15,500	77,700	32,900	7,970	5,190	6,530	2,810
30	5,260	24,100	21,400	37,800	-----	15,200	67,200	42,100	10,800	4,270	5,370	2,780
31	5,910	-----	20,100	30,300	-----	14,800	-----	36,900	-----	3,730	4,600	-----
TOTAL	338,890	603,650	1,106,540	512,820	680,000	536,280	1,054,240	587,200	374,720	168,270	167,440	117,600
MEAN	10,930	20,120	35,690	16,540	24,290	17,300	35,140	18,940	12,490	5,428	5,401	3,920
MAX	78,300	41,300	73,000	37,800	67,200	28,700	77,700	45,300	27,800	12,400	13,100	10,500
MIN	2,640	5,550	16,600	9,610	10,200	9,540	15,800	9,600	7,090	3,730	2,680	2,170
(+)	428	426	424	428	427	429	446	460	521	531	551	517
MEAN†	11,360	20,550	36,110	16,970	24,720	17,730	35,590	19,400	13,010	5,959	5,952	4,437
CFSM†	.98	1.78	3.12	1.47	2.14	1.53	3.08	1.68	1.13	.52	.51	.38
IN†	1.13	1.99	3.60	1.70	2.23	1.76	3.44	1.94	1.26	.60	.59	.42

CAL YR 1972 TOTAL 7,667,980 MEAN 20,950 MAX 334,000 MIN 2,170 MEAN† 21,400 CFSM† 1.85 IN† 25.18

WTR YR 1973 TOTAL 6,247,570 MEAN 17,120 MAX 78,300 MIN 2,170 MEAN† 17,590 CFSM† 1.52 IN† 20.63

PEAK DISCHARGE (BASE, 45,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10- 8	1100	9.08	86,500	2- 4	1700	8.26	71,700
12-10	2300	8.63	78,300	4- 6	0800	7.04	50,400
12-17	1430	6.81	46,700	4-10	1400	7.38	56,200
12-24	0600	8.52	76,400	4-29	1800	8.91	83,400

† Diversion, in cfs, to Chesapeake and Ohio Canal 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 (0.5 km) downstream from Willett Branch, 1.7 miles (2.7 km) upstream from mouth, and 2.0 miles (3.2 km) southwest of Bethesda.

DRAINAGE AREA.--4.1 sq mi (10.6 sq km), 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, concrete control, and crest-stage gage. Datum of gage is 169.32 ft (51.609 m) above mean sea level (Maryland State Highway Administration bench mark). Prior to Oct. 1959, water-stage recorder and concrete control at site 50 ft (15 m) upstream at same datum. Oct. 1, 1959, to Nov. 30, 1961, crest-stage gage at present site and datum.

AVERAGE DISCHARGE.--26 years (1945-49, 1963-73), 3.28 cfs (0.0929 cu m/s), 10.86 in/yr (276 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,190 cfs (33.7 cu m/s) Sept. 14, gage height, 4.57 ft (1.393 m), from rating curve extended as explained below; minimum daily, 0.37 cfs (0.010 cu m/s) Oct. 15.
Period of record: Maximum discharge, 2,680 cfs (75.9 cu m/s) Sept. 14, 1966, gage height, 6.82 ft (2.079 m), from rating curve extended above 630 cfs (17.8 cu m/s) on basis of slope-area measurement at gage height 5.92 ft (1.804 m); no flow at times in 1944, 1954, 1959, minima not available Oct. 1959 to Nov. 1961.

REMARKS.--Records good except those for period of no gage-height record, which are fair. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	5.3	2.6	2.0	1.9	1.6	28	2.7	1.8	1.4	7.0	1.0
2	.56	1.4	1.6	1.8	36	1.6	18	2.5	1.8	15	1.9	1.5
3	.57	.65	1.4	4.2	3.5	9.9	3.1	12	1.8	3.8	2.0	24
4	.54	.60	1.3	10	2.4	2.5	21	2.9	2.8	1.6	1.3	2.0
5	.52	.56	1.3	2.1	2.2	5.0	3.9	2.4	1.9	1.4	1.2	1.3
6	3.1	.58	9.8	1.9	10	3.0	2.9	2.2	1.7	1.3	1.3	11
7	5.8	.60	1.5	1.7	6.5	3.7	3.7	2.1	1.7	1.3	1.3	3.0
8	.47	25	33	1.7	10	11	19	7.0	1.8	1.2	1.3	1.5
9	.43	.98	8.4	1.7	2.8	2.3	3.0	9.2	1.8	1.4	1.2	1.2
10	.43	.82	6.9	1.6	2.3	2.0	12	2.2	1.6	29	1.2	1.0
11	.45	.78	2.3	1.6	2.1	2.9	3.2	2.1	1.7	3.0	1.2	1.0
12	.48	.65	2.7	1.6	2.0	2.0	4.4	2.1	1.7	1.4	1.3	1.0
13	.44	.66	2.0	1.5	2.0	1.8	2.8	2.0	3.9	1.4	2.0	1.0
14	.43	36	1.8	1.5	11	1.8	2.6	2.1	1.5	1.3	1.6	90
15	.37	2.0	24	1.6	4.4	2.3	2.4	2.8	1.5	2.4	1.2	4.0
16	.42	1.2	2.9	1.5	2.2	6.1	2.6	1.9	4.4	1.3	1.2	1.5
17	.43	1.1	2.1	1.6	2.0	12	2.6	4.0	2.0	1.3	1.2	1.3
18	.40	.94	2.0	1.7	1.9	2.1	2.8	1.9	1.7	1.4	2.8	1.6
19	11	25	1.9	6.0	1.9	1.9	2.6	1.8	1.4	1.3	1.2	1.2
20	.56	14	3.5	1.6	1.9	1.8	2.4	4.0	1.4	11	22	1.1
21	.50	1.4	13	1.4	2.6	1.9	2.2	1.9	7.5	5.0	46	1.1
22	.49	1.3	32	19	1.9	1.8	2.4	1.8	7.5	19	7.0	1.1
23	.49	1.2	7.3	2.4	1.8	1.6	6.5	7.7	1.6	1.7	1.7	1.2
24	.44	1.2	2.7	1.7	1.7	1.6	2.6	15	1.4	1.6	1.4	1.2
25	.46	10	2.4	1.6	1.6	7.2	19	5.0	1.6	1.7	1.3	1.1
26	.46	29	4.5	1.6	1.6	16	20	2.3	1.6	7.5	1.3	1.1
27	.44	1.7	2.3	9.0	1.6	2.8	39	6.2	1.6	1.4	1.4	1.1
28	29	1.4	2.0	15	1.6	2.0	5.4	21	1.7	1.4	1.4	1.1
29	1.1	1.3	1.8	11	-----	1.9	2.9	2.5	12	1.3	1.2	4.7
30	.98	22	2.3	2.2	-----	5.1	2.7	2.1	1.4	1.3	1.1	1.3
31	.96	-----	6.5	1.9	-----	8.3	-----	1.9	-----	2.8	1.0	-----
TOTAL	63.24	189.32	189.8	115.7	123.4	127.5	245.7	137.3	77.8	127.9	120.2	166.2
MEAN	2.04	6.31	6.12	3.73	4.41	4.11	8.19	4.43	2.59	4.13	3.88	5.54
MAX	29	36	33	19	36	16	39	21	12	29	46	90
MIN	.37	.56	1.3	1.4	1.6	1.6	2.2	1.8	1.4	1.2	1.0	1.0
CFSM	.50	1.54	1.49	.91	1.08	1.00	2.00	1.08	.63	1.01	.95	1.35
IN.	.57	1.72	1.72	1.05	1.12	1.16	2.23	1.25	.71	1.16	1.09	1.51

CAL YR 1972 TOTAL 1,822.47 MEAN 4.98 MAX 219 MIN .37 CFSM 1.21 IN 16.54
WTR YR 1973 TOTAL 1,684.06 MEAN 4.61 MAX 90 MIN .37 CFSM 1.12 IN 15.28

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7-10	2015	3.91	855	9-14	*	4.57	1,190
9-3	*	3.17	507				

* Unknown.
NOTE.--No gage-height record Aug. 29 to Sept. 17.

01647685 Williamsburg Run near Olney, Md.

LOCATION.--Lat 39°08'32", long 77°05'48", Montgomery County, on right bank 200 ft (60 m) downstream from vehicle bridge on golf course of Norbeck Country Club, 0.2 mile (0.3 km) downstream from Cashell Road, 0.5 mile (0.8 km) upstream from mouth, and 1.8 miles (2.9 km) southwest of Olney.

DRAINAGE AREA.--2.25 sq mi (5.83 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 390 ft (119 m) from topographic map.

AVERAGE DISCHARGE.--7 years, 2.91 cfs (0.0824 cu m/s), 17.56 in/yr (446 mm/yr).

EXTREMES.--Current year: Maximum discharge, 567 cfs (16.1 cu m/s) July 3, gage height, 4.83 ft (1.472 m); minimum, 0.28 cfs (0.008 cu m/s) Jan. 16, gage height, 1.11 ft (0.338 m), result of construction upstream. Period of record: Maximum discharge, 3,110 cfs (88.1 cu m/s) June 21, 1972, gage height, 8.26 ft (2.518 m), from high-water mark in gage house, from rating curve extended above 300 cfs (8.50 cu m/s) on basis of slope-area measurements at gage heights 5.90 ft (1.798 m) and 8.26 ft (2.518 m); minimum, 0.10 cfs (0.003 cu m/s) Sept. 26, 1968, gage height, 0.98 ft (0.299 m).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	1.2	3.5	4.0	2.4	2.0	39	2.4	2.0	1.2	3.2	.58
2	.72	1.4	2.0	2.9	31	2.0	14	2.5	2.0	2.7	1.9	1.4
3	.70	1.1	1.7	2.7	5.2	4.0	4.1	4.4	1.8	32	1.7	1.2
4	.70	.95	1.6	9.9	3.0	3.3	20	3.6	17	3.0	.99	.82
5	.70	.89	1.5	3.3	2.8	2.6	4.4	3.0	4.4	1.6	.90	.63
6	.71	.87	12	2.5	4.2	2.9	3.3	2.4	2.3	1.3	.90	.63
7	3.0	.88	2.7	2.0	6.7	2.9	3.0	2.5	5.0	1.2	.82	.58
8	.73	21	40	1.8	10	8.4	13	2.5	2.0	1.2	.82	.53
9	.67	1.6	12	1.7	4.0	3.5	3.8	4.4	1.8	.99	.82	.53
10	.70	1.3	1.4	1.8	2.8	3.0	10	2.3	1.8	1.5	.82	.53
11	.67	1.2	3.2	1.7	2.4	2.5	3.6	2.1	1.6	1.5	.82	.49
12	.68	1.1	2.6	1.7	2.2	2.5	3.8	2.0	1.6	1.2	.75	.45
13	.67	1.0	2.5	1.6	2.2	2.3	3.3	2.0	1.5	.99	.75	.45
14	.65	39	2.2	1.7	5.2	2.1	2.8	2.0	1.5	.90	.75	16
15	.60	3.2	14	1.9	7.8	2.1	2.8	2.0	1.5	1.2	.75	1.3
16	.61	1.7	4.4	1.8	3.0	2.2	2.4	2.0	1.5	.90	.69	.88
17	.63	1.5	2.1	1.9	2.2	6.0	2.5	2.0	1.5	.90	.69	.82
18	.61	1.3	2.1	2.1	2.2	3.5	2.5	2.1	1.5	.90	2.4	1.1
19	2.1	15	2.3	3.2	2.2	2.4	2.5	2.0	1.5	.90	3.3	.75
20	.93	18	3.4	2.4	2.4	2.0	2.3	2.3	1.4	37	.99	.75
21	.74	2.2	4.0	1.7	2.8	2.0	2.3	2.0	1.4	4.0	5.1	.74
22	.74	1.8	33	7.3	2.8	1.9	2.3	1.8	2.3	9.9	1.3	.69
23	.74	1.6	4.8	3.5	2.6	1.8	2.5	2.3	1.5	1.9	.90	.69
24	.74	1.5	4.1	2.4	2.4	1.8	2.3	6.3	1.4	1.4	.82	.68
25	.76	2.4	3.4	2.0	2.2	2.0	9.1	5.9	1.6	1.3	.82	.63
26	.72	22	3.4	1.8	2.6	11	16	2.5	1.4	1.3	.75	.63
27	.69	2.3	3.1	5.8	2.4	2.5	27	3.6	1.3	1.2	.75	.63
28	14	1.8	2.7	9.0	2.2	2.1	5.0	22	1.2	1.2	.69	.63
29	1.3	1.6	2.4	14	-----	2.0	3.3	4.4	3.2	.99	.69	.77
30	1.1	12	2.6	2.8	-----	3.3	3.0	2.5	1.4	.99	.63	.80
31	.49	-----	10	2.4	-----	3.6	-----	2.1	-----	.90	.63	-----
TOTAL	39.97	163.39	209.7	105.3	123.9	96.2	216.3	106.7	71.9	118.16	37.84	37.31
MEAN	1.29	5.45	6.76	3.40	4.43	3.10	7.21	3.44	2.40	3.81	1.22	1.24
MAX	14	39	40	14	31	11	39	22	17	37	5.1	16
MIN	.60	.87	1.5	1.6	2.2	1.8	2.3	1.8	1.2	.90	.63	.45
CFSM	.57	2.42	3.00	1.51	1.97	1.38	3.20	1.53	1.07	1.69	.54	.55
IN.	.66	2.79	3.47	1.74	2.05	1.59	3.58	1.76	1.19	1.95	.63	.62

CAL YR 1972 TOTAL 2,207.38 MEAN 6.03 MAX 293 MIN .60 CFSM 2.68 IN 36.50
WTR YR 1973 TOTAL 1,326.67 MEAN 3.63 MAX 40 MIN .45 CFSM 1.61 IN 21.93

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	0930	3.31	184	6-4	2030	3.41	192
12-8	1945	3.78	266	7-3	1945	4.83	567
4-1	1715	4.02	320	7-20	2100	4.02	320

01647720 North Branch Rock Creek near Norbeck, Md.

LOCATION.--Lat 39°06'59", long 77°06'09", Montgomery County, on left bank 550 ft (168 m) downstream from bridge on Muncaster Mill Road (State Highway 115), 0.7 mile (1.1 km) upstream from Manor Run, 1.5 miles (2.4 km) northwest of Norbeck, and 2 miles (3.2 km) upstream from mouth.

DRAINAGE AREA.--9.73 sq mi (25.20 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (98 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 12.4 cfs (0.351 cu m/s), 17.35 in/yr (441 mm/yr).

EXTREMES.--Current year: Maximum discharge, 978 cfs (27.7 cu m/s) July 20, gage height, 5.72 ft (1.744 m); minimum daily, 2.7 cfs (0.076 cu m/s) Oct. 4, 5, 18, Sept. 13.
Period of record: Maximum discharge, 10,100 cfs (286 cu m/s) June 22, 1972, gage height, 14.1 ft (4.30 m), from floodmarks, from rating curve extended above 400 cfs (11.3 cu m/s) on basis of computation of peak flow through culvert and flow over road; minimum daily, 0.40 cfs (0.011 cu m/s) July 17-18, 1969.

REMARKS.--Records good except for periods of no gage-height record, which are 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	5.6	25	16	13	11	171	15	10	6.0	8.3	3.0
2	3.0	8.7	13	13	137	12	110	14	9.8	31	10	8.5
3	2.9	6.9	11	12	31	17	23	23	9.0	120	6.4	7.9
4	2.7	6.4	10	33	18	18	97	18	101	26	5.4	14
5	2.7	5.8	9.5	16	16	14	28	15	33	8.8	4.7	4.2
6	2.8	5.5	26	13	18	18	18	13	13	7.1	4.5	4.0
7	9.9	5.5	16	11	32	16	16	12	24	6.3	4.3	3.9
8	3.7	75	110	10	42	30	62	13	11	5.8	4.2	3.3
9	3.1	9.8	80	9.5	23	16	22	21	10	5.5	4.1	3.2
10	2.9	6.8	30	10	16	14	53	12	9.1	7.3	4.0	3.1
11	2.9	6.1	16	9.5	12	13	19	11	8.4	8.4	3.9	3.0
12	2.9	5.5	14	9.5	12	13	20	10	8.0	5.5	3.8	2.9
13	3.0	5.1	14	9.5	12	12	18	10	7.7	5.2	3.7	2.7
14	2.9	130	12	9.0	17	11	15	10	7.5	4.8	3.7	68
15	2.8	21	60	9.5	41	11	14	11	7.3	6.3	3.6	9.1
16	2.8	10	25	10	19	12	14	10	7.5	5.2	3.4	5.4
17	3.0	9.0	13	11	12	33	13	9.8	7.7	5.4	3.3	4.6
18	2.7	8.0	11	11	11	14	13	10	7.7	5.0	4.9	5.0
19	8.7	35	12	16	11	12	13	9.1	7.7	4.5	11	4.2
20	4.5	90	15	14	13	11	13	11	7.7	191	5.5	3.9
21	4.0	13	25	11	14	11	12	11	7.5	32	18	3.9
22	3.9	10	110	27	14	11	12	9.1	11	36	7.3	3.9
23	4.0	9.0	35	19	13	10	12	11	7.9	11	4.8	3.8
24	4.1	8.2	20	13	12	10	13	30	7.3	7.8	4.3	3.6
25	4.1	11	16	11	12	10	35	35	7.6	7.1	4.2	3.4
26	4.3	100	16	11	13	50	97	14	7.2	7.0	4.0	3.4
27	4.3	16	16	24	13	15	158	15	6.8	6.3	3.9	3.4
28	46	11	14	28	12	12	30	120	6.8	5.8	3.7	3.3
29	8.2	9.5	13	73	-----	11	19	24	13	5.5	3.5	3.5
30	5.3	45	12	16	-----	17	16	14	6.7	5.3	3.2	4.2
31	4.3	-----	24	13	-----	15	-----	12	-----	5.1	3.1	-----
TOTAL	166.0	688.4	823.5	498.5	609	480	1,156	553.0	388.9	594.0	162.7	200.3
MEAN	5.35	22.9	26.6	16.1	21.8	15.5	38.5	17.8	13.0	19.2	5.25	6.68
MAX	46	130	110	73	137	50	171	120	101	191	18	68
MIN	2.7	5.1	9.5	9.0	11	10	12	9.1	6.7	4.5	3.1	2.7
CFSM	.55	2.35	2.73	1.65	2.24	1.59	3.96	1.83	1.34	1.97	.54	.69
IN.	.63	2.63	3.15	1.91	2.33	1.84	4.42	2.11	1.49	2.27	.62	.77

CAL YR 1972 TOTAL 8,600.7 MEAN 23.5 MAX 1,540 MIN 2.6 CFSM 2.42 IN 32.88
WTR YR 1973 TOTAL 6,320.3 MEAN 17.3 MAX 191 MIN 2.7 CFSM 1.78 IN 24.16

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1045	5.34	398	4-26	0300	3.58	338
11-20	*	*	*	4-27	↑1030	↑4.2	*490
12- 8	*	*	*	5-28	0815	3.90	415
2- 2	1130	3.57	335	6- 4	2030	4.74	642
4- 1	2030	4.64	612	7- 3	2015	4.80	660
4- 4	1500	3.79	362	7-20	2130	5.72	978

* Unknown, discharge probably greater than base.

† About.

NOTE.--No gage-height record Nov. 16 to Jan. 17.

01647725 Manor Run near Norbeck, Md.

LOCATION.--Lat 36°06'36", long 77°06'00", Montgomery County, on left bank 100 ft (30 m) downstream from ford on farm lane, 0.5 mile (0.8 km) upstream from mouth, and 1.2 miles (1.9 km) west of Norbeck.

DRAINAGE AREA.--1.01 sq mi (2.62 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (100 m) from topographic map.

AVERAGE DISCHARGE.--7 years 1.41 cfs (0.0399 cu m/s), 18.96 in/yr (482 mm/yr).

EXTREMES.--Current year: Maximum discharge, 291 cfs (8.24 cu m/s) gage height, 3.88 ft (1.183 m); minimum daily, 0.29 cfs (0.008 cu m/s) Oct. 15-18.

Period of record: Maximum discharge, 909 cfs (25.7 cu m/s) June 21, 1972, gage height, 5.34 ft, revised (1.628 m), from rating curve extended above 220 cfs (6.23 cu m/s) on basis of a slope-area measurement of peak flow; minimum daily, 0.17 cfs (0.005 cu m/s) Aug. 17, 1967, Sept. 30, Oct. 1-5, 1968.

REVISIONS.--The figures of maximum discharge for water years 1967-72 have been revised, as shown in the following table. They supersede figures published in Water Resources Data reports indicated.

Report	Water Year	Date	Discharge (cfs)	Gage height (feet)
WRD Md. and Del.	1967	Aug. 25, 1967	364	4.28
WRD Md. and Del.	1968	Sept. 10, 1968	196	3.34
WRD Md. and Del.	1969	Aug. 9, 1969	335	4.18
WRD Md. and Del.	1970	July 20, 1970	448	4.56
WRD Md. and Del.	1971	Aug. 3, 1971	510	4.67
WRD Md. and Del.	1972	June 21, 1972	909	5.34 (revised)

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

REVISIONS.--The figures of peak discharge for water years 1967-70, 72 have been revised as shown below. They supersede figures published in WRD Md. and Del., 1967-70, 72.

REVISED PEAK DISCHARGE.--1967: Mar. 7 (0615) 182 cfs (3.20 ft); Aug. 25 (0030) 364 cfs (4.28 ft).

1968: June 16 (1630) 161 cfs (2.99 ft); June 19 (1930) 194 cfs (3.32 ft); Sept. 10 (1515) 196 cfs (3.34 ft).

1969: May 20 (2230) 210 cfs (3.46 ft); June 2 (2345) 252 cfs (3.75 ft); Aug. 9 (2400) 335 cfs (4.18 ft); Aug. 18 (0100) 203 cfs (3.40 ft).

1970: May 24 (2200) 277 cfs (3.91 ft); June 16 (2115) 262 cfs (3.81 ft); July 9 (2215) 281 cfs (3.93 ft); July 20 (2115) 448 cfs (4.56 ft); Aug. 14 (1700) 214 cfs (3.49 ft); Sept. 10 (1430) 246 cfs (3.71 ft).

1972: June 21 (2230) 909 cfs (5.34 ft, revised); June 29 (2030) 370 cfs (4.22 ft); July 2 (1945) 528 cfs (4.72 ft).

POTOMAC RIVER BASIN

01647725 Manor Run near Norbeck, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.51	1.8	1.6	1.2	.88	19	1.2	.80	.85	3.8	.40
2	.32	.57	.91	1.2	19	.88	11	1.2	.75	13	.70	.60
3	.31	.43	.81	1.4	3.0	2.4	2.0	2.4	.70	13	.64	.50
4	.30	.42	.66	5.2	1.6	1.8	15	1.2	25	1.1	.58	1.1
5	.30	.39	.60	1.5	1.4	1.4	2.4	.96	3.0	.75	.50	.45
6	.32	.39	3.9	1.2	3.0	2.0	1.5	.96	1.1	.65	.47	1.9
7	1.9	.39	1.1	.88	4.0	1.6	1.5	.88	2.1	.55	.45	.45
8	.34	9.9	19	.88	6.1	5.2	7.9	1.2	1.0	.50	.43	.41
9	.32	.59	5.8	.75	2.0	1.6	2.0	2.4	.78	.45	.42	.41
10	.32	.52	4.6	.74	1.4	1.2	7.3	1.1	.65	1.1	.42	.53
11	.32	.50	1.5	.72	1.2	1.2	1.6	.90	.60	.74	.42	.45
12	.32	.47	1.2	.69	.96	1.2	2.2	.80	.60	.50	.41	.41
13	.32	.44	1.2	.65	.96	1.0	1.5	.75	.55	.45	.40	.37
14	.32	17	.96	.64	4.0	1.0	1.4	.75	.55	.40	.40	11
15	.29	1.3	12	.65	4.6	.96	1.2	.85	.50	.40	.47	.65
16	.29	.70	2.2	.70	1.6	1.8	1.0	.80	.55	.42	.41	.51
17	.29	.61	.96	.96	.96	4.0	1.0	.85	.55	.40	.40	.48
18	.29	.57	.96	.96	.88	1.2	1.0	.80	.55	.42	.61	.48
19	1.5	7.6	1.2	1.8	.76	.96	.96	.75	.55	.40	.51	.45
20	.38	8.4	1.6	1.2	.88	.88	.96	.90	.55	10	1.4	.45
21	.35	.89	5.5	.88	1.2	.88	.96	.75	.55	2.9	5.3	.45
22	.35	.75	17	4.9	1.2	.77	1.0	.75	2.5	1.9	.71	.45
23	.35	.68	4.9	1.8	.96	.71	1.2	1.2	.80	1.0	.53	.44
24	.35	.62	2.0	1.2	.96	.68	1.2	5.5	.60	.70	.48	.41
25	.33	1.1	1.5	.96	.96	1.2	7.3	4.3	1.8	.60	.45	.41
26	.32	11	1.8	.88	.96	8.2	12	1.2	.80	.60	.42	.41
27	.32	1.0	1.5	4.6	.96	1.2	19	2.0	.65	.50	.40	.40
28	9.3	.82	1.2	6.7	.88	.96	3.4	15	.55	.45	.40	.42
29	.53	.74	1.2	8.2	-----	.88	1.5	1.5	4.0	.45	.40	.42
30	.42	6.3	1.2	1.4	-----	2.2	1.4	1.2	5.4	.42	.40	.40
31	.39	-----	4.9	1.2	-----	2.2	-----	.90	-----	.41	.40	-----
TOTAL	22.10	75.60	105.66	57.04	67.58	53.04	131.38	55.95	59.08	56.01	23.73	26.21
MEAN	.71	2.52	3.41	1.84	2.41	1.71	4.38	1.80	1.97	1.81	.77	.87
MAX	9.3	17	19	8.2	19	8.2	19	15	25	13	5.3	11
MIN	.29	.39	.60	.64	.76	.68	.96	.75	.50	.40	.40	.37
CFSM	.70	2.50	3.38	1.82	2.39	1.69	4.34	1.78	1.95	1.79	.76	.86
IN.	.81	2.78	3.89	2.10	2.49	1.95	4.84	2.06	2.18	2.06	.87	.97

CAL YR 1972 TOTAL 885.39 MEAN 2.42 MAX 102 MIN .29 CFSM 2.40 IN 32.61
WTR YR 1973 TOTAL 733.38 MEAN 2.01 MAX 25 MIN .29 CFSM 1.99 IN 27.01

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4- 1	1630	3.22	196	7- 3	1915	3.69	255
6- 4	a1930	*	*	7-20	2100	3.88	291
7- 2	1500	3.59	240				

a About.
* Unknown, discharge greater than 230 cfs.

01647740 North Branch Rock Creek near Rockville, Md.

LOCATION.--Lat 39°06'09", long 77°07'12", Montgomery County, on left bank 170 ft (52 m) downstream from outlet of Bernard Frank Lake, 370 ft (113 m) upstream from mouth, and 2.4 miles (3.9 km) northeast of Rockville.

DRAINAGE AREA.--12.5 sq mi (32.4 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 270 ft (82 m) from topographic map.

AVERAGE DISCHARGE.--6 years, 17.6 cfs (0.498 cu m/s), 19.12 in/yr (486 mm/yr).

EXTREMES.--Current year: Maximum discharge, 89 cfs (2.52 cu m/s) Dec. 9, gage height, 2.53 ft (0.771 m); maximum gage height, 4.06 ft (1.237 m) July 20 (backwater from Rock Creek); minimum discharge, 4.3 cfs (0.12 cu m/s) Oct. 16-17, gage height, 1.16 ft (0.354 m).

Period of record: Maximum discharge, 420 cfs (11.9 cu m/s) June 22, 1972, gage height, 6.10 ft (1.859 m), from rating curve extended above 100 cfs (2.83 cu m/s) on basis of flow-through-culvert and flow-over-road measurement at gage height 5.90 ft (1.798 m); maximum gage height, 9.62 ft (2.932 m) June 22, 1972 (backwater from Rock Creek); minimum discharge, 0.01 cfs (<0.001 cu m/s) July 28-29, 1971, gage height, 0.64 ft (0.195 m), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	8.1	38	32	29	15	36	49	26	9.4	8.4	5.4
2	5.1	8.1	27	27	47	15	78	41	19	16	13	6.1
3	5.1	7.8	20	23	65	15	82	33	16	31	12	8.4
4	4.8	7.6	16	25	56	20	80	30	20	54	10	11
5	4.5	7.0	14	31	46	20	81	24	59	46	8.9	10
6	4.5	6.2	19	26	35	20	73	20	50	38	7.8	8.2
7	7.6	6.2	34	22	38	21	60	18	43	28	7.3	7.8
8	7.6	32	40	18	36	25	59	16	36	18	6.8	7.4
9	6.5	37	86	16	41	27	57	21	26	13	6.5	6.8
10	5.9	23	79	15	35	23	56	21	19	10	6.5	6.3
11	5.4	14	68	14	29	21	50	18	15	12	6.5	6.0
12	5.1	11	55	12	24	20	42	16	12	10	6.2	5.8
13	5.1	9.4	42	12	21	18	36	15	11	8.7	5.9	5.7
14	5.1	48	28	12	19	17	28	14	10	7.8	5.7	17
15	4.8	65	33	12	31	16	23	14	9.5	7.6	5.4	37
16	4.5	51	49	12	30	16	20	13	9.0	7.6	5.1	29
17	4.3	34	38	12	27	21	19	13	9.4	7.4	5.1	20
18	4.5	21	27	13	23	25	19	13	9.4	7.6	5.1	14
19	5.7	18	21	14	18	21	18	12	9.4	7.3	6.9	11
20	7.0	67	20	17	17	19	17	12	9.4	12	7.6	8.7
21	6.2	54	21	16	17	17	16	14	9.4	67	13	7.6
22	5.7	39	64	18	17	16	16	13	9.9	61	17	7.1
23	5.4	26	69	27	17	15	15	12	11	56	15	6.8
24	5.1	17	61	23	17	14	16	15	9.9	49	11	6.5
25	5.1	13	49	18	16	13	19	34	9.0	41	8.9	6.2
26	5.1	46	42	17	15	26	50	30	9.0	34	7.8	5.7
27	5.1	46	35	17	16	33	71	24	8.4	25	7.1	5.4
28	21	31	28	23	15	31	78	48	8.1	17	6.5	5.2
29	29	21	23	49	-----	24	70	54	11	13	5.9	5.1
30	17	22	20	44	-----	21	58	45	11	10	5.4	5.1
31	11	-----	26	38	-----	21	-----	35	-----	8.7	5.4	-----
TOTAL	223.9	796.4	1,192	655	797	626	1,343	737	514.8	733.1	249.7	292.3
MEAN	7.22	26.5	38.5	21.1	28.5	20.2	44.8	23.8	17.2	23.6	8.05	9.74
MAX	29	67	86	49	65	33	82	54	59	67	17	37
MIN	4.3	6.2	14	12	15	13	15	12	8.1	7.3	5.1	5.1
CFSM	.58	2.12	3.08	1.69	2.28	1.62	3.58	1.90	1.38	1.89	.64	.78
IN.	.67	2.37	3.55	1.95	2.37	1.86	4.00	2.19	1.53	2.18	.74	.87
CAL YR 1972	TOTAL	11,893.7	MEAN	32.5	MAX	404	MIN	4.3	CFSM	2.60	IN	35.40
WTR YR 1973	TOTAL	8,160.2	MEAN	22.4	MAX	86	MIN	4.3	CFSM	1.79	IN	24.28

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 (38 m) downstream from new Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 miles (12 km) upstream from mouth.

DRAINAGE AREA.--62.2 sq mi (161.1 sq km).

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 148.87 ft (45.376 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--44 years, 59.5 cfs (1.685 cu m/s), 12.99 in/yr (330 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,910 cfs (54.1 cu m/s) Aug. 20, gage height, 7.59 ft (2.313 m); minimum, 22 cfs (0.62 cu m/s) Oct. 15, 18, gage height, 1.36 ft (0.415 m).
Period of record: Maximum discharge, 12,500 cfs (354 cu m/s) June 22, 1972, gage height, 16.2 ft (4.94 m), from floodmark, from rating curve extended above 4,400 cfs (125 cu m/s) on basis of contracted-opening measurement at gage heights 13.19 ft (4.020 m) and 16.2 ft (4.94 m); minimum, 0.5 cfs (0.014 cu m/s) Oct. 1-7, 1930, gage height, 1.04 ft (0.317 m).

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	55	150	110	90	56	480	144	87	50	79	25
2	24	48	87	90	650	56	550	125	71	44	115	35
3	24	36	72	80	200	93	223	179	63	175	48	84
4	23	34	67	200	130	93	614	122	90	187	40	149
5	23	32	59	110	110	71	243	85	446	101	37	44
6	28	31	168	90	140	99	189	74	137	84	35	42
7	124	31	116	75	180	83	163	69	139	70	33	75
8	31	476	426	65	200	189	338	78	102	57	32	32
9	27	93	660	60	130	98	165	135	83	49	30	29
10	25	66	255	55	105	85	306	71	68	164	29	29
11	24	53	183	55	89	80	138	67	59	170	29	27
12	24	45	154	55	78	76	133	62	56	43	27	25
13	24	41	130	50	70	72	112	60	88	39	26	25
14	24	675	103	50	95	68	95	58	49	37	30	561
15	22	194	376	50	201	67	84	69	46	43	26	140
16	22	123	190	48	100	72	79	58	48	36	26	91
17	23	94	120	50	90	180	73	61	58	39	25	65
18	22	72	93	51	85	89	71	68	49	34	43	58
19	119	187	83	77	75	74	68	56	46	30	35	45
20	39	564	98	65	70	68	68	80	45	80	232	39
21	28	140	117	54	65	65	66	65	70	450	796	37
22	27	109	680	208	74	61	66	57	159	383	104	33
23	26	82	264	98	63	59	84	100	52	141	50	31
24	26	66	186	71	61	56	90	135	46	108	43	30
25	25	67	163	62	59	65	171	219	54	91	37	30
26	25	540	146	58	59	275	512	92	55	99	33	29
27	25	125	133	136	59	87	682	93	42	67	32	26
28	569	95	103	125	58	80	253	422	40	54	30	26
29	80	76	93	378	-----	68	185	159	50	46	27	28
30	53	270	100	123	-----	98	161	130	60	41	27	40
31	43	-----	140	99	-----	89	-----	106	-----	39	26	-----
TOTAL	1,627	4,520	5,715	2,898	3,386	2,772	6,462	3,299	2,458	3,051	2,182	1,930
MEAN	52.5	151	184	93.5	121	89.4	215	106	81.9	98.4	70.4	64.3
MAX	569	675	680	378	650	275	682	422	446	450	796	561
MIN	22	31	59	48	58	56	66	56	40	30	25	25
CFSM	.84	2.43	2.96	1.50	1.95	1.44	3.46	1.70	1.32	1.58	1.13	1.03
IN.	.97	2.70	3.42	1.73	2.03	1.66	3.86	1.97	1.47	1.82	1.30	1.15

CAL YR 1972 TOTAL 53,531 MEAN 146 MAX 5,000 MIN 22 CFSM 2.35 IN 32.02
WTR YR 1973 TOTAL 40,300 MEAN 110 MAX 796 MIN 22 CFSM 1.77 IN 24.10

PEAK DISCHARGE (BASE, 1,200 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	1200	6.34	1,420	4- 4	1800	6.29	1,400
11-14	1530	6.34	1,420	4-27	1700	6.34	1,420
11-20	0530	6.18	1,360	6- 5	0415	5.77	1,230
12- 9	0200	7.54	1,890	8-20	1915	7.59	1,910
2- 2	*	*	*	9-14	1700	5.94	1,280
4- 2	*	*	*				

* Unknown, discharge probably greater than base.

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 (61 m) downstream from bridge on Riverdale Road, 1.8 miles (2.9 km) downstream from Indian Creek, and 1.8 miles (2.9 km) upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 sq mi (188.6 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.68 ft (3.865 m) 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 (4.267 m) above mean sea level. Mar. 23, 1966, to Apr. 11, 1967, nonrecording gage 600 ft (180 m) downstream from bridge at datum 9.25 ft (2.819 m) above mean sea level.

AVERAGE DISCHARGE.--35 years, 81.1 cfs (2.30 cu m/s), 15.13 in/yr (384 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,760 cfs (106 cu m/s) June 24, gage height, 6.16 ft (1.878 m); minimum, 11 cfs (0.31 cu m/s) Oct. 18, gage height, 1.24 ft (0.378 m), result of regulation.

Period of record: Maximum discharge, 10,600 cfs (300 cu m/s) June 22, 1972, gage height, 9.52 ft (2.902 m), from rating curve extended above 3,800 cfs (108 cu m/s) on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft (2.902 m); maximum gage height, 12.93 ft (3.941 m) Oct. 16, 1942; minimum daily discharge, 1.4 cfs (0.040 cu m/s) Sept. 12, 1966.

Maximum stage known, about 15.5 ft (4.724 m), at datum 14.00 ft (4.267 m) above mean sea level, Aug. 23, or 24, 1933, from floodmarks, discharge, 10,500 cfs (297 cu m/s), from rating curve extended above 3,000 cfs (85.0 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	67	247	120	104	64	1,130	103	65	56	135	23
2	27	63	128	100	1,110	64	1,350	92	60	51	117	28
3	24	47	94	90	496	113	275	166	53	424	48	154
4	23	43	76	300	175	142	854	164	160	417	38	187
5	23	42	72	140	122	105	446	102	234	97	31	41
6	30	38	169	110	135	135	188	84	80	63	27	36
7	143	37	130	90	252	120	144	74	60	57	27	55
8	37	736	400	80	276	320	484	70	55	50	26	30
9	25	166	500	75	221	160	235	200	52	44	24	26
10	21	75	200	75	127	100	420	91	43	116	21	22
11	21	62	150	70	100	95	188	68	39	109	21	21
12	21	54	120	70	90	88	151	62	37	49	21	20
13	20	48	100	70	80	75	131	57	76	40	21	19
14	20	475	90	70	132	69	110	52	42	38	22	542
15	21	371	500	69	266	68	48	69	36	42	28	132
16	21	113	220	67	152	110	85	60	44	37	26	53
17	21	80	140	67	100	301	82	57	43	33	23	39
18	19	67	100	68	90	124	84	59	39	35	31	39
19	114	295	90	122	80	79	80	53	39	36	141	32
20	51	961	120	122	76	68	75	85	38	98	138	29
21	35	185	300	82	86	63	70	67	147	149	407	27
22	31	99	1,000	243	106	64	70	53	259	185	100	27
23	29	79	400	179	86	59	77	128	180	57	46	27
24	27	67	180	106	79	56	108	279	378	43	36	26
25	27	84	130	85	73	88	186	320	41	38	33	24
26	27	621	150	74	72	480	743	129	54	60	33	23
27	27	181	120	254	71	170	841	138	43	38	29	25
28	856	99	110	293	66	97	383	610	48	35	27	25
29	222	76	100	682	-----	80	170	210	305	31	24	48
30	68	328	130	201	-----	124	121	100	187	28	25	65
31	47	-----	200	120	-----	139	-----	75	-----	31	25	-----
TOTAL	2,111	6,159	7,016	4,298	4,823	3,820	9,379	3,877	3,027	2,587	1,751	1,845
MEAN	68.1	205	226	139	172	123	313	125	101	83.5	56.5	61.5
MAX	856	975	1,000	682	1,110	480	1,350	610	378	424	407	542
MIN	19	37	72	67	66	56	70	52	36	28	21	19
CFSM	.94	2.82	3.10	1.91	2.36	1.69	4.30	1.72	1.39	1.15	.78	.84
IN.	1.08	3.15	3.59	2.20	2.46	1.95	4.79	1.98	1.55	1.32	.89	.94

CAL YR 1972 TOTAL 57,921 MEAN 158 MAX 4,700 MIN 19 CFSM 2.17 IN 29.60
WTR YR 1973 TOTAL 50,693 MEAN 139 MAX 1,350 MIN 19 CFSM 1.91 IN 25.90

PEAK DISCHARGE (BASE, 2,000 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	1230	5.21	2,590	2- 2	1345	4.94	2,300
11-14	1115	5.20	2,580	4- 1	2300	6.13	3,720
11-20	0015	5.19	2,570	4- 4	1400	5.15	2,530
12- 8	*	*	*	6-24	1330	6.16	3,760
12-22	*	*	*	7- 3	2115	5.35	2,750

* Unknown, discharge probably greater than base.

NOTE.--No gage-height record Dec. 8 to Jan. 9.

01650050 Northwest Branch Anacostia River at Norwood, Md.

LOCATION.--Lat 39°07'36", long 77°01'15", Montgomery County, on left bank 20 ft (6 m) downstream from bridge on Ednor Road, 0.2 mile (0.3 km) downstream from tributary, 0.4 mile (0.6 km) east of Norwood, 1.6 miles (2.6 km) south of Sandy Spring and 19 miles (31 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--2.45 sq mi (6.35 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 360 ft (110 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 3.01 cfs (0.0852 cu m/s), 16.68 in/yr (424 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs (39.6 cu m/s) June 29, gage height, 5.37 ft (1.637 m), from rating curve extended as explained below; minimum daily, 0.69 cfs (0.020 cu m/s) Oct. 18, Sept. 9-14. Period of record: Maximum discharge, 3,750 cfs (106 cu m/s) June 21, 1972, gage height, 6.25 ft (1.905 m), from high-water mark in gage well, from rating curve extended above 280 cfs (7.93 cu m/s) on basis of culvert and flow-over-road measurements at gage heights 5.43 ft (1.655 m) and 6.25 ft (1.905 m); minimum daily, 0.05 cfs (0.001 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	1.2	4.5	3.4	3.0	2.6	38	3.2	2.4	2.6	1.6	.81
2	.77	1.4	2.6	2.9	24	2.9	20	3.2	2.4	2.1	1.8	1.2
3	.77	1.2	2.2	2.9	8.0	4.2	4.7	4.6	2.4	16	1.3	.87
4	.77	1.1	2.1	7.3	3.5	3.8	30	3.3	4.6	4.3	1.3	.82
5	.82	1.1	1.9	3.3	3.2	3.1	5.9	3.2	3.4	2.6	1.2	.96
6	.89	1.1	6.4	2.9	4.1	3.6	3.7	2.9	2.4	2.1	.96	.88
7	1.9	1.1	3.1	2.6	7.2	3.4	3.3	2.9	2.6	1.8	.92	.84
8	.93	15	46	2.3	10	7.8	14	2.9	2.1	1.8	.90	.77
9	.84	2.1	12	2.2	4.9	3.8	4.7	4.6	2.1	1.6	.84	.75
10	.77	1.5	6.7	2.2	3.3	3.1	12	2.9	2.1	1.3	.82	.69
11	.77	1.4	3.3	2.1	2.9	3.1	4.1	2.6	1.8	1.8	.82	.72
12	.77	1.3	2.9	2.1	2.9	3.1	4.0	2.4	1.6	1.3	.79	.69
13	.83	1.3	2.9	2.1	2.6	2.9	3.6	2.4	1.6	1.3	.79	.69
14	.83	35	2.6	2.1	5.0	2.9	3.2	2.4	1.6	1.2	.80	6.5
15	.80	4.2	16	2.1	7.6	2.9	3.2	2.6	1.3	1.3	.81	1.6
16	.76	2.0	5.0	2.4	3.9	2.9	3.2	2.4	1.6	1.3	.77	.93
17	.80	1.8	2.9	2.4	3.2	7.2	2.9	2.4	1.6	1.2	.77	.88
18	.70	1.5	2.6	2.4	2.9	3.3	2.9	2.4	1.8	1.3	.95	.90
19	1.6	10	2.9	3.2	2.6	2.9	2.9	2.4	1.8	1.2	1.6	.85
20	.93	23	3.2	3.2	2.6	2.6	2.9	2.9	1.6	25	4.5	.83
21	.86	2.5	6.3	2.6	2.9	2.6	2.6	2.6	1.6	4.4	4.2	.83
22	.86	2.2	31	8.6	3.2	2.6	2.6	2.4	4.2	7.9	2.1	.86
23	.86	1.9	7.7	4.3	2.9	2.4	2.9	2.6	2.1	2.9	1.3	.89
24	.86	1.6	4.0	3.2	2.6	2.4	2.9	7.2	1.8	2.1	1.2	.85
25	.86	2.1	3.3	2.6	2.6	2.6	9.5	6.9	2.4	2.1	.95	.83
26	.86	29	3.4	2.6	2.6	17	28	3.3	2.1	1.8	.93	.86
27	.86	2.9	3.3	5.9	2.9	3.5	33	3.6	1.6	1.6	.91	.83
28	7.0	2.2	3.2	10	2.6	2.9	6.7	22	1.6	1.3	.86	.77
29	1.5	1.9	2.9	15	-----	2.9	3.8	4.4	78	1.2	.84	.88
30	1.2	12	2.9	3.5	-----	3.9	3.2	3.2	11	1.2	.87	.92
31	1.1	-----	4.9	3.1	-----	4.3	-----	2.6	-----	1.2	.81	-----
TOTAL	34.92	166.6	204.7	117.5	129.7	119.2	264.4	119.4	149.2	100.8	39.21	31.70
MEAN	1.13	5.55	6.60	3.79	4.63	3.85	8.81	3.85	4.97	3.25	1.26	1.06
MAX	7.0	35	46	15	24	17	38	22	78	25	4.5	6.5
MIN	.70	1.1	1.9	2.1	2.6	2.4	2.6	2.4	1.3	1.2	.77	.69
CFSM	.46	2.27	2.69	1.55	1.89	1.57	3.60	1.57	2.03	1.33	.51	.43
IN.	.53	2.53	3.11	1.78	1.97	1.81	4.01	1.81	2.27	1.53	.60	.48

CAL YR 1972 TOTAL 2,353.31 MEAN 6.43 MAX 274 MIN .70 CFSM 2.62 IN 35.73
WTR YR 1973 TOTAL 1,477.33 MEAN 4.05 MAX 78 MIN .69 CFSM 1.65 IN 22.43

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1015	2.60	209	4-26	0145	2.27	177
11-20	0045	2.34	183	4-27	0945	2.43	191
11-26	0430	2.02	154	6-29	2115	5.37	1,400
12- 8	1915	3.34	308	7- 3	1945	2.57	210
4- 1	1715	3.37	313	7-20	2115	2.70	225
4- 4	1245	2.66	215				

01650085 Nursery Run at Cloverly, Md.

LOCATION.--Lat 39°07'05", long 77°00'24", Montgomery County, on left bank 300 ft (90 m) upstream from culvert on Bryants Nursery Road, 350 ft (110 m) upstream from mouth, 0.8 mile (1.3 km) northwest of Cloverly, and 2.4 miles (3.9 km) southeast of Sandy Spring.

DRAINAGE AREA.--0.35 sq mi (0.91 sq km).

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

AVERAGE DISCHARGE.--7 years, 0.49 cfs (0.0139 cu m/s), 19.01 in/yr (483 mm/yr).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 400 ft (120 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 31 cfs (0.88 cu m/s) Aug. 20, gage height, 2.41 ft (0.735 m); minimum, 0.18 cfs (0.005 cu m/s) Oct. 9, 17, Aug. 12, Sept. 8, 10-14, 24-25, gage height, 1.63 ft (0.497 m).
Period of record: Maximum discharge, 695 cfs (19.7 cu m/s) June 21, 1972, gage height, 4.85 ft (1.478 m), from rating curve extended above 30 cfs (0.85 cu m/s) on the basis of flow-through-culvert computation at gage height 3.56 ft (1.085 m) and slope-area measurement at gage height 4.85 ft (1.478 m); minimum, 0.07 cfs (0.002 cu m/s) 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 CURIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.35	.66	.58	.55	.50	3.1	.68	.50	.42	.42	.22
2	.22	.35	.50	.52	2.9	.50	2.0	.64	.50	.46	.38	.26
3	.22	.29	.46	.52	.84	.69	.78	.77	.50	.80	.32	.24
4	.22	.27	.46	.87	.68	.65	2.6	.70	1.2	.50	.29	.24
5	.24	.26	.46	.59	.64	.59	.88	.63	.66	.42	.26	.22
6	.26	.25	.66	.54	.72	.64	.73	.58	.50	.35	.24	.35
7	.50	.66	.50	.50	.88	.61	.69	.55	.50	.35	.24	.26
8	.26	2.2	3.2	.50	1.1	1.1	1.4	.61	.46	.32	.24	.22
9	.24	.46	1.2	.50	.77	.68	.80	.86	.46	.32	.24	.20
10	.24	.38	.82	.50	.62	.60	1.5	.58	.38	.46	.24	.19
11	.24	.35	.58	.50	.55	.61	.77	.53	.35	.46	.24	.19
12	.24	.32	.55	.46	.52	.58	.79	.50	.35	.32	.22	.19
13	.24	.32	.54	.46	.55	.53	.73	.51	.35	.29	.22	.18
14	.24	3.2	.50	.46	.85	.50	.66	.52	.31	.29	.22	1.4
15	.22	.60	1.5	.46	.93	.54	.66	.65	.31	.29	.22	.35
16	.24	.46	.72	.50	.67	.57	.63	.56	.33	.29	.22	.26
17	.24	.42	.51	.50	.60	.93	.60	.52	.33	.29	.22	.24
18	.22	.38	.48	.50	.60	.58	.60	.53	.37	.29	.26	.26
19	.55	1.7	.50	.63	.59	.52	.60	.48	.37	.26	.55	.24
20	.29	1.5	.56	.52	.55	.50	.58	.63	.34	2.2	2.5	.22
21	.26	.50	.76	.45	.58	.50	.55	.53	.42	.73	1.1	.22
22	.26	.46	2.4	1.2	.56	.50	.55	.50	.88	.73	.46	.22
23	.26	.42	.96	.68	.55	.50	.60	.60	.46	.46	.32	.20
24	.26	.38	.69	.55	.51	.50	.59	1.2	.38	.35	.29	.19
25	.26	.50	.62	.50	.50	.54	1.1	.98	.55	.32	.29	.20
26	.26	2.5	.63	.50	.50	1.4	2.3	.66	.46	.46	.29	.20
27	.26	.55	.58	.84	.50	.61	2.9	.73	.38	.32	.26	.19
28	1.5	.50	.55	1.1	.50	.55	.97	2.0	.38	.29	.24	.20
29	.38	.46	.50	1.5	-----	.52	.76	.73	2.0	.29	.24	.24
30	.29	1.2	.52	.62	-----	.70	.73	.60	.60	.26	.24	.22
31	.29	-----	.74	.54	-----	.68	-----	.55	-----	.26	.24	-----
TOTAL	9.64	22.19	24.31	19.09	20.31	19.42	32.15	21.11	15.58	13.85	11.71	8.01
MEAN	.31	.74	.78	.62	.73	.63	1.07	.68	.52	.45	.38	.27
MAX	1.5	3.2	3.2	1.5	2.9	1.4	3.1	2.0	2.0	2.2	2.5	1.4
MIN	.22	.25	.46	.45	.50	.50	.55	.48	.31	.26	.22	.18
CFSM	.89	2.11	2.23	1.77	2.09	1.80	3.06	1.94	1.49	1.29	1.09	.77
IN.	1.02	2.36	2.58	2.03	2.16	2.06	3.42	2.24	1.66	1.47	1.24	.85

CAL YR 1972 TOTAL 312.29 MEAN .85 MAX 43 MIN .22 CFSM 2.43 IN 33.19
WTR YR 1973 TOTAL 217.37 MEAN .60 MAX 3.2 MIN .18 CFSM 1.71 IN 23.10

PEAK DISCHARGE (BASE, 30 CFS).--Aug. 20 (2000) 31 cfs (2.41 ft).

01650450 Bel Pre Creek at Layhill, Md.

LOCATION.--Lat 39°05'27", long 77°03'11", Montgomery County, on right bank 130 ft (40 m) upstream from bridge on Bel Pre Road, 0.5 mile (0.8 km) west of Layhill, 1.2 miles (1.9 km) upstream from Lutes Run, 1.8 miles (2.9 km) southeast of Norbeck, and 2.9 miles (4.7 km) upstream from mouth.

DRAINAGE AREA.--1.69 sq mi (4.38 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 350 ft (107 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 2.23 cfs (0.0632 cu m/s), 17.92 in/yr (455 mm/yr).

EXTREMES.--Current year: Maximum discharge, 334 cfs (9.46 cu m/s) June 4, gage height, 6.29 ft (1.917 m); minimum daily, 0.29 cfs (0.008 cu m/s) many days in August and September.
Period of record: Maximum discharge, 1,930 cfs (54.7 cu m/s) June 21, 1972, gage height, 10.47 ft (3.191 m), from high-water mark in gage house, from rating curve extended above 210 cfs (5.95 cu m/s) on basis of culvert measurements at gage heights 8.49 ft (2.588 m) and 10.47 ft (3.191 m); minimum daily, 0.04 cfs (0.001 cu m/s) Aug. 25-26, Sept. 1, 1968.

REMARKS.--Records fair prior to April 4 and good thereafter. Diversions at low flow for irrigation of golf courses above station. Some regulation at low flow from unknown source. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.80	1.8	2.3	1.0	1.0	31	1.4	1.1	.59	4.3	.30
2	.32	.85	1.2	1.2	34	1.0	19	1.3	1.1	3.2	1.1	.60
3	.30	.65	1.0	1.5	4.9	4.6	2.1	3.7	1.0	21	.46	.35
4	.31	.50	.95	8.6	1.8	2.3	26	1.7	26	3.0	.41	.30
5	.33	.45	.85	2.3	1.3	1.8	3.5	1.2	6.1	.70	.37	.29
6	.56	.45	5.5	1.5	3.8	2.5	2.0	1.1	1.3	.63	.33	2.2
7	4.3	.45	1.5	1.0	5.2	2.8	1.7	.97	2.0	.63	.31	.47
8	.36	22	32	.90	10	9.5	14	2.0	1.1	.54	.29	.29
9	.35	.68	20	.80	3.0	2.1	2.7	4.1	.97	.54	.36	.29
10	.35	.55	8.6	.80	1.4	1.3	11	1.2	.89	1.3	.40	.29
11	.34	.52	1.8	.75	1.0	1.4	2.0	1.1	.75	.72	.37	.29
12	.30	.49	1.2	.75	.90	1.2	2.5	.90	.63	.45	.35	.29
13	.35	.43	1.2	.75	.90	.90	1.7	.88	.63	.37	.30	.29
14	.33	36	1.0	.75	5.8	.81	1.3	.87	.61	.41	.38	19
15	.33	.85	23	.80	5.4	.90	1.2	1.4	.63	.52	.37	.68
16	.30	.90	7.4	.80	2.0	1.8	1.1	1.0	.73	.41	.37	.32
17	.36	.68	1.3	.90	1.4	6.3	1.0	1.2	.58	.46	.37	.29
18	.39	.68	1.0	1.0	1.1	1.4	1.0	.95	.67	.44	.65	.33
19	3.5	13	1.1	3.5	.95	1.1	.98	.87	.57	.37	.50	.29
20	.41	19	2.3	1.8	.90	.90	.90	1.7	.55	25	1.9	.29
21	.39	1.2	9.8	1.3	1.4	.90	.81	1.0	.68	8.2	9.2	.29
22	.39	.90	36	10	1.3	.90	.81	.81	5.4	2.9	.74	.32
23	.41	.76	8.9	3.5	1.1	.90	1.3	1.8	.86	.78	.40	.37
24	.43	.68	2.3	1.4	1.1	.81	1.1	9.2	.69	.50	.32	.37
25	.41	2.6	1.5	1.0	1.0	2.5	9.6	6.0	3.3	.47	.29	.37
26	.45	25	2.0	1.0	1.1	13	21	1.8	1.1	1.0	.29	.59
27	.46	1.6	1.5	6.9	1.1	1.8	31	3.3	.73	.45	.33	.49
28	20	1.0	1.2	12	1.0	1.0	4.5	23	.65	.43	.30	.29
29	.68	.85	.90	15	-----	.90	1.9	2.1	8.2	.37	.29	.37
30	.49	12	1.1	1.5	-----	2.6	1.5	1.3	.76	.40	.29	.32
31	.46	-----	7.2	1.1	-----	3.4	-----	1.2	-----	.52	.29	-----
TOTAL	38.71	146.52	187.10	87.40	95.85	74.32	200.20	81.05	70.28	77.30	26.63	31.23
MEAN	1.25	4.88	6.04	2.82	3.42	2.40	6.67	2.61	2.34	2.49	.86	1.04
MAX	20	36	36	15	34	13	31	23	26	25	9.2	19
MIN	.30	.43	.85	.75	.90	.81	.81	.81	.55	.37	.29	.29
CFSM	.74	2.89	3.57	1.67	2.02	1.42	3.95	1.54	1.38	1.47	.51	.62
IN.	.85	3.23	4.12	1.92	2.11	1.64	4.41	1.78	1.55	1.70	.59	.69

CAL YR 1972 TOTAL 1,531.06 MEAN 4.18 MAX 197 MIN .29 CFSM 2.47 IN 33.70
WTR YR 1973 TOTAL 1,116.59 MEAN 3.06 MAX 36 MIN .29 CFSM 1.81 IN 24.58

PEAK DISCHARGE (BASE, 140 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	0930	4.88	142	6- 4	1945	6.29	334
12- 8	1845	5.00	154	7- 3	1930	5.91	276
4- 1	1700	5.28	198	7-20	2115	5.30	200
4- 4	1215	4.79	150				

01650500 Northwest Branch Anacostia River near Colesville, Md.

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, on right bank 400 ft (120 m) upstream from bridge on State Highway 183, 1.5 miles (2.4 km) southwest of Colesville, 3 miles (4.8 km) upstream from Burnt Mills, 10 miles (16.1 km) upstream from Sligo Creek and 12.5 miles (20.1 km) upstream from confluence with North-east Branch.

DRAINAGE AREA.--21.1 sq mi (54.6 sq km).

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 (80.726 m) 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).--50 years, 22.2 cfs (0.629 cu m/s), 14.28 in/yr (363 mm/yr).

EXTREMES.--Current year: Maximum discharge, 900 cfs (25.5 cu m/s) Dec. 8, gage height, 7.12 ft (2.170 m); minimum, 5.1 cfs (0.14 cu m/s) Sept. 13, 14, gage height, 1.64 ft (0.450 m).

Period of record: Maximum discharge, 11,000 cfs (312 cu m/s) June 22, 1972, gage height, 15.89 ft (4.843 m), from high-water mark in gage house, from rating curve extended above 1,200 cfs (34.0 cu m/s) on basis of contracted-opening and flow-over-road measurement at gage height 10.99 ft (3.350 m) and computation of flow over Burnt Mills Dam, 3 miles (4.8 km) downstream, adjusted for flow from intervening area, at gage height 15.89 ft (4.843 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	12	55	34	27	22	239	30	23	20	18	6.9
2	8.3	15	26	27	234	22	175	29	21	24	21	7.3
3	8.0	12	23	25	64	36	47	44	20	114	12	9.8
4	8.1	11	21	70	36	39	204	35	78	60	11	8.5
5	8.2	9.9	20	32	30	29	60	29	61	21	9.8	6.9
6	9.6	9.6	56	27	35	36	37	26	24	17	9.3	13
7	27	9.5	33	22	69	33	33	24	25	15	8.9	11
8	9.3	151	238	21	83	82	115	27	20	13	8.1	6.5
9	8.1	22	174	20	49	37	46	48	18	12	7.9	6.5
10	7.8	15	67	21	31	30	102	27	17	18	7.9	6.5
11	7.9	14	35	20	26	29	40	24	16	18	8.1	6.0
12	8.2	12	28	20	27	29	39	22	15	12	7.6	5.6
13	8.4	12	27	20	26	26	35	21	15	11	7.4	5.3
14	8.2	252	24	19	40	24	30	21	13	10	7.5	87
15	7.5	51	134	20	81	25	28	24	13	11	7.4	19
16	7.6	22	59	21	36	25	27	21	14	11	7.3	10
17	8.3	18	26	20	25	66	27	22	15	10	7.2	8.6
18	7.4	16	23	20	26	30	27	23	15	11	8.8	9.2
19	25	75	24	30	24	25	26	20	15	9.4	14	8.0
20	12	195	31	28	24	23	25	27	15	94	31	7.5
21	9.4	27	48	21	26	23	24	24	15	104	81	7.2
22	9.3	21	245	80	28	22	24	20	52	58	21	7.5
23	9.3	19	80	45	25	21	25	26	19	23	12	7.4
24	9.2	17	42	28	24	21	27	59	16	16	9.7	7.0
25	9.1	21	34	24	23	23	62	73	39	14	9.4	6.9
26	8.3	222	33	23	24	114	195	32	24	17	9.2	7.4
27	8.1	33	33	57	24	33	232	35	16	13	8.6	8.0
28	111	23	28	63	22	26	69	168	15	12	8.2	7.2
29	20	20	26	145	-----	24	39	43	97	11	7.6	8.5
30	12	97	25	34	-----	37	32	28	116	10	7.1	9.7
31	11	-----	50	27	-----	37	-----	24	-----	9.8	7.1	-----
TOTAL	421.1	1,434.0	1,768	1,064	1,189	1,049	2,091	1,076	862	799.2	401.1	325.9
MEAN	13.6	47.8	57.0	34.3	42.5	33.8	69.7	34.7	28.7	25.8	12.9	10.9
MAX	111	252	245	145	234	114	239	168	116	114	81	87
MIN	7.4	9.5	20	19	22	21	24	20	13	9.4	7.1	5.3
CFSM	.64	2.27	2.70	1.63	2.01	1.60	3.30	1.64	1.36	1.22	.61	.52
IN.	.74	2.53	3.12	1.88	2.10	1.85	3.69	1.90	1.52	1.41	.71	.57

CAL YR 1972 TOTAL 17,286.0 MEAN 47.2 MAX 2,370 MIN 7.4 CFSM 2.24 IN 30.48
WTR YR 1973 TOTAL 12,480.3 MEAN 34.2 MAX 252 MIN 5.3 CFSM 1.62 IN 22.00

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1130	6.30	720	4- 4	1600	5.89	642
11-20	0100	6.04	669	4-27	1100	5.82	630
12- 8	2100	7.12	900	7-20	2300	5.75	610
4- 1	2130	6.28	716				

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 (1.3 km) downstream from Sligo Branch, 1 mile (1.6 km) west of Hyattsville, and 1.6 miles (2.6 km) upstream from mouth.

DRAINAGE AREA.--49.4 sq mi (127.9 sq km).

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 (5.273 m) above mean sea level, adjustment of 1912. Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938, to September 17, 1951, water-stage recorder; Sept. 17, 1951, to Aug. 29, 1952, nonrecording gage and crest-stage gage.

AVERAGE DISCHARGE.--35 years, 43.1 cfs (1.221 cu m/s), 11.85 in/yr (301 mm/yr) unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,200 cfs (90.6 cu m/s) Aug. 20; maximum gage height, 6.89 ft (2.100 m) Oct. 28; minimum discharge, 9.1 cfs (0.26 cu m/s) Aug. 13, 17, gage height, 2.40 ft (0.732 m).
Period of record: Maximum discharge, 18,000 cfs (510 cu m/s) June 22, 1972, gage height, 14.47 ft (4.410 m), from rating curve extended above 4,000 cfs (113 cu m/s) on the basis of the average slope-area and step-back-water measurements at gage height 14.47 ft (4.410 m); minimum, 0.2 cfs (0.006 cu m/s) Sept. 11, 1966.

REMARKS.--Records good. Prior to June 1961 low flow regulated by storage at Burnt Mills Dam, 7 miles (11.2 km) 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. Water-quality records for the current water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 971: 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	47	128	70	54	44	556	73	45	38	72	14
2	16	38	56	54	515	42	442	68	43	74	64	17
3	15	24	44	54	135	100	113	128	39	91	21	107
4	15	21	41	158	79	86	457	90	100	162	18	45
5	15	19	38	66	68	66	150	67	188	79	15	17
6	24	18	115	54	94	66	92	61	50	34	14	18
7	88	17	79	44	138	72	81	57	45	29	13	28
8	20	429	402	40	153	185	259	61	39	25	12	16
9	17	65	388	39	106	77	105	140	36	22	12	13
10	16	44	135	42	68	61	236	61	33	120	11	13
11	20	38	79	39	55	65	93	50	30	99	11	12
12	21	35	66	38	50	59	91	48	28	34	11	12
13	18	34	59	39	50	50	83	46	68	24	10	11
14	17	565	50	39	96	49	72	43	28	22	13	370
15	17	117	255	41	155	51	67	54	25	26	11	53
16	18	50	130	39	75	97	65	45	30	21	11	20
17	20	41	60	41	50	162	63	51	31	23	9.6	17
18	19	35	50	39	60	68	63	50	28	20	16	18
19	90	199	50	79	50	71	61	41	29	19	24	15
20	25	402	72	59	50	48	58	64	30	72	380	13
21	16	65	104	39	57	46	55	51	141	262	670	13
22	17	46	510	185	63	45	55	40	142	196	67	13
23	17	39	155	98	50	42	68	93	137	39	27	13
24	17	35	88	56	47	41	78	151	113	26	22	12
25	17	52	74	46	46	71	142	163	38	22	19	12
26	16	406	75	44	46	249	432	68	74	42	18	12
27	16	77	72	130	47	71	472	92	34	21	17	13
28	493	49	57	145	44	53	153	344	31	18	17	12
29	62	41	52	294	-----	49	91	92	186	18	16	21
30	26	206	54	72	-----	83	78	61	149	16	15	26
31	23	-----	106	57	-----	98	-----	50	-----	16	14	-----
TOTAL	1,230	3,254	3,644	2,240	2,501	2,367	4,831	2,503	1,990	1,710	1,650.6	976
MEAN	39.7	108	118	72.3	89.3	76.4	161	80.7	66.3	55.2	53.2	32.5
MAX	493	565	510	294	515	249	556	344	188	262	670	370
MIN	15	17	38	38	44	41	55	40	25	16	9.6	11
CFSM	.80	2.19	2.39	1.46	1.81	1.55	3.26	1.63	1.34	1.12	1.08	.66
IN.	.93	2.45	2.74	1.69	1.88	1.78	3.64	1.88	1.50	1.29	1.24	.73

CAL YR 1972 TOTAL 34,776.0 MEAN 95.0 MAX 3,500 MIN 14 CFSM 1.92 IN 26.19
WTR YR 1973 TOTAL 28,896.6 MEAN 79.2 MAX 670 MIN 9.6 CFSM 1.60 IN 21.76

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	1045	6.89	1,800	8-20	2345	6.63	3,200

01653500 Henson Creek at Oxon Hill, Md.

LOCATION.--Lat 38°47'16", long 76°58'42", Prince Georges County, on left bank 100 ft (30 m) downstream from bridge on Tucker Road, 1.0 mile (1.6 km) south of Oxon Hill, and 1.4 miles (2.3 km) upstream from Carey Branch and mouth.

DRAINAGE AREA.--16.7 sq mi (43.3 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 62 ft (18.9 m), from topographic map.

AVERAGE DISCHARGE.--25 years, 19.3 cfs (0.547 cu m/s), 15.69 in/yr (399 mm/yr).

EXTREMES.--Current year: Maximum discharge, 760 cfs (21.5 cu m/s) Dec. 8, gage height, 4.15 ft (1.265 m); minimum, 0.90 cfs (0.025 cu m/s) Aug. 11, 13, gage height, 0.42 ft (0.128 m).
Period of record: Maximum discharge, 3,440 cfs (97.4 cu m/s) Aug. 4, 1971, gage height, 7.63 ft (2.326 m), from rating curve extended above 520 cfs (14.7 cu m/s) on basis of slope-area measurement at gage heights 6.63 ft (2.021 m) and 7.27 ft (2.216 m); no flow at times during some summer months in 1954, 1955, 1957, 1962-64, and 1966.

REMARKS.--Records good. 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 CURIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	25	33	23	21	14	92	19	9.9	6.3	24	4.6
2	3.8	19	13	18	237	14	61	17	9.5	22	23	35
3	3.5	12	9.3	20	57	36	26	36	8.6	33	7.1	14
4	3.6	10	7.8	67	33	31	135	22	7.7	52	5.2	11
5	4.1	8.5	7.2	25	27	23	44	17	7.4	7.4	4.0	5.4
6	7.5	7.5	38	21	43	31	28	15	6.5	5.8	3.0	9.3
7	103	7.6	14	18	62	24	26	13	7.7	5.5	2.8	23
8	7.2	134	137	17	60	53	111	13	6.2	4.8	2.8	5.7
9	4.3	19	186	16	41	23	35	23	6.0	4.1	2.6	4.8
10	3.8	13	106	16	26	20	51	13	5.7	45	2.4	3.8
11	4.0	12	46	15	23	22	27	20	5.3	29	2.6	3.4
12	4.2	9.5	42	15	22	18	29	13	5.1	5.5	2.4	3.6
13	4.1	8.6	34	15	21	16	23	10	4.8	4.7	2.0	3.2
14	4.3	253	26	15	35	16	21	9.4	4.3	4.9	5.9	51
15	3.9	35	105	15	52	16	20	12	4.0	5.7	9.8	11
16	3.5	12	53	14	27	16	18	10	4.8	4.1	3.2	6.0
17	3.7	8.8	26	14	24	34	18	12	10	3.6	2.5	4.8
18	3.3	7.5	23	15	22	16	18	12	5.5	3.6	14	4.5
19	40	64	23	31	20	13	17	10	5.4	3.3	69	4.1
20	8.7	191	27	21	19	13	16	19	5.2	3.2	19	3.8
21	5.7	17	40	18	20	16	16	10	38	8.6	227	3.9
22	4.9	11	228	33	21	16	15	8.6	30	40	27	4.8
23	4.8	8.8	72	20	17	13	14	26	46	6.3	9.8	4.2
24	4.5	7.0	41	15	17	15	14	55	25	4.5	7.4	3.5
25	4.4	14	32	13	16	20	33	44	8.2	4.0	7.9	3.0
26	4.3	116	33	12	15	154	88	22	6.8	3.7	7.5	3.7
27	4.4	15	33	75	15	29	139	20	6.2	3.4	6.4	3.7
28	192	9.3	24	65	14	20	40	104	6.9	3.7	6.8	3.6
29	23	7.4	21	117	-----	18	24	22	39	3.1	6.9	4.4
30	12	79	22	29	-----	27	20	14	15	2.6	7.5	4.3
31	10	-----	30	23	-----	33	-----	11	-----	2.6	5.8	-----
TOTAL	497.5	1,141.5	1,532.3	831	1,007	810	1,219	652.0	350.7	336.0	527.3	251.1
MEAN	16.0	38.1	49.4	26.8	36.0	26.1	40.6	21.0	11.7	10.8	17.0	8.37
MAX	192	253	228	117	237	154	139	104	46	52	227	51
MIN	3.3	7.0	7.2	12	14	13	14	8.6	4.0	2.6	2.0	3.0
CFSM	.96	2.28	2.96	1.60	2.16	1.56	2.43	1.26	.70	.65	1.02	.50
IN.	1.11	2.54	3.41	1.85	2.24	1.80	2.72	1.45	.78	.75	1.17	.56

CAL YR 1972 TOTAL 11,615.5 MEAN 31.7 MAX 1,060 MIN 2.8 CFSM 1.90 IN 25.87
WTR YR 1973 TOTAL 9,155.4 MEAN 25.1 MAX 253 MIN 2.0 CFSM 1.50 IN 20.39

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-28	1145	3.39	517	12-22	0530	3.16	455
11-14	1200	3.69	607	2- 2	1315	3.36	508
11-20	0215	3.81	643	7-10	2230	3.85	655
12- 8	2345	4.15	760	8-21	0715	3.30	490

01653600 Piscataway Creek at Piscataway, Md.

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, on left bank 70 ft (21 m) upstream from bridge on State Highway 223, at Piscataway, 0.4 mile (0.6 km) upstream from Tinker Creek, and 4.8 miles (7.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 sq mi (102.3 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3 m), from topographic map.

AVERAGE DISCHARGE.--8 years (1966-73), 47.0 cfs (1.331 cu m/s), 16.16 in/yr (410 mm/yr).

EXTREMES.--Current year: Maximum discharge, 960 cfs (27.2 cu m/s) Feb. 2, gage height, 6.75 ft (2.057 m), from rating curve extended as explained below; minimum, 1.2 cfs (0.034 cu m/s) Aug. 11, 12, 13, gage height, 1.17 ft (0.357 m).

Period of record: Maximum discharge, 4,900 cfs (139 cu m/s) June 22, 1972, gage height, 9.80 ft (2.987 m), from rating curve extended above 430 cfs (12.2 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow at bridge 0.5 mile (0.8 km) downstream, adjusted for flow from intervening area; no flow at times in 1966 and 1970.

REMARKS.--Records good below 100 cfs and fair above except those for period of backwater from silt trap on control, 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	23	268	67	66	45	150	53	20	14	13	8.0
2	8.8	31	73	58	501	45	263	48	19	14	65	50
3	6.0	21	59	54	667	59	93	50	17	14	12	120
4	5.1	17	51	120	138	103	219	54	15	95	8.1	50
5	4.9	15	47	72	104	61	198	42	14	17	5.3	25
6	5.4	13	63	59	113	77	88	38	13	11	3.9	11
7	99	13	69	51	209	65	79	36	12	8.3	2.9	40
8	19	239	101	46	140	87	367	35	11	6.8	2.3	8.0
9	9.7	64	795	42	154	69	144	45	9.9	5.8	2.0	7.0
10	6.4	30	403	40	84	57	133	36	8.6	6.0	1.7	6.0
11	6.0	25	156	40	74	59	91	34	7.5	63	1.2	5.0
12	6.1	21	102	36	60	59	84	32	6.4	13	1.2	5.0
13	6.1	20	93	36	60	51	79	31	6.7	8.9	1.2	4.5
14	5.5	385	74	38	73	48	70	29	5.5	6.7	6.5	55
15	5.1	285	166	42	175	47	65	28	4.3	6.2	5.9	30
16	4.4	56	194	42	100	50	63	28	4.3	8.4	7.4	13
17	5.0	42	75	42	58	104	60	28	11	5.1	3.1	8.0
18	4.0	36	67	42	60	61	58	28	9.4	4.8	43	6.0
19	20	52	68	56	58	50	55	27	9.2	4.0	50	4.5
20	23	626	70	63	62	47	57	30	8.3	3.6	66	3.5
21	10	105	66	42	64	51	59	34	29	18	642	3.5
22	8.8	61	599	50	65	58	60	29	126	37	204	4.5
23	8.1	51	356	55	56	47	54	32	27	13	37	4.5
24	7.2	43	138	42	53	45	50	38	37	8.0	24	5.0
25	6.7	42	103	38	50	45	47	79	24	6.2	19	3.5
26	6.2	248	92	37	50	493	132	39	14	5.4	16	4.0
27	6.0	81	99	134	53	131	271	38	12	4.3	14	4.0
28	213	58	77	107	46	76	170	114	12	4.0	12	4.5
29	84	49	68	407	-----	67	71	50	29	3.6	11	5.0
30	23	123	66	96	-----	77	58	28	41	2.7	10	4.0
31	17	-----	72	72	-----	74	-----	24	-----	2.1	9.0	-----
TOTAL	659.5	2,875	4,730	2,126	3,393	2,408	3,388	1,237	563.1	419.9	1,299.7	502.0
MEAN	21.3	95.8	153	68.6	121	77.7	113	39.9	18.8	13.5	41.9	16.7
MAX	213	626	795	407	667	493	367	114	126	95	642	120
MIN	4.0	13	47	36	46	45	47	24	4.3	2.1	1.2	3.5
CFSM	.54	2.43	3.87	1.74	3.06	1.97	2.86	1.01	.48	.34	1.06	.42
IN.	.62	2.71	4.45	2.00	3.20	2.27	3.19	1.16	.53	.40	1.22	.47

CAL YR 1972 TOTAL 31,154.4 MEAN 85.1 MAX 2,340 MIN 1.4 CFSM 2.15 IN 29.34
WTR YR 1973 TOTAL 23,601.2 MEAN 64.7 MAX 795 MIN 1.2 CFSM 1.64 IN 22.23

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	1830	6.01	713	3-26	1100	5.87	671
11-20	0830	6.26	758	4- 4	2200	5.17	488
12- 1	0200	5.16	485	4- 8	1430	5.23	503
12- 9	0830	6.50	860	4-27	1930	5.18	490
12-22	1530	6.18	764	8-21	0730	6.32	806
2- 2	2330	6.75	960				

NOTE.--Stage discharge relationship affected by silt trap on control from Aug. 27 to Sept. 30.

01661050 St. Clement Creek near Clements, Md.

LOCATION.--Lat 38°28'00", long 76°43'31", St. Marys County, on left bank 60 ft (18 m) downstream from bridge on State Highway 242, 0.5 mile (0.8 km) north of Clements, 2.3 miles (3.7 km) upstream from mouth, and 5.7 miles (9.2 km) northwest of Leonardtown.

DRAINAGE AREA.--18.5 sq mi (47.9 sq km).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8 ft (2.4 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 20.8 cfs (0.589 cu m/s), 15.27 in/yr (388 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,520 cfs (43.0 cu m/s) Aug. 21, gage height, 5.56 ft (1.695 m); minimum, 1.1 cfs (0.031 cu m/s) July 31, gage height, 0.88 ft (0.268 m).

Period of record: Maximum discharge, 4,350 cfs (123 cu m/s) June 22, 1972, gage height, 6.55 ft (1.996 m), from rating curve extended above 420 cfs (11.9 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 0.07 cfs (0.002 cu m/s) Sept. 7, 8, 1970, gage height, 0.69 ft (0.210 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1971: 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	84	28	30	22	59	23	9.6	16	28	4.3
2	7.9	16	32	24	222	21	73	21	8.8	36	62	4.1
3	6.9	11	25	21	219	34	33	19	9.2	12	148	4.1
4	6.8	10	22	58	57	71	36	21	12	12	25	5.7
5	6.5	8.8	21	36	43	35	38	17	8.4	7.7	8.2	5.9
6	11	8.8	32	27	41	30	25	17	7.4	5.9	5.9	4.3
7	30	8.4	34	22	64	30	24	16	6.8	4.6	4.7	3.9
8	12	9.6	29	20	52	37	135	15	7.4	4.1	4.0	3.2
9	7.4	51	94	18	63	33	60	23	6.5	3.7	3.5	2.8
10	6.5	18	55	18	38	28	71	17	5.9	3.5	3.2	2.8
11	6.2	16	35	18	30	28	41	13	5.0	40	2.7	2.6
12	5.9	14	27	17	28	29	33	12	4.6	10	2.5	2.6
13	5.9	13	25	16	26	25	31	11	4.1	6.2	2.3	2.6
14	5.9	111	23	16	26	24	28	11	4.1	4.8	7.9	11
15	5.9	95	42	18	52	24	26	12	3.2	4.1	6.2	11
16	5.6	26	47	20	71	24	25	12	3.2	4.3	4.2	5.3
17	5.6	20	23	20	32	38	24	11	5.6	3.7	3.3	4.1
18	5.3	17	19	20	28	26	23	14	27	3.7	7.2	3.9
19	14	24	21	31	28	22	23	11	14	3.0	7.2	3.5
20	24	204	23	36	30	21	21	15	10	2.6	4.4	3.0
21	10	70	23	20	31	22	20	18	7.1	2.5	524	3.0
22	8.8	29	155	20	30	24	20	12	6.8	4.8	167	3.1
23	8.4	24	92	22	27	21	18	14	7.7	5.0	28	3.2
24	8.4	21	53	19	25	20	17	16	6.5	3.9	14	3.3
25	8.0	20	36	17	24	20	18	16	5.9	2.6	10	2.4
26	8.0	78	32	17	24	24	55	16	5.3	2.5	8.8	2.3
27	8.0	35	35	58	24	20	79	18	9.3	2.1	7.4	2.3
28	79	22	29	55	23	18	55	26	14	2.0	6.2	2.3
29	48	20	25	157	-----	17	29	19	9.2	2.0	5.9	2.0
30	14	41	24	47	-----	21	24	12	7.1	1.7	4.8	1.9
31	12	-----	31	31	-----	26	-----	11	-----	1.2	4.6	-----
TOTAL	403.9	1,057.6	1,248	947	1,388	835	1,164	489	241.7	218.2	1,121.1	116.5
MEAN	13.0	35.3	40.3	30.5	49.6	26.9	38.8	15.8	8.06	7.04	36.2	3.88
MAX	79	204	155	157	222	71	135	26	27	40	524	11
MIN	5.3	8.4	19	16	23	17	17	11	3.2	1.2	2.3	1.9
CFSM	.70	1.91	2.18	1.65	2.68	1.45	2.10	.85	.44	.38	1.96	.21
IN.	.81	2.13	2.51	1.90	2.79	1.68	2.34	.98	.49	.44	2.25	.23

CAL YR 1972 TOTAL 13,648.0 MEAN 37.3 MAX 1,580 MIN 5.3 CFSM 2.02 IN 27.44
WTR YR 1973 TOTAL 9,230.0 MEAN 25.3 MAX 524 MIN 1.2 CFSM 1.37 IN 18.56

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11- 8	*1400	2.95	168	2- 2	1930	4.53	515
11-14	1800	3.36	206	4- 8	1000	3.16	185
11-20	1000	3.76	272	8- 3	0830	3.55	233
12-22	0930	3.34	204	8-21	1300	5.56	1,520
1-29	0630	3.37	207				

* About.

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 (0.5 km) downstream from Western Branch, and 12.0 miles (19.3 km) upstream from mouth.

DRAINAGE AREA.--24.0 sq mi (62.2 sq km).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (3 m), from topographic map.

AVERAGE DISCHARGE.--27 years, 23.0 cfs (0.651 cu m/s), 13.01 in/yr (330 mm/yr).

EXTREMES.--Current year: Maximum discharge, 828 cfs (23.4 cu m/s) Feb. 2, gage height, 7.35 ft (2.240 m); minimum, 2.05 cfs (0.058 cu m/s) Aug. 7, 13, 14, gage height, 1.30 ft (0.396 m).
Period of record: Maximum discharge, 7,950 cfs (225 cu m/s) Aug. 20, 1969, gage height, 13.34 ft (4.066 m), from rating curve extended above 1,500 cfs (42.5 cu m/s) on basis of contracted-opening measurement at gage height 12.08 ft (3.682 m); minimum, 0.2 cfs (0.006 cu m/s) Sept. 7, 1966, gage height, 1.13 ft (0.344 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1702: 1946, 1948-49, 1955, 1957-58.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	15	101	30	36	19	42	21	10	6.8	3.0	3.3
2	7.3	16	53	25	321	19	31	19	8.9	8.2	5.6	3.3
3	6.3	13	33	21	328	31	24	18	8.3	8.3	23	3.3
4	5.7	12	25	64	100	86	29	22	8.5	8.3	14	3.7
5	5.7	11	21	51	60	50	32	17	7.7	14	6.5	3.6
6	9.6	9.8	20	34	43	35	23	15	6.9	8.0	4.4	3.8
7	24	9.6	19	26	59	31	21	14	6.5	5.4	3.7	5.3
8	13	126	18	22	53	34	141	14	6.7	4.6	3.4	4.0
9	8.2	71	83	20	72	33	80	20	6.4	4.0	3.1	3.3
10	6.5	29	79	20	47	27	77	16	5.8	3.8	2.9	2.9
11	6.0	20	51	20	34	26	51	13	5.3	8.9	2.7	2.7
12	6.3	16	32	19	28	25	35	12	4.9	7.3	2.5	2.7
13	6.5	15	26	17	26	22	29	11	4.6	5.0	2.3	2.5
14	6.1	40	22	17	26	21	24	10	4.7	4.0	2.9	16
15	5.9	43	43	19	39	20	22	10	4.1	3.8	4.5	20
16	5.8	24	69	20	88	21	21	10	4.0	5.7	3.8	8.2
17	6.8	19	36	19	48	31	20	10	5.4	4.3	3.4	5.2
18	6.1	16	26	19	34	23	19	12	9.9	3.8	3.4	4.5
19	19	19	24	22	28	19	19	10	12	3.5	4.7	3.9
20	22	261	23	27	28	18	18	13	8.9	3.0	4.8	3.7
21	11	90	21	20	27	20	17	17	7.3	3.3	44	3.7
22	8.8	45	184	19	25	22	17	12	9.5	9.5	69	3.8
23	8.1	29	142	19	23	19	16	19	12	6.9	21	3.7
24	8.0	22	90	17	22	17	16	18	8.1	4.6	8.9	3.6
25	9.0	20	54	16	21	17	16	22	6.5	3.8	6.8	3.5
26	8.8	68	40	16	22	19	47	18	6.1	3.5	8.2	3.4
27	7.8	45	38	50	23	22	75	19	5.7	3.5	7.2	3.3
28	143	28	30	62	20	18	73	22	11	8.0	5.6	3.2
29	54	21	25	265	-----	17	38	19	12	4.6	4.6	3.3
30	20	36	23	97	-----	19	25	17	9.3	3.8	3.9	5.3
31	14	-----	32	52	-----	27	-----	13	-----	3.0	3.5	-----
TOTAL	479.3	1,189.4	1,483	1,145	1,681	808	1,098	483	227.0	175.2	287.3	142.7
MEAN	15.5	39.6	47.8	36.9	60.0	26.1	36.6	15.6	7.57	5.65	9.27	4.76
MAX	143	261	184	265	328	86	141	22	12	14	69	20
MIN	5.7	9.6	18	16	20	17	16	10	4.0	3.0	2.3	2.5
CFSM	.65	1.65	1.99	1.54	2.50	1.09	1.53	.65	.32	.24	.39	.20
IN.	.74	1.84	2.30	1.77	2.61	1.25	1.70	.75	.35	.27	.45	.22

CAL YR 1972 TOTAL 12,026.8 MEAN 32.9 MAX 836 MIN 4.5 CFSM 1.37 IN 18.64
WTR YR 1973 TOTAL 9,198.9 MEAN 25.2 MAX 328 MIN 2.3 CFSM 1.05 IN 14.26

PEAK DISCHARGE (BASE, 400 CFS).--Feb. 2 (2230) 828 cfs (7.35 ft).

03075500 Youghiogheny River near Oakland, Md.

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, on left bank 200 ft (61 m) downstream from Baltimore & Ohio Railroad bridge, 250 ft (76 m) downstream from Little Youghiogheny River, 1.2 miles (1.9 km) northwest of Oakland, and 1.5 miles (2.4 km) upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 sq mi (347 sq km).

PERIOD OF RECORD.--August 1941 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.11 ft (717.228 m) above mean sea level, unadjusted. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--32 years, 289 cfs (8.184 cu m/s), 29.29 in/yr (744 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,940 cfs (168 cu m/s) Dec. 9, gage height, 8.68 ft (2.646 m); minimum, 13 cfs (0.37 cu m/s) Sept. 13, 14, gage height, 1.91 ft (0.582 m).
Period of record: Maximum discharge, 11,800 cfs (334 cu m/s) Oct. 16, 1954, gage height, 12.16 ft (3.760 m); minimum daily, 2.5 cfs (0.071 cu m/s) Oct. 4, 1953.
Flood in March 1936 reached a stage of 15.3 ft (4.66 m), from floodmarks.

REMARKS.--Records good. Town of Oakland diverted an average of 0.4 cfs (0.011 cu m/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	514	395	280	130	276	602	707	237	55	217	20
2	38	856	345	270	950	479	1,270	526	197	51	326	18
3	28	727	335	240	1,220	951	905	468	171	48	143	17
4	24	526	538	600	796	1,280	1,170	395	157	44	93	17
5	131	385	922	400	591	978	1,220	312	186	66	70	17
6	412	286	1,100	350	474	804	871	241	330	51	56	16
7	1,100	233	1,320	300	420	630	674	204	229	41	49	17
8	520	1,190	1,400	250	490	520	983	200	171	36	43	17
9	286	1,470	5,070	210	490	410	844	705	147	33	37	16
10	186	987	2,930	200	395	335	876	581	127	36	34	16
11	143	699	1,920	180	322	286	744	580	110	38	36	15
12	133	514	1,080	170	276	281	624	490	99	34	41	15
13	150	390	814	130	237	237	520	410	200	29	38	14
14	118	1,020	700	140	241	208	520	281	131	26	42	20
15	97	1,320	600	145	450	193	722	241	98	33	100	162
16	85	837	700	135	370	186	830	220	100	65	71	66
17	85	605	600	135	240	335	784	204	666	36	60	35
18	71	440	550	130	210	385	721	189	840	28	205	47
19	74	410	500	150	230	380	575	147	399	24	102	297
20	74	1,140	700	200	210	360	440	171	264	29	71	100
21	69	880	900	130	200	390	425	171	206	96	62	58
22	65	726	3,000	150	180	330	335	133	224	307	57	45
23	62	490	1,500	147	170	322	538	127	152	202	49	92
24	86	355	900	121	160	415	1,100	153	119	104	41	136
25	76	294	650	105	150	502	955	186	101	64	44	74
26	70	688	550	112	167	617	1,170	147	84	64	39	54
27	62	616	450	500	197	677	1,350	136	84	56	33	44
28	95	520	400	650	186	462	2,030	237	97	43	30	41
29	143	479	350	400	-----	360	1,570	335	78	36	27	43
30	189	435	320	300	-----	375	1,000	254	63	34	24	259
31	153	-----	310	150	-----	326	-----	330	-----	32	22	-----
TOTAL	4,898	20,032	31,849	7,380	10,152	14,290	26,368	9,481	6,067	1,841	2,262	1,788
MEAN	158	668	1,027	238	363	461	879	306	202	59.4	73.0	59.6
MAX	1,100	1,470	5,070	650	1,220	1,280	2,030	707	840	307	326	297
MIN	24	233	310	105	130	186	335	127	63	24	22	14
CFSM	1.18	4.99	7.66	1.78	2.71	3.44	6.56	2.28	1.51	.44	.54	.44
IN.	1.36	5.56	8.84	2.05	2.82	3.97	7.32	2.63	1.68	.51	.63	.50

CAL YR 1972 TOTAL 173,089 MEAN 473 MAX 5,070 MIN 17 CFSM 3.53 IN 48.05
WTR YR 1973 TOTAL 136,408 MEAN 374 MAX 5,070 MIN 14 CFSM 2.79 IN 37.87

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-9	0800	8.68	5,940	4-28	1145	5.58	2,110

NOTE.--No gage-height record Dec. 15 to Jan. 23.

MONONGAHELA RIVER BASIN

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 (2.9 km) upstream from mouth and 7.0 miles (11.3 km) north of Oakland, Md. Drainage area, 64.7 sq mi (167.6 sq km). 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, 88,100 acre-ft (109 cu hm) Apr. 12, elevation, 2,460.70 ft (750.021 m); minimum, 67,400 acre-ft (83.1 cu hm) Oct. 4, elevation, 2,454.90 ft (748.254 m). Maximum contents since storage began, 93,258 acre-ft (115 cu hm) July 24, 25, 1949, elevation, 2,462.075 ft (750.440 m); minimum observed, 11,763 acre-ft (14.5 cu hm) Sept. 30, 1925, elevation, 2,433.45 ft (741.716 m).

Reservoir is formed by an earthfill dam completed January 1925. Usable capacity, 92,975 acre-ft (115 cu hm) between elevations 2,425 ft (739.1 m), top of intake to outlet tunnel, and 2,462 ft (750.4 m), crest of spillway. Dead storage, 13,085 acre-ft (16.1 cu hm). 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 1972 TO SEPTEMBER 1973

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	2,454.90	67,400	-
Oct. 31.....	2,455.60	69,800	+ 2,400
Nov. 30.....	2,457.60	76,800	+ 7,000
Dec. 31.....	2,458.80	81,100	+ 4,300
CAL YR 1972.....	-	-	+11,000
Jan. 31.....	2,455.80	70,500	-10,600
Feb. 29.....	2,457.10	75,000	+ 4,500
Mar. 31.....	2,458.90	81,500	+ 6,500
Apr. 30.....	2,460.20	86,300	+ 4,800
May 30.....	2,459.10	82,200	- 4,100
June 30.....	2,458.20	78,900	- 3,300
July 31.....	2,456.70	73,600	- 5,300
Aug. 31.....	2,455.90	70,800	- 2,800
Sept. 30.....	2,455.10	68,000	- 2,800
WTR YR 1973.....	-	-	+ 600

03076500 Youghiogheny River at Friendsville, Md.

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, on left bank 0.7 mile (1.1 km) upstream from bridge on State Highway 42 at Friendsville, and 1.5 miles (2.4 km) upstream from Bear Creek.

DRAINAGE AREA.--295 sq mi (764 sq km).

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 (453.338 m) 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 (1.1 km) downstream at datum 16.24 ft (4.950 m) and 16.29 ft (4.965 m) lower, respectively.

AVERAGE DISCHARGE.--39 years (1898-1904, 1940-1973), 636 cfs (18.01 cu m/s), 29.28 in/yr (744 mm/yr), adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 7,800 cfs (221 cu m/s) Dec. 9, gage height, 6.96 ft (2.121 m); minimum, 29 cfs (0.82 cu m/s) Sept. 13, gage height, 1.86 ft (0.567 m).

Period of record: Maximum discharge, 13,000 cfs (368 cu m/s) Oct. 16, 1954, gage height, 8.99 ft (2.740 m), from rating curve extended above 5,800 cfs (164 cu m/s) on basis of slope-area measurement of peak flow; minimum daily, 8.2 cfs (0.23 cu m/s) Sept. 11, 1966.

Maximum stage since 1898, 14.2 ft (4.33 m) Mar. 29, 1924, from floodmarks, site and datum then in use or 10.2 ft (3.11 m), present site and datum, discharge, about 15,600 cfs or about 440 cu m/s, 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	356	855	1,010	653	512	691	2,070	609	114	352	56
2	82	1,070	572	947	1,510	779	2,200	1,710	343	240	623	45
3	52	1,010	563	909	2,500	1,370	1,780	1,190	299	241	381	40
4	39	752	986	1,320	1,550	2,380	2,070	1,100	452	93	189	134
5	48	545	1,840	1,270	1,230	1,880	2,500	787	452	271	141	136
6	363	518	2,110	1,140	995	1,570	1,880	663	572	259	241	138
7	1,300	509	2,850	880	878	1,200	1,570	755	536	92	196	136
8	757	1,600	2,410	700	897	1,040	1,760	621	444	121	186	52
9	413	2,750	6,860	500	1,040	861	1,740	1,550	249	259	176	40
10	281	1,880	4,750	480	620	630	1,790	1,420	214	221	207	126
11	211	1,170	3,840	490	490	538	1,570	1,330	406	232	85	89
12	183	868	2,390	480	510	616	1,540	1,020	356	220	92	123
13	202	773	1,880	470	540	572	1,560	827	436	219	168	83
14	187	1,690	1,520	450	545	516	1,260	833	399	71	202	209
15	153	2,620	1,470	410	928	485	1,450	730	331	58	220	185
16	132	1,600	1,810	403	1,100	467	1,650	615	175	210	240	125
17	126	1,170	1,050	344	600	651	1,510	610	240	228	224	169
18	126	868	1,200	342	500	770	1,470	530	1,610	205	222	312
19	118	658	918	371	600	728	1,230	371	960	176	207	435
20	123	1,900	1,140	505	560	718	1,060	302	631	151	227	238
21	115	1,600	1,950	270	517	758	809	560	534	93	226	191
22	112	1,330	3,820	406	470	681	710	481	475	430	204	82
23	109	855	3,330	419	452	625	1,020	449	306	445	192	96
24	126	773	1,890	393	354	629	2,230	498	231	350	176	266
25	142	545	1,330	290	280	727	1,900	532	342	248	78	219
26	125	972	1,320	329	393	926	2,750	296	320	224	73	147
27	117	1,220	1,430	880	463	1,090	2,620	275	299	255	157	172
28	124	1,060	1,250	1,470	443	825	4,210	315	315	108	155	153
29	203	1,000	1,150	1,220	-----	688	3,620	694	315	85	152	141
30	265	905	1,080	913	-----	710	2,670	554	142	162	135	271
31	229	-----	1,060	705	-----	558	-----	590	-----	167	153	-----
TOTAL	6,653	34,567	60,624	20,716	21,618	26,500	54,820	24,278	12,993	6,248	6,280	4,609
MEAN	215	1,152	1,956	668	772	855	1,827	783	433	202	203	154
MAX	1,300	2,750	6,860	1,470	2,500	2,380	4,210	2,070	1,610	445	623	435
MIN	39	356	563	270	280	467	691	275	142	58	73	40
(+)	+39.0	+117	+70.1	-172	+81.2	+106	+80.7	-66.6	-55.5	-86.2	-45.5	-47.0
MEAN†	254	1,269	2,026	496	853	961	1,908	716	378	116	158	107
CFSM†	.86	4.30	6.87	1.68	2.89	3.26	6.47	2.43	1.28	.39	.54	.36
IN†	.99	4.80	7.92	1.94	3.01	3.76	7.22	2.80	1.43	.45	.62	.40

CAL YR 1972 TOTAL 348,050 MEAN 951 MAX 6,860 MIN 25 MEAN† 966 CFSM† 3.27 IN† 44.46
WTR YR 1973 TOTAL 279,906 MEAN 767 MAX 6,860 MIN 39 MEAN† 768 CFSM† 2.60 IN† 35.33

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir, runished by Pennsylvania Electric Co.

* Adjusted for change in contents.

MONONGAHELA RIVER BASIN

03076600 Bear Creek at Friendsville, Md.

LOCATION.--Lat 39°39'22", long 79°23'41", Garrett County, on right bank 0.2 mile (0.3 km) downstream from bridge on Accident-Friendsville Road, 0.6 mile (1.0 km) downstream from South Branch Bear Creek, 0.8 mile (1.3 km) southeast of Friendsville, and 1.2 miles (1.9 km) upstream from mouth.

DRAINAGE AREA.--48.9 sq mi (126.7 sq km).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,555 ft (474 m), from topographic map.

AVERAGE DISCHARGE.--9 years, 79.6 cfs (2.254 cu m/s), 22.11 in/yr (562 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs (35.4 cu m/s) Dec. 9, gage height, 5.12 ft (1.561 m); minimum, 6.6 cfs (0.19 cu m/s) Sept. 14, gage height, 0.79 ft (0.241 m).
Period of record: Maximum discharge, 4,650 cfs (132 cu m/s) Sept. 14, 1971, gage height, 9.6 ft (2.93 m), from floodmarks, from rating curve extended above 2,000 cfs (56.6 cu m/s) on basis of slope-area measurement of peak flow; minimum, 1.5 cfs (0.042 cu m/s) Sept. 12, 1966, gage height, 0.42 ft (0.128 m).

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	39	122	75	122	80	149	290	36	19	171	10
2	11	57	111	67	180	116	319	233	34	17	190	9.8
3	9.8	72	113	62	346	202	259	208	34	16	120	11
4	9.1	70	149	107	250	253	306	180	37	16	85	12
5	36	64	210	97	190	215	306	158	51	19	64	10
6	67	55	274	75	160	185	250	138	47	15	50	12
7	205	51	299	55	150	160	205	122	40	14	42	9.3
8	113	220	402	50	160	142	280	118	36	13	35	8.0
9	75	274	805	60	140	122	279	268	33	12	30	7.8
10	51	220	495	65	90	109	275	256	30	30	26	8.5
11	40	171	360	75	80	99	236	228	27	33	26	7.8
12	37	138	259	70	60	91	207	183	27	16	25	7.4
13	35	116	215	65	80	80	175	162	54	14	21	6.8
14	28	265	171	75	78	72	162	142	29	13	34	28
15	23	290	178	70	115	66	176	116	24	16	36	19
16	20	218	192	65	90	64	177	94	31	17	21	12
17	20	171	160	50	70	91	162	85	31	13	27	10
18	18	136	130	40	80	91	142	72	109	12	46	71
19	21	132	120	50	65	89	123	62	62	11	26	31
20	18	218	178	52	65	91	106	61	49	14	23	19
21	17	202	213	36	60	96	93	54	41	22	22	16
22	16	176	435	64	58	89	84	46	37	94	20	15
23	17	144	332	82	54	88	126	42	33	68	18	21
24	19	120	250	67	51	91	188	45	28	45	16	18
25	17	106	195	60	46	97	233	43	25	33	16	14
26	16	153	160	62	50	106	339	38	22	32	15	12
27	15	158	135	174	59	94	384	35	32	38	14	12
28	20	149	115	250	57	80	519	40	41	24	13	11
29	24	136	97	223	-----	72	416	38	27	20	12	25
30	25	130	89	171	-----	73	353	36	21	18	12	67
31	22	-----	84	142	-----	66	-----	40	-----	19	12	-----
TOTAL	1,059.9	4,451	7,048	2,656	3,006	3,370	7,029	3,633	1,128	743	1,268	521.4
MEAN	34.2	148	227	85.7	107	109	234	117	37.6	24.0	40.9	17.4
MAX	205	290	805	250	346	253	519	290	109	94	190	71
MIN	9.1	39	84	36	46	64	84	35	21	11	12	6.8
CFSM	.70	3.03	4.64	1.75	2.19	2.23	4.79	2.39	.77	.49	.84	.36
IN.	.81	3.39	5.36	2.02	2.29	2.56	5.35	2.76	.86	.57	.96	.40

CAL YR 1972 TOTAL 43,442.8 MEAN 119 MAX 805 MIN 7.8 CFSM 2.43 IN 33.05
WTR YR 1973 TOTAL 35,913.3 MEAN 98.4 MAX 805 MIN 6.8 CFSM 2.01 IN 27.32

PEAK DISCHARGE (BASE, 600 CFS).--Dec. 9 (0100) 1,250 cfs (5.12 ft).

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 (0.5 km) upstream from Slaubaugh Run, 0.7 mile (1.1 km) downstream from U. S. Highway 40, and 1.0 mile (1.6 km) northeast of Grantsville.

DRAINAGE AREA.--62.5 sq mi (161.9 sq km).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,089.03 ft (636.736 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--26 years, 117 cfs (3.313 cu m/s), 25.42 in/yr (646 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,690 cfs (47.9 cu m/s) Dec. 9, gage height, 4.64 ft (1.414 m); minimum, 4.8 cfs (0.14 cu m/s) Sept. 12, 13, gage height, 1.10 ft (0.335 m).
Period of record: Maximum discharge, 8,400 cfs (238 cu m/s) Oct. 15, 1954, gage height, 10.70 ft (3.261 m), from rating curve extended above 2,600 cfs (73.6 cu m/s) on basis of contracted-opening measurement at gage height 8.13 ft (2.478 m); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	74	127	108	110	127	268	276	83	29	235	10
2	13	115	117	90	594	172	672	217	72	25	256	9.2
3	10	115	142	78	583	465	336	200	66	22	90	8.6
4	9.8	86	253	130	288	616	660	184	66	16	57	9.8
5	117	68	425	157	224	470	539	157	69	20	43	8.6
6	175	57	534	92	190	415	336	132	62	17	36	8.6
7	460	54	490	66	175	300	256	112	63	14	42	8.1
8	129	500	512	58	190	268	566	112	51	12	30	7.2
9	68	450	1,250	70	170	214	400	411	44	10	26	6.6
10	49	246	846	78	110	178	395	260	41	13	22	6.6
11	41	200	517	92	90	157	309	228	35	50	25	6.6
12	41	172	340	86	66	152	249	193	33	24	21	5.7
13	49	137	296	78	92	132	210	178	95	13	20	5.2
14	42	460	231	92	92	115	204	147	51	11	33	35
15	35	455	264	82	132	103	238	127	37	12	50	37
16	30	246	253	77	110	97	221	112	43	17	29	18
17	26	193	180	70	82	163	181	101	56	13	25	12
18	26	157	150	68	92	152	160	92	200	10	50	90
19	29	169	140	77	78	127	142	83	97	8.6	33	49
20	29	425	230	101	78	124	122	89	66	8.6	33	26
21	27	272	355	62	73	132	112	92	53	14	32	17
22	27	200	935	90	68	112	101	75	49	117	30	14
23	27	160	495	106	66	108	137	69	44	78	26	28
24	33	134	314	77	63	124	256	74	37	46	24	30
25	30	124	246	69	58	137	260	91	33	29	24	20
26	27	284	210	72	66	147	470	78	30	36	19	15
27	25	228	181	440	73	127	572	73	29	27	16	13
28	32	175	150	385	77	103	998	129	58	20	16	11
29	51	152	132	230	-----	92	622	120	50	16	13	19
30	54	134	120	150	-----	110	380	92	35	14	12	86
31	50	-----	122	120	-----	103	-----	99	-----	13	11	-----
TOTAL	1,782.8	6,242	10,557	3,551	4,090	5,842	10,372	4,403	1,748	755.2	1,379	620.8
MEAN	57.5	208	341	115	146	188	346	142	58.3	24.4	44.5	20.7
MAX	460	500	1,250	440	594	616	998	411	200	117	256	90
MIN	9.8	54	117	58	58	92	101	69	29	8.6	11	5.2
CFSM	.92	3.33	5.46	1.84	2.34	3.01	5.54	2.27	.93	.39	.71	.33
IN.	1.06	3.72	6.28	2.11	2.43	3.48	6.17	2.62	1.04	.45	.82	.37

CAL YR 1972 TOTAL 63,706.1 MEAN 174 MAX 2,120 MIN 4.8 CFSM 2.78 IN 37.92
WTR YR 1973 TOTAL 51,342.8 MEAN 141 MAX 1,250 MIN 5.2 CFSM 2.26 IN 30.56

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12- 9	0615	4.64	1,690	4- 4	1630	3.87	1,090
12-22	0900	4.06	1,230	4-28	0645	3.99	1,170

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 1973,
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", Carroll County, at bridge on State Highway 474, 1.6 miles southeast of Denton.	a11	1964-73	9-10-73	1.84
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.	a38	1964-66 1968-73	9-10-73	6.54
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.	a6.0	1964-73	9-10-73	1.38
Northeast River basin						
01496050	Little North-east 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.	a14	1964-73	9-10-73	3.80
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.	a12	1964-73	7-12-73 9-13-73	2.31 1.12
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.	a11	1964-73	7-12-73 9-13-73	.33 .20
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.	a31	1965-73	9-13-73	11.9
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	1964-73	8-30-73 9-13-73	1.87 1.21
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	1964-73	7-10-73 9-13-73	.85 .63

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 1973,
in North Atlantic Slope basins

In North Atlantic Slope Basins					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (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	1969-73	7- 3-73	7.31	1,160
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	1966-73	6-29-73	5.72	444
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	1966-73	8- 2-73	4.98	43
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	1966-73	2- 2-73	4.21	57
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	1966-73	5-30-73	7.32	209
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.	a1.2	1966-73	7-15-73	8.51	360
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.	a1.3	1966-73	2- 2-73	7.02	163
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	1966-73	2- 2-73	3.78	17
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# 1958-73	2- 2-73	4.73	432
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	1966-73	7-15-73	4.56	205
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.	a1.0	1966-73	8- 2-73	3.84	14

See footnotes at end of table, p. 132.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1973,
in North Atlantic Slope basins--Continued

In North Atlantic Slope Basins--Continued					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (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	1966-73	2- 2-73	7.94	43
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	1966-73	8-22-73	4.54	42
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	1960-73	2- 2-73	5.69	403
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 south-east of Delmar.	a4.1	1967-73	8-22-73	8.05	191
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	1966-73	12-22-72	5.03	39
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* 1972-73	8-22-73	3.61	b473
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 north-west of Delmar, and 3.1 miles up-stream from confluence with Holly Branch.	a3.9	1967-73	8-22-73	6.95	112
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* 1959-73	8-22-73	3.81	28
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	1952-73	2- 3-73	c7.70	120
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	1966-73	2- 2-73	6.98	†
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	1966-73	11-14-72	3.93	233
01490800	Oldtown Branch at Goldsboro, Md.	Lat 39°01'23", long 75°47'16", Caroline County, at upstream side of culvert at State Highway 313, 0.7 mile upstream from mouth, and 0.7 mile south of Goldsboro.	3.9	1967-73	8- 4-67 3-18-68 8- 4-69 12-26-69 8-28-71 6-22-72 2- 2-73	9.79 4.73 4.41 5.28 5.98 7.05 7.15	690 122 93 170 235 340 350
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	1966-73	2- 2-73	5.34	62

See footnotes at end of table, p. 132.

Annual maximum discharge at crest-stage partial-record stations during water year 1973,
in North Atlantic Slope basins--Continued

In North Atlantic Slope Basins--Continued					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis- charge (cfs)
Choptank River basin--Continued							
01491050	Spring Branch near Greens- boro, Md.	Lat 38°56'34", long 75°47'25", Caro- line County, at culvert on Knife Box Road, 2.0 miles above mouth, and 2.2 miles southeast of Greens- boro.	a3.8	1967-73	2- 2-73	h6.25	d70
01492050	Gravel Run at Beulah, Md.	Lat 38°40'54", long 75°53'53", Dorchester County, at upstream side of culvert at State Highway 16, 0.3 mile north of Beulah, and 2.1 miles south of Preston.	8.4	1966-73	2-13-66 8-25-67 1-14-68 8-20-69 12-26-69 5-16-71 6-22-72 2- 2-73	4.10 5.97 4.98 5.00 5.44 4.81 5.24 4.87	d53 d220 d110 97 145 81 120 85
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# 1957-73	2- 2-73	5.64	502
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 south- east of Wye Mills.	a4.6	1966-73	2- 2-73	5.40	140
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	1971-73	8- 2-73	8.55	230
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	1967-73	e6-29-73	e3.78	d130
Susquehanna River basin							
01577940	Broad Creek tributary at Whiteford, Md.	Lat 39°42'30", long 76°21'49", Har- ford County, at upstream side of culvert at State Highway 165, 0.8 mile upstream from mouth, and 1.0 mile southwest of Whiteford.	.77	1971-73	5-28-73	5.66	108
01579000	Basin Run at Liberty Grove, Md.	Lat 39°39'30", long 76°06'10", Cecil County, on left bank 100 ft up- stream 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# 1965-73	6-29-73	5.96	1,770
Gunpowder River basin							
01582510	Piney Creek near Hereford, Md.	Lat 39°34'38", long 76°40'39", Balti- more County, at upstream side of culvert on Interstate Route 83, 1.1 miles southwest of Hereford, 5.3 miles above mouth.	a1.5	1962-73	12- 8-72	7.91	140
01583495	Western Run tributary at Western Run, Md.	Lat 39°31'01", long 76°41'04", Balti- more 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 north- west of Cockeysville.	.26	1966-73	4- 1-73	5.66	110

See footnotes at end of table, p. 132.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1973,
in North Atlantic Slope-basins--Continued

IN NORTH ATLANTIC Slope-basins--Continued					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cfs)
Gunpowder River basin--Continued							
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* 1970-73	4- 1-73	3.07	136
01584500	Little Gunpowder 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* 1971-73	7- 3-73	7.59	4,940
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.	.54	1966-73	e6- 4-73	d4.30	d80
01588000	Piney Run near Sykesville, Md.	Lat 39°22'55", long 76°58'00", Carroll County, 75 ft below bridge on State Highway 32, 1½ miles north of Sykesville, and 5¼ miles above mouth.	11.4	1932-58* 1959-73	12- 8-72	4.16	381
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	1958-73	12- 8-72	6.95	820
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* 1965-73	7- 4-73	3.46	173
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	1966-73	4- 1-73	7.90	380
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* 1968-73	12-10-72	5.62	2,600
01610105	Pratt Hollow Tributary at Pratt, Md.	Lat 39°41'35", long 78°30'18", Allegany County, at upstream side of culvert at U. S. Highway 40, 0.2 mile northeast of Pratt, and 3.4 miles east of Flintstone.	.70	1971-73	5-20-71 6-22-72 6- 6-73	11.40 12.84 12.22	40 110 76
01610150	Bear Creek at Forest Park, Md.	Lat 39°42'07", long 78°19'02", Washington County, at upstream side of culvert at U. S. Highway 40, 0.9 mile west of Forest Park, and 1.4 miles south of the Mason-Dixon Line.	10.4	1965-69 1971-73	3- 5-65 6- 6-66 3- 7-67 3-13-68 3-25-69 2-13-71 6-22-72 4- 4-73	5.28 f4.10 5.80 4.37 4.03 5.78 11.74 4.64	380 f170 450 230 150 450 1,450 280
01613150	Ditch Run near Hancock, Md.	Lat 39°41'30"(revised), long 78°07'57"(revised), 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	1965-73	4- 4-73	4.54	115

See footnotes at end of table, p. 132.

Annual maximum discharge at crest-stage partial-record stations during water year 1973,
in North Atlantic Slope basins--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cfs)
Potomac River basin--Continued							
01613160	Potomac River tributary near Hancock, Md.	Lat 39°41'27"(revised), long 78°07'38" (revised), 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	1965-73	4- 4-73	3.54	35
01619475	Dog Creek tributary near Locust Grove, Md.	Lat 39°27'57", long 77°39'31"(revised), Washington County, at upstream side of culvert on Md. Route 67, 0.4 mile above mouth, and 1.3 miles north of Locust Grove.	g.10	1966-73	6- 4-73	6.76	69
01637000	Little Catoctin Creek at Harmony, Md.	Lat 39°28'54", long 77°32'17", Frederick County, at upstream side of bridge on county road, 0.9 mile southwest of Harmony and 2.6 miles north of Middletown.	8.8	1948-58# 1959-73	8-18-69	3.00	330
					7- 9-70	3.51	740
					2-13-71	2.98	320
					6-21-72	5.64	1,960
					12- 8-72	3.21	300
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	1965-73	6- 4-73	5.55	350
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 Pennsylvania state line.	.62	1967-73	4- 27-73	5.66	65
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, 0.5 mile northwest of Avondale, and 3 miles southwest of Westminster.	8.10	1948-56# 1959-64 1967-73	12- 8-72	3.49	228
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	1967-73	8-18-73	h5.84	d120
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	1967-73	12- 8-72	5.45	230
01644420	Bucklodge Branch tributary near Barnesville, Md.	Lat 39°12'42", long 77°21'02", Montgomery County, at upstream side of culvert on Barnesville Road, 0.6 mile above mouth, 1.6 miles southeast of Barnesville, and 4.0 miles northwest of Germantown.	.27	1967-73	4-27-73	h6.14	d60
01658000	Mattawoman Creek near Pomonkey, Md.	Lat 38°35'45", long 77°03'25", Charles County, at downstream side of bridge on State Highway 227, 1.2 miles southeast of Pomonkey, and 12.6 miles upstream from mouth.	57.7	1949-72# 1973	2- 3-73	4.92	1,000
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	1966-73	2- 2-73	4.84	90
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	1966-73	8-21-73	6.90	d360

See footnotes at end of table, p. 132.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1973,
in North Atlantic Slope basins--Continued
and Ohio (Monongahela) River basin

					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis- charge (cfs)
Potomac River basin--Continued							
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.	a0.3	1968-73	8-21-73	4.53	28
Monongahela River basin							
03075450	Little Youghio-gheny River tributary near Deer Park, Md.	Lat 39°24'37", long 79°21'00", Garrett County, at upstream side of culvert on Md. Route 135, 0.7 mile above mouth, 1.6 miles south-west of Deer Park, and 1.8 miles northeast of Mountain Lake Park.	.57	1965-73	12- 8-72	5.18	36
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	1965-73	12- 8-72	4.88	31
03076505	Youghiogheny River trib-utary 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	1965-73	Unknown	<3.24	<10
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	1965-73	12- 9-72	4.41	36

* 0.15 sq mi is probably noncontributing.

† Not determined.

Operated as a continuous-record station.

a Approximately.

b Affected by removal of flashboards from Trap Pond Dam.

c Maximum stage occurred Nov. 14, 1972 (7.73 ft).

d About.

e Probably.

f May have been higher on 2-13-66.

g Revised.

h Affected by backwater from debris.

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 1973,
in North Atlantic Slope basins

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Potomac River basin						
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.	-	1958-72	7-12-73 9-13-73	13.3 10.0
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 south- west of Flintstone, Md.	-	1958-72	7-12-73 9-13-73	1.87 1.20

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	Date	Annual Maximum	
					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 (305 m) north of traffic light at junction of Route 300 and U.S. Highway 13, on downstream right wingwall of bridge.	1966-73	12-23-72	4.53	
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 (3 m) southeast of southeast corner of restaurant on Faulkner's Pier.	1966-73	12-23-72	6.48	
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 (2.88 km) northwest of Slaughter Beach, Sussex County and 6 miles (10 km) from traffic light at junction of state routes 14 and 36 in Milford, Del.	1966-73	12-23-72	4.69	
01484595	Indian River at Oak Orchard, Del.	Lat 38°35'45", long 75°10'24", at Hanes Landing, 2.05 miles (3.30 km) southeast of junction of state routes 24 and 5, at Oak Orchard, Sussex County.	1966-73	3-27-73	3.69	

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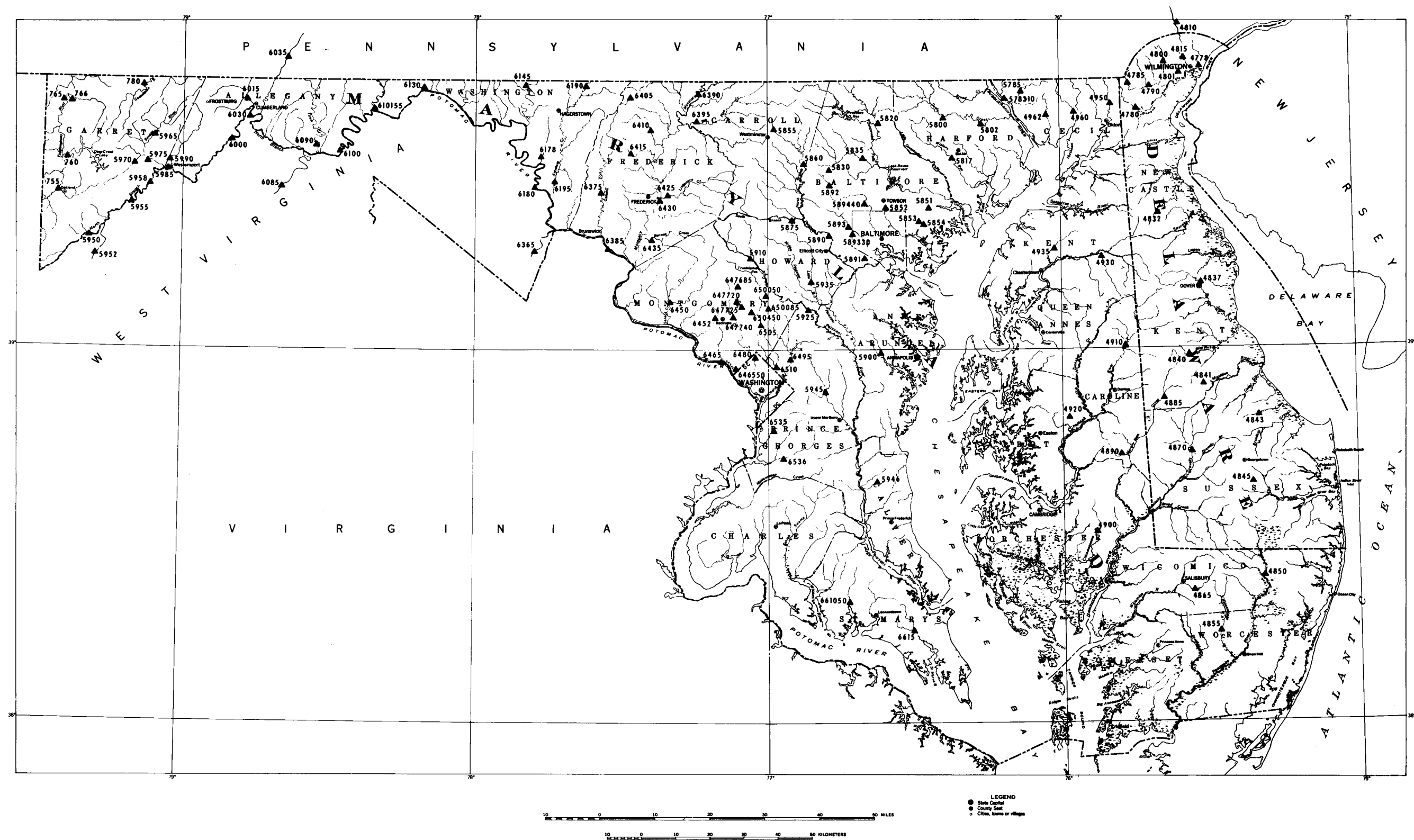


Figure 2.-- Map showing location of gaging stations.

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