LOW-FLOW CHARACTERISTICS

OF STREAMS IN WEST VIRGINIA

By E.A Friel, W.N. Embree, A.R. Jack, and J.T. Atkins, Jr.

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FACTORS FOR CONVERTING INCH-POUND UNITS TO METRIC UNITS

For use of readers who prefer to use metric (International System) units, rather than the inch-pound terms used in this report, the following conversion factors may be used:

Multiply Inch-Pound Unit	By	To Obtain Metric Unit
inch (in.)	25.4	millimeter (mm)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)
foot (ft)	0.3048	meter (m)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "mean sea level of 1929."

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ABSTRACT

Low-flow characteristics of selected streams in West Virginia were determined at continuous- and partial-record sites. Daily discharges at 100 continuous-record gaging stations on unregulated streams were used to compute selected low-flow frequency values. Estimates of low-flow frequency values at 296 partial-record sites (ones having only discharge measurements) were made using the relation defined by concurrent flows with a continuous-record station.

Low-flow characteristics at continuous-record stations were related to drainage area and a variability index to produce equations which can be used to estimate low-flow characteristics at ungaged sites in West Virginia. The State was divided into two hydrologic regions. Drainage area and a streamflow-variability index were determined to be the most significant. The streamflow-variability index was computed from duration curves and was used to account for the integrated effects of geology and other hydrologic characteristics. The standard error of estimate for the 7-day low flow with a 2-year recurrence interval is 43 percent for Region 1 and 57 percent for Region 2. The standard error of estimate for the 7-day low flow with a 10-year recurrence interval is 82 percent for Region 1 and 83 percent for Region 2.

INTRODUCTION

Information on the low-flow characteristics of streams is essential for the development and management of West Virginia's surface-water resources. The information is useful for assessing the availability of water for municipal or industrial supplies, irrigation, recreation, aquatic life and wildlife conservation, and disposal of liquid wastes. Low-flow characteristics also are useful in regional draft-storage studies, for forecasting seasonal low flows, as indicators of the amount of ground-water flow to streams, and as legal indices for maintaining water-quality standards.

Water-quality standards in West Virginia incorporate the 7-day low flow at a 10-year recurrence interval of a receiving stream as part of the State's water-pollution-control program. Low-flow information also is needed to aid in evaluation of the effects of drainage from surface and underground mines on surface-water quality.

Purpose and Scope

The purpose of this report is to provide (1) updated information on the low-flow characteristics for gaged streams in West Virginia (Frye and Runner, 1970) and (2) equations for estimating the 7-day low flows with 2-year (M7,2) and 10-year (M7,10) recurrence intervals for ungaged streams.

This report describes low-flow characteristics of streams at 100 continuous-record and 296 partial-record streamflow-gaging stations. Data include low-flow frequency characteristics, streamflow recession rate variability, and precipitation. Procedures are presented for estimating 7-day low flows at ungaged streams in West Virginia. also presented are analytical techniques, methods for estimating low flow, and examples of determination of low flows.

Hydrologic Setting

The following description of hydrology was modified from the 1985 National Water Summary (Appel, 1986):

West Virginia is divided into three physiographic provinces (Fenneman, 1938), each with distinctive rock types and drainage patterns. The western and central parts of the State are in the Appalachian Plateaus physiographic province. The consolidated, mostly noncarbonate sedimentary rocks that underlie this area have been eroded by streams and rivers to form steep hills and deeply incised valleys. Surface-drainage patterns are dendritic and surface- and ground-water drainage divides, which generally coincide, are well defined. The eastern part of the State, except for the extreme eastern tip, is in the Valley and Ridge physiographic province. The consolidated noncarbonate and carbonate sedimentary rocks that underlie the area form a series of broad northeast-trending valleys and ridges. Surface drainage typically forms a trellis pattern. Surface- and ground-water drainage divides coincide and are clearly defined in noncarbonate areas, but the divides in carbonate areas are generally not clearly defined and do not coincide. A very small area along the easternmost part of the State is in the Blue Ridge physiographic province.

There is a significant orographic effect on the geographic distribution of precipitation in the State. Average annual precipitation increases from 40 inches along the western boundary of the State eastward to about 60 inches in the higher elevations in the mountainous east-central part of the State. On the eastern side of the mountains, a well-defined rain shadow reduces average annual precipitation to about 36 inches in the Eastern Panhandle. Precipitation does not exhibit a strong seasonal pattern, but is distributed rather uniformly throughout the year. About 60 percent of the annual precipitation occurs from March through August. July is usually the wettest month, whereas September, October, and November are usually the driest. About 50 percent of the precipitation returns to the atmosphere by evapotranspiration.

Runoff in West Virginia varies seasonally and geographically. Average annual runoff ranges from 12 inches in the Eastern Panhandle to about 40 inches in the higher mountainous areas and to about 16 inches in the western and southern parts of the State. The lowest amounts of runoff generally occur from June through November--a period of high evapotranspiration--and the greatest amounts of runoff generally occur from December through May--a period of low evapotranspiration. In the higher mountainous areas, where average annual snowfall accumulations are as much as 200 inches, runoff is significantly affected by spring snowmelt. Only a small part of annual precipitation infiltrates and recharges the ground-water reservoirs. In the noncarbonate, consolidated-rock areas of the State, annual recharge to ground-water reservoirs generally ranges from 2 to 6 inches. In the carbonate-rock areas, annual recharge ranges from 6 to 12 inches (William A. Hobba, U.S. Geological Survey, oral commun., 1985).

SELECTED STREAMFLOW CHARACTERISTICS

Low-Flow Frequency Characteristics

Low-flow frequency curves were prepared from annual low flows (usually the minimum average flow for some period of consecutive days). The year commonly used begins on April 1 and ends on March 31. Examples of frequency curves are shown in figure 1.

Frequency characteristics are taken from such curves. The ones used in this report are the 7-day, 2-year low flow (M7,2) and the 7-day, 10-year low flow (M7,10).

ow frequency data has been computed for two different data sets in West Virginia. Frequency curves for streams with adequate continuous daily discharge records were computed by conventional methods (Hutchison, 1975). Frequency characteristics for a few hundred sites at which only discharge measurements are available were estimated using the concurrent daily flows and the frequency characteristics at a nearby continuous-record station.

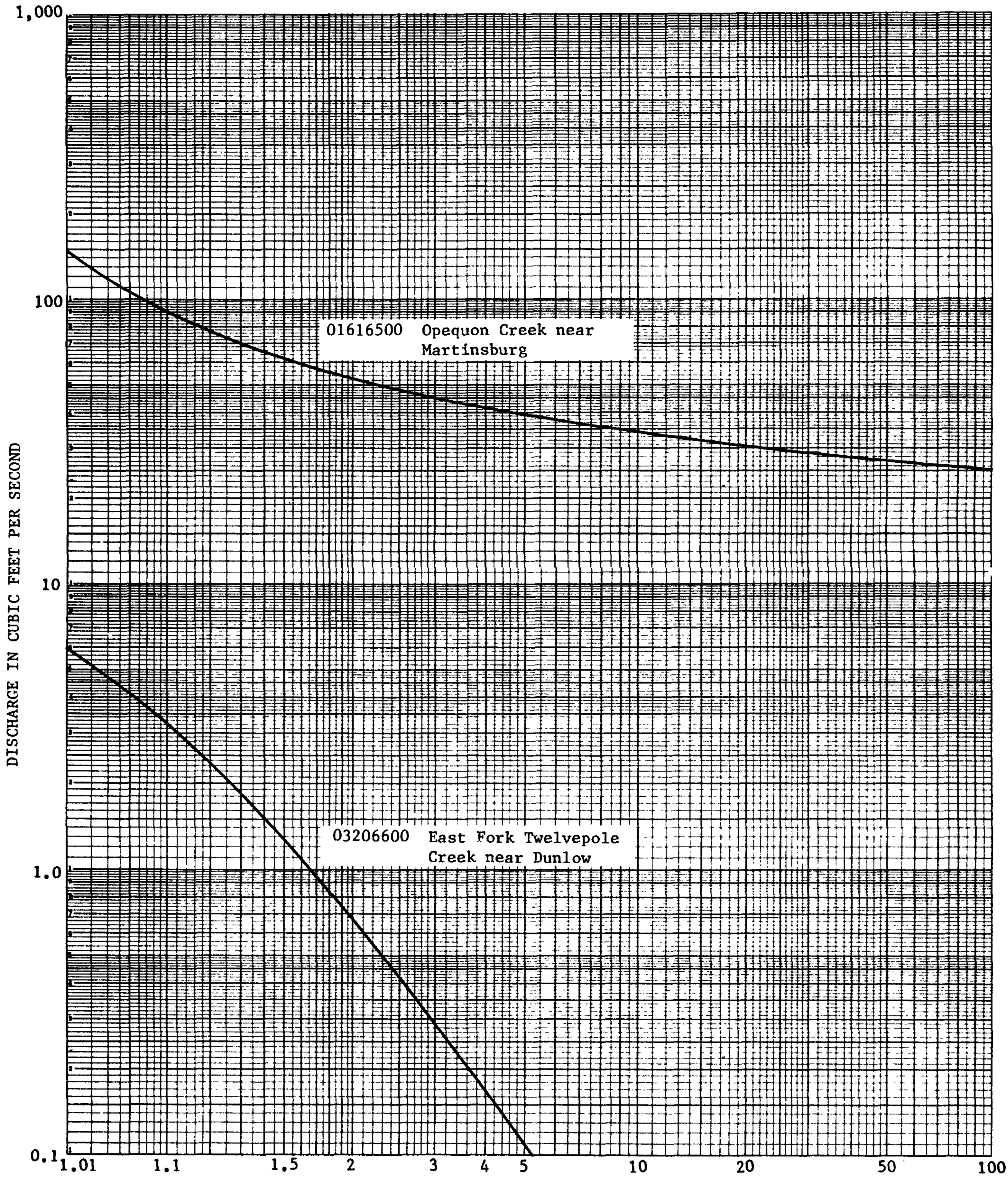


Figure 1.--Frequency curves of annual 7-day low flows of Opequon Creek near Martinsburg and East Fork Twelvepole Creek near Dunlow.

Continuous Record Sites

Low-flow characteristics, 7-day, 2-year (M7,2) and 7-day, 10-year (M7,10) have been computed for 99 continuous-record gaging stations in West Virginia and for one in Maryland; the sites are located as shown in figure 2 and listed in Table 1.

The streamflow data were analyzed by the log-Pearson type III frequency-distribution method. The results are included in table 1. Station-selection criteria includes stations having more than 5 years of continuous record, drainage area less than 1,000 mi^2 (square miles), and no significant regulation from dams, irrigation, or power-generating structures. Because regulation affects discharge in many of the larger streams throughout the State, only those periods of unregulated flows were used. Much of the data represent nonconcurrent time periods and, therefore, are not ideally suitable for comparison between stations, but overall should be representative of longer time periods.

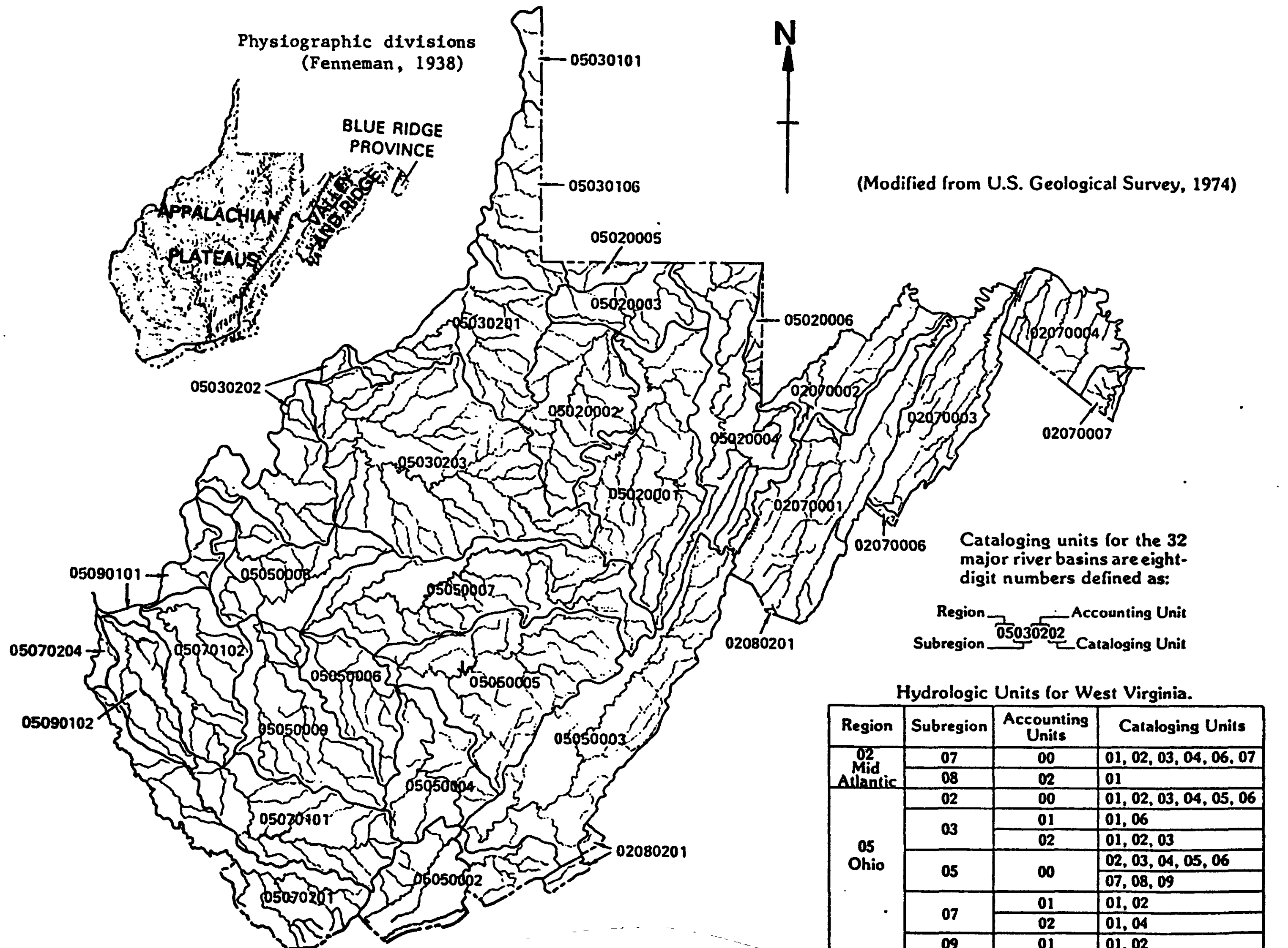
Partial-Record Sites

Streamflow data that were previously collected formed the principle source of partial-record data. Several streamflow measurements were made at each of approximately 360 sites throughout the State during 1979-81 as part of a larger data-collection program designed to provide hydrologic information for use in describing the hydrology of the general coal-mining area. Additional low-flow measurements were made during September and early October 1983 at 296 of the sites and are included in the data base for low-flow calculations for this report. The locations of these sites are shown on figure 3, and the data included in table 2.

These measurements are published in reports by the U.S. Geological Survey (1980, 1981, 1982) and by Embree and others (1985).

The partial-record sites were grouped by hydrologic units. A hydrologic unit, as shown on figure 4, is a geographic area representing part or all of a surface-drainage basin or an area with distinct hydrologic features (USGS, 1974). The number of partial-record sites in each hydrologic unit ranges from 2 to 34. For each hydrologic unit, at least one index (continuous-record) site was selected that was free of regulation and diversion, had continuous-record during water years[1] 1979-83, and was representative of the general conditions in that area for correlation and regression with the partial-record sites. The distribution of index sites and partial-record sites by drainage area are summarized in the following tables:

1 A water year is the 12-month period October 1 through September 30, designated by year in which it ends. Thus, "W.Y. 1985" covers the period October 1, 1984-September 30, 1985.



Hydrologic Units for West Virginia.

Region	Subregion	Accounting Units	Cataloging Units
02 Mid Atlantic	07	00	01, 02, 03, 04, 06, 07
	08	02	01
05 Ohio	02	00	01, 02, 03, 04, 05, 06
	03	01	01, 06
		02	01, 02, 03
	05	00	02, 03, 04, 05, 06
			07, 08, 09
	07	01	01, 02
		02	01, 04
	09	01	01, 02

Figure 4.--Hydrologic units and physiographic divisions in West Virginia.

Distribution of Partial Record Sites by Drainage Area	
Drainage area (mi^2)	Number of stations in analysis
<25	168
25-100	123
101-250	5
	296

Distribution of Index Sites by Drainage Area	
Drainage area (mi^2)	Number of sites in analysis
<25	2
25-100	6
101-250	10
251-500	13
>500	1
	32

A low-flow characteristic at a partial-record site can be estimated by transferring the low-flow characteristic at the index site through a relation defined by the concurrent flows at the two sites. A statistical method described by Hirsch and Gilroy (1984, p. 705-711) was used to determine the "line of organic correlation" between each partial-record site and its corresponding index (continuous-record) site. This method is denoted as maintenance of variance extension (MOVE.1) as described in detail by Hirsch (1982). Figure 5 shows the relation between daily mean base flows of West Fork River at Brownsville (the index site) and concurrent flows of Salem Creek near Maken (the low-flow partial-record site). The line of organic correlation was determined using the MOVE.1 method and is approximately midway between regression lines as determined by least-square methods in both the x and y directions. Figure 5 shows how the M7,2 and M7,10 discharges at the partial-record site (Salem Creek) are determined from the known characteristics at the index site. Hirsch and Gilroy (1984) discuss several statistical concepts that they indicate make this particular method "well-suited to the extension of hydrologic records." A more detailed description of the theory and procedures can be obtained from the cited references. Low-flow characteristics and other data at record-gaging stations are presented in table 2.

Streamflow Recession

Streamflow recession is the decline of streamflow with respect to time. Hydrograph plots of daily streamflow for each gaging station were examined to determine the streamflow-recession index curves for several events. The separate curves were then plotted on semilog graph paper with streamflow on the logarithmic (ordinate) scale and time in days on the arithmetic (abscissa) scale. For each station, lines are drawn approximately tangent to the lower discharge portions of the separate curves. This line represents a generalized base recession for all of the included events. The recession index, as described by Bingham (1986), is the number of days for the streamflow to decrease one complete log cycle. Factors such as aquifer nonhomogeneity, time between rainfall events and ground-water losses or gains complicate the determination of the straight-line recession. The use of winter periods tends to minimize the interaction between these factors. Computed values of recession index for 100 continuous-record gaging stations are given in table 1.

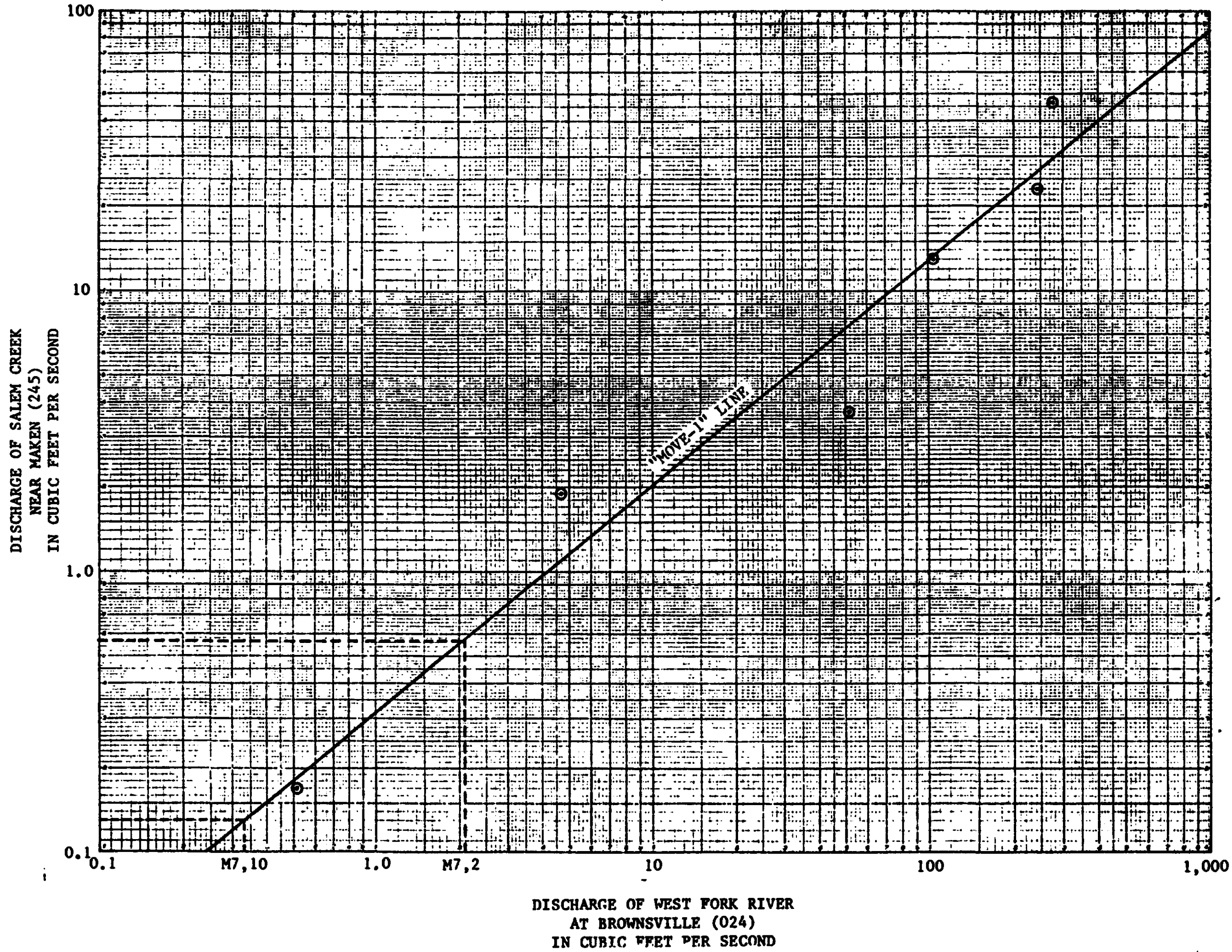


Figure 5.--Relation of daily-mean base flows of West Fork River at Brownsville to concurrent flows of Salem Creek near Maken.

Streamflow Variability

In this report, variability is defined from the flow-duration curve, a cumulative frequency curve that shows the percentages of time that specified discharges were equaled or exceeded during a specified period. The shape of the lower end of the flow-duration curve provides information about low-flow characteristics in the basin.

In areas where the rock has low permeability and low storage capacity, streamflow decreases rapidly during dry periods because the rate of ground-water discharge to the stream is low. This is indicated as a steep slope in the lower part of the flow-duration curve. An example of these characteristics is shown by the flow-duration curve of Reedy Creek in figure 6. In areas where the storage capacity of the rock is relatively high, storm runoff is decreased by the amount of water stored in the soil and rock. Ground-water discharge to the stream generally is higher, as indicated by the flatter slope in the lower part of the curve for Opequon Creek in figure 6.

The slope of the flow-duration curve also is a quantitative measure of streamflow variability (Searcy, 1959). Lane and Lei (1950) suggested an index of variability, which they defined as the standard deviation of the logarithms of the stream discharge. On log-probability paper, the variability index represents the fall (in terms of log cycles) of the duration curve over one standard deviation. The index was computed by (1) obtaining values of discharge from the flow-duration curve at 10-percent intervals from 5 to 95 percent of the time, and (2) computing the standard deviation of the logarithms. Variability indexes for 100 continuous-record sites, ranging from 0.320 to 0.988, were used to develop the low-flow estimating equations and are included in table 1.

A higher value of variability indicates a steeper slope of the flow-duration curve. A lower value of variability indicates greater ground-water storage capacity in the basin which results in higher sustained streamflow during dry periods. Aquifer characteristics are diverse, and the interaction of aquifers and streamflow is complex. The flow in many streams may be affected by several aquifers; therefore, the streamflow-variability indexes represent the integrated effects of the various aquifers on low flow within a given basin.

Regional Streamflow-Variability Index

The streamflow-variability index for each of the 100 continuous-record stations used in the analyses was plotted on a map of the State (fig. 2) at the location of the station. The streamflow-variability indexes used in the regression analyses ranged from 0.562 to 0.988 in Region 1 and from 0.320 to 0.872 in Region 2. The following table summarizes the distribution of these indexes.

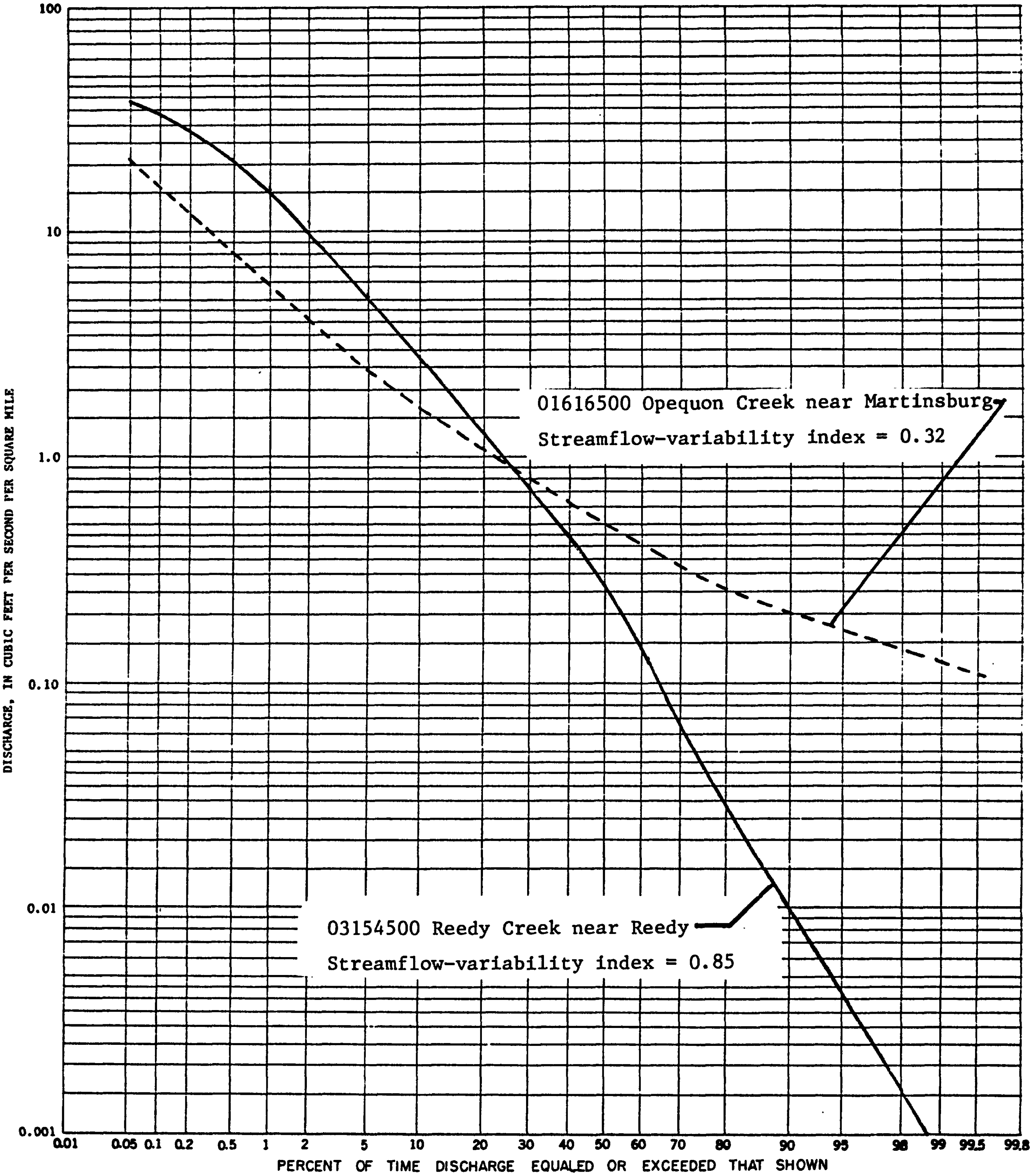


Figure 6.--**Flow-duration curves for Opequon Creek near Martinsburg and Reedy Creek near Reedy.**

Range in streamflow variability indexes		Number of stations in analysis* Region 1	Region 2
<0.400		0	5
.400-.599		0 (1)*	50
.600-.799		15 (4)	12 (5)
>.799		5 (2)	0 (1)
	Total	20 (7)	67 (6)

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*Number of stations omitted from analysis due to low flow data equal to zero.

The variability-index map shown in figure 2 was delineated into seven variability categories (0.37, 0.45, 0.55, 0.65, 0.75, 0.85, and 0.95) using the station variability-index values and the State geologic map. Variability categories 0.37 and 0.45 were not necessary for Region 1, so they are not included in subsequent analyses.

Variability index values for the 296 partial-record sites shown in figure 3 were determined by substituting the M7,2 and M7,10 values into the respective regression equations. The partial-record site variability-index values were used to further refine and verify the delineation of variability areas.

ESTIMATING LOW FLOWS FROM BASIN CHARACTERISTICS

The low-flow characteristics defined at gaging stations can be related to basin characteristics, and that relation can be used to define the low-flow characteristics at ungaged sites. The necessary basin characteristics are measured from maps or derived from tables.

The relations for M7,2 and M7,10 were defined by regression. Of the various basin characteristics studied, only drainage area and streamflow variability were found to be statistically significant at the 5 percent level.

Plots of residuals from these equations using drainage area and streamflow variability indicated that the State should be divided into two hydrologic regions (fig. 2). Using the residual plot and the State geologic map (Cardwell and others, 1968) as guides, the boundary between Region 1 and Region 2 was selected as approximately the outcrop of the base of the Upper Pennsylvanian (Conemaugh Group) rocks. After the regional boundaries were established, regression equations for each region were derived; again drainage area and streamflow-variability index were the only variables significant at the 5-percent level.

There are 27 continuous-record stations in Region 1 and 73 in Region 2. Drainage area for these stations ranged from 2.82 to 759 mi^2 in Region 1 and from 1.80 to 862 mi^2 in Region 2. The distribution of drainage area is summarized in the following table:

Drainage area (mi^2)		Number of stations in analyses*	
		Region 1	Region 2
<25		3 (5)*	6 (5)
25-100		2 (1)	13 (1)
101-250		8 (1)	21
251-500		6	18
>500		1	9
	Total stations	20 (7)	67 (6)

*Number in parentheses indicates number of stations omitted from analysis due to low flow data equal to zero.

Estimating Equations

The final estimating equations are shown below:

	Standard error in percent
In Region 1;	
$M7,2 = 0.0015(A)^{1.13}\ (V)^{-5.39}$	43
$M7,10 = 0.0003(A)^{1.00}\ (V)^{-7.70}$	82
In Region 2;	
$M7,2 = 0.0043(A)^{1.11}\ (V)^{-3.45}$	57
$M7,10 = 0.0002(A)^{1.18}\ (V)^{-5.76}$	83

where M7,2 and M7,10 = low flow, in cubic feet per second;
A = drainage area of the basin, in square miles; and
V = regional streamflow-variability index as determined from figure 2.

All regression coefficients are statistically significant at the 5-percent level. These equations are shown graphically in figures 7-10.

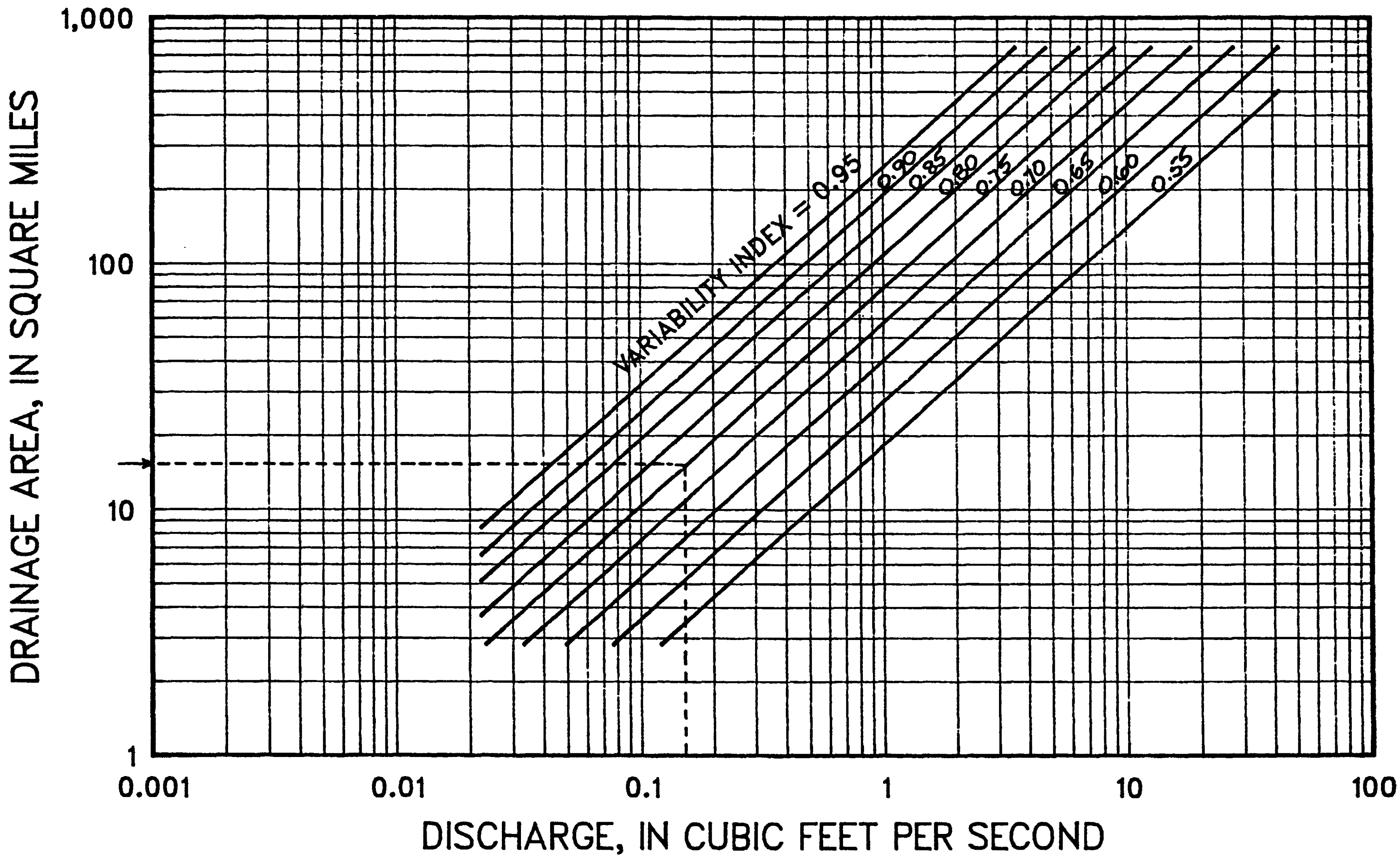


Figure 7.--Graphical solution of the Region 1 M7,2 low-flow equation.

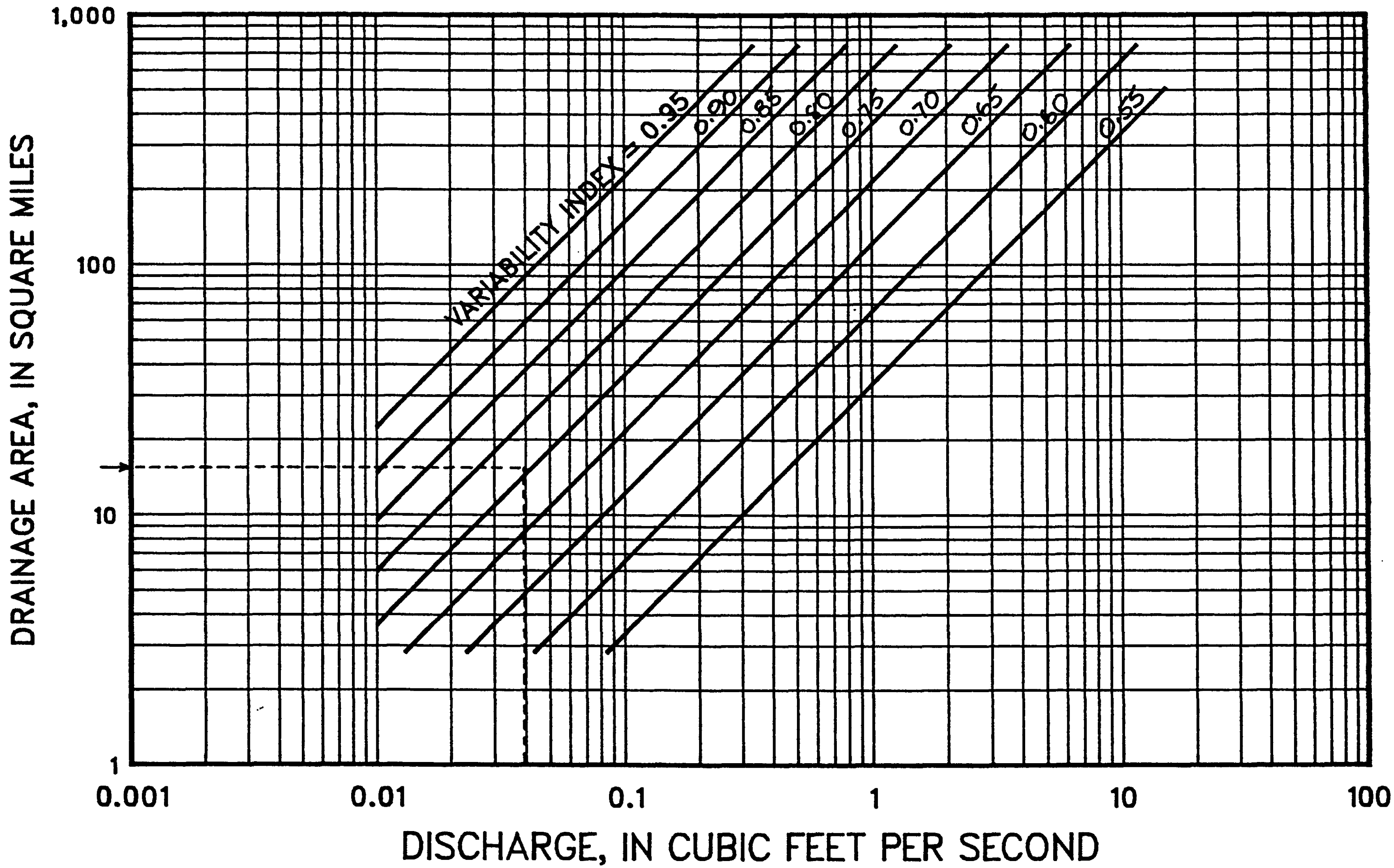


Figure 8.--Graphical solution of the Region 1 M7,10 low-flow equation.

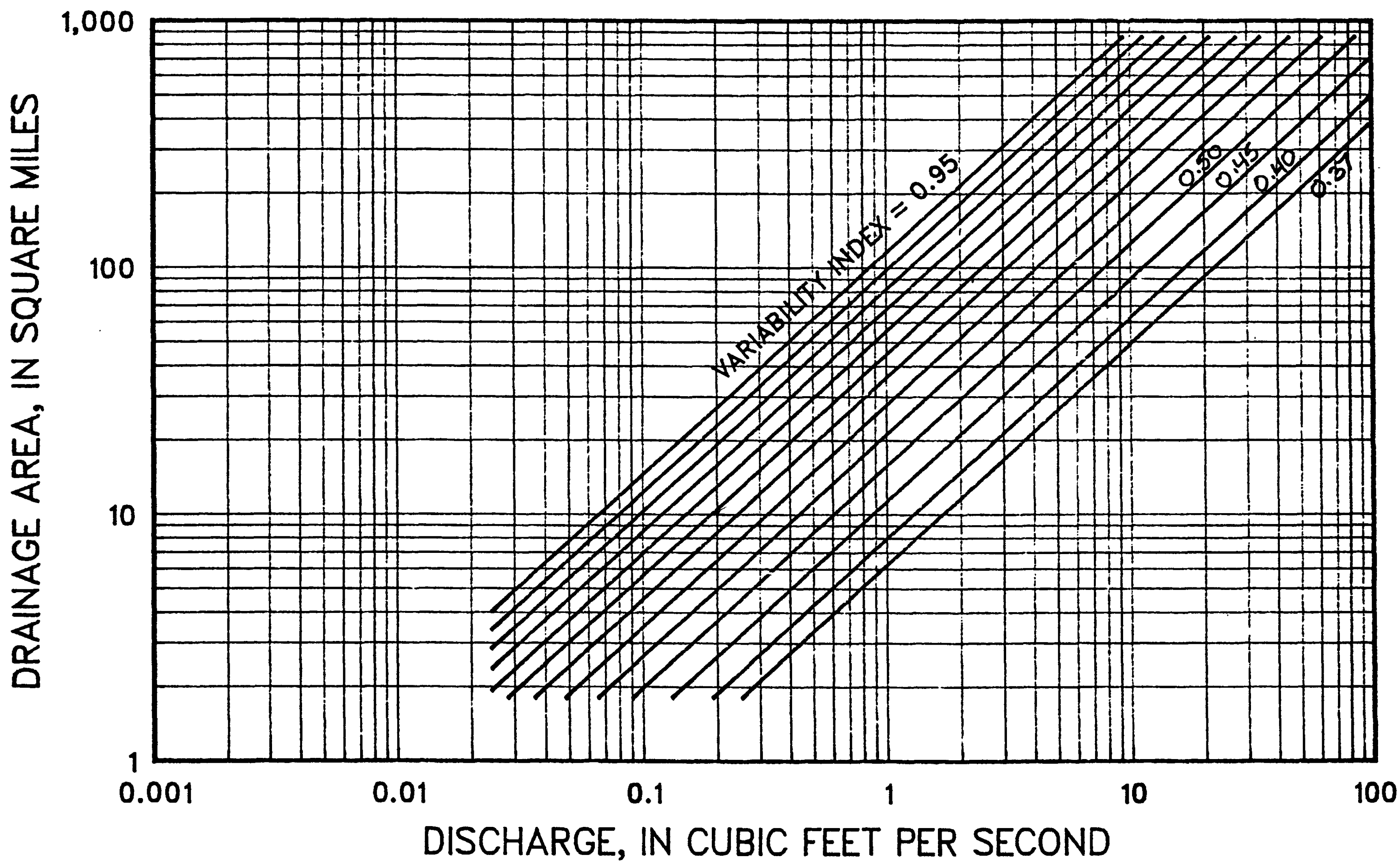


Figure 9.--Graphical solution of the Region 2 M7,2 low-flow equation.

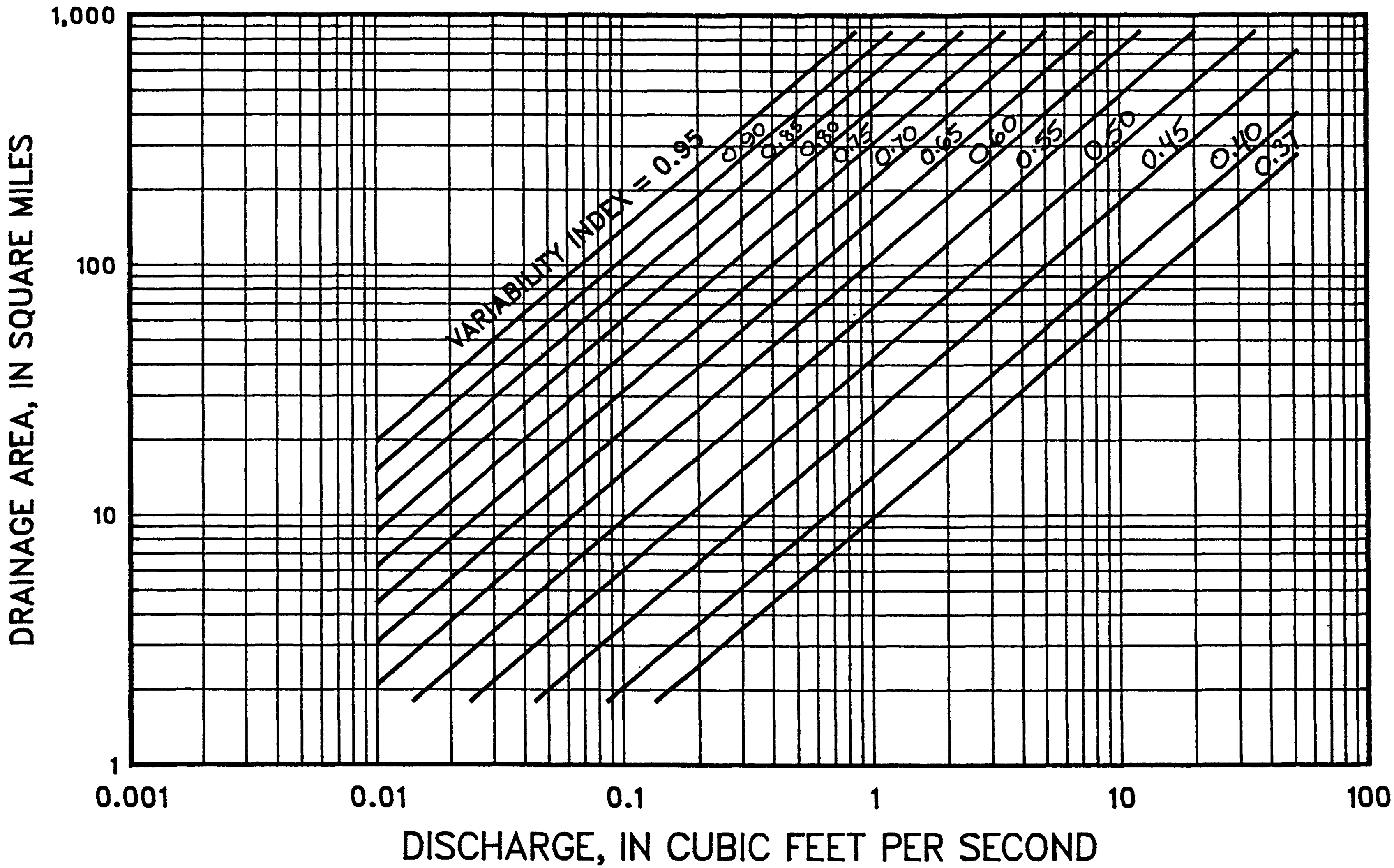


Figure 10.--Graphical solution of the Region 2 M7,10 low-flow equation.

Accuracy and Limitations

Accuracy of the regression equations is expressed as a standard error of estimate in percent. Standard error, SE, is a measure of the difference between station data and the computed value from the regression equation. The equation is:

$$SE = \left[\frac{\sum S^2}{N-M} \right]^{1/2}$$

where:

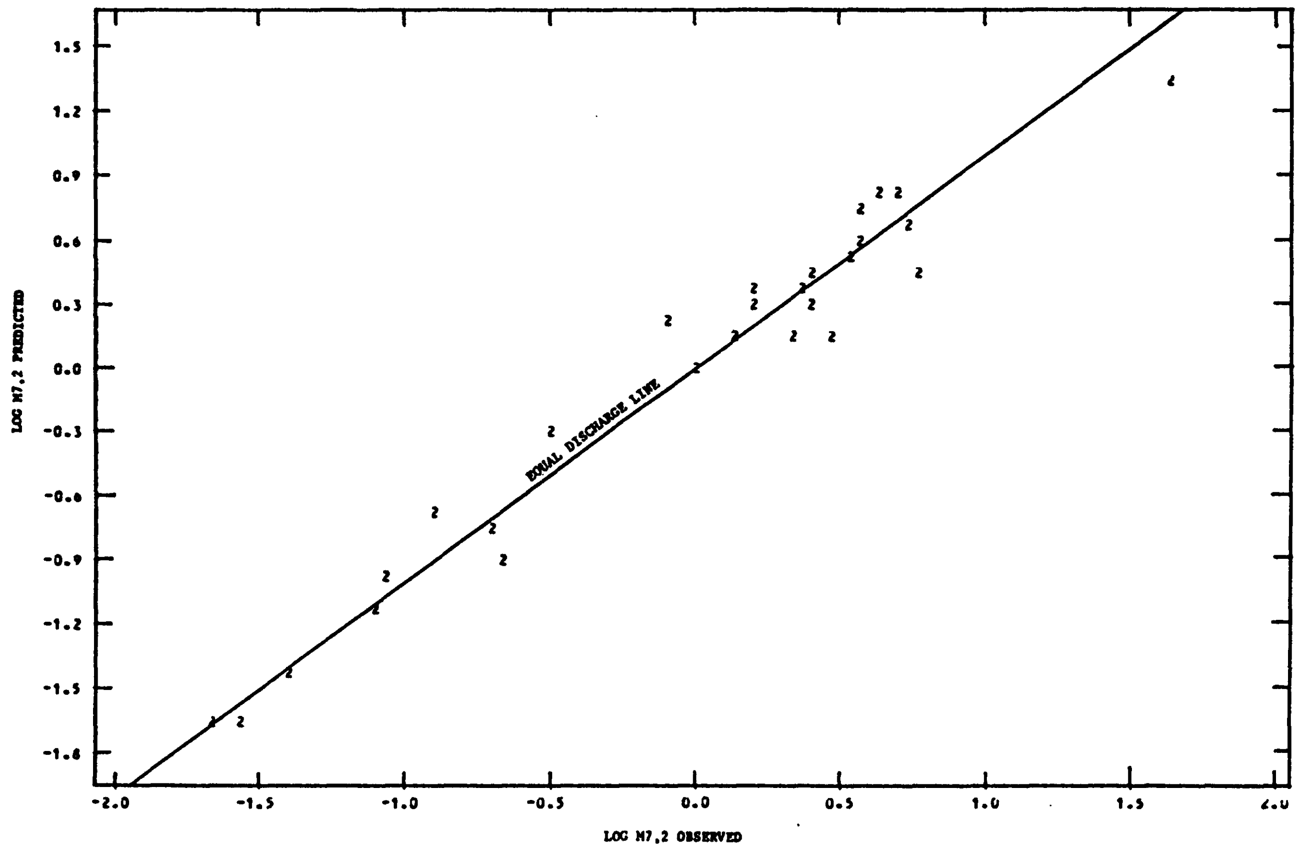
S = station residual,
N = number of stations in the analysis, and
M = number of regression coefficients in the equation.

As a method of further reducing bias in the final estimating equations, the values of V to be used were taken from the overlay values. Therefore, the standard errors are representative of the computational procedures.

The linearity of the M7,2 and M7,10 equations for each region was checked by plotting the regression residuals versus drainage area, streamflow-variability index, and low-flow values. There was no apparent bias. Plots of the logarithm of observed low flow as a function of the logarithm of predicted low flow for both regions are shown in figures 11 and 12.

Caution should be used when determining drainage area or variability index from maps or tables for use in the estimating equations. Area variations by several percent have an effect on estimated discharges, as can be seen in figures 7-10. Also, the magnitude of the regression coefficient for the variability index makes that variable very sensitive. When the site under study is very near an index site, the user should consider applying the equation(s) or graph(s) to the computed index-station value. This will provide an estimate of the effect of the difference.

The regression equations in this report are limited to estimating the M7,2 and M7,10 low flows of unregulated streams in West Virginia. Use of the equations is appropriate only for the range in low-flow discharge and drainage area used to derive the equations. In deriving the equations, drainage areas and subsequent discharges varied as shown below:



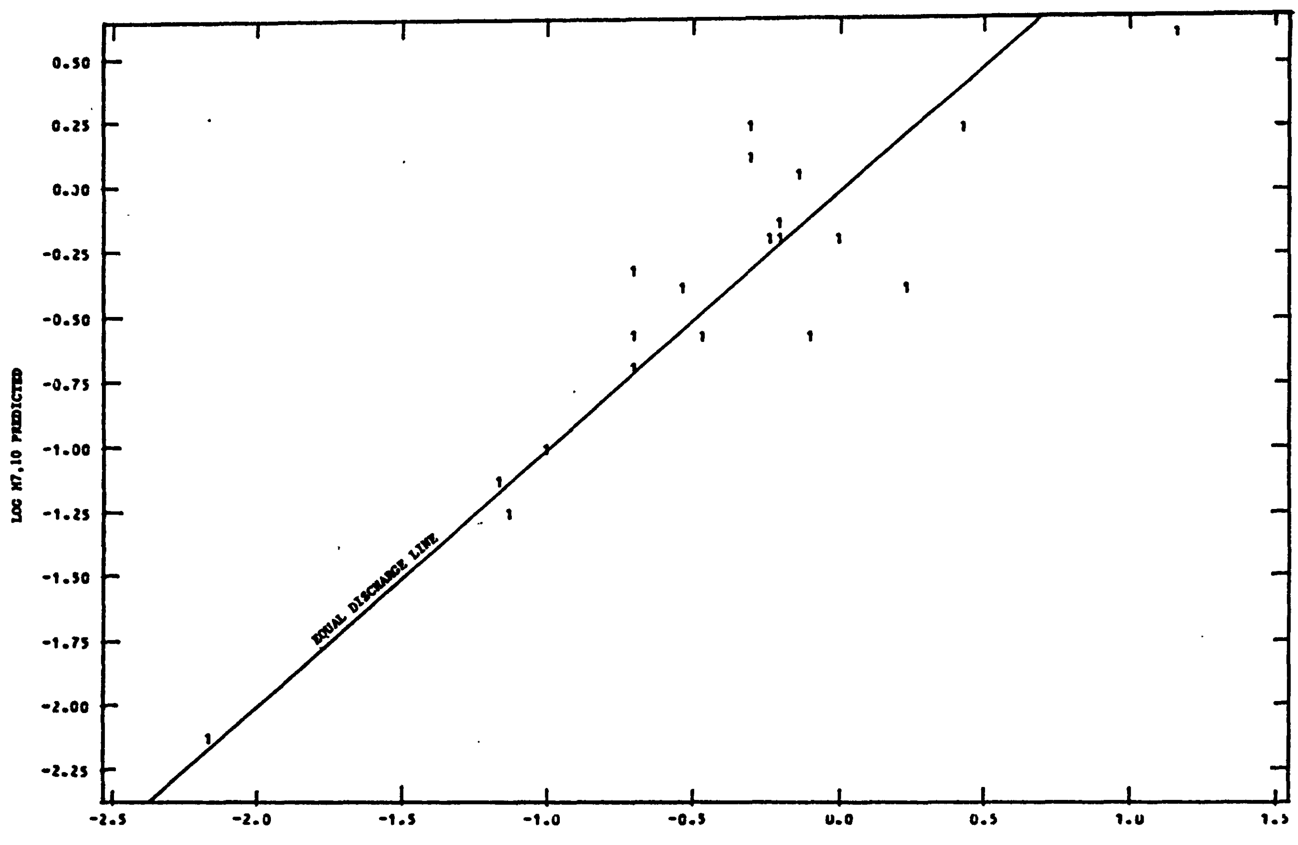
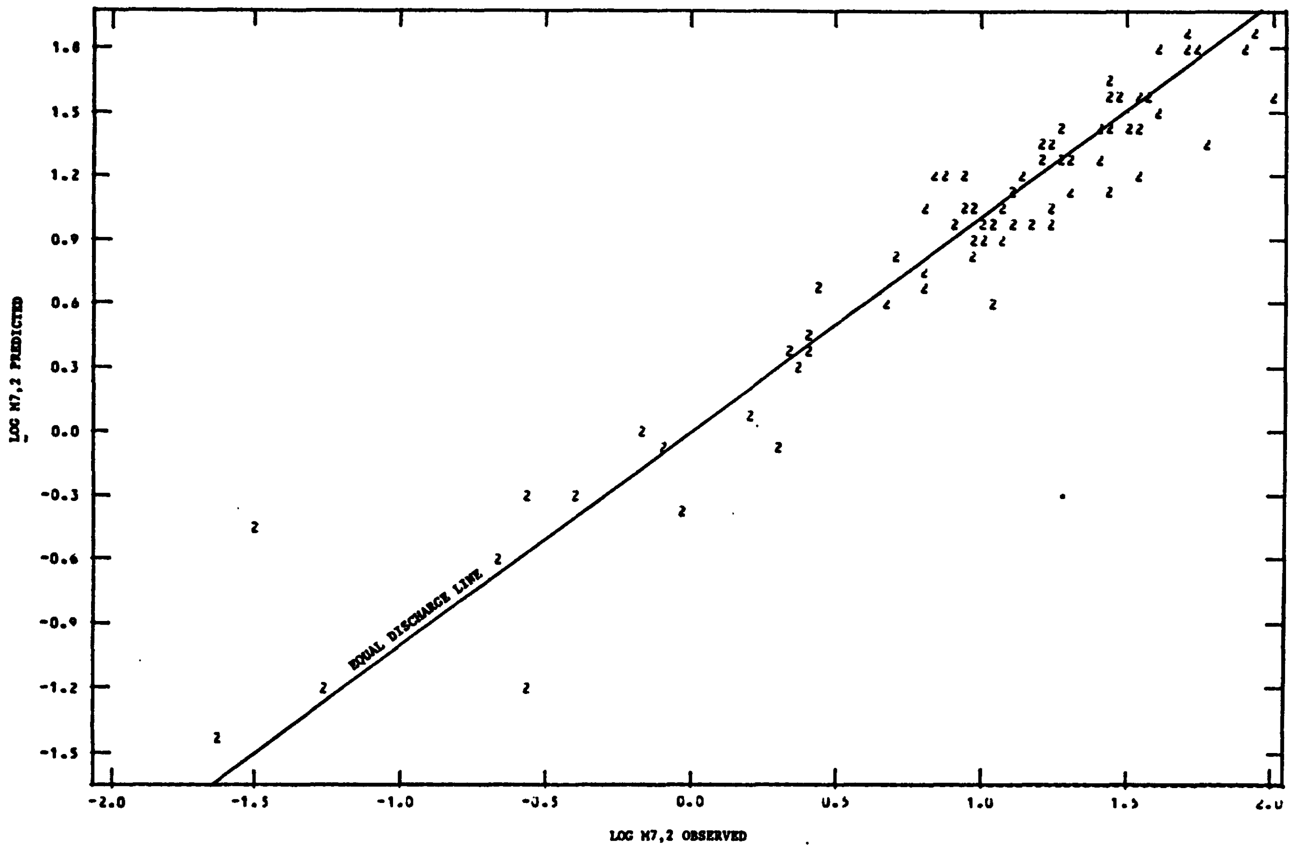
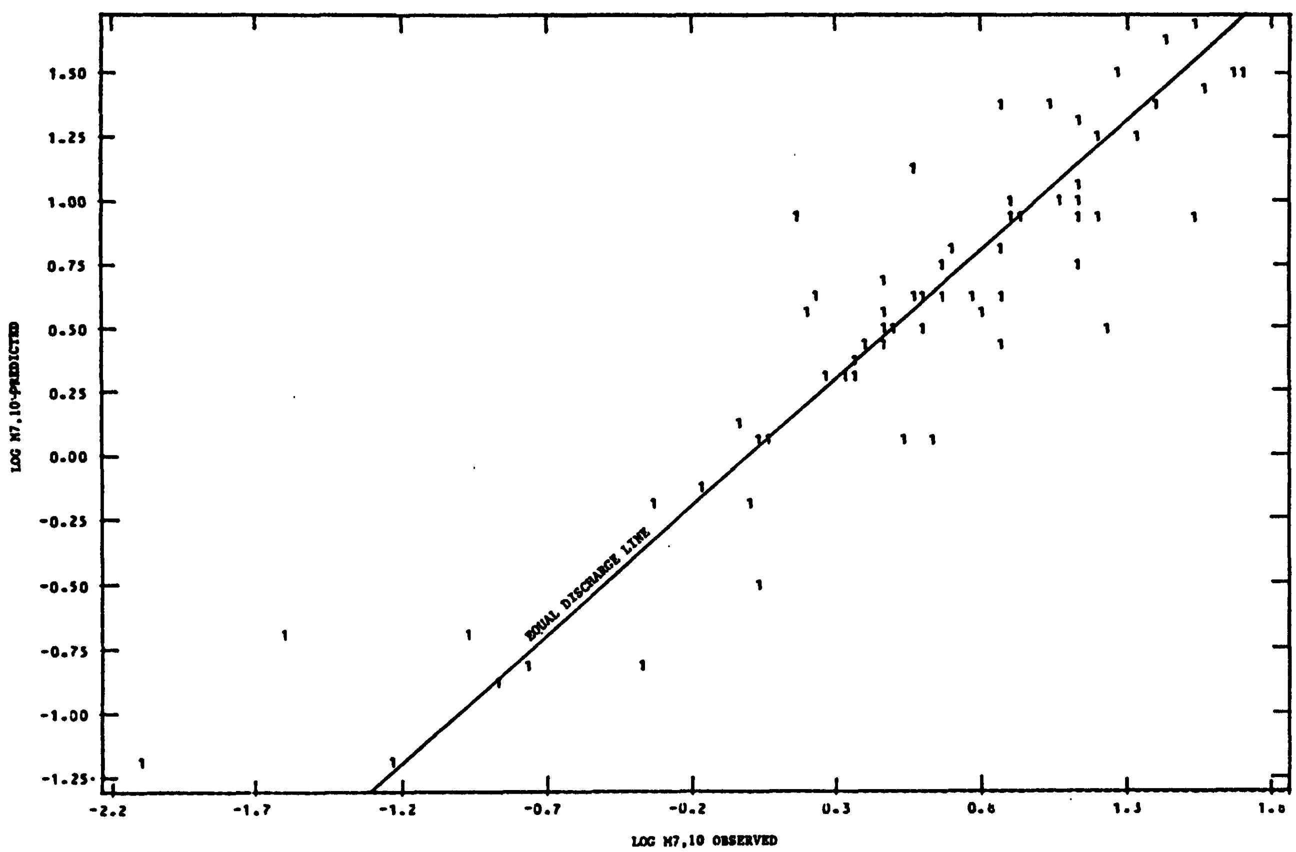


Figure 11.-- Logarithmic plot of observed versus predicted low-flow values in Region 1.



NOTE: 2 OBS HIDDEN



NOTE: 3 OBS HIDDEN

Figure 2.-- Logarithmic plot of observed versus predicted low-flow values in Region 2.

	Drainage area (mi^2)		$M7,2$ (ft^3/s)		$M7,10$ (ft^3/s)	
	low	high	low	high	low	high
Region 1	2.82	759	0.022	42.6	0.007	15.2
Region 2	1.80	862	.024	96.4	.008	52

It is common practice to consider discharge estimates that are less than 0.01 ft^3/s (cubic feet per second) to be zero flow and to round all discharge estimates to the nearest hundredth. Therefore, the estimating curves, figures 7-10, are truncated at 0.01 ft^3/s. Also, the estimating curves do not extend beyond the highest and lowest drainage areas used in their development.

The regression equations should not be used on streams where the flow is significantly affected by regulation or other human activities. Caution needs to be used in applying equations to streams where a significant amount of the low-flow discharge is contributed by large springs. Definition of the contributing drainage area, in such cases, is uncertain. Caution also needs to be used in applying the equations to streams where the basin is underlain primarily by limestone. Solution cavities in limestone can drastically alter the rate of flow within short reaches of the stream, as in limestone areas of the eastern part of the State where the streamflow-variability index can be less than 0.40. In some extensively mined areas in the southern part of the State, the index also is less than 0.40.

PROCEDURE FOR ESTIMATING 7-DAY LOW FLOW AT UNGAGED SITES

Examples of the use of regression equations and graphs developed in this report for estimating low flows for ungaged streams in West Virginia are demonstrated in the following computations. Accurate location of the site on figure 2 and determination of the regional streamflow-variability index for the entire site is important for the proper use of this model. The streamflow variability index for a given site is determined by the location of that site, not the average variability for the contributing drainage area of the basin. For example, the site has a drainage area of 15 mi^2 and, from figure 2, is located in Region 1 where the streamflow-variability index is 0.75. Estimates of M7,2 and M7,10 are computed in the following manner:

$$M7,2 = 0.0015(A)^{1.13}(V)^{-5.39}$$
$$M7,2 = 0.0015(15)^{1.13}(0.75)^{-5.39}$$
$$M7,2 = 0.0015(21.3)(4.71)$$
$$M7,2 = 0.15\ ft^3/s$$

$$M7,10 = 0.0003(A)^{1.00}(V)^{-7.70}$$
$$M7,10 = 0.0003(15)^{1.00}(.75)^{-7.70}$$
$$M7,10 = 0.0003(15)(9.16)$$
$$M7,10 = 0.04\ ft^3/s$$

Solutions for the preceding equations for estimating M7,2 and M7,10 low flows are presented graphically in figures 7 and 8, respectively, for Region 1. The dashed line and arrows on figures 7 and 8 indicate the path of the estimating technique. In figures 7 and 8, locate drainage area (15 mi^2) along the abscissa scale. Move upward to the appropriate variability-index curve of 0.75 (V=0.75). Extend the line horizontally to the ordinate scale to obtain the estimated value of discharge. The following results were obtained for this example:

from figure 7, M7,2 = 0.15 ft^3/s, and

from figure 8, M7,10 = 0.04 ft^3/s

SUMMARY

Low-flow characteristics of selected streams in West Virginia were determined at continuous- and partial-record sites. Daily discharges at 100 continuous-record gaging stations on unregulated streams were used to compute selected low-flow characteristics. Estimates of low-flow characteristics at 296 partial-record sites were computed by relating flows at those sites to concurrent flows at index (continuous) stations.

Regional equations derived from continuous-record low flows, drainage area, and a streamflow-variability index can be used to estimate minimum 7-day low flow at 2- and 10-year recurrence intervals for ungaged unregulated streams. The estimating procedure takes into account the integrated effects of geology and other hydrologic characteristics on low flow by using a streamflow-variability index. Values of this index are based on flow-duration curves from continuous-record streamflow gaging stations and geologic and other data.

The State is divided into two hydrologic regions, and equations are provided for each region. The standard error of estimate for the 7-day low flow at a 2-year recurrence interval is 43 percent for Region 1 and 57 percent for Region 2 and, for the 7-day 10-year low flows, the standard error of estimate is 82 percent for Region 1 and 83 percent for Region 2.

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Tables 1 and 2

Table 1.-Summary of basin and flow characteristics for selected continuous-record stream-gaging stations
[All stations in West Virginia unless noted; mi^2, square miles; ft^3/s, cubic feet per second; Md,n, low-flow characteristic; annual minimum "d"-day mean discharge for "n"-year recurrence interval; R, streamflow recession index in days per log cycle; V, streamflow variability index; P, average annual precipitation; Rgn, hydrologic region from Figure 2]

Map No.	Station number	Station name	Period of record	Hydro-logic unit	Drainage area (mi2)	Average discharge (ft3/s)	M7,2 (ft3/s)	M7,10 (ft3/s)	Elev (feet)	R	V	P (inches)	Rgn
001	01595000	North Branch Potomac River at Steyer, Md.	1956-83	02070002	73.0	172	10.7	4.2	2450	7	0.580	55	2
002	01595300	Abram Creek at Oakmont	1957-82	do	47.3	68.1	2.45	0.457	2670	15	0.560	38	2
003	01599500	New Creek near Keyser	1948-63	do	45.7	44.7	2.15	1.02	1830	10	0.574	38	2
004a	01604500	Patterson Creek near Headsville	1939-83	do	219	166	6.82	2.89	1280	30	0.565	37	2
005a	01605500	South Branch Potomac River at Franklin	1940-69, 1977-83	02070001	182	165	27.0	18.3	2940	82	0.379	41	2
006	01605600	Friends Run near Franklin	1969-77	do	4.55	3.56	0.056	0	3200	25	0.726	41	2
007	01606000	North Fork South Branch Potomac River at Cabins	1940-61, 1979-80	do	314	399	17.9	7.29	3120	34	0.536	40	2
008a	01606500	South Branch Potomac River near Petersburg	1929-83	do	642	709	77.6	52	2910	82	0.433	40	2
009a	01607500	South Fork South Branch Potomac River at Brandywine	1944-83	do	102	99.4	5.17	2.32	2470	37	0.522	41	2
010	01608000	South Fork South Branch Potomac River near Moorefield	1929-35, 1939-83	do	283	218	16.1	8.46	2180	35	0.477	40	2
011	01608050	Fort Run near Moorefield	1970-77	do	4.92	4.70	0	0	1900	14	0.872	37	2
012	01610500	Cacapon River at Yellow Spring	1940-51	02070003	306	257	27.4	21.3	2040	48	0.436	40	2
013	01611500	Cacapon River near Great Cacapon	1924-83	do	677	587	55.1	37.7	1700	54	0.463	41	2
014	01614000	Back Creek near Jones Springs	1939-75	02070004	243	198	8.46	3.73	890	31	0.570	39	2
015	01616500	Opequon Creek near Martinsburg	1948-83	do	272	227	52.6	34.1	630	84	0.320	40	2
016	01617000	Tuscarora Creek above Martinsburg	1949-63, 1968-77	do	11.3	11.1	2.36	1.05	740	240	0.380	37	2
017	03050000	Tygart Valley River near Dailey	1916-75	05020001	187	349	8.50	1.60	3110	22	0.582	60	2
018a	03050500	Tygart Valley River near Elkins	1945-83	do	272	510	13.9	1.69	2940	18	0.577	58	2
019a	03051000	Tygart Valley River at Belington	1908-83	do	408	810	25.4	4.81	2690	14	0.596	56	2
020	03051500	Middle Fork at Midvale	1916-42	do	122	281	6.30	1.20	2600	14	0.567	57	2
021	03052000	Middle Fork at Audra	1942-79	do	149	347	6.20	.900	2480	21	0.607	56	2
022a	03052500	Sand Run near Buckhannon	1947-83	do	14.5	26.8	.031	.8	1870	13	0.642	54	2
023a	03053500	Buckhannon River at Hall	1916-83	do	277	596	16.8	3.02	2110	25	0.558	56	2
024a	03058000	West Fork River at Brownsville	1947-83	05020002	102	167	2.09	.339	1340	20	0.718	49	1
025	03058500	West Fork River at Butcherville	1916-83	do	181	302	3.25	.649	1340	15	0.694	50	1
026	03059500	Elk Creek at Quiet Dell	1944-70	do	84.6	118	2.40	.600	1350	13	0.618	51	1
027	03060500	Salem Fork at Salem	1952-69	do	8.32	10.7	.041	0	1220	5	0.988	46	1
028	03061000	West Fork River at Enterprise	1908-16, 1933-83	do	759	1157	2.6	15.2	1260	13	0.577	49	1
029a	03061500	Buffalo Creek at Barrackville	1916-23, 1933-83	05020003	115	170	3.03	.792	1300	11	0.660	46	1
030a	03062400	Cobun Creek at Morgantown	1966-83	do	10.9	17.1	.083	0	1420	10	0.732	49	1
031	03062500	Deckers Creek at Morgantown	1947-69	do	63.2	99.0	2.60	1.03	1770	19	0.605	52	1
032	03063600	Horsecamp Run at Harman	1970-77	05020004	6.57	9.99	.216	.057	3230	13	0.599	38	2
033a	03065000	Dry Fork at Hendricks	1941-83	do	345	765	33.7	11.5	3310	20	0.500	45	2
034a	03066000	Blackwater River at Davis	1922-83	do	86.2	198	11.8	4.99	3250	20	0.430	49	2
035	03068000	Shavers Fork at Bemis	1923-25, 1974-79	do	73.0	172	26.4	15.4	3700	21	0.403	53	2

Table 1.-Summary of basin and flow characteristics for selected continuous-record stream-gaging stations--Cont.
[All stations in West Virginia unless noted; mi^2, square miles; ft^3/s, cubic feet per second; Md,n, low-flow characteristic; annual minimum "d"-day mean discharge for "n"-year recurrence interval; R, streamflow recession index in days per log cycle; V, streamflow variability index; P, average annual precipitation; Rgn, hydrologic region from Figure 2]

Map No.	Station number	Station name	Period of record	Hydro-logic unit	Drainage area (mi2)	Average discharge (ft3/s)	M7,2 (ft3/s)	M7,10 (ft3/s)	Elev (feet)	R	V	P (inches)	Rgn
036	03068610	Taylor Run at Bowden	1974-82	do	5.06	15.3	.950	.440	3250	20	0.430	52	2
037	03068800	Shavers Fork below Bowden	1974-81	do	151	436	38.6	25.4	3500	22	0.382	54	2
038	03069000	Shavers Fork at Parsons	1911-26, 1941-83	do	214	551	37.2	11.1	3300	22	0.440	53	2
039	03069880	Buffalo Creek near Rowlesburg	1968-77	do	12.2	30.1	.407	.135	2290	18	0.560	55	2
040a	03070500	Big Sandy Creek at Rockville	1910-17, 1922-83	do	200	419	12.3	24.2	2070	18	0.593	51	2
041a	03112000	Wheeling Creek at Elm Grove	1941-83	05030106	282	337	3.64	.643	1230	17	0.698	40	1
042	03113700	Little Grave Creek near Glendale	1970-77	do	4.97	6.50	.122	0	1200	13	0.584	43	1
043a	03114500	Middle Island Creek at Little	1929-83	05030201	458	663	4.30	.501	1060	12	0.748	45	1
044	03114650	Buffalo Run near Little	1970-77	do	4.21	5.86	.082	0	900	12	0.671	44	1
045a	03151400	Little Kanawha River near Wildcat	1975-83	05030203	112	233	5.30	2.70	1700	21	0.562	52	1
046	03151500	Little Kanawha River near Burnsville	1938-74	do	155	282	3.60	.500	1500	12	0.675	51	1
047	03152200	Buck Run near Leopold	1970-77	do	2.91	4.25	.027	.007	1090	8	0.740	45	1
048	03152500	Leading Creek near Glenville	1938-51	do	144	220	1.60	.200	1050	12	0.699	44	1
049	03153000	Steer Creek near Grantsville	1938-75	do	166	221	1.79	0	1110	12	0.810	44	1
050	03154000	West Fork Little Kanawha River at Rocksdale	1929-31, 1938-75	do	205	258	1.40	.200	1030	13	0.808	44	1
051	03154250	Tanner Run at Spencer	1970-77	do	2.82	3.96	.022	0	880	9	0.742	44	1
052	03154500	Reedy Creek near Reedy	1952-78	do	79.4	95.3	.314	0	910	12	0.853	44	1
053a	03155500	Hughes River at Cisko	1929-31, 1939-83	do	452	585	5.08	.735	990	15	0.752	44	1
054	03177000	Rich Creek near Peterstown	1942-50	05050002	50.6	36.8	2.70	1.90	2400	30	0.490	42	2
055	03177500	Indian Creek at Indian Mills	1942-50	do	189	128	6.40	3.00	2310	27	0.532	40	2
056	03178000	Bluestone River near Spanishburg	1945-52	do	199	218	17.0	7.90	2600	29	0.479	42	2
057	03178500	Camp Creek near Camp Creek	1947-71	do	32.0	43.3	.271	0	2710	8	0.772	49	2
058a	03179000	Bluestone River near Pipestem	1951-83	do	394	473	26.1	13.3	2570	37	0.522	45	2
059	03179500	Bluestone River at Lilly	1909-16, 1930-47	do	438	472	18.8	7.90	2560	31	0.568	45	2
060a	03180500	Greenbrier River at Durbin	1944-83	05050003	133	257	10.0	2.32	3620	22	0.535	44	2
061	03181200	Indian Draft near Marlinton	1969-77	do	3.06	5.37	.271	0	3240	28	0.636	43	2
062	03181500	Greenbrier River at Marlinton	1910-16	do	408	770	31.7	15.3	3200	20	0.525	43	2
063	03182000	Knapp Creek at Marlinton	1946-58	do	108	149	10.0	4.10	2910	21	0.514	42	2
064	03182500	Greenbrier River at Buckeye	1930-83	do	540	872	33.208	13.9	3180	18	0.549	43	2
065	03182700	Anthony Creek near Anthony	1972-82	do	137	216	9.20	6.40	2480	33	0.535	40	2
066	03182950	Howard Creek at Caldwell	1972-78	do	84.4	123	8.20	5.70	2340	32	0.477	39	2
067	03183000	Second Creek near Second Creek	1946-73	do	80.8	78.7	4.80	3.30	2630	30	0.524	38	2
068a	03185000	Piney Creek at Raleigh	1952-82	05050004	52.2	61.9	2.48	.696	2570	22	0.550	47	2
069a	03186500	Williams River at Dyer	1930-83	05050005	128	332	9.44	2.29	3410	18	0.542	60	2
070	03187000	Gauley River at Camden on Gauley	1910-16, 1930-75	do	236	576	19.5	3.92	3180	23	0.541	59	2
071	03187300	North Fork Cranberry River near Hillsboro	1969-82	do	9.78	31.5	1.97	1.12	3950	18	0.408	57	2
072a	03187500	Cranberry River near Richwood	1945-51, 1965-82	do	81.2	239	9.13	2.86	3270	18	0.486	60	2
073	03188500	Cherry River at Richwood	1909-16	do	85.0	235	14.8	7.34	3400	18	0.440	57	2
074	03189000	Cherry River at Fenwick	1930-69, 1979-82	do	150	412	7.38	1.44	3320	18	0.624	56	2

Table 1.-Summary of basin and flow characteristics for selected continuous-record stream-gaging stations--Cont.
[All stations in West Virginia unless noted; mi^2, square miles; ft^3/s, cubic feet per second; Md,n, low-flow characteristic; annual minimum "d"-day mean discharge for "n"-year recurrence interval; R, streamflow recession index in days per log cycle; V, streamflow variability index; P, average annual precipitation; Rgn, hydrologic region from Figure 2]

Map No.	Station number	Station name	Period of record	Hydro-logic unit	Drainage area (mi2)	Average discharge (ft3/s)	M7,2 (ft3/s)	M7,10 (ft3/s)	Elev (feet)	R	V	P (inches)	Rgn
075	03189500	Gauley River near Summersville	1909-16, 1929-65	do	680	1546	48.5	7.20	2960	18	0.557	57	2
076	03189650	Collison Creek near Nallen	1967-77	do	2.78	4.71	.053	0	2080	14	0.707	54	2
077	03190000	Meadow River at Nallen	1909-16, 1929-71	do	287	525	12.8	3.06	2880	19	0.629	49	2
078a	03190400	Meadow River near Mt. Lookout	1967-83	do	365	774	26.6	16.9	2700	25	0.513	50	2
079a	03191500	Peters Creek near Lockwood	1946-71, 1980-82	do	40.9	63.1	1.54	.107	1700	18	0.607	52	2
080	03193830	Gilmer Run near Marlinton	1969-77	05050007	1.80	3.96	.024	0	3690	8	0.740	46	2
081	03194000	Elk River at Webster Springs	1909-16	do	168	408	16.6	7.60	3100	18	0.530	57	2
082a	03194700	Elk River below Webster Springs	1960-83	do	266	702	34.5	13.7	3000	21	0.476	57	2
083	03195000	Elk River at Centralia	1935-63	do	281	665	20.4	4.50	2900	21	0.540	57	2
084	03195500	Elk River at Sutton	1938-60b	do	542	1098	29.9	3.80	2430	24	0.571	55	2
085	03195600	Granny Creek at Sutton	1968-77	do	6.98	9.62	.2	.073	1180	12	0.629	47	1
086a	03198500	Big Coal River at Ashford	1909-16, 1931-83	05050009	391	520	16.2	4.73	1750	19	0.600	51	2
087a	03199000	Little Coal River at Danville	1931-83	do	269	357	11.1	2.22	1630	17	0.609	48	2
088	03200500	Coal River at Tornado	1909-11, 1929-31, 1961-83	do	862	1250	96.7	13.3	1450	20	0.493	49	2
089	03201000	Pocatalico River at Sissonville	1909-16, 1937-80	05050008	238	296	1.00	.100	940	16	0.875	47	1
090	03201410	Poplar Fork at Teays	1968-78	do	8.71	13.1	.194	.066	820	12	0.602	40	1
091	03202400	Guyandotte River near Baileysville	1969-83	05070101	306	465	59.2	33.3	2080	15	0.398	45	2
092a	03202750	Clear Fork at Clear Fork	1975-83	do	126	204	11.9	7.10	1150	30	0.512	50	2
093	03203000	Guyandotte River at Man	1930-62	do	762	984	38.9	14.1	1950	27	0.586	46	2
094	03203600	Guyandotte River at Logan	1960-77b	do	833	1157	87.1	47.6	1900	28	0.480	47	2
095a	03204500	Mud River near Milton	1939-80	05070102	256	289	1.60	.200	950	15	0.819	45	1
096a	03206600	East Fork Twelvepole Creek near Dunlow	1965-83	05090102	38.5	55.3	.655	.026	1080	14	0.694	46	2
097	03207000	Twelvepole Creek at Wayne	1947-54, 1956-66	do	291	320	2.60	.300	1020	16	0.806	45	1
098	03207020	Twelvepole Creek below Wayne	1922-72b	do	300	353	5.90	1.70	1020	19	0.873	45	1
099	03213000	Tug Fork at Litwar	1930-83	05070201	504	557	51.8	28.0	2030	36	0.470	40	2
100a	03213500	Panther Creek near Panther	1947-83	do	31.0	36.6	.787	.165	1830	20	0.652	40	2

FOOTNOTES:
a Index site
b Period prior to regulation

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations
[All stations in West Virginia; Site no., explained in text; mi^2, square miles; ft^3/s, cubic feet per second; Md,n, low-flow characteristic; annual minimum "d"-day mean discharge for "n"-year recurrence interval]

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
201	A01.0	Roaring Creek at Highway 5/1 Bridge at Onego	385122 0792456	02070001	13.7	0.12	0.04
202	A02.0	Jordan Run at Highway 28/7 Bridge at Hopeville Gap	385908 0791559	do	19.9	.66	.32
203	A04.0	South Fork Lunice Creek at Highway 42 Bridge at Arthur	390406 0790730	do	24.1	.01	.0
204	A05.0	North Fork Lunice Creek at Highway 5/9 near Arthur	390523 0790807	do	26.0	2.3	1.2
205	B02.0	Abram Creek at Highway 50 Bridge near Mount Storm	391843 0791242	02070002	21.8	.44	.12
206	B04.0	New Creek at Highway 7 Bridge at New Creek	392341 0790044	do	40.6	3.8	2.1
207	C01.0	Tygart Valley River at Highway 15 Bridge at Valley Head	383309 0800215	05020001	38.2	8.2	2.8
208	C02.0	Becky Creek at Highway 56 Bridge near Huttonsville	383936 0795853	do	13.2	1.3	.39
209	C03.0	Mill Creek at Highway 46 Bridge at Mill Creek	384401 0795849	do	16.1	4.4	1.4
210	C04.0	Files Creek at Highway 219 Bridge at Beverly	385015 0795233	do	20.8	.86	.14
211	C05.0	Chenoweth Creek at Highway 23 Bridge at airport at Elkins	385342 0795124	do	18.9	.68	.10
212	C06.0	Leading Creek at Highway 3 Bridge near Kerns	390134 0794911	do	18.1	.92	.18
213	C07.0	Leading Creek at Highway 219 Bridge at Elkins	385646 0795124	do	47.7	1.5	.22
214	C08.0	Roaring Creek at Highway 21/1 Bridge at Norton	385605 0795700	do	29.0	1.2	.14
215	C09.0	Middle Fork River at Highway 35 Bridge at Cassity	384905 0800241	do	41.3	2.1	.29
216	C10.0	Cassity Fork at Highway 35 Bridge at Cassity	384933 0800206	do	15.7	.63	.09
217	C11.0	Right Fork at Highway 28/1 Bridge near Kedron	385346 0800652	do	30.0	.06	.0
218	C12.0	Right Fork Buckhannon River at Highway 48 Bridge at Newlonton	384440 0801409	do	25.4	1.0	.13
219	C13.0	Left Fork of Right Fork Buckhannon River at Highway 76 Bridge at Czar	384352 0800848	do	15.4	.32	.04
220	C14.0	Left Fork Buckhannon River at Highway 9 Bridge at Palace Valley	384517 0800930	do	27.4	1.9	.32
221	C15.0	Laurel Fork at Highway 20/10 Bridge near Adrian	385232 0801552	do	11.7	.88	.19
222	C16.0	French Creek at Highway 20 Bridge at French Creek	385307 0801753	do	14.5	.06	.0
223	C17.0	Fink Run at Highway 119 Bridge at Buckhannon	385946 0801421	do	14.6	.58	.10
224	C19.0	Sand Run at Highway 3/2 Bridge near mouth	390020 0800835	do	18.2	.31	.03
225	C20.0	Pecks Run at Highway 1/13 Bridge at Teter	390334 0800918	do	10.4	.44	.09
226	C21.0	Little Laurel Run at Highway 30 Bridge at South Phillipi	390723 0800231	do	3.82	.01	.0
227	C23.0	Laurel Creek at Highway 24 Bridge near Arden	391100 0795831	do	49.4	.80	.11
228	C24.0	Teter Creek at Highway 92 Bridge near Nestorville	391212 0795453	do	40.7	.38	.04
229	C26.0	Little Sandy Creek at Highway 92/14 Bridge at Evansville	391958 0795207	do	25.4	1.4	.27
230	C27.0	Three Fork Creek at Highway 33 Bridge near Gladesville	392617 0795055	do	40.8	1.7	.22
231	D01.0	West Fork River at Highway 44 Bridge at Walkersville	385207 0802729	05020002	29.0	.21	.02
232	D02.0	West Fork River at Highway 19 Bridge at Roanoke	385603 0802940	do	54.9	.52	.05
233	D03.0	Skin Creek at Highway 30/12 Bridge near Vandalia	385633 0802523	do	10.9	.11	.02
234	D04.0	Skin Creek at Highway 30/3 Bridge near Brownsville	385925 0802832	do	32.0	.53	.08
235	D07.0	Polk Creek at Highway 33 Bridge near Weston	390253 0802838	do	11.0	.56	.11

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
236	D08.0	Freemans Creek at Bridge at Valley Chapel	390627 0802940	do	22.4	.60	.10
237	D09.0	Kincheloe Creek at Bridge near Valley Chapel	390855 0802955	do	16.6	.67	.13
238	D11.0	Lost Creek at Highway 27/2 Bridge at Lost Creek	391000 0802207	do	13.1	.49	.09
239	D12.0	Gnatty Creek at Highway 20/20 Bridge at Romines Mills	390947 0801542	do	32.7	5.3	1.8
240	D13.0	Elk Creek at Highway 57/2 Bridge near Romines Mills	391023 0801405	do	32.7	3.1	.86
241	D14.0	Brushy Fork at Highway 42 Bridge near Stonewood	391353 0801720	do	20.2	1.2	.26
242	D15.0	Simpson Creek at Highway 13/13 Bridge at Rosemont	391605 0800947	do	33.4	9.9	4.7
243	D16.0	Simpson Creek at Highway 24/1 Bridge near Bridgeport	391842 0801701	do	65.5	13	5.1
244	D17.0	Tenmile Creek at Highway 31 Bridge at Maken	391632 0802920	do	15.9	.19	.03
245	D18.0	Salem Creek at Highway 5/9 Bridge near Maken	391817 0802915	do	16.4	.56	.13
246	D19.0	Little Tenmile Creek at Highway 20 Bridge at Rosebud	392203 0802437	do	25.6	1.5	.40
247	D21.0	Bingamon Creek at Highway 8 Bridge at Pine Bluff	392457 0801929	do	32.3	4.5	1.8
248	D22.0	Corbin Branch at Highway 1/1 Bridge at Santiago	392212 0801203	do	8.47	.04	.0
249	D23.0	Thomas Fork at Highway 73/73 Bridge at Santiago	392149 0801231	do	4.50	.28	.11
250	D24.0	Hustead Fork at Highway 3/16 Bridge at Boothsville	392335 0801148	do	16.8	.50	.09
251	E01.0	Buffalo Creek at Highway 1/10 Bridge at Deep Valley	393114 0802320	05020003	29.5	.12	.02
252	E02.0	Pyles Fork at Highway 250/5 Bridge near Metz	393320 0802122	do	18.5	.11	.02
253	E04.0	Paw Paw Creek at Highway 17 Bridge at Grant Town	393308 0801003	do	28.6	.66	.15
254	E05.0	Little Paw Paw Creek at Highway 25 Bridge at Hoodsville	393423 0800913	do	7.41	.09	.02
255	E06.0	Pricketts Creek at Highway 73 Bridge at Meadowdale	392947 0800541	do	22.0	.44	.10
256	E07.0	Indian Creek at Highway 45/2 Bridge at Osgood	393408 0800450	do	19.7	3.9	1.8
257	E08.0	Whiteday Creek at Highway 36 Bridge near Smithtown	393250 0800234	do	31.1	.33	.05
258	E09.0	Deckers Creek at Highway 27 Bridge at Reedsville	393059 0794837	do	13.7	.86	.20
259	F01.0	Shavers Fork at Highway 250 Bridge at Cheat Bridge	383702 0795213	05020004	60.3	30	14
260	F04.0	Laurel Fork at Highway 33 Bridge at Wymer	385303 0793558	do	46.4	.42	.08
261	F05.0	Dry Fork downstream Stinking Run at Job	385152 0793328	do	61.0	.21	.03
262	F06.0	Red Creek at Highway 32 Bridge at Dryfork	385835 0792936	do	60.9	11.6	4.8
263	F07.0	Blackwater River at Highway 32 Bridge at Canaan Valley State Park	390212 0792642	do	10.0	2.3	1.2
264	F08.0	Beaver Creek at Highway 93 Bridge near Davis	390856 0792618	do	20.2	1.3	.54
265	F09.0	North Fork Blackwater River at Highway 27 Bridge at Coketon	390820 0793040	do	13.6	1.4	.61
266	F10.0	Horseshoe Run at Highway 9 Bridge at Lead Mine	391108 0793542	do	36.9	1.2	.42
267	F12.0	Clover run at Highway 21 Bridge at St. George	390853 0794248	do	28.6	.51	.16
268	F14.0	Saltlick Creek at Railroad Bridge at Rowelsburg	392105 0793948	do	34.6	1.0	.33
269	F15.0	Muddy Creek at Highway 3 Bridge near Cuzzart	393518 0793556	do	15.2	.98	.18
270	F16.0	Muddy Creek at Highway 26/23 Bridge at Ruthbelle	393052 0793842	do	33.2	2.6	.53
271	F17.0	Big Sandy Creek at Highway 4 Bridge at Clifton Mills	394149 0793708	do	89.2	5.6	1.0
272	F18.0	Glade run at Highway 8 Bridge at Brandonville	394036 0793735	do	4.94	.34	.07
273	F19.0	Little Sandy Creek at Highway 3/4 Bridge near Brandonville	393838 0793612	do	29.0	1.2	.19
274	F20.0	Beaver Creek at Highway 3/4 Bridge near Brandonville	393736 0793558	do	12.3	.57	.09
275	F21.0	Laurel Run at Highway 73/73 Bridge near Laurel Run	393903 0794320	do	20.2	1.4	.26

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
276	G01.0	West Virginia Fork at Highway 7 Bridge at Wanna	394208 0801802	05020005	24.0	.14	.03
277	G02.0	Miracle Run at Highway 7 Bridge at Bula	394212 0801527	do	20.5	.12	.03
278	G03.0	Dolls Run at Highway 7 Bridge near Core	394227 0800657	do	11.0	.11	.03
279	H01.0	Maple Run at Highway 24/1 Bridge near Eglon	391752 0792930	05020006	7.10	1.1	.39
280	H02.0	Rhine Creek at Highway 108 Bridge at Brookside	391952 0793033	do	7.70	1.1	.46
281	H03.0	Laurel run at Highway 94/2 Bridge at Turner Douglas	392258 0792931	do	9.41	1.3	.51
282	H04.0	Snowy Creek at Highway 98 Bridge at Corinth	392512 0792941	do	19.0	5.2	2.4
283	I01.0	Tomlinson Run at Highway 3 Bridge in Tomlinson Run State Park	403253 0803546	05030101	23.4	.84	.42
284	I02.0	Kings Creek at Highway 11/5 Bridge at Weirton	402608 0803534	do	49.0	2.9	1.6
285	I03.0	Harmon Creek at Highway 1 Bridge at Weirton	402333 0803407	do	32.3	5.9	3.7
286	I04.0	Cross Creek at Highway 7/6 Bridge at Louise	401823 0803357	do	70.6	8.1	4.6
287	J01.0	Buffalo Creek at Highway 27/4 Bridge at McKinleyville	401436 0803550	05030106	53.3	8.0	2.3
288	J02.0	Short Creek at Highway 1 Bridge near Clearview	400908 0803859	do	16.5	.41	.07
289	J03.0	Wheeling Creek at Highway 7 Bridge at Viola	395744 0803529	do	181	1.4	.20
290	J04.0	Little Wheeling Creek at U.S. Highway 40 Bridge at Triadelphia	400326 0803710	do	19.8	.30	.06
291	J05.0	Middle Wheeling Creek 1/4 mi upstream I-70 Bridge at Triadelphia	400235 0803736	do	33.8	.48	.09
292	J07.0	Little Grave Creek at Highway 10 Bridge at Glendale Heights	395717 0804035	do	10.7	.71	.21
293	J08.0	Grave Creek at Highway 62 Bridge at Loudenville	395005 0803602	do	7.50	.13	.03
294	J09.0	Middle Grave Creek at Highway 54 Bridge at Moundsville	395447 0804342	do	28.4	.51	.11
295	J10.0	Pennsylvania Fork Fish Creek at U.S. Highway 250 Bridge at Bellton	394533 0803348	do	43.3	.95	.22
296	J11.0	West Virginia Fork Fish Creek at Highway 89 Bridge at Bannen	394403 0803450	do	86.4	1.5	.34
297	J12.0	Whetstone Creek at Highway 74/1 Bridge near Meighen	394713 0804458	do	15.0	.16	.03
298	K01.0	South Fork Fishing Creek at Highway 82 Bridge at Jacksonburg	393156 0803833	05030201	62.8	.20	.02
299	K02.0	North Fork Fishing Creek at Highway 15/2 Bridge at Kingston	393405 0803458	do	10.1	.04	.0
300	K04.0	Piney Fork at Highway 56/1 Bridge at Piney	393057 0804140	do	10.3	.02	.0
301	K05.0	Little Fishing Creek at Highway 38 Bridge at Childs	393618 0804619	do	34.7	.16	.02
302	K06.0	Meathouse Fork at Highway 56 Bridge near Avon	391231 0804030	do	29.8	.21	.04
303	K07.0	Toms Fork at Bridge at Market	391220 0804212	do	12.8	.01	.0
304	K08.0	Buckeye Creek at Highway 50/30 Bridge at Smithburg	391705 0804324	do	38.7	.05	.0
305	K09.0	Arnold Creek at Highway 11 Bridge at Central Station	391745 0804918	do	20.6	.0	.0
306	K10.0	McElroy Creek at Highway 12 Bridge near Ashley	392338 0804221	do	57.2	.07	.01
307	K11.0	Flint Run at Highway 3 Bridge near Canton	392312 0804357	do	19.5	.01	.0
308	K12.0	Indian Creek at Highway 55/2 Bridge at Big Moses	392556 0804707	do	24.0	.02	.0
309	K13.0	Pt. Pleasant Creek at Highway 11/6 Bridge at Kidwell	393225 0805319	do	22.5	.03	.0
310	K14.0	Elk Fork at Highway 11 Bridge at Kidwell	393210 0805306	do	21.1	.06	.0
311	K15.0	Sancho Creek at Highway 7 Bridge near Sancho	392634 0805447	do	13.1	.0	.0
312	K17.0	Sugar Creek at Highway 3/8 Bridge at Shawnee	392339 0810337	do	17.8	.0	.0
313	K18.0	McKim Creek at Highway 30 Bridge near Pine Grove Church	392145 0810328	do	16.4	.0	.0
314	K19.0	Left Fork French Creek at Highway 22 Bridge at Calcutta	392053 0811118	do	8.96	.0	.0
315	L01.0	Oldtown Creek at Highway 13 Bridge at McClintic Wells	385347 0820440	05030202	35.2	.33	.06

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
316	L02.0	Tenmile Creek at Highway 8 Bridge at Lakin	385728 0820424	do	9.19	.12	.04
317	M01.0	Little Kanawha River at Highway 20 Bridge at Arlington	384759 0802038	05030203	31.7	.86	.39
318	M02.0	Right Fork Little Kanawha River at Highway 20 Bridge at Cleveland	384348 0802317	do	21.8	.63	.29
319	M04.0	Falls Run at Highway 24/1 Bridge at Falls Mill	384628 0803257	do	10.3	.08	.04
320	M05.0	Saltlick Creek at upstream side U.S. Highway 19 Bridge at Saltlick Bridge	384607 0803659	do	22.3	.14	.05
321	M06.0	Oil Creek at Private Bridge at Burnsville	385149 0803855	do	29.3	.29	.12
322	M07.0	Sand Fork at Highway 11 Bridge near Donlan	385641 0804112	do	40.6	.97	.48
323	M08.0	Indian Fork at Highway 36 Bridge at Blackburn	385530 0804036	do	14.5	.08	.03
324	M09.0	Stewart Creek at Highway 119 Bridge at Baldwin	385737 0804555	do	3.33	.06	.03
325	M10.0	Leading Creek at Highway 119/3 Bridge at Pickle Street	390105 0804141	do	22.1	.56	.26
326	M11.0	Fink Creek at Highway 11 Bridge at Hurst	390506 0804219	do	26.0	.13	.04
327	M12.0	Cove Creek at Private Bridge at Conings	390520 0804550	do	9.36	.10	.04
328	M13.0	Bear Fork at Highway 8 Bridge near Conings	390522 0804655	do	4.88	.43	.24
329	M14.0	Horn Creek at Highway 47 Bridge at Coxs Mills	390234 0804928	do	5.26	.05	.02
330	M15.0	Coxcamp Fork at Highway 47 Bridge at Coxs Mills	390247 0804922	do	2.83	.04	.02
331	M16.0	Perkins Fork at Highway 19/26 Bridge at Exchange	384608 0804433	do	12.4	.11	.05
332	M17.0	Cedar Creek at Railroad Bridge at mouth at Exchange	384627 0804447	do	10.1	.14	.07
333	M18.0	Tanner Creek at Highway 20 Bridge at Tanner	385852 0805658	do	12.4	.09	.03
334	M19.0	Right Fork Steer Creek at Highway 9 Bridge near Rosedale	384322 0805558	do	30.7	.16	.06
335	M20.0	Crooked Fork at Highway 52/4 Bridge at Perkins	384657 0805546	do	11.5	.04	.01
336	M21.0	Left Fork Steer Creek at Highway 7/1 Bridge near Chapel	384722 0805049	do	15.3	.42	.23
337	M22.0	Left Fork Steer Creek at Highway 119/21 Bridge at Lockney	385102 0805748	do	42.6	.60	.24
338	M23.0	Yellow Creek at Highway 4/8 Bridge at Ayers	385842 0810559	do	7.87	.02	.0
339	M24.0	Left Fork at Highway 11/3 Bridge at Euclid	384359 0810240	do	20.1	.15	.02
340	M25.0	West Fork Little Kanawha River at Highway 16 Bridge at Minnora	384234 0810558	do	30.6	.05	.0
341	M26.0	Beech Fork at Highway 13 Bridge at Milo	384328 0810858	do	14.6	.04	.0
342	M27.0	Henry Fork at Highway 25 Bridge at Linden	384310 0811240	do	23.5	.08	.01
343	M28.0	Spring Creek at Highway 33 Bridge at Spencer	384803 0812058	do	39.4	.79	.21
344	M30.0	South Fork Hughes River at Highway 52 Bridge at Oxford	391215 0805153	do	13.7	.36	.07
345	M31.0	Middle Fork at Highway 22/3 Bridge near Holbrook	390855 0805027	do	12.8	.05	.0
346	M32.0	Bone Creek at Highway 7/14 Bridge near Berea	390638 0805654	do	17.8	.09	.01
347	M33.0	Spruce Creek at Highway 19/4 Bridge near Hazelgreen	390436 0810044	do	20.1	.04	.0
348	M34.0	Leatherbark Creek at Highway 16 Bridge at Smithville	390333 0810535	do	17.8	.03	.0
349	M35.0	Indian Creek at Highway 16 Bridge at Washburn	390821 0810317	do	15.0	.02	.0
350	M36.0	North Fork Hughes River at Highway 50/40 Bridge at Toll Gate	391629 0805553	do	23.0	.04	.0
351	M37.0	Bonds Creek at Highway 1 Bridge at Highland	391808 0810303	do	11.5	.03	.0
352	N01.0	Bluestone River at Highway 52 Bridge at Bramwell	371948 0811813	05050002	113	10	5.9
353	N02.0	Widemouth Creek at Highway 71/3 Bridge near Rock	372239 0811355	do	23.5	3.2	1.9
354	N03.0	Rich Creek at Highway 12/7 Bridge near Spanishburg	372630 0810808	do	22.3	.85	.42
355	N04.0	Mash Fork upstream Camp Creek near Camp Creek	373012 0810806	do	12.5	.33	.14

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
356	N05.0	Camp Creek at Bridge upstream Mash Fork near Camp Creek	373017 0810802	do	18.8	.39	.15
357	N07.0	Little Bluestone River at Highway 27 Bridge near Jumping Branch	373628 0805913	do	26.4	.19	.07
358	P01.0	West Fork Greenbrier River at Railroad Bridge near Wildell	383827 0794822	05050003	20.4	1.6	.29
359	P02.0	Little River at Highway 44 Bridge at mouth near Wildell	383659 0794824	do	19.5	1.2	.24
360	P03.0	Deer Creek at Highway 28/4 Bridge at Arbovale	382637 0794947	do	24.1	.04	.0
361	P04.0	Robbins Run at Highway 5 Bridge at Oscar	380328 0802125	do	11.1	.0	.0
362	P05.0	Spring Creek at Highway 5 Bridge at Leonard	380446 0802425	do	11.4	.08	.01
363	Q01.0	Laurel Creek at Willis Bridge near Sandstone	374542 0805135	05050004	14.4	.44	.12
364	Q03.0	Meadow Creek at Highway 7/1 Bridge at Claypool	375008 0805223	do	18.2	1.0	.63
365	Q04.0	Glade Creek at Highway 31 Bridge at Cool Ridge	373917 0810458	do	14.1	2.8	2.2
366	Q06.0	Piney Creek at Highway 25 Bridge near Crab Orchard	374237 0811140	do	24.5	3.4	2.2
367	Q08.0	Glade Creek at Highway 41/18 Bridge at Babcock State Park	375845 0805648	do	33.9	5.0	2.4
368	R01.0	Williams River at Highway 135 Bridge near Handley Public Hunting Area	382027 0801358	05050005	51.6	2.7	.96
369	R03.0	Gauley River at Highway 42 Bridge at Jerryville	382517 0801815	do	27.8	4.8	1.6
370	R04.0	Gauley River at Highway 46 Bridge at Williams River	382314 0803111	do	75.3	7.9	2.2
371	R07.0	North Fork Cherry River at Highway 39 Bridge	381312 0802343	do	11.8	1.0	.24
372	R08.0	North Fork Cherry River at Highway 38/17 Bridge in Richwood	381347 0803129	do	36.4	1.9	.42
373	R10.0	Laurel Creek at Highway 39/26 Bridge at Fenwick	381315 0803527	do	41.6	6.1	2.1
374	R13.0	Brushy Fork at Highway 19 Bridge at Hookerville	382308 0804829	do	7.57	.07	.03
375	R14.0	Muddlety Creek at Highway 41 Bridge at Summersville	381839 0805009	do	51.0	2.1	1.2
376	R16.0	Meadow River at Highway 60/32 Bridge near Meadow Bluff	375449 0804026	do	28.1	.0	.0
377	R17.0	Little Clear Creek at Highway 8 Bridge near Crawley	375826 0803832	do	21.0	.46	.22
378	R18.0	Big Clear Creek at Highway 1/2 Bridge at Kessler	375911 0804005	do	47.1	5.5	3.4
379	R21.0	Anglins Creek at Highway 41 Bridge near Pool	380818 0805308	do	33.0	1.3	.76
380	R25.0	Bells Creek at Highway 16 Bridge at Dixie	381457 0811134	do	31.6	1.0	.71
381	R26.0	Twentymile Creek at Highway 16/3 Bridge at Belva	381413 0811109	do	85.2	2.6	1.8
382	S01.0	Loop Creek at Highway 61 Bridge at Robson	380607 0811453	05050006	42.8	3.0	1.6
383	S02.0	Armstrong Creek at Highway 61 Bridge at Mt. Carbon	380840 0811734	do	22.8	1.6	.85
384	S03.0	Paint Creek at Highway 23 Bridge at Willis Branch	375339 0811548	do	26.7	1.9	1.1
385	S04.0	Packs Branch at Highway 27 Bridge at Packs Branch	375415 0811428	do	4.61	.26	.10
386	S05.0	Paint Creek at Railroad Bridge at Mahan	380107 0812111	do	83.0	5.3	3.3
387	S06.0	Kellys Creek at Highway 81/12 Bridge at Cedar Grove	381313 0812537	do	24.1	1.2	.58
388	S07.0	Fifteenmile Fork at Highway 76/1 Bridge near Decota	380012 0812528	do	4.53	1.3	.67
389	S08.0	Cabin Creek at Railroad Bridge at Decota	380101 0812510	do	5.77	1.4	.73
390	S09.0	Cabin Creek at Highway 79 Bridge at Dry Branch	381056 0812808	do	70.8	8.4	4.8
391	S10.0	Campbells Creek at Highway 73 Bridge downstream Coal Fork	381854 0813204	do	32.6	.51	.20
392	T01.0	Old Field Fork at Highway 219/1 Bridge near Slatyfork	382322 0800742	05050007	22.9	.03	.0
393	T02.0	Big Spring Fork at Highway 219 at Slatyfork	382458 0800709	do	21.1	.0	.0
394	T03.0	Leatherwood Creek at Highway 26/4 Bridge at Bergoo	382902 0801759	do	19.2	1.4	.42
395	T04.0	Little Sugar Creek at Highway 18/3 near Skelt	383412 0801822	do	7.29	.59	.22

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
396	T05.0	Sugar Creek upstream from Little Sugar Creek near Skelt	383410 0801820	do	13.9	1.7	.70
397	T07.0	Laurel Creek at Highway 9 Bridge at Erbacon	383108 0803519	do	36.5	.96	.45
398	T08.0	Grassy Creek at Highway 20 Bridge at Diana	383336 0802706	do	19.4	.30	.12
399	T10.0	Left Fork Holly River downstream Fall Run near Hacker Valley	383804 0801922	do	12.1	.86	.47
400	T11.0	Laurel Fork at Highway 3 at Hacker Valley	383912 0802253	do	11.5	.66	.35
401	T13.0	Birch River at Highway 44 Bridge at Boggs	382811 0803833	do	16.3	.67	.36
402	T14.0	Little Birch River at Highway 40/15 Bridge near Little Birch	383444 0804404	do	27.2	.44	.20
403	T16.0	Strange Creek at Highway 40 near Strange Creek	383333 0805340	do	27.6	.65	.30
404	T17.0	Groves Creek at Railroad Bridge at Groves	383323 0805740	do	13.8	.76	.37
405	T18.0	Robinson Fork at Highway 15/4 Bridge near Enoch	382650 0805525	do	16.6	.31	.10
406	T19.0	Buffalo Creek at Railroad Bridge 1000 feet upstream from Robinson Fork	382700 0805523	do	22.4	2.0	.98
407	T20.0	Buffalo Creek at Highway 11/9 Bridge at Clay	382716 0810401	do	114	2.6	1.1
408	T21.0	Middle Creek at Highway 16 Bridge upstream from Hartland	382417 0810640	do	7.58	.04	.01
409	T22.0	Sycamore Creek downstream Charley Branch near Indore	382308 0810919	do	27.1	.26	.09
410	T24.0	Big Sandy Creek downstream Little Blue Creek near Clendenin	383137 0811855	do	93.4	.25	.04
411	T25.0	Falling Rock Creek at Highway 58 at Falling Rock	382737 0812325	do	24.6	.10	.01
412	T26.0	Blue Creek at Highway 57 Bridge at Sanderson	382145 0812152	do	50.1	1.2	.50
413	T27.0	Blue Creek at Private Bridge near Blue Creek	382616 0812641	do	78.0	1.8	.76
414	T28.0	Lefthand Creek at Highway 119/3 Bridge near Clendenin	383150 0812024	do	27.8	.0	.0
415	T29.0	Little Sandy Creek at Highway 39 at Wills	382747 0813000	do	28.2	.09	.03
416	U01.0	Davis Creek at Highway 23 at Kanawha State Forest	381653 0813832	05050008	7.09	.04	.01
417	U02.0	Davis Creek upstream from Trace Fork at Davis Creek	382032 0814234	do	35.8	.50	.14
418	U03.0	Pocatalico River at Highway 119 Bridge at Walton	383817 0812407	do	54.2	.0	.0
419	U04.0	Flat Fork at Highway 32 Bridge at Ryan	383832 0812823	do	25.7	.0	.0
420	U05.0	Pocatalico Creek at Highway 21 Bridge near Romance	383333 0813805	do	32.7	.08	.01
421	U06.0	Middle Fork at Highway 42 Bridge near Romance	383328 0813732	do	29.2	.05	.01
422	U08.0	Frog Creek at Highway 30 Bridge near Camp Virgil Tate	383058 0814238	do	9.96	.0	.0
423	U10.0	Hurricane Creek at Highway 48 Bridge near Hurricane	382442 0815935	do	9.11	.0	.0
424	U11.0	Eighteenmile Creek at Highway 5 Bridge near Paradise	383741 0814834	do	20.4	.0	.0
425	U12.0	Cherry Fork at Highway 5/3 Bridge near Paradise	383722 0814850	do	14.0	.0	.0
426	U13.0	Eighteenmile Creek at Highway 6 Bridge at White Star School	383718 0815428	do	64.7	.0	.0
427	U14.0	Poplar Fork at Highway 35/10 Bridge at Capehart	384247 0815254	do	28.8	.0	.0
428	U15.0	Mudlick Fork at Highway 35/10 Bridge at Elmwood	384142 0815111	do	15.9	.0	.0
429	V01.0	Marsh Fork at Highway 99 Bridge at Fairdale	374645 0812218	05050009	32.0	2.0	.74
430	V02.0	Sandlick Creek at Highway 3/9 Bridge near Arnett	374928 0812452	do	19.9	.72	.29
431	V03.0	Marsh Fork at Highway 1 Bridge at Whitesville	375809 0813158	do	162	6.2	2.1
432	V04.0	Clear Fork at Highway 1/21 Bridge at Leevale	375758 0813128	do	63.2	2.2	.72
433	V05.0	Hopkins Fork at Highway 5 Bridge near Hopkins Fork	380350 0813715	do	23.6	1.1	.35
434	V06.0	Laurel Creek at Highway 5 Bridge at Hopkins Fork	380433 0813820	do	15.9	.26	.01
435	V06.5	Laurel Creek below Hopkins Fork at Hopkins Fork	380516 0813821	do	41.3	.09	.01

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
436	V06.6	Sandlick Creek at Hopkins Fork	380536 0813823	do	6.23	.0	.0
437	V08.0	Fork Creek at Highway 2/2 near Emmons	381227 0814636	do	10.6	.14	.04
438	V09.0	Brier Creek at Highway 18 Bridge at Brounland	381422 0814617	do	15.8	.20	.05
439	V11.0	Spruce Fork at Highway 17 Bridge at Five Block	375340 0814926	do	25.6	2.9	.93
440	V12.0	Spruce Laurel Fork at Railroad Bridge at Clothier	375645 0814823	do	31.8	.25	.03
441	V13.0	Hewitt Creek at Private Bridge at Jeffrey	375814 0814933	do	18.9	.22	.03
442	V14.0	Pond Fork at Highway 85 Bridge near Rock Lick	374955 0813753	do	18.0	2.0	.59
443	V15.0	Pond Fork at Bridge at Bob White	375715 0814310	do	58.3	3.5	.98
444	V16.0	West Fork at Railroad Bridge at Van	375820 0814238	do	42.7	3.7	1.6
445	V18.0	Big Horse Creek at Highway 3 Bridge at Altman	380952 0815208	do	28.4	.26	.04
446	W01.0	Winding Gulf at Highway 16/18 Bridge at Helen	373809 0811851	05070101	18.9	5.2	3.9
447	W02.0	Stonecoal Creek at Highway 33 Bridge at Stonecoal	373609 0811918	do	33.1	14	11
448	W03.0	Devils Fork at Highway 35 Bridge at Amigo	373549 0811914	do	23.1	.54	.26
449	W04.0	Slab Fork at Highway 54 Bridge at Mullens	373601 0812245	do	32.7	2.2	1.1
450	W05.0	Barkers Cree k at Bridge in Tralee	373322 0812403	do	36.4	7.0	4.6
451	W06.0	Pinnacle Creek at Highway 16 Bridge near Pineville	373406 0813158	do	56.9	.68	.30
452	W07.0	Rockcastle Creek at Highway 97 Bridge at Pineville	373509 0813155	do	13.4	.33	.18
453	W10.0	Clear Fork at Private Bridge at Toney Fork	374246 0813531	do	24.2	3.9	2.6
454	W10.5	Toney Fork at Highway 2 Bridge at Toney Fork	374246 0813549	do	8.88	.28	.13
455	W11.0	Laurel Fork at Highway 5 Bridge at Ravencliff	374122 0812903	do	19.2	.56	.26
456	W12.0	Laurel Fork at Highway 9/9 Bridge at Matheny	374001 0813605	do	52.8	6.2	3.9
457	W14.0	Big Cub Creek at Railroad Bridge near Guyan	373702 0814724	do	16.6	.99	.64
458	W15.0	Little Huff Creek at Highway 52 Bridge near Justice	373539 0814943	do	40.9	2.6	1.4
459	W16.0	Gilbert Creek at Bridge to High School at Gilbert	373707 0815254	do	26.7	1.8	1.0
460	W17.0	Huff Creek at Private Bridge at Campus	374346 0814326	do	27.3	1.3	.68
461	W18.0	Huff Creek at Highway 10/10 Bridge at Mallory	374350 0815016	do	45.7	2.6	1.3
462	W19.0	Buffalo Creek at Highway 16 Bypass Bridge at Crites	374755 0814548	do	21.6	3.6	2.2
463	W20.0	Buffalo Creek at Highway 16/5 Bridge at Kistler	374521 0815136	do	43.7	12	7.7
464	W21.0	Rum Creek at Highway 14/1 Bridge at Dehue	374833 0815502	do	17.6	3.9	2.8
465	W22.0	Dingess Run at Railroad Bridge at Mellville	375028 0815657	do	23.1	3.4	2.4
466	W23.0	Island Creek at Highway 119 Bridge at Crystal Block	374224 0815920	do	7.73	.55	.32
467	W24.0	Island Creek at Highway 119 Bridge at Mt. Gay	375041 0820036	do	58.5	24	18
468	W25.0	Copperas Mine Fork at Highway 119/14 Bridge at Mt. Gay	375044 0820052	do	45.4	5.4	3.6
469	X01.0	Crawley Creek at Highway 3/4 Bridge near Chapmanville	375745 0820257	05070102	14.4	.39	.05
470	X02.0	Big Creek at Highway 2 Bridge near Big Creek	380033 0820105	do	28.1	.21	.01
471	X03.0	Big Harts Creek at Highway 3 Bridge near Shively	375840 0820838	do	28.1	.37	.03
472	X04.0	Big Ugly Creek at Highway 7 Bridge near Leet	380259 0820402	do	18.1	.15	.02
473	X06.0	Mud River at Highway 46 Bridge at Mud	380532 0815806	do	14.0	.14	.02
474	X07.0	Mud River at Highway 7 Bridge at Myra	381319 0820648	do	81.2	.59	.03
475	X08.0	Middle Fork at Highway 3 Bridge at Hamlin	381642 0820430	do	50.1	.06	.0

Table 2.-- Summary of basin and flow characteristics for selected partial-record gaging stations--Continued

Map no.	Site no.	Station name and location	Latitude and longitude	Hydrologic unit	Drainage area (mi^2)	M7,2 (ft^3/s)	M7,10 (ft^3/s)
476	X09.0	Trace Fork at Highway 37 Bridge near Mt. Moriah	381956 0815838	do	32.6	.10	.01
477	Y01.0	Tug Fork at Private Bridge at Black Wolf	372012 0812838	05070201	27.2	3.6	1.5
478	Y02.0	South Fork at Highway 161 Bridge at Skygusty	371937 0812836	do	17.5	1.1	.40
479	Y04.0	North Fork Elkhorn Creek at Highway 17 Bridge at Algoma	372512 0812529	do	14.4	3.9	2.0
480	Y05.0	Elkhorn Creek at Highway 52/20 Bridge at Elkhorn	372310 0812441	do	11.7	11	6.4
481	Y07.0	Clear Fork at U.S. 52 Bridge at Clear Fork Junction	372702 0814414	do	25.3	14	11
482	Y09.0	Dry Fork at Highway 9 Bridge at Berwind	371537 0813932	do	51.2	14	7.6
483	Y10.0	Jacobs Fork at Highway 16 Bridge at Cucumber	371643 0813738	do	31.7	8.4	4.8
484	Y11.0	Big Creek at Highway 16 Bridge near Rift	371724 0813908	do	34.0	1.9	.78
485	Y14.0	Pigeon Creek at U.S. 52 Bridge at Delbarton	374148 0821102	do	23.7	1.2	.30
486	Y15.0	Rockhouse Fork at Highway 65/2 Bridge at Delbarton	374219 0821017	do	15.6	2.5	.99
487	Y17.0	Laurel Fork at Highway 65 Bridge at Lenore	374753 0821710	do	33.1	.84	.14
488	Y18.0	Marrowbone Creek at Private Bridge at Selwyn	375132 0822302	do	20.7	.46	.06
489	Y20.0	Mill Creek at U.S. 52 Bridge near Salt Petre	380602 0823402	do	20.5	.12	.01
490	Y21.0	Whites Creek at Highway 19 Bridge near Cyrus	381758 0823230	05070204	13.2	.06	.01
491	Z01.0	West Fork Twelvepole Creek at Highway 2 Bridge at Breeden	375534 0821612	05090102	24.7	.52	.06
492	Z02.0	West Fork Twelvepole Creek at Highway 44 Bridge at Dunlow	380126 0822555	do	65.1	.83	.07
493	Z03.0	West Fork Twelvepole Creek at Highway 52/49 Bridge at Echo	381052 0822833	do	108	.42	.01
494	Z05.0	Kiah Creek at Highway 33 Bridge near Kiahsville	380232 0821523	do	18.0	.10	.01
495	Z07.0	Beech Fork at Highway 26 Bridge near Gilkerson	381351 0821848	do	14.3	.01	.0
496	Z08.0	Millers Fork at Highway 22 Bridge near Crockett	381500 0822217	do	9.37	.0	.0