LOW-FLOW CHARACTERISTICS OF OHIO STREAMS

U.S. Geological Survey

Open-File Report 81-1195

Prepared in cooperation with the

Ohio Environmental Protection Agency

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

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by Dorothy Pompey Johnson and Kevin D. Metzker

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Conversion Factors

Factors for converting inch-pound units to the International System of metric units (SI) are given below:

To convert from	To	Multiply by
inch (in)	millimeter (mm)	25.4
foot (ft)	meter (m)	0.3048
mile (mi)	kilometer (km)	1.609
$mile^2$ (mi^2)	$kilometer^2$ (km^2)	2.590
$foot^3$ per second (ft^3/s)	$meter^3$ per second (m^3/s)	0.02832
million gallons per day (Mgal/d)	$meters^3$ per second (m^3/s)	0.0438

LOW-FLOW CHARACTERISTICS OF OHIO STREAMS

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ABSTRACT

Adequacy of streamflow for water supplies or waste water assimilation is commonly evaluated in terms of low-flow characteristics. This report presents annual and seasonal low-flow characteristics for 237 sites on regulated and unregulated streams in Ohio.

In addition to compilation of site data, two regionalization methods--an analysis of base flow measurements and multiple regression analysis--were applied to test basins to determine the feasibility and accuracy of each method. An analysis of base flow measurements (gain and loss studies) was made on the Stillwater River basin, with error ranging from -39 to 59 percent. Multiple regression analyses were made on the hydrologic data from the Great Miami River basin north of Dayton, which resulted in a standard error of estimate ranging from 110 to 138 percent. Through the use of an index of relative infiltration, the standard error of estimate was reduced to a range of 33 to 40 percent.

INTRODUCTION

A stream's adequacy as a water supply, its capacity to assimilate liquid wastes, and its suitability as a habitat for aquatic life are all commonly evaluated in terms of low-flow characteristics (Riggs, 1972). In Ohio, the legal basis for water pollution control is tied to water quality standards that incorporate the 7-day 10-year low-flow characteristics of the receiving stream.

In the most recent comprehensive work on low-flow characteristics of Ohio streams, Anttila, (1970) utilized streamflow records through the 1967 water year for 180 sites in Ohio having 10 or more years of essentially unregulated flow. Low-flow characteristics reported are the 7-day annual minimum mean discharges for the 2-, 10-, and 20-year recurrence intervals. Attempts to use regression analysis to regionalize low-flow frequency characteristics in that study were unsuccessful.

This report is an update and extension of Antilla's work. It presents annual and seasonal low-flow characteristics for 237 sites. Also included are the results of two regionalization techniques: a multiple regression analysis, and an analysis of base flow measurements in test basins.

CLIMATIC AND GEOLOGICAL FACTORS OF SURFACE WATER HYDROLOGY IN OHIO

The climate of Ohio is temperate. Mean annual temperature is 51.6°F, (10.9°C) ranging from 49.6°F (9.8°C) in the northeast to 56.9°F (13.8°C) in the south. Mean annual precipitation is 38 inches and ranges from 31 inches in the northwest to 44 inches in the south. Runoff averages 13 inches per year, with a range of 10 inches per year in the northwest to 17 inches per year in the northeast and southeast parts.

Ohio is divided diagonally from southwest to northeast by the boundary of glaciation (fig. 1). The northern and western two-thirds of Ohio is covered by glacial drift, consisting mainly of clayey till, with outwash sand and gravel in major valleys. Sand and gravel also occurs as lenses within the till. The southeastern one-third of the state is underlain mainly by shale and sandstone of Pennsylvanian age. Glacial till has low permeability; outwash has moderate to high permeability; and bedrock has low to moderate permeability.

LOW-FLOW CHARACTERISTICS

Annual and seasonal low-flow data are presented for 156 long-term continuous-record gaging stations and 81 low-flow partial-record sites for unregulated and regulated streams.

Long-term continuous-record gaging stations are sites where daily flow data have been systematically observed for 10 or more years. The long-term stations in this study include some regulated streams.

EXPLANATION

Unglaciated

Glaciated

Figure 1. --Glaciated and unglaciated areas.

Low-flow partial-record sites are sites where sparse low-flow data have been collected over a several years for use in hydrologic analyses. Sites where systematic observations of daily flow data have been obtained for 2 or more but less than 10 years (short-term continuous-record gaging station) are also considered here as low-flow partial-record sites.

Streamflow Characteristics

Streamflow characteristics presented in this report are average discharge, minimum discharge recorded, low-flow frequency, and flow duration. These characteristics represent current flow conditions at the site without adjustments for withdrawals, diversions, or inflows.

Average discharge is the arithmetic average of the daily mean flows for all complete water years.

Minimum discharge is the lowest discharge measured at a site or the lowest daily discharge recorded.

A low-flow frequency curve is a graph showing magnitude and frequency of minimum flows for a given length of time (figure 2). Frequency is usually expressed as the average interval, in years, between occurrences of an annual or seasonal minimum flow equal to or less than that shown by the magnitude scale (Langbein and Iseri, 1960). Time periods in frequency analysis are: Annual (April 1-March 31), warm weather (May 1-November 30), recreation (June 1-August 31), autumn (September 1-November 30), winter (December 1-February 28/29), and fish spawn (March 1-May 31).

Low-flow frequency curves are computed by: (a) Listing the lowest daily flow value for each time period; (b) arranging the values in order of magnitude and assigning order numbers, beginning with the smallest as number 1; (c) computing the recurrence interval (average interval of time between hydrologic events of a given or lesser magnitude) for each value through the use of the formula

$$RI = (n+1)/m$$

where

RI is the recurrence interval in years,
n is the total number of years,
m is the order number.

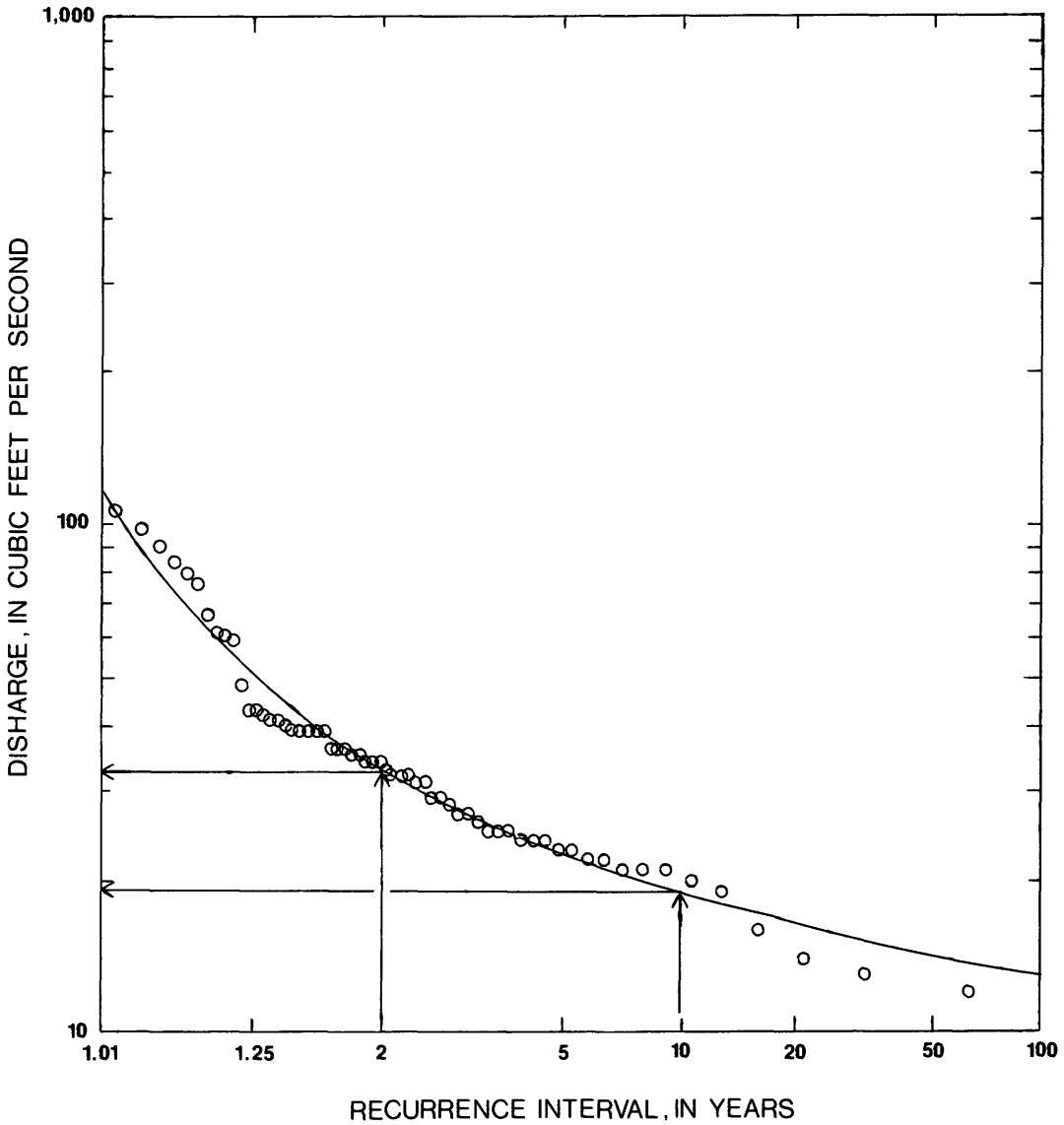


Figure 2. --Frequency curve of the annual 7-day low flows of Little Beaver Creek near East Liverpool, Ohio, 1917-78.

(d) plotting each flow value against its computed recurrence interval on log-probability paper; and (e) drawing a smooth curve through the plotted points, either graphically or mathematically, by assuming a Log Pearscn Type III frequency distribution of the data. A Log Pearson Type III frequency distribution is the preferred method. A Log-Pearson Type III frequency curve is computed using the formula

$$Q_i = M = K_i S$$

where

- i is a specified recurrence interval, i
- Q is the discharge cn the frequency curve corresponding to i,
- M is the mean of the logarithms (base 10) of the data,
- S is the standard deviation of the logarithms (base 10) of the data,
- K is a frequency factor that is a function of recurrence interval and the coefficient of skew.

The curve in figure 2 is a mathematical fit of the annual 7-day low flows (values of the lowest mean discharge for 7 consecutive days) of Little Beaver Creek near East Liverpool for climatic years (April 1 to March 31) 1917-78. The 7-day 10-year ($7Q_{10}$) is 19 ft^3/s; that is, the probability is 0.1 that the lowest average 7 days of flow in any given year will be less than or equal to 19 ft^3/s. Probability is equal to the reciprocal of the recurrence interval. In other words, the average 7 days of flow will be less than or equal to 19 ft^3/s at intervals averaging 10 years in length. The $7Q_2$ is 33 ft^3/s; there is a 50-percent chance each year that the lowest average 7 days of flow will be less than 33 ft^3/s; or the lowest average 7 days of flow will be less than or equal to 33 ft^3/s every 2 years.

Historically, values for the $7Q_2$ and $7Q_{10}$ have been calculated for only the annual period. More recently, these values have been calculated for periods shorter than 1 year which correspond to various seasonal activities or occurrences (e.g. reareation and fish spawing).

A flow-duration curve is a cumulative frequency curve that shows the percentage cf time that specified discharges are equaled or exceeded during a given period (figure 3).

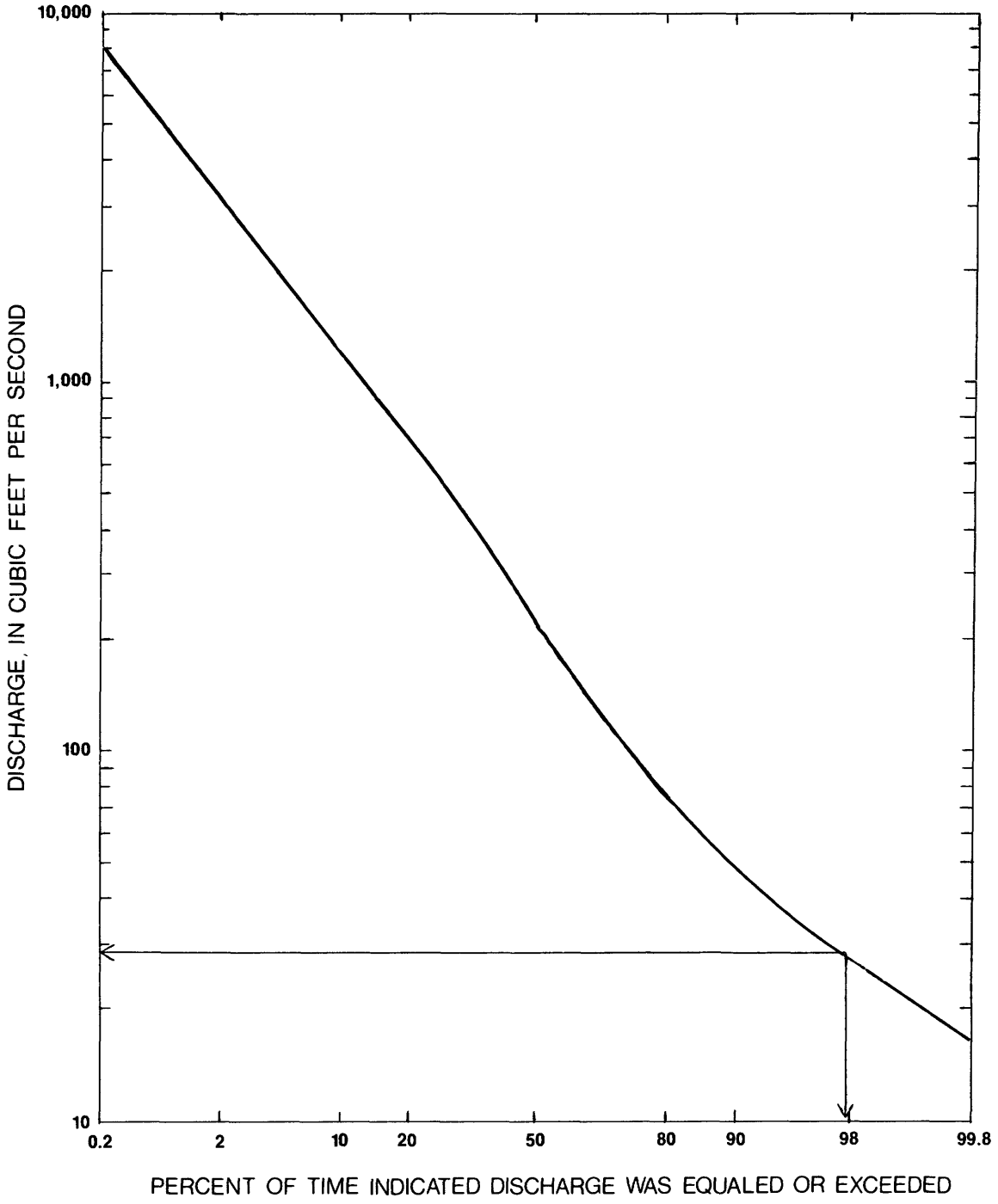


Figure 3. --Flow duration curve for Little Beaver Creek near East Liverpool, Ohio, 1917-78.

Flow-duration curves are computed using the "total-period method" by: (a) Placing daily discharges in classes according to their magnitude; (b) summing the occurrences of each class beginning with the lowest class; (c) computing the cumulative percent of time each class is exceeded; and (d) plotting the data with the discharge as the ordinate and the time in percentage of total time as the abscissa (Searcy, 1959).

The flow-duration curve is a cumulative frequency curve of the flows for the period of data used. It does not represent the distribution of the yearly flows. The curve in figure 3 shows the duration of daily flows of Little Beaver Creek near East Liverpool for climatic years 1917-78. Flows less than 27 ft^3/s, which were equaled or exceeded 98 percent of the time, have occurred 2 percent of the 62-year period, not 2 percent of the time each year. The duration curve is a summary of past hydrologic events, not a predictor of the future.

Low-flow partial-record sites do not have enough data for either the frequency or duration analyses as described above. Instead, available data are correlated with those from a hydrologically similar long-term continuous-record gaging station (index station) at which the low-flow characteristics are well defined. The correlations are made by plotting on log-log paper either daily mean base flows or discharge measurements of base flow against concurrent flows at the index station. A straight line through the plotted points defines the relationship of the partial-record site and the index station. The relationship defined is valid only within the range of general discharges used to define it.

An example of the correlation method is illustrated in figure 4. To demonstrate the method, concurrent flows were plotted for two long-term-continuous record gaging stations: Yellow Creek near Hammondsville and Little Beaver Creek near East Liverpool. The 7-day 10-year flow is 1.9 ft^3/s for Yellow Creek near Hammondsville. (See Appendix 3.)

Yellow Creek near Hammondsville was used as the index station and Little Beaver Creek near East Liverpool as a low-flow partial-record site. Using the method described the 7-day 10-year low flow for Little Beaver Creek is 18 ft^3/s, which compares quite favorably with the long term 7-day 10-year low flow of 19 ft^3/s.

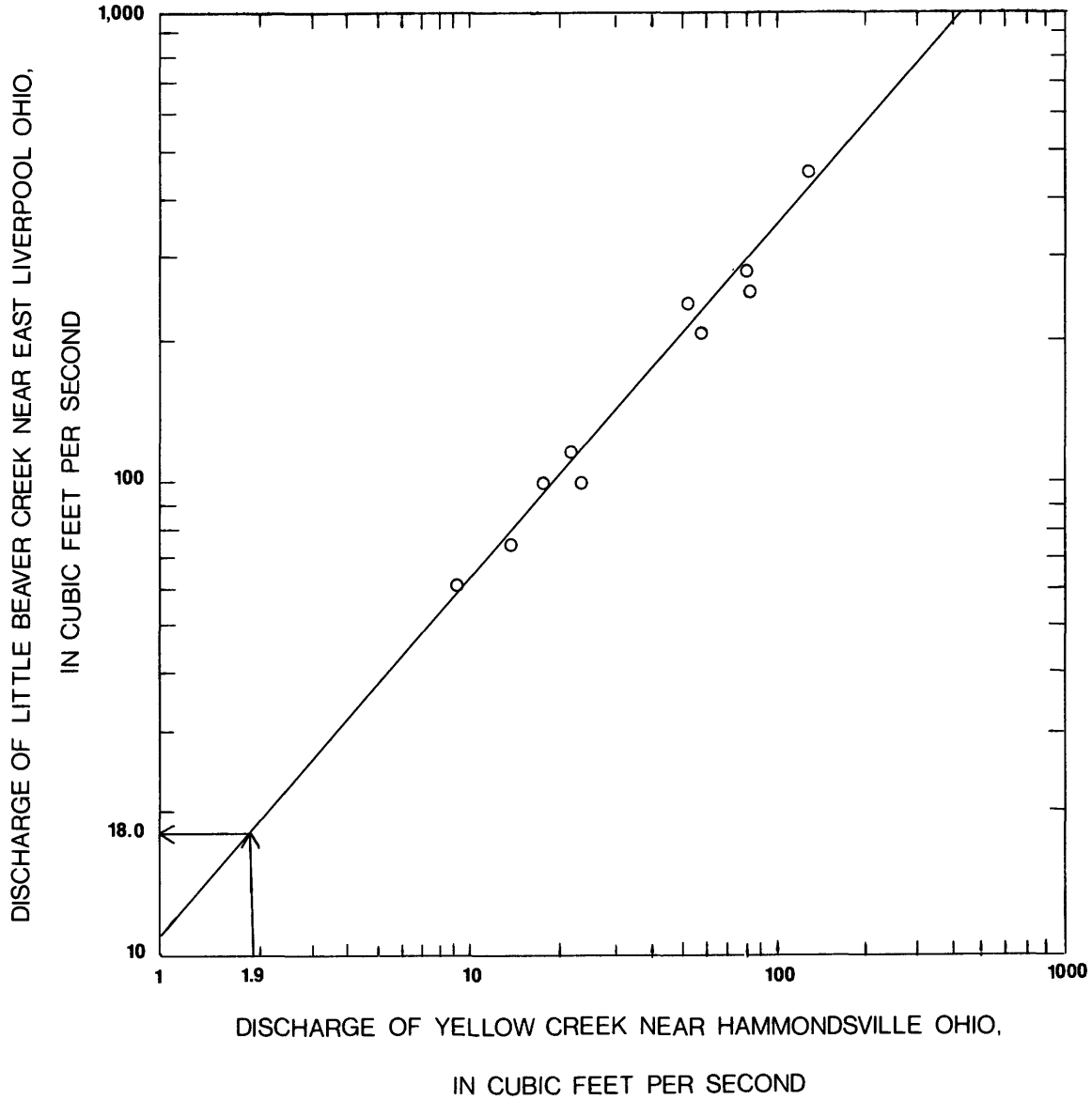


Figure 4. --Relation of daily mean base flows of Yellow Creek near Hammondsville, Ohio to concurrent flows of Little Beaver Creek near East Liverpool, Ohio.

Presentation of Data

Station descriptions and low-flow data for 237 sites (156 long-term sites, 81 partial-record sites) are given in Appendix 3. The stations within the Ohio River basin are listed first, in downstream order, followed by stations within the St. Lawrence River (Lake Erie) basin, also in downstream order. Appendix 1 is an index to each site by U.S. Geological Survey station number. Appendix 2 is an alphabetical index by stream name. Information presented for each of the long-term continuous record gaging stations includes: the location, drainage area, tributary to, discharge data used, remarks, and selected discharge characteristics.

The latitude, longitude, county name, hydrologic unit number, and the location of the gage with respect to the municipality mentioned in the station name are given in the "location" paragraph. Hydrologic unit number is an identification number of a geographic area representing part or all of a surface drainage basin.

"Drainage area" is the area, measured in a horizontal plane, from which direct surface water runoff drains into a stream.

"Tributary to" indicates the larger stream into which the reported stream flows.

The "discharge data used" section provides a period of continuous record for the long-term stations. For most of these stations, the 1978 water year was the last year of discharge data included in the low-flow analyses. For stations having only 9 years of discharge data through 1978 water year, data for the 1979 water year was included. Discharge data for discontinued stations were used if the record represented current flow conditions of the stream.

Under "remarks," significant factors affecting low-flow are described, such as effluent point discharges, municipal or industrial withdrawals, dams, or diversions.

The "selected discharge characteristics" are average discharge, minimum daily discharge, low-flow frequency, and flow-duration information. Low-flow frequency and flow-duration characteristics are presented for six periods: Annual (April 1-March 31); warm weather (May 1-November 30); recreation (June 1-August 31); autumn (September 1-November 30); winter (December 1-February 28/29); and fish spawn (March 1 - May 31). The low-flow frequency characteristics are 2-, 5-, 10-, 20-, and 50-year recurrence intervals for the 1-, 7-, and 30-day durations (periods of consecutive days). Flow-duration characteristics are flows which were equaled or exceeded 98, 95, 90, 85, 80, 75, 70, 60, 50, 40, 30, 20, and 10 percent of the time.

Information presented for each of the partial-record sites includes location, drainage area, tributary to, discharge data used, index station, remarks, and selected discharge characteristics.

"Discharge data used" for the partial-record stations were discharge measurements made during base flow periods (i.e. when streamflow is primarily derived from ground water storage). These data were used to develop plots similar to the one shown in figure 4.

The "index station" is a long-term continuous-record gaging station used to define the base flow at the low-flow partial-record site.

"Selected discharge characteristics" presented for the partial-record stations are minimum discharge observed, low-flow frequency, and flow-duration. Low-flow frequency and flow-duration characteristics are for the climatic year, warm weather, recreation, and autumn periods. Low - flow frequency characteristics are the 2-year and 10-year recurrence intervals for the 7-day and 30-day durations. Flow-duration characteristics given are flows that were equaled or exceeded 98, 95, 90, 85, 80 percent of the time. The low end of the duration curve describes the low-flow characteristics.

Accuracy of Data

The reliability of gaging-station records for predicting the behavior of a stream depends upon the accuracy and consistency of the record and how well the period of record represents the long-term flow of the stream (Searcy 1959). The variability of the frequency curve for these different periods of record is shown in figure 5 for Little Beaver Creek near East Liverpool. The annual 7-day 10-year low flow is, for example, 19 ft^3/s for the entire period, but 14 ft^3/s for 1929-38, and 37 ft^3/s for 1969-78.

The reliability of low-flow partial-record data for predicting the flow of a stream depends on how well the base-flow relationship is defined, how far that relationship has to be extrapolated, and the reliability of the estimate at the index station. In figure 6, daily mean base flows of Yellow Creek near Hammondsville and Short Creek near Dillonvale for 1977 and 1978 climatic years are plotted with concurrent flows of Little Beaver Creek near East Liverpool. The 7-day 10-year low flow for Little Beaver Creek is 19 ft^3/s when the gaging-station record is used. However, it is 18 ft^3/s when Yellow Creek is the index station, and 20 ft^3/s when Short Creek is the index station.

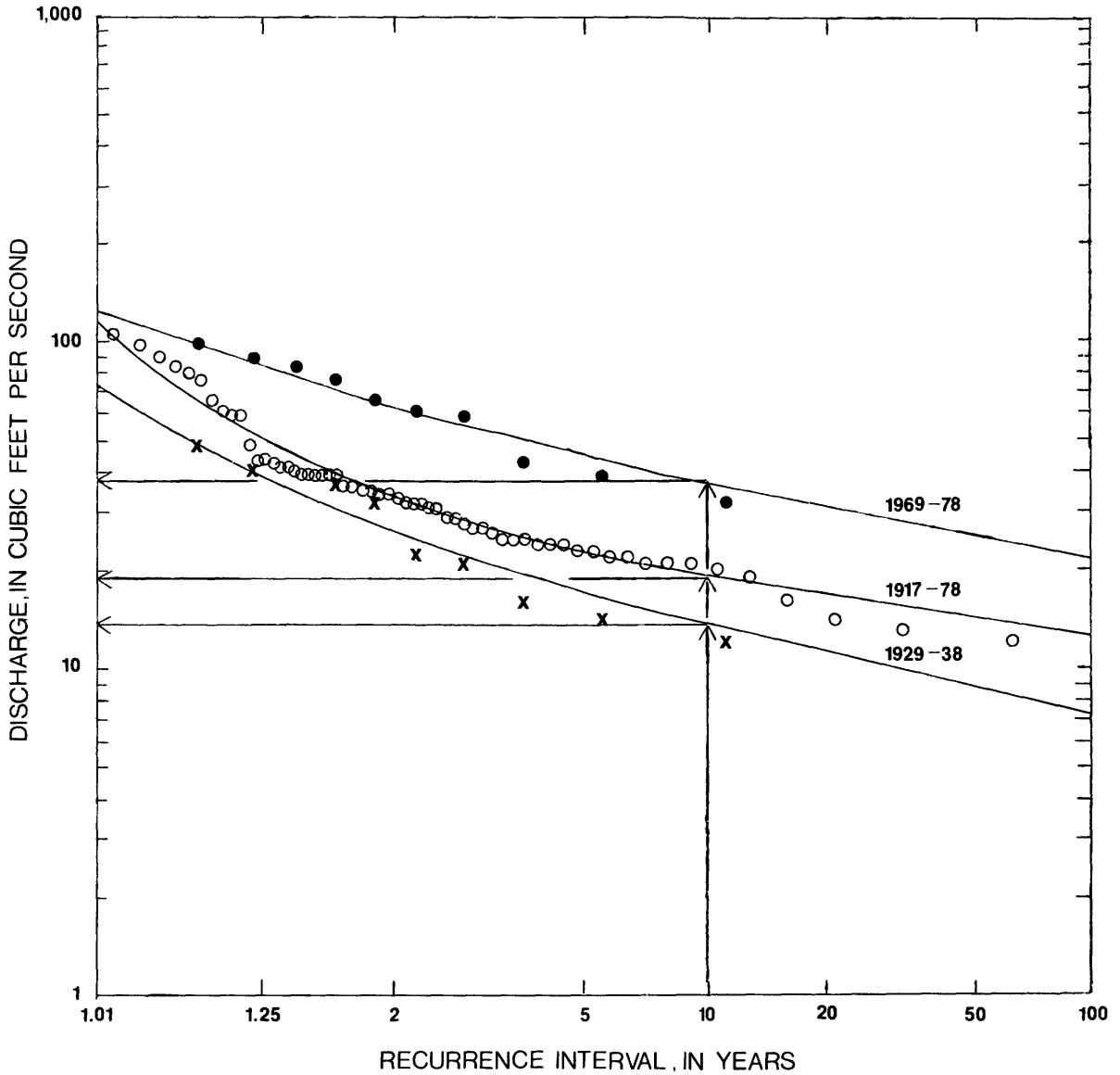
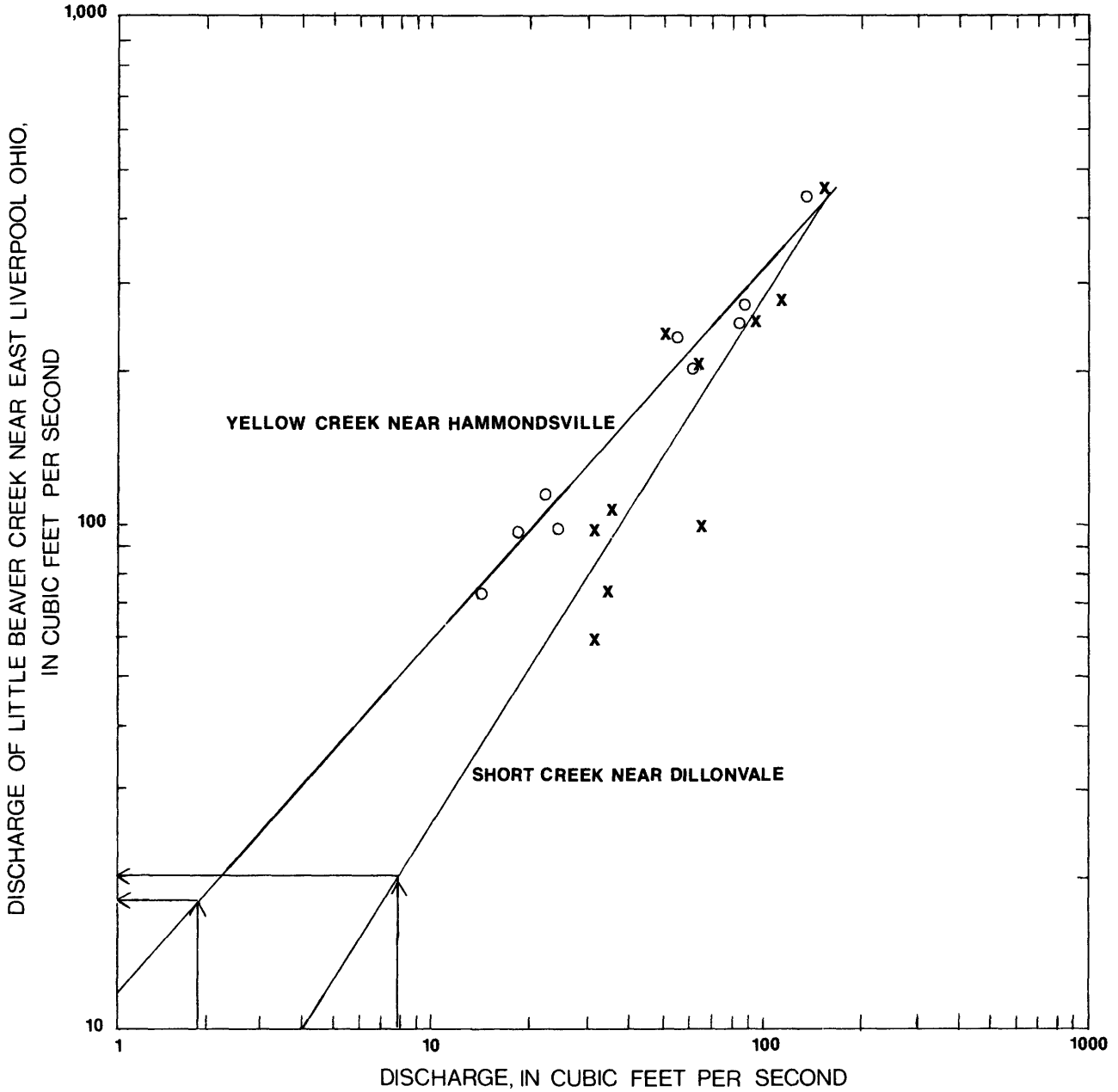


Figure 5. --Frequency curves of the annual 7-day low flows of Little Beaver Creek near East Liverpool, Ohio, 1917-78, 1929-38, 1969-78.



EXPLANATION

O Yellow Creek near Hammondsville, Ohio

X Short Creek near Dillonvale, Ohio

Figure 6. --Relation of daily mean base flows of Yellow Creek near Hammondsville, Ohio and Short Creek near Dillonvale, Ohio to concurrent flows of Little Beaver Creek near East Liverpool, Ohio.

The preceding examples were cited to show the variability of the low flow characteristics due to the nature of statistics. Low-flow frequency characteristics are statistical estimates of future events based on past record. Extended periods of record make these estimates more reliable.

REGIONALIZATION TECHNIQUES FOR ESTIMATING FLOWS

A method for estimating low-flow characteristics at ungaged sites is needed because streamflow records are collected at only a few of the many possible sites where data may be needed. Regionalization is the extension of streamflow records in space.

Two regionalization methods examined in this report are analysis of base-flow measurements and multiple regression analysis. To determine the accuracy and feasibility of each, the methods are applied in test basins rather than statewide.

Analysis of Base Flow Measurements

Analysis of base flow measurements consists of making a gain and loss study (seepage run) within a basin and correlating the discharge measurements with the low-flow characteristics of a long-term continuous-record gaging station within the basin.

A gain and loss study (discharge measurements made at intervals along a stream during a period of base flow) was made on Stillwater River and its tributaries. Stillwater River is in west central Ohio and drains into the Great Miami River upstream from Dayton. The 33 sites, listed in table 1 and shown in figure 7, represent drainage areas ranging from 11.3 to 650 square miles. Of the 33 sites, three are of long-term continuous-record, two are of short-term continuous-record, and one is a low flow partial-record site. Discharge measurements were made at all the sites on October 31, 1979, during base flow. Base flow varies in magnitude throughout the year and consists solely of ground-water discharge, no surface runoff.

A large field crew is needed to gather the gain and loss field data, as the measurements must all be made in one day.

Low-flow characteristics presented for each site are 7-day 2-year, and 7-day 10-year low flows. For the three long-term continuous-record gaging stations and the three low-flow partial-record sites, low-flow characteristics were computed as described in the section "Streamflow Characteristics Presented" of this report.

Low-flow data for the remaining 27 sites were computed using the following formula:

$$\frac{7Q_{RI}\ \text{site}}{Q\ \text{site}} = \frac{7Q_{RI}\ \text{index}}{Q\ \text{index}}$$

where

$7Q_{RI}$ is the 7-day 2-year low flow or the 7-day 10-year low flow;
Q is the flow measurement made

Greenville Creek at Bradford was used as an index station for the six ungaged sites on Greenville Creek and its tributaries. Stillwater River at Pleasant Hill was used as an index station for the remaining 21 ungaged sites.

There is no universally accepted method for computing the accuracy of an analysis of base flow measurements. In table 2, 7-day 10-year and 7-day 2-year low flows for the six sites computed from station data are compared with the estimates computed by using Stillwater River at Pleasant Hill as the index station. Percentage error of the estimates were calculated using the following formula:

$$\text{Percent error} = \frac{7Q_{RI}\ \text{Seepage run} - 7Q_{RI}\ \text{Station data}}{7Q_{RI}\ \text{Station data}} \times 100$$

where

$7Q_{RI}$ is the 7-day 2-year or the 7-day 10-year low flow.
The error ranges from -39 to 59 percent.

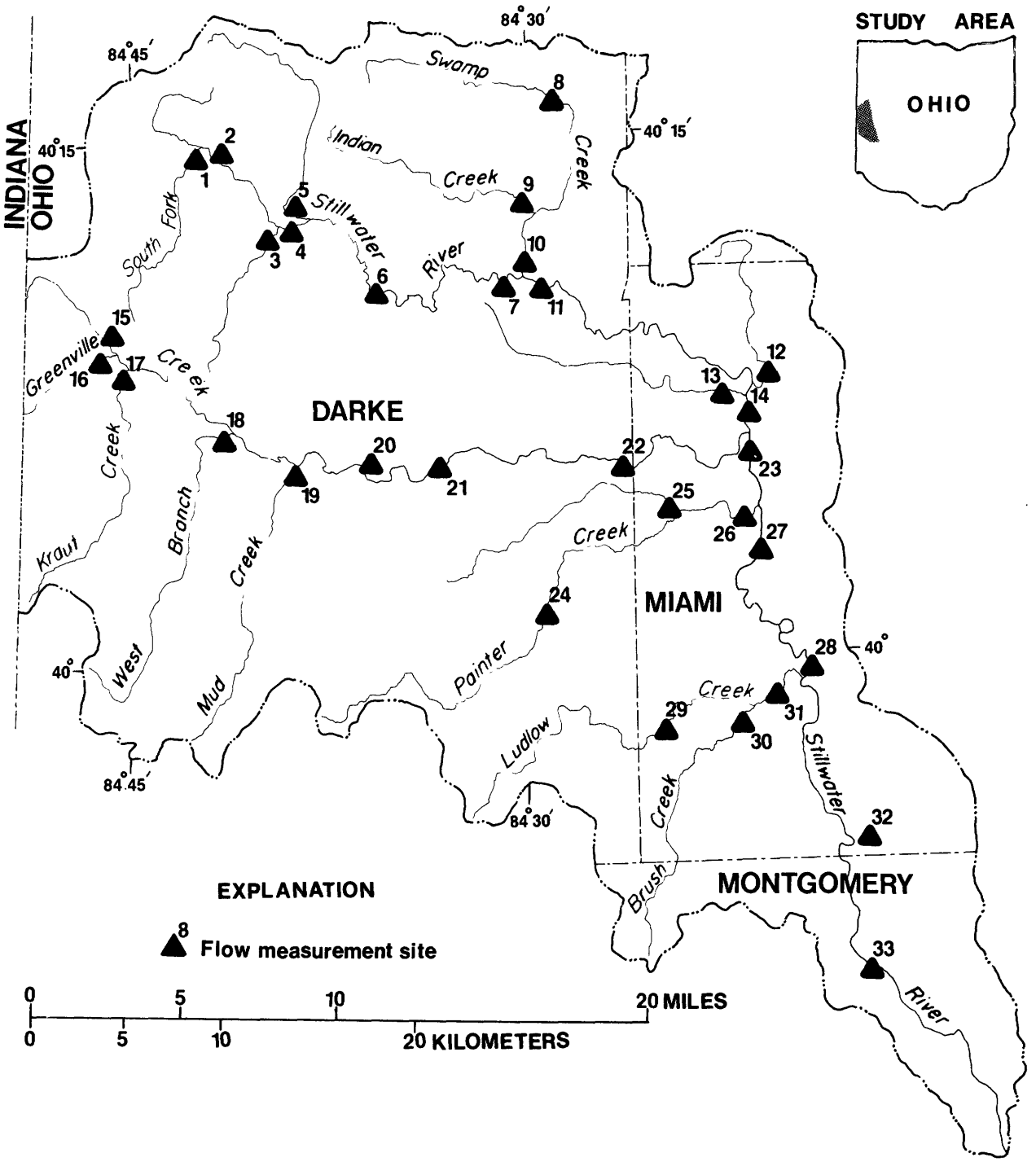


Figure 7. --Stillwater River basin measuring sites used in the gain and loss study, October 31, 1979.

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979

Stream	Tributary to	Map no. (Fig.7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-year
South Fork Stillwater River	Stillwater River	1	Lat 40°15'02", long 84°42'16", Darke County, Hydrologic Unit 05080001, at bridge on Washington Road, 4.0 mi southwest of Rossburg, Ohio.	13.8	1.8	0.3	0.1
Stillwater River	Great Miami River	2	Lat 40°15'08", long 84°41'42", Darke County, Hydrologic Unit 05080001, at bridge on State Route 49, 3.6 mi southwest of Rossburg, Ohio.	28.4	4.9	0.8	0.4
Woodington Run	Stillwater River	3	Lat 40°12'54", long 84°39'01", Darke County, Hydrologic Unit 05080001, at bridge on State Route 47, 0.7 mi west of Ansonia, Ohio.	11.3	1.9	0.3	0.1
Stillwater River	Great Miami River	4	Lat 40°13'00", long 84°38'13", Darke County, Hydrologic Unit 05080001, at bridge on State Route 118, at Ansonia, Ohio	51.6	12	1.9	0.9
North Fork Stillwater River	Stillwater River	5	Lat 40°13'13", long 84°38'13", Darke County, Hydrologic Unit 05080001, at bridge on State Route 118, 0.1 mi north of town limits of Ansonia, Ohio.	18.6	2.3	0.4	0.2
Stillwater River	Great Miami River	6	Lat 40°11'06", long 84°35'25", Darke County, Hydrologic Unit 05080001, at bridge on U.S. Highway 127, 0.3 mi southwest of Beamsville, Ohio.	95.4	17	2.6	1.3

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979.--Continued.

Stream	Tributary to	Map no. (Fig. 7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-year
Stillwater River	Great Miami River	7	Lat 40°11'28", long 84°30'06", Darke County, Hydrologic Unit 05080001, at bridge on Boyer Road, 2.4 mi southwest of Versailles, Ohio.	115	23	3.6	1.7
Swamp Creek	Stillwater River	8	Lat 40°16'39", long 84°28'59", Darke County, Hydrologic Unit 05080001, at bridge on Reed Road 3.8 mi north of Versailles, Ohio.	38.1	1.5	0.2	0.1
Indian Creek	Swamp Creek	9	Lat 40°13'30", long 84°29'56", Darke County, Hydrologic Unit 05080001, at bridge on State Route 47, 0.3 mi west of city limits of Versailles, Ohio.	19.8	3.0	0.5	0.2
Swamp Creek	Stillwater River	10	Lat 40°12'45", long 84°29'55", Darke County, Hydrologic Unit 05080001, at bridge on State Route 121, 1.0 mi southwest of Versailles, Ohio.	58.8	7.9	1.2	0.6
Stillwater River* (03263200)	Great Miami River	11	Lat 40°11'20", long 84°28'40", Darke County, Hydrologic Unit 05080001, at bridge on State Route 185 at Webster, Ohio.	182	33	4.0	1.8
Trotters Creek	Stillwater River	12	Lat 40°08'27", long 84°21'13", Miami County, Hydrologic Unit 05080001, at bridge on State Route 48, 1.4 mi north of Covington, Ohio.	19	3.2	0.5	0.2

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979.--Continued.

Stream	Tributary to	Map no. (Fig. 7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-year
Harris Creek	Stillwater River	13	Lat 40°08'26", long 84°22'27", Miami County, Hydrologic Unit 05080001, at bridge on Range Line Road, 1.7 mi northwest of Covington, Ohio.	17.7	5.7	0.9	0.4
Stillwater River	Great Miami River	14	Lat 40°07'55", long 84°21'28", Miami County, Hydrologic Unit 05080001, at bridge on Covington Bradford Road, 0.8 mi north of Covington, Ohio.	233	51	7.9	3.8
Greenville Creek	Stillwater River	15	Lat 40°09'19", long 84°45'04", Darke County, Hydrologic Unit 05080001, at bridge on Palestine Union City Road, 1.6 mi southeast of Hill Grove, Ohio.	26.4	8.6	2.0	1.1
Dismal Creek	Greenville Creek	16	Lat 40°09'23", long 84°45'04", Darke County, Hydrologic Unit 05080001, at bridge on Palestine Union City Road, 1.5 mi southeast of Hill Grove, Ohio.	19.3	3.7	0.9	0.5
Kraut Creek	Greenville Creek	17	Lat 40°08'33", long 84°44'56", Darke County, Hydrologic Unit 05080001, at bridge on Bickel Road, 2.4 mi northwest of Coletown, Ohio.	21.6	8.9	2.1	1.2
West Branch Greenville Creek	Greenville Creek	18	Lat 40°07'00", long 84°40'51", Darke County, Hydrologic Unit 05080001, at bridge on Heller Road, 2.7 mi northwest of Greenville, Ohio.	25.9	15	3.6	2.0

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979.--Continued.

Stream	Tributary to	Map no. (Fig. 7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-year
Mud Creek	Greenville Creek	19	Lat 40°06'06", long 84°38'21", Darke County, Hydrologic Unit 05080001, at bridge on State Route 502, at Greenville, Ohio.	29.5	15	3.6	2.0
Greenville Creek* (03263500)	Stillwater River	20	Lat 40°06'15", long 84°35'55", Darke County, Hydrologic Unit 05080001, at bridge on Jaysville St. Johns Road, 1.8 mi east of Greenville, Ohio.	141	60	21	11
Greenville Creek	Stillwater River	21	Lat 40°06'29", long 84°32'30", Darke County, Hydrologic Unit 05080001, at bridge on Bears Mill Road, 0.2 mi south of Bears Mill, Ohio.	168	91	22	12
Greenville Creek** (03264000)	Stillwater River	22	Lat 40°06'08", long 84°25'48", Miami County, Hydrologic Unit 05080001, at bridge on State Route 721, 1.8 mi south of Bradford, Ohio.	193	76	18	9.9
Stillwater River* (03264500)	Great Miami River	23	Lat 40°06'52", long 84°21'27", Darke County, Hydrologic Unit 05080001, at Bridge Street bridge in Covington, Ohio.	437	155	24	12
Painter Creek	Stillwater River	24	Lat 40°03'00", long 84°28'32", Darke County, Hydrologic Unit 05080001, at bridge on Hogpath Road 1.5 mi northwest of Laura, Ohio.	27	9.9	1.5	0.7

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979.--Continued.

Stream	Tributary to	Map no. (Fig. 7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-yea
Little Painter Creek Creek	Painter Creek	25	Lat 40°05'26", long 84°24'56", Miami County, Hydrologic Unit 05080001, at bridge on Patty Circlehill Road, 3.8 mi southwest of Covington, Ohio.	11.3	2.3	0.4	0.2
Painter Creek	Stillwater River	26	Lat 40°04'50", long 84°21'18", Miami County, Hydrologic Unit 05080001, at bridge on Sugar Grove Road, 2.7 mi south of Covington, Ohio.	47.5	16	2.5	1.2
Stillwater River** (03265000)	Great Miami River	27	Lat 40°03'28", long 84°21'22", Miami County, Hydrologic Unit 05080001, at bridge on Laurer Road, 0.8 mi northwest of Pleasant Hill.	503	161	25	12
Stillwater River	Great Miami River	28	Lat 40°00'30", long 84°19'14", Miami County, Hydrologic Unit 05080001, at bridge on Horseshoe Bend Road, 1.2 mi northeast of Ludlow Falls, Ohio.	528	183	28	14
Ludlow Creek	Stillwater River	29	Lat 39°58'59", long 84°24'30", Miami County, Hydrologic Unit 05080001, at bridge on Wright Road 0.8 mi south of Laura, Ohio.	25.9	5.6	0.9	0.4
Bush Creek	Ludlow Creek	30	Lat 39°59'12", long 84°21'41", Miami County, Hydrologic Unit 05080001, at bridge on Ellerman Road, 1.4 mi southwest of Ludlow Falls, Ohio.	22.6	5.0	0.8	0.4

Table 1.--Results of the gain and loss study, Stillwater River basin, October 31, 1979.--Continued.

Stream	Tributary to	Map no. (Fig.7)	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Estimated magnitude and frequency of low flows (ft^3/s)	
						7-day 2-year	7-day 10-year
Ludlow Creek	Stillwater River	31	Lat 39°59'52", long 84°20'15", Miami County, Hydrologic Unit 05080001, at bridge on State Route 48 at Ludlow Falls, Ohio.	629	16	2.5	1.2
Brush Creek	Stillwater River	32	Lat 39°55'43", long 84°17'27", Miami County, Hydrologic Unit 05080001, at bridge on Fredrick Garland Road, 3.2 mi southeast of West Milton, Ohio.	16.9	3.2	0.5	0.2
Stillwater River** (03266000)	Great Miami River	33	Lat 39°52'10", long 84°16'57", Montgomery County Hydrologic Unit 05080001, 1,000 feet downstream from Englewood Dam, 1 mi southeast of Englewood, Ohio.	650	206	34	15

* Low-flow partial-record site.
** Continuous-record gaging station.

Table 2.--Comparison of $7Q_2$ and $7Q_{10}$ low flows calculated from station data to estimates calculated from gain and loss study (Stillwater River at Pleasant Hill 03265000 is index station).

Station	$7Q_2$ from station (ft^3/s)	$7Q_2$ from seepage (ft^3/s)	Percent error	$7Q_{10}$ from station (ft^3/s)	$7Q_{10}$ from seepage (ft^3/s)	Percent error
03263200	4.0	5.1	-28	1.8	2.5	-39
03263500	21	9.3	56	11	4.5	59
03264000	18	12	33	9.9	5.7	42
03264500	24	24	0	12	12	0
03265000	25	--	--	12	--	--
03266000	34	32	6	15	15	0

Multiple Regression Analysis

Multiple regression analysis provides a mathematical model for estimating or predicting flow characteristics when basin characteristics are known.

Multiple regression analyses were made on hydrologic data from the Great Miami River and its tributaries upstream from Dayton at 28 essentially unregulated sites. Of these 28 sites, 15 are continuous-record gaging stations, 13 are low-flow partial-record sites. The sites, shown in figure 8, range in drainage area from 2.08 to 1,149 square miles. The low-flow characteristics used in the analyses are the 7-day 2-year, 7-day 10-year, 30-day 2-year, and 30-day 10-year low flows.

Basin characteristics used in the analyses are drainage area, main-channel slope, main-channel length, average basin elevation, percentage of surface storage, percentage of forest cover, index of relative infiltration, and average annual precipitation. Of the eight basin characteristics used, the four found to be significant at the 5-percent level are listed below.

Drainage area (A).--Area of watershed, in square miles, was determined from U.S. Geological Survey topographic maps and listed by Cross (1967).

Main channel slope (S).--The slope, feet per mile, computed as the difference between the elevation, in feet, at 10 and 85 percent of the main-channel length (distance from the station to the basin divide), divided by the main-channel length, in miles, between the two points, determined from U.S. Geological Survey topographic maps.

Average annual precipitation (P).--Average amount of precipitation on a watershed in a year minus 27 (to approximate average runoff), in inches, determined from the precipitation map shown in figure 9.

Index of relative infiltration (I).--Relative capacity of soils to accept and release water, dimensionless, was determined as described by Armbruster (1976) by using the hydrologic soil-grouping map (figure 10) and the formula

$$I = \frac{\sum(pa \times wf)}{100}$$

where

I is the index of relative infiltration,
pa is the percentage of drainage area covered by a soil grouping,
wf is the weighting factor of that soil group.

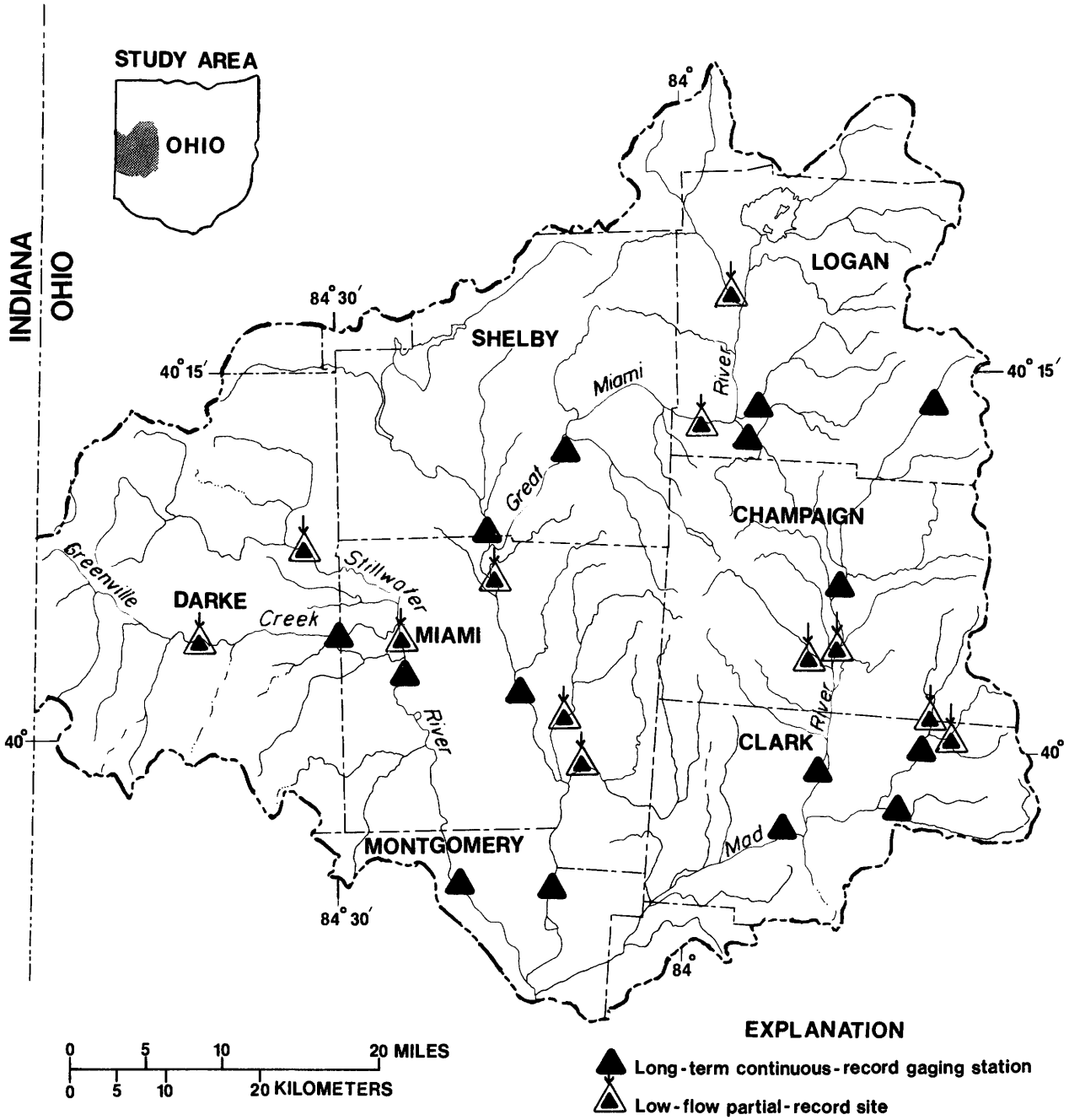


Figure 8. --Great Miami River basin sites used in the multiple regression analysis.

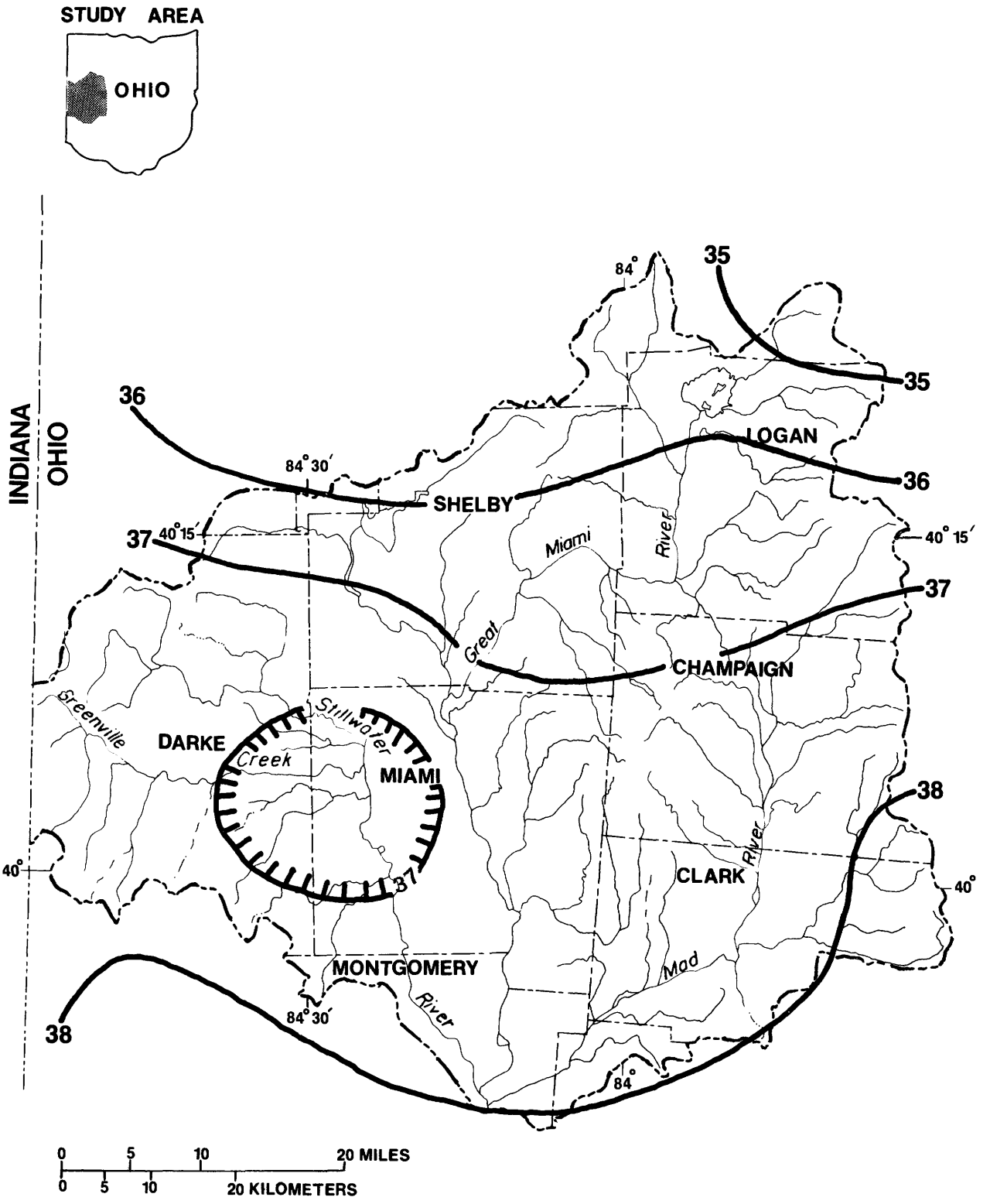


Figure 9. --Precipitation of the Upper Great Miami River basin, in inches, 1931-60 (modified from Ohio Division of Water, 1962).

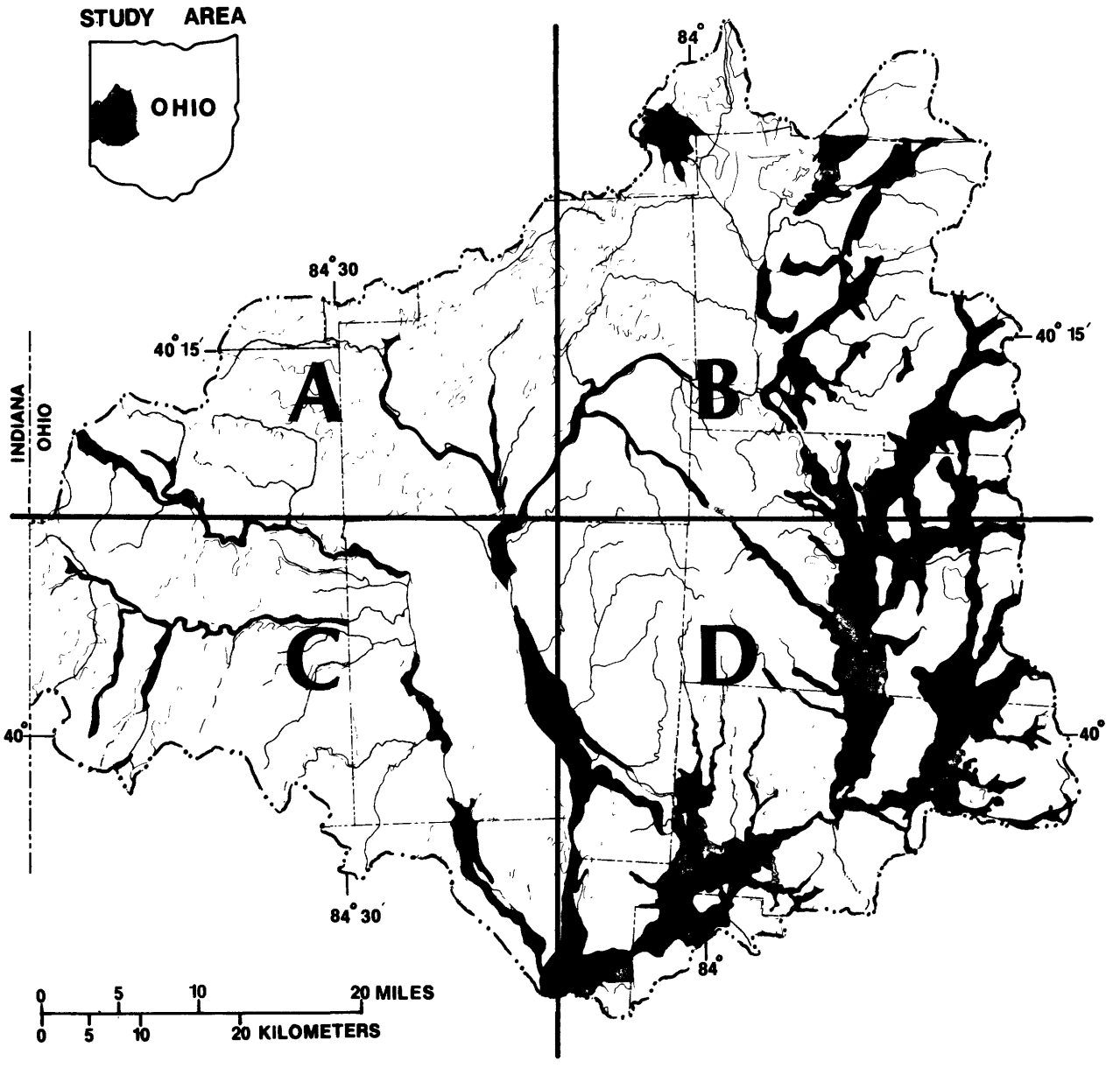


Figure 10. --Hydrologic soil-grouping map of Upper Great Miami River basin.

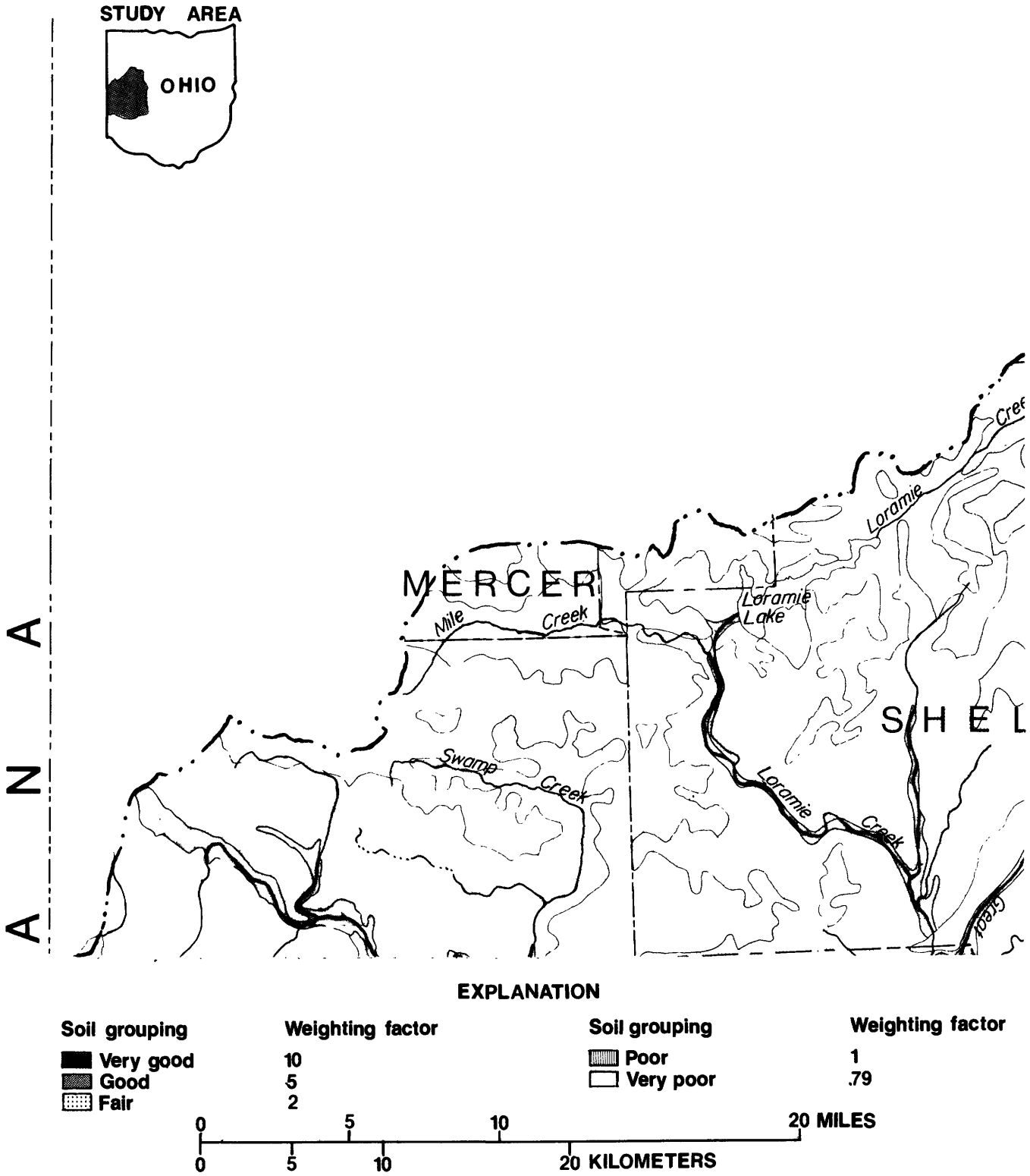


Figure 10A. --Hydrologic soil-grouping map of Upper Great Miami River basin, area A.

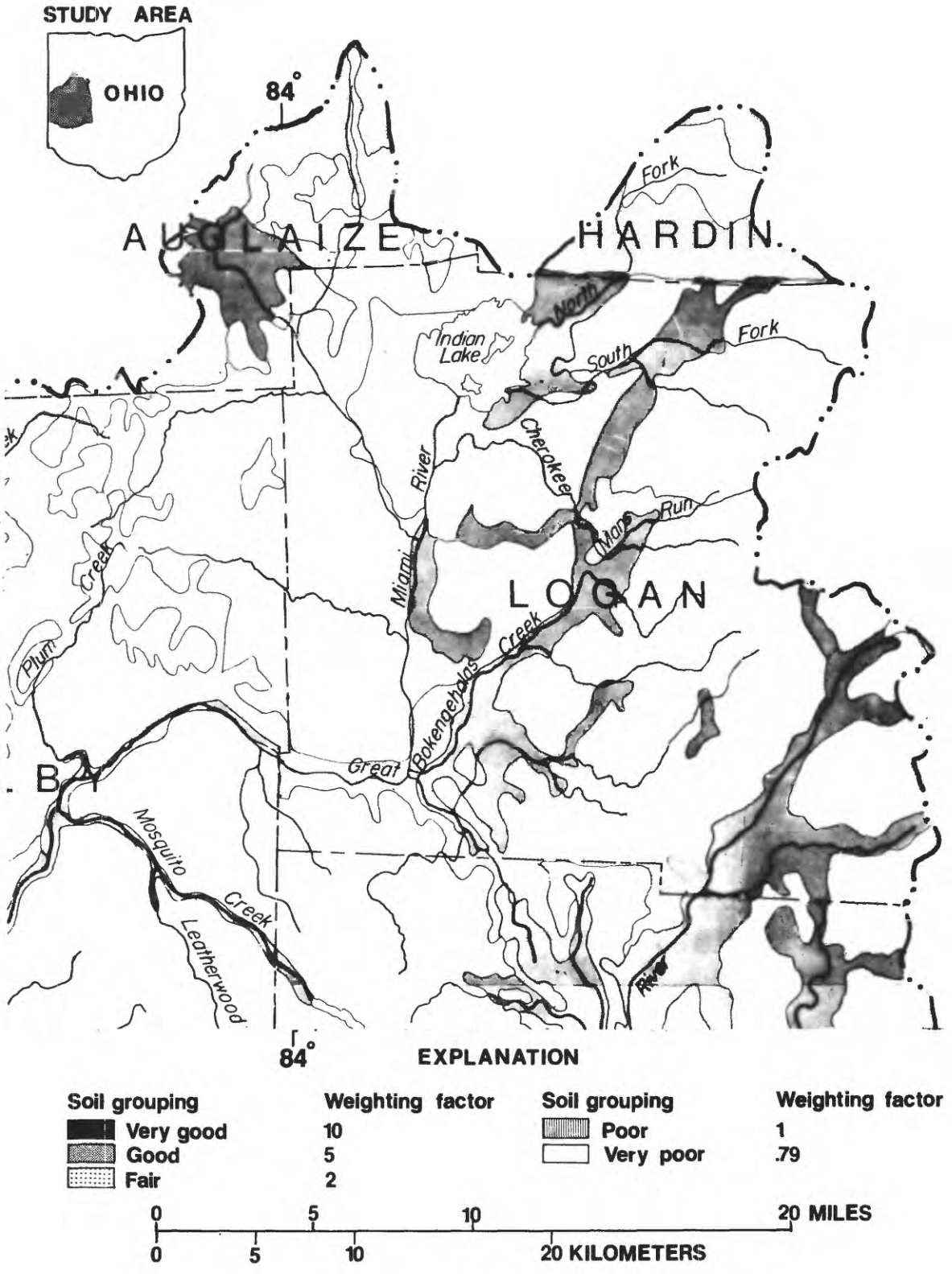


Figure 10B. --Hydrologic soil-grouping map of Upper Great Miami River basin, area B.

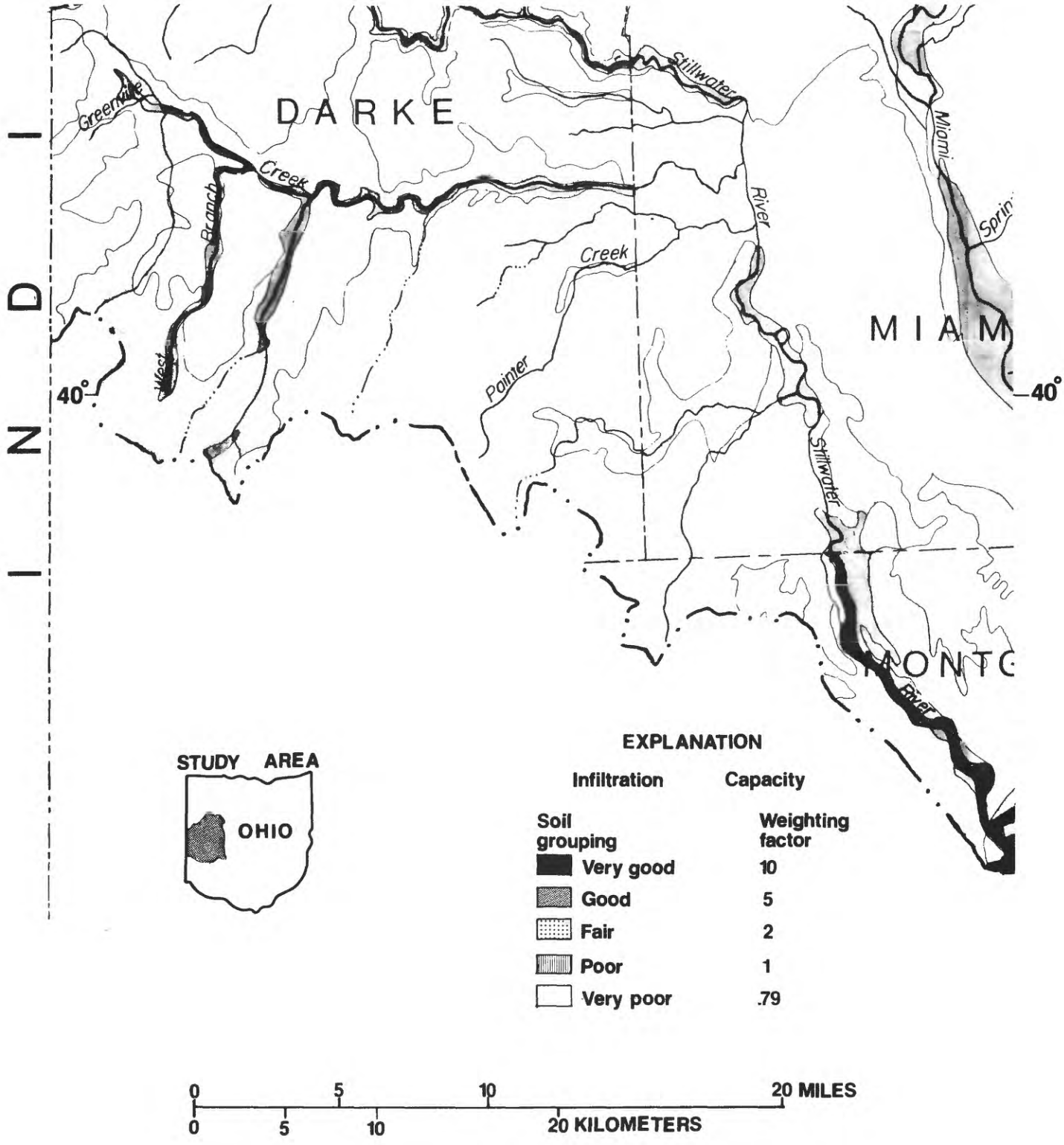


Figure 10C. --Hydrologic soil-grouping map of Upper Great Miami River basin, area C.

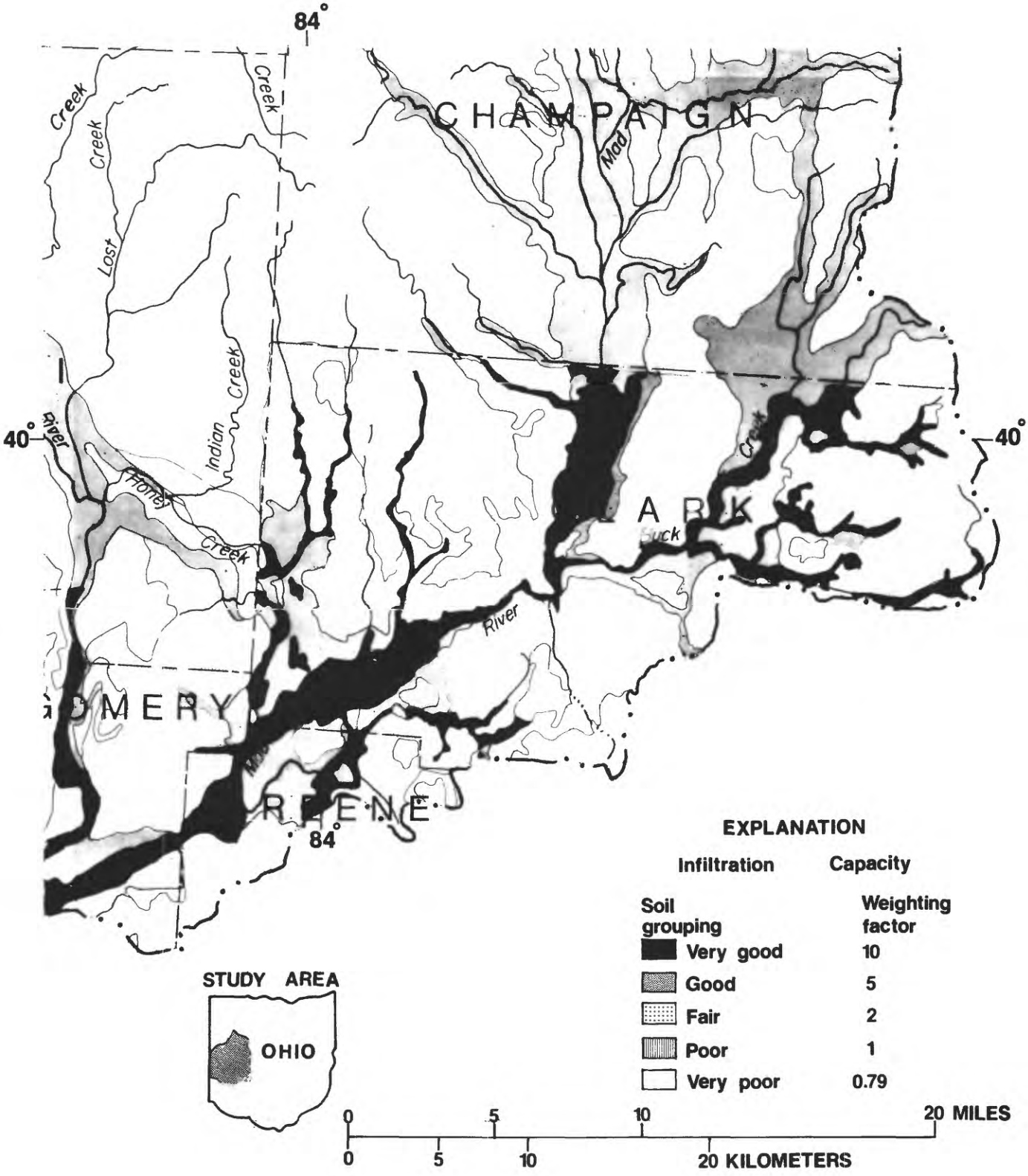


Figure 10D. --Hydrologic soil-grouping map of Upper Great Miami River basin, area D.

The hydrologic soil-grouping map was compiled using the county soil maps of the U.S. Soil Conservation Service.

Basin characteristics are among the hydrologic factors affecting low flows. The distribution of low flow is controlled chiefly by the geology of the basin. The flow-duration curves shown in figure 11 are expressed in cubic feet per second per square mile to compare the effect of basin geology on low flows. The Mad River in the southwestern glacial outwash area has a high flat curve and high sustained flow. Whiteoak Creek in the southwestern glacial till area has a steep curve and low sustained flow. Hocking River in the southeastern unglaciated area has a high flat curve but lower sustained flow than Mad River. The index of relative infiltration (a measure of water passing through the porous ground media) is a quantitative index of the geology of a basin.

The regression model shown below was developed by Armbruster (1976):

$$Q = cA^{b_1} S^{b_2} P^{b_3} 10^{b_4 I}$$

where

Q is a low-flow characteristic,
c is the regression constant,
b_1, b_2, b_3, and b_4 are the regression coefficients,
A, S, P, and I are drainage area, main-channel slope, average annual precipitation, and index of relative infiltration.

The results of the multiple regression analyses are listed in table 3.

The standard error of estimate is a measure of accuracy of multiple regression analysis and was computed by the method described by Riggs (1968b). In the initial multiple regression analysis made on the Upper Great Miami River basin (excluding infiltration index), only drainage area was significant at the 5-percent level. The standard errors ranged from 110 to 138 percent. Adding the relative infiltration index to other basin characteristics, slope and precipitation became significant at the 5-percent level. The standard error of estimate was reduced to a range of 33 to 39 percent with the addition of the new variables.

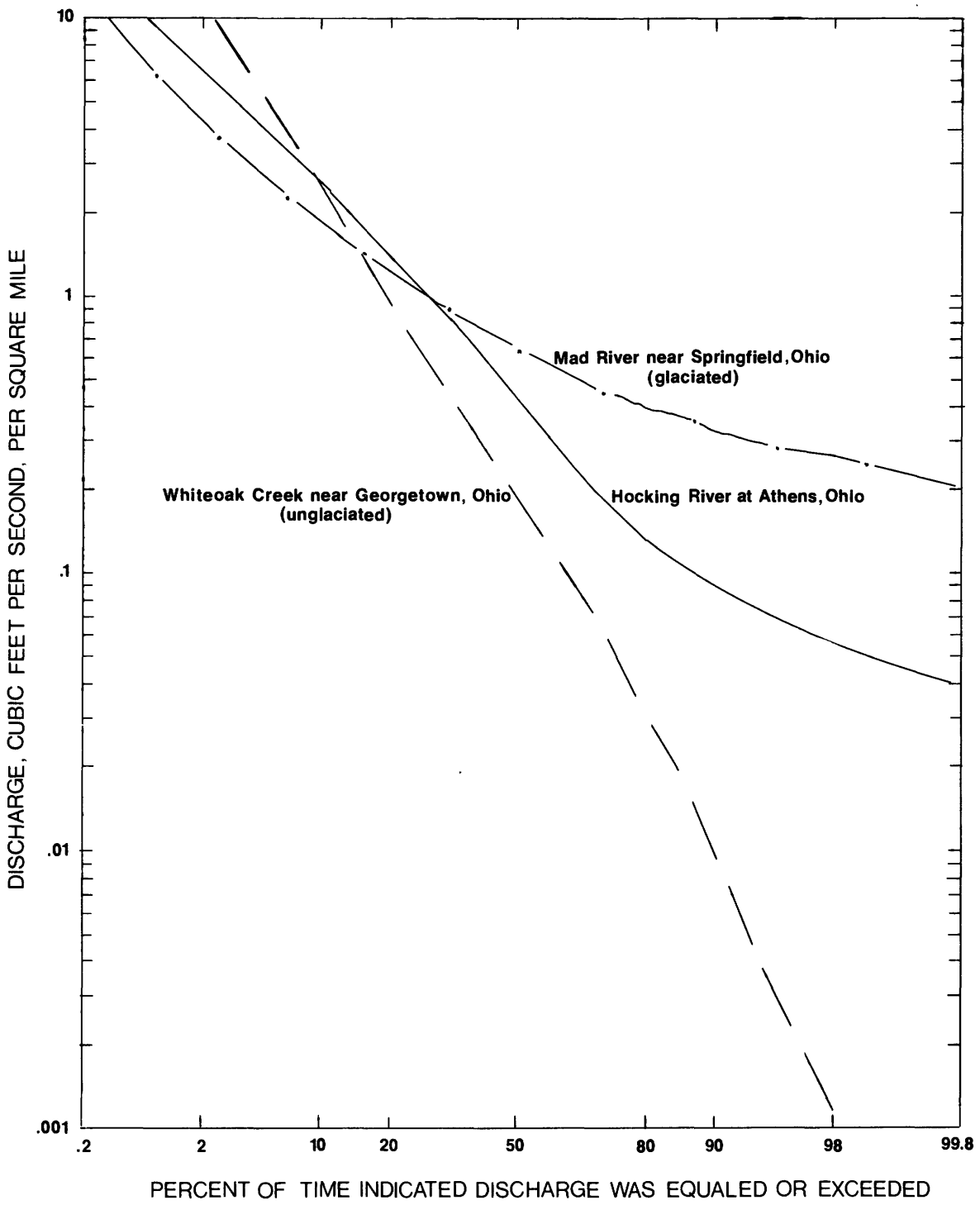


Figure 11. --Flow duration curves showing effect of basin geology on low flow.

Table 3.--Summary of regression equations for annual low flows for Upper Great Miami River Basin

$$dQ_{RI} = cA \quad S \quad P \quad 10$$

where:

dQ_{RI} is the low flow characteristic, cubic feet per second, indicated number of consecutive days and recurrence interval.

A is drainage area, square miles.

S is the main-channel slope, feet per mile.

P is average annual precipitation minus 27, inches.

I is the index of relative infiltration, dimensionless.

Low-flow characteristic (ft^3/s) dQ	Regression constant c	Regression coefficients b_1	b_2	b_3	b_4	Standard error of estimate (percent)
$7Q_2$	1.737×10^{-5}	1.350	0.704	1.681	0.241	33
$7Q_{10}$	9.45×10^{-6}	1.419	0.777	1.379	0.273	38
$30Q_2$	2.717×10^{-5}	1.323	0.649	1.709	0.226	33
$30Q_{10}$	8.310×10^{-6}	1.39	0.756	1.616	0.260	39

The regression model should only be used to estimate low-flow characteristics at unregulated and ungaged sites or where streamflow records are insufficient for Log Pearson III computations. At sites near continuous-record gaging stations or low-flow partial-record sites, low-flow characteristics of those sites should be used. The regression model (table 3) is only valid for sites with drainage area of 2.08 to 1,149 square miles, a main channel slope of 2.92 to 49.8 feet per mile, average annual precipitation of 35.5 to 38 inches, and index of relative infiltration ranging from 1 to 10.

To estimate annual $7Q_2$, $7Q_{10}$, $30Q_2$, and $30Q_{10}$ low-flow characteristics at ungaged sites in the Upper Great Miami River basin use the regression model described previously. For example, the 7-day 2-year low-flow is calculated for Beaver Creek near Springfield using the regression model. It is then compared to the 7-day 2-year low-flow computed from gaging station records. The basin characteristics are:

Drainage area (A) = 39.2 square miles.

Main-channel length (L) = 17.1 miles.

Elevation at 0.1L = 982 feet.

Elevation at 0.85L = 1,180 feet.

$$\text{Slope (S)} = \frac{1180 - 982}{0.75 \times 17.1} = 15.4 \text{ feet per mile.}$$

Average annual precipitation (P) = 38 inches-27 = 11 inches.

Index of relative infiltration (I).

Soil group	Percent (pa)		Weighting factor (wf)		
A	8	X	10	=	80
B	17	X	5	=	85
C	72	X	2	=	144
D	3	X	1	=	3
E	0	X	0.75	=	0
					312

I = 312 / 100 = 3.12

The regression equation is:

$$7Q_2 = (1.737X10^{-5})\ (A^{1.35})\ (S^{0.704})\ (P^{1.681})\ (10^{0.241xI}).$$

Substituting

$$7Q_2 = (1.737X10^{-5})\ (39.2^{1.35})\ (15.4^{0.704})\ (11^{1.681})\ (10^{0.241\ 3.12}).$$

$$7Q_2 = 5.4\ ft^3/s.$$

From the gaging station records, the 7Q low flow of Beaver Creek is 6.9 ft^3/s. The regression model was used to estimate the 7Q low flow for Beaver Creek for illustrative purposes only, because it is a continuous-record gaging station.

CONCLUSION

Annual and seasonal low-flow characteristics are presented for 237 sites on regulated and unregulated streams. Low-flow characteristics for each site are applicable only as long as present patterns of flow regulations (withdrawals, diversions, or inflow) are maintained.

Two regionalization methods, an analysis of base flow measurements and multiple regression analysis, were made in test basins to determine the cost and accuracy of each. Errors in the analysis of base-flow measurements ranged from 39 to 59 percent, while the standard error of estimate in the regression analyses ranged from 33 to 40 percent. Accuracy of both methods is within acceptable limits. However, a manpower analysis indicates that the base-flow-measurements method of analysis requires four times more manpower than the multiple regression method of analysis. Statewide multiple regression analyses could provide Ohio planners and regulatory agencies with a good regionalization technique for estimating low-flow characteristics statewide.

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Appendix 1.--List of low-flow sites in numerical order

03086500	Mahoning River at Alliance, Ohio
03089500	Mill Creek near Berlin Center, Ohio
03092000	Kale Creek near Pricetown, Ohio
03092090	West Branch Mahoning River near Ravenna, Ohio
03092099	Hinkley Creek at Charlestown, Ohio
03092460	West Branch Mahoning River below Michael J. Kirwan Dam, at Wayland, Ohio
03092500	West Branch Mahoning River near Newton Falls, Ohio
03093000	Eagle Creek at Phalanx Station, Ohio
03095500	Mosquito Creek below Mosquito Creek Dam near Cortland, Ohio
03097500	Meander Creek at Mineral Ridge, Ohio
03098000	Mahoning River at Youngstown, Ohio
03102950	Pymatuning Creek at Kinsman, Ohio
03109000	Lisbon Creek at Lisbon, Ohio
03109100	Middle Fork Little Beaver Creek near Rogers, Ohio
03109200	West Fork Little Beaver Creek at West Point, Ohio
03109400	North Fork Little Beaver Creek near Negley, Ohio
03109500	Little Beaver Creek near East Liverpool, Ohio
03110000	Yellow Creek near Hammondsville, Ohio
03110600	North Fork Yellow Creek at Hammondsville, Ohio
03110850	Island Creek near Toronto, Ohio
03111000	Cross Creek at Mingo Junction, Ohio
03111500	Short Creek near Dillonvalle, Ohio
03111550	Wheeling Creek at Brookside, Ohio
03114000	Captina Creek at Armstrongs Mills, Ohio
03115300	Little Muskingum River near Rinard Mills, Ohio
03115400	Little Muskingum River at Bloomfield, Ohio
03115650	East Fork Duck Creek at Lower Salem, Ohio
03115800	Duck Creek at Stanleyville, Ohio
03115990	Wolf Creek near Barberton, Ohio
03116000	Tuscarawas River at Clinton, Ohio
03116080	Chippewa Creek at Sterling, Ohio
03116100	Little Chippewa Creek near Smithville, Ohio
03116200	Chippewa Creek at Easton, Ohio
03117000	Tuscarawas River at Massillon, Ohio
03117150	Sandy Creek at Minerva, Ohio
03117160	Still Fork near Minerva, Ohio
03117300	Sandy Creek at Malvern, Ohio
03117310	Pipe Run at Malvern, Ohio
03117500	Sandy Creek at Waynesburg, Ohio
03118000	Middle Branch Nimishillen Creek at Canton, Ohio
03118100	East Branch Nimishillen Creek near Canton, Ohio
03118500	Nimishillen Creek at North Industry, Ohio
03119700	Conotton Creek at Jewett, Ohio
03119900	Conotton Creek at Leesville, Ohio
03120500	McGuire Creek below Leesville Dam near Leesville, Ohio
03122500	Tuscarawas River below Dover Dam near Dover, Ohio
03122850	Sugar Creek near Orrville, Ohio
03122900	Sugar Creek near West Lebanon, Ohio
03123000	Sugar Creek above Beach City Dam at Beach City, Ohio

Appendix 1.--List of low-flow sites in numerical order.--Continued

03123300	South Fork Sugar Creek at Dundee, Ohio
03124000	Sugar Creek below Beach City Dam near Beach City, Ohio
03124500	Sugar Creek at Strasburg, Ohio
03124520	Sugar Creek at Dover, Ohio
03125000	Home Creek near New Philadelphia, Ohio
03125900	Boggs Fork at Piedmont, Ohio
03126000	Stillwater Creek at Piedmont, Ohio
03127000	Stillwater Creek at Tippecanoe, Ohio
03127100	Crooked Creek near Stillwater, Ohio
03127500	Stillwater Creek at Uhrichsville, Ohio
03128500	Little Stillwater Creek below Tappan Dam, at Tappan, Ohio
03128600	Little Stillwater Creek near Dennison, Ohio
03129000	Tuscarawas River at Newcomerstown, Ohio
03129100	White Eyes Creek near Fresno, Ohio
03129150	Tuscarawas River at Coshocton, Ohio
03129400	Black Fork above Charles Mill Dam, near Mifflin, Ohio
03130000	Black Fork below Charles Mill Dam, near Mifflin, Ohio
03130500	Touby Run at Mansfield, Ohio
03131500	Black Fork at Loudonville, Ohio
03132000	Clear Fork at Butler, Ohio
03133500	Clear Fork below Pleasant Hill Dam, near Perrysville, Ohio
03134000	Jerome Fork at Jeromeville, Ohio
03134300	Muddy Fork near Rowsburg, Ohio
03135000	Lake Fork below Mohicanville Dam, near Mohicanville, Ohio
03136000	Mohican River at Greer, Ohio
03136500	Kokosing River at Mount Vernon, Ohio
03137000	Kokosing River at Millwood, Ohio
03138500	Walhonding River below Mohawk Dam at Nellie, Ohio
03138790	Killbuck Creek at Burbank, Ohio
03138800	Killbuck Creek at Wooster, Ohio
03139000	Killbuck Creek at Killbuck, Ohio
03140000	Mill Creek near Coshocton, Ohio
03140500	Muskingum River near Coshocton, Ohio
03141500	Seneca Fork below Senecaville Dam, near Senecaville, Ohio
03141900	Leatherwood Creek near Cambridge, Ohio
03142000	Wills Creek at Cambridge, Ohio
03143500	Wills Creek below Wills Creek Dam, at Wills Creek, Ohio
03144000	Wakatomika Creek near Frazeysburg, Ohio
03144500	Muskingum River at Dresden, Ohio
03145000	South Fork Licking River near Hebron, Ohio
03146000	North Fork Licking River at Utica, Ohio
03146250	North Fork Licking River above Newark, Ohio
03146500	Licking River near Newark, Ohio
03147500	Licking River below Dillon Dam, near Dillon Falls, Ohio
03148300	Moxahala Creek at Roseville, Ohio
03148400	Moxahala Creek at Roberts, Ohio
03148450	Jonathan Creek at East Fultonham, Ohio
03148600	Moxahala Creek near Zanesville, Ohio
03149500	Salt Creek near Chandlersville, Ohio
03150000	Muskingum River at McConnelsville, Ohio

Appendix 1.--List of low-flow sites in numerical order.--Continued

03150250	Meigs Creek near Beverly, Ohio
03150480	West Branch Wolf Creek near Waterford, Ohio
03150490	South Branch Wolf Creek near Waterford, Ohio
03155800	Little Hocking River near Little Hocking, Ohio
03156000	Hunters Run at Lancaster, Ohio
03156400	Hocking River at Lancaster, Ohio
03156700	Rush Creek near Sugar Grove, Ohio
03157000	Clear Creek near Rockbridge, Ohio
03157500	Hocking River at Enterprise, Ohio
03159000	Sunday Creek at Glouster, Ohio
03159500	Hocking River at Athens, Ohio
03159540	Shade River near Chester, Ohio
03159550	Shade River at Keno, Ohio
03201800	Sandy Run near Lake Hope, Ohio
03201900	Raccoon Creek near Prattsville, Ohio
03201990	Little Raccoon Creek near Vinton, Ohio
03202000	Raccoon Creek at Adamsville, Ohio
03205210	Indian Guyan Creek near Bradrick, Ohio
03217400	Scioto River near Kenton, Ohio
03217500	Scioto River at LaRue, Ohio
03218000	Little Scioto River above Marion, Ohio
03218500	Little Scioto River at Sewage Treatment Plant, near Marion, Ohio
03219500	Scioto River near Prospect, Ohio
03220000	Mill Creek near Bellepoint, Ohio
03221000	Scioto River below O'Shaughnessy Dam, near Dublin, Ohio
03223000	Olentangy River at Claridon, Ohio
03224500	Whetstone Creek near Ashley, Ohio
03225500	Olentangy River near Delaware, Ohio
03226800	Olentangy River near Worthington, Ohio
03227500	Scioto River at Columbus, Ohio
03228000	Scioto Big Run at Briggsdale, Ohio
03228200	Big Walnut Creek above Sunbury, Ohio
03228700	Blacklick Creek near Groveport, Ohio
03229800	Walnut Creek near Ashville, Ohio
03230200	Big Darby Creek at Plain City, Ohio
03230300	Little Darby Creek at Chuckery, Ohio
03230500	Big Darby Creek at Darbyville, Ohio
03230600	Hominy Creek at Circleville, Ohio
03230800	Deer Creek at Mount Sterling, Ohio
03231300	Kinnikinnick Creek near Kinnikinnick, Ohio
03231500	Scioto River at Chillicothe, Ohio
03232500	Rocky Fork near Barretts Mills, Ohio
03234500	Scioto River at Higby, Ohio
03235000	Salt Creek at Tarlton, Ohio
03235500	Tar Hollow Creek at Tar Hollow State Park, Ohio
03236000	Salt Creek near Londonderry, Ohio
03237280	Upper Twin Creek at McGaw, Ohio
03237500	Ohio Brush Creek near West Union, Ohio
03238200	Eagle Creek near Ripley, Ohio
03238500	Whiteoak Creek near Georgetown, Ohio

Appendix 1.--List of low-flow sites in numerical order.--Continued

03240000	Little Miami River near Oldtown, Ohio
03240500	North Fork Massie Creek at Cedarville, Ohio
03241000	South Fork Massie Creek near Cedarville, Ohio
03241500	Massies Creek at Wilberforce, Ohio
03242050	Little Miami River near Spring Valley, Ohio
03242150	Caesar Creek near Xenia, Ohio
03242200	Anderson Fork near New Burlington, Ohio
03243400	Cowan Creek at Clinton County Air Force Base, Ohio
03246500	East Fork Little Miami River at Williamsburg, Ohio
03255500	Mill Creek at Reading, Ohio
03257500	West Fork Mill Creek at Woodlawn, Ohio
03259000	Mill Creek at Carthage, Ohio
03260600	Great Miami River at Russells Point, Ohio
03260620	Muchinippi Creek near Russells Point, Ohio
03260700	Bokengehalas Creek near De Graff, Ohio
03260800	Stony Creek near De Graff, Ohio
03261500	Great Miami River at Sidney, Ohio
03261950	Loramie Creek near Newport, Ohio
03262000	Loramie Creek at Lockington, Ohio
03262500	Great Miami River at Piqua, Ohio
03262700	Great Miami River at Troy, Ohio
03262800	Lost Creek near Troy, Ohio
03262900	Honey Creek near New Carlisle, Ohio
03263000	Great Miami River at Taylorsville, Ohio
03264000	Greenville Creek near Bradford, Ohio
03265000	Stillwater River at Pleasant Hill, Ohio
03266000	Stillwater River at Englewood, Ohio
03266500	Mad River at Zanesfield, Ohio
03267000	Mad River near Urbana, Ohio
03267400	Cedar Run near Tremont City, Ohio
03267600	Chapman Creek at Tremont City, Ohio
03267900	Mad River at St. Paris Pike at Eagle City, Ohio
03268000	Buck Creek at New Moorefield, Ohio
03269500	Mad River near Springfield, Ohio
03270000	Mad River near Dayton, Ohio
03270500	Great Miami River at Dayton, Ohio
03270800	Wolf Creek at Trotwood, Ohio
03271300	Holes Creek near Kettering, Ohio
03271620	Great Miami River at Franklin, Ohio
03271700	Clear Creek at Franklin, Ohio
03271800	Twin Creek near Ingomar, Ohio
03272000	Twin Creek near Germantown, Ohio
03272200	Elk Creek at Milton, Ohio
03272300	Dicks Creek near Excello, Ohio
03272800	Sevenmile Creek at Collinsville, Ohio
03274000	Great Miami River at Hamilton, Ohio
03274200	Indian Creek near Millville, Ohio
03274600	Great Miami River at New Baltimore, Ohio
03322480	Wabash River above Beaver Creek at Wabash, Ohio

Appendix 1.--List of low-flow sites in numerical order.--Continued

04177100	East Branch St. Joseph River near Pioneer, Ohio
04183500	Maumee River at Antwerp, Ohio
04184500	Bean Creek at Powers, Ohio
04185000	Tiffin River at Stryker, Ohio
04187500	Ottawa River at Allentown, Ohio
04188300	Blanchard River at Mt. Blanchard, Ohio
04188500	Eagle Creek near Findlay, Ohio
04189000	Blanchard River near Findlay, Ohio
04189500	Blanchard River at Glandorf, Ohio
04191500	Auglaize River near Defiance, Ohio
04193500	Maumee River at Waterville, Ohio
04195500	Portage River at Woodville, Ohio
04196000	Sandusky River near Bucyrus, Ohio
04196200	Broken Sword Creek at Nevada, Ohio
04196500	Sandusky River near Upper Sandusky, Ohio
04197000	Sandusky River near Mexico, Ohio
04198000	Sandusky River near Fremont, Ohio
04198020	West Branch Huron River near Monroeville, Ohio
04198500	East Branch Huron River near Norwalk, Ohio
04199000	Huron River at Milan, Ohio
04199300	Vermilion River at Clarksfield, Ohio
04199500	Vermilion River near Vermilion, Ohio
04200500	Black River at Elyria, Ohio
04201400	West Branch Rocky River at West View, Ohio
04201500	Rocky River near Berea, Ohio
04202000	Cuyahoga River at Hiram Rapids, Ohio
04204000	Little Cuyahoga River at Mogadore, Ohio
04204500	Little Cuyahoga River at Massillon Road, Akron, Ohio
04205000	Springfield Lake Outlet at Akron, Ohio
04206000	Cuyahoga River at Old Portage, Ohio
04207200	Tinkers Creek at Bedford, Ohio
04208000	Cuyahoga River at Independence, Ohio
04208900	Aurora Branch near Chagrin Falls, Ohio
04209000	Chagrin River at Willoughby, Ohio
04210000	Phelps Creek near Windsor, Ohio
04212000	Grand River near Madison, Ohio
04212500	Ashtabula River near Ashtabula, Ohio
04213000	Conneaut Creek at Conneaut, Ohio

Appendix 2.--List of low-flow sites in alphabetical order

03242200	Anderson Fork near New Burlington, Ohio
04212500	Ashtabula River near Ashtabula, Ohio
04191500	Auglaize River near Defiance, Ohio
04208900	Aurora Branch near Chagrin Falls, Ohio
04184500	Bean Creek at Powers, Ohio
03230500	Big Darby Creek at Darbyville, Ohio
03230200	Big Darby Creek at Plain City, Ohio
03228200	Big Walnut Creek above Sunbury, Ohio
03129400	Black Fork above Charles Mill Dam near Mifflin, Ohio
03131500	Black Fork at Loudonville, Ohio
03130000	Black Fork below Charles Mill Dam near Mifflin, Ohio
03228700	Blacklick Creek near Groveport, Ohio
04191500	Black River at Elyria, Ohio
04188300	Blanchard Creek at Mt Blanchard, Ohio
04189500	Blanchard River at Glandorf, Ohio
04189000	Blanchard River near Findlay, Ohio
03125900	Boggs Fork at Piedmont, Ohio
03260700	Bokenhelas Creek near DeGraff, Ohio
04196200	Broken Sword Creek at Nevada, Ohio
03268000	Buck Creek at New Moorefield, Ohio
03242150	Caesar Creek near Xenia, Ohio
03114000	Captina Creek at Armstrongs Mills, Ohio
03267400	Cedar Run near Tremont City, Ohio
04209000	Chagrin River at Willoughby, Ohio
03267600	Chapman Creek at Tremont City, Ohio
03116200	Chippewa Creek at Easton, Ohio
03116080	Chippewa Creek at Sterling, Ohio
03271700	Clear Creek at Franklin, Ohio
03157000	Clear Creek near Rockbridge, Ohio
03132000	Clear Fork at Butler, Ohio
03133500	Clear Fork below Pleasant Hill Dam near Perrysville, Ohio
04213000	Conneaut Creek at Conneaut, Ohio
03119700	Conotton Creek at Jewett, Ohio
03119900	Conotton Creek at Leesville, Ohio
03243400	Cowan Creek at Clinton County Air Force Base, Ohio
03127100	Crooked Creek near Stillwater, Ohio
03111000	Cross Creek at Mingo Junction, Ohio
04202000	Cuyahoga River at Hiram Rapids, Ohio
04208000	Cuyahoga River at Independence, Ohio
04206000	Cuyahoga River at Old Portage, Ohio
03230800	Deer Creek at Mount Sterling, Ohio
03272300	Dicks Creek near Excello, Ohio
03115800	Duck Creek at Stanleyville, Ohio
04188500	Eagle Creek near Findlay, Ohio
03093000	Eagle Creek at Phalanx Station, Ohio
03238200	Eagle Creek near Ripley, Ohio
04198500	East Branch Huron River near Norwalk, Ohio
03118100	East Branch Nimishillen Creek near Canton, Ohio
04177100	East Branch St Joseph River near Pioneer, Ohio
03115650	East Fork Duck Creek at Lower Salem, Ohio
03246500	East Fork Little Miami River at Williamsburg, Ohio
03272200	Elk Creek at Milton, Ohio
04212000	Grand River near Madison, Ohio

Appendix 2.--List of low-flow sites in alphabetical order.--Continued

03270500	Great Miami River at Dayton, Ohio
03271690	Great Miami River at Franklin, Ohio
03274000	Great Miami River at Hamilton, Ohio
03274600	Great Miami River at New Baltimore, Ohio
03262500	Great Miami River at Piqua, Ohio
03260600	Great Miami River at Russells Point, Ohio
03261500	Great Miami River at Sidney, Ohio
03263000	Great Miami River at Taylorsville, Ohio
03262700	Great Miami River at Troy, Ohio
03264000	Greenville Creek near Bradford, Ohio
03092099	Hinkley Creek at Charlestown, Ohio
03159500	Hocking River at Athens, Ohio
03157500	Hocking River at Enterprise, Ohio
03156400	Hocking River at Lancaster, Ohio
03271300	Holes Creek near Kettering, Ohio
03125000	Home Creek near New Philadelphia, Ohio
03230600	Hominy Creek at Circleville, Ohio
03262900	Honey Creek near New Carlisle, Ohio
03156000	Hunters Run at Lancaster, Ohio
04199000	Huron River at Milan, Ohio
03274200	Indian Creek near Millville, Ohio
03205210	Indian Guyan Creek near Bradrick, Ohio
03110850	Island Creek near Toronto, Ohio
03134000	Jerome F at Jeromeville, Ohio
03148450	Jonathan Creek at East Fultonham, Ohio
03092000	Kale Creek near Pricetown, Ohio
03138790	Killbuck Creek at Burbank, Ohio
03139000	Killbuck Creek at Killbuck, Ohio
03138800	Killbuck Cr at Wooster, Ohio
03231300	Kinnikinnick Creek near Kinnikinnick, Ohio
03137000	Kokosing River at Millwood, Ohio
03136500	Kokosing River at Mt Vernon, Ohio
03135000	Lake Fork below Mohicanville Dam near Mohicanville, Ohio
03141900	Leatherwood Creek near Cambridge, Ohio
03147500	Licking River below Dillon Dam near Dillon Falls, Ohio
03146500	Licking River near Newark, Ohio
03109000	Lisbon Creek at Lisbon, Ohio
03109500	Little Beaver Creek near East Liverpool, Ohio
03116100	Little Chippewa Creek near Smithville, Ohio
04204500	Little Cuyahoga River at Massillon Road, Akron, Ohio
04204000	Little Cuyahoga River at Mogadore, Ohio
03230300	Little Darby Creek at Chuckery, Ohio
03155800	Little Hocking River near Little Hocking, Ohio
03240000	Little Miami River near Oldtown, Ohio
03242050	Little Miami River near Spring Valley, Ohio
03115400	Little Miami River at Bloomfield, Ohio
03115300	Little Muskingum River near Rinard Mills, Ohio
03201990	Little Raccoon Creek near Vinton, Ohio
03218000	Little Scioto River above Marion, Ohio
03218500	Little Scioto River at Sewage Treatment Plant, near Marion, Ohio
03128600	Little Stillwater Creek near Dennison, Ohio

Appendix 2.--List of low-flow sites in alphabetical order.--Continued

03128500	Little Stillwater Creek below Tappan Dam at Tappan, Ohio
03262000	Loramie Creek at Lockington, Ohio
03261950	Loramie Creek near Newport, Ohio
03262800	Lost Creek near Troy, Ohio
03270000	Mad River near Dayton, Ohio
03267900	Mad River at St Paris Pike at Eagle City, Ohio
03269500	Mad River near Springfield, Ohio
03267000	Mad River near Urbana, Ohio
03266500	Mad River at Zanesfield, Ohio
03086500	Mahoning River at Alliance, Ohio
03098000	Mahoning River at Youngstown, Ohio
03241500	Massies Creek at Wilberforce, Ohio
04183500	Maumee River at Antwerp, Ohio
04193500	Maumee River at Waterville, Ohio
03120500	McGuire Creek below Leesville Dam near Leesville, Ohio
03097500	Meander Creek at Mineral Ridge, Ohio
03150250	Meigs Creek near Beverly, Ohio
03118000	M B Nimishillen Creek at Canton, Ohio
03109100	Middle Fork Little Beaver Creek near Rogers, Ohio
03220000	Mill Creek near Bellepoint, Ohio
03089500	Mill Creek near Berlin Center, Ohio
03259000	Mill Creek at Carthage, Ohio
03140000	Mill Creek near Coshocton, Ohio
03136000	Mohican River at Greer, Ohio
03095500	Mosquito Creek below Mosquito Creek Dam near Cortland, Ohio
03148400	Moxahala Creek at Roberts, Ohio
03148300	Moxhala Creek at Roseville, Ohio
03148600	Moxahala Creek near Zanesville, Ohio
03260620	Muchinippi Creek near Russells Point, Ohio
03134300	Muddy Fork near Rowsburg, Ohio
3140500	Muskingum River near Coshocton, Ohio
03144500	Muskingum River at Dresden, Ohio
03150000	Muskingum River at McConnelsville, Ohio
03118500	Nimishillen Creek at North Industry, Ohio
03146250	North Fork Licking River above Newark, Ohio
03146000	North Fork Licking River at Utica, Ohio
03109400	North Fork Little Beaver Creek near Negley, Ohio
03240500	North Fork Massie Creek at Cedarville, Ohio
03110600	North Fork Yellow Creek at Hammondsville, Ohio
03237500	Ohio Brush Creek near West Union, Ohio
03223000	Olentangy River at Claridon, Ohio
03225500	Olentangy River near Delaware, Ohio
03226800	Olentangy River near Worthington, Ohio
04187500	Ottawa River at Allentown, Ohio
04210000	Phelps Creek near Windsor, Ohio
03117310	Pipe Run at Malvern, Ohio
04195500	Portage River at Woodville, Ohio
03102950	Pymatuning Creek at Kinsman, Ohio
00320200	Raccoon Creek at Adamsville, Ohio
03201900	Raccoon Creek near Prattsville, Ohio
03232500	Rocky Fork near Barretts Mills, Ohio

Appendix 2.--List of low-flow sites in alphabetical order.--Continued

04201500	Rocky River near Berea, Ohio
03156700	Rush Creek near Sugar Grove, Ohio
03149500	Salt Creek near Chandlersville, Ohio
03236000	Salt Creek near Londonderry, Ohio
03232500	Salt Creek at Tarlton, Ohio
04196000	Sandusky River near Bucyrus, Ohio
04198000	Sandusky River near Fremont, Ohio
04197000	Sandusky River near Mexico, Ohio
04196500	Sandusky River near Upper Sandusky, Ohio
03117300	Sandy Creek at Malvern, Ohio
03117150	Sandy Creek at Minerva, Ohio
03117500	Sandy Creek at Waynesburg, Ohio
03201800	Sandy Run near Lake Hope, Ohio
03228000	Scioto Big Run at Briggsdale, Ohio
03231500	Scioto River at Chillicothe, Ohio
03227500	Scioto River at Columbus, Ohio
03234500	Scioto River at Higby, Ohio
03217400	Scioto River near Kenton, Ohio
03217500	Scioto River at LaRue, Ohio
03221000	Scioto River below O'Shaughnessy Dam near Dublin, Ohio
03219500	Scioto River near Prospect, Ohio
03141500	Seneca Fork below Senecaville Dam, near Senecaville, Ohio
03272800	Sevenmile Creek at Collinsville, Ohio
03159540	Shade River near Chester, Ohio
03159550	Shade River at Keno, Ohio
03111500	Short Creek near Dillonvale, Ohio
03150490	South Branch Wolf Creek near Waterford, Ohio
03145000	South Fork Licking River near Hebron, Ohio
03241000	South Fork Massie Creek near Cedarville, Ohio
03123300	South Fork Sugar Creek at Dundee, Ohio
04205000	Springfield Lake Outlet at Akron, Ohio
03117160	Still Fork near Minerva, Ohio
03126000	Stillwater Creek at Piedmont, Ohio
03127000	Stillwater Creek at Tippecanoe, Ohio
03127500	Stillwater Creek at Uhrichsville, Ohio
03266000	Stillwater River at Englewood, Ohio
03265000	Stillwater River at Pleasant Hill, Ohio
03260800	Stony Creek near DeGraff, Ohio
03123000	Sugar Creek above Beach City Dam at Beach City, Ohio
03124000	Sugar Creek below Beach City Dam near Beach City, Ohio
03124520	Sugar Creek at Dover, Ohio
03122850	Sugar Creek at Orville, Ohio
03124500	Sugar Creek at Strasburg, Ohio
03122900	Sugar Creek near West Lebanon, Ohio
03159000	Sunday Creek at Glouster, Ohio
03235500	Tar Hollow Creek at Tar Hollow State Park, Ohio
04185000	Tiffin River at Stryker, Ohio
04207200	Tinkers Creek at Bedford, Ohio
03130500	Touby Run at Mansfield, Ohio
03116000	Tuscarawas River at Clinton, Ohio
03129150	Tuscarawas River at Coshocton, Ohio
03122500	Tuscarawas River below Dover Dam near Dover, Ohio

Appendix 2.--List of low-flow sites in alphabetical order.--Continued

03117000	Tuscarawas River at Massillon, Ohio
03129000	Tuscarawas River at Newcomerstown, Ohio
03272000	Twin Creek near Germantown, Ohio
03271800	Twin Creek near Ingomar, Ohio
03237280	Upper Twin Creek at McGaw, Ohio
04199300	Vermilion River at Clarksfield, Ohio
04199500	Vermilion River near Vermilion, Ohio
03322480	Wasbash River above Beaver Creek at Wabash, Ohio
03144000	Wakatomika Creek near Frazeysburg, Ohio
03138500	Walhonding River below Mohawk Dam at Nellie, Ohio
03229800	Walnut Creek near Ashville, Ohio
04198020	West Branch Huron River near Monroeville, Ohio
03092460	West Branch Mahoning River below Michael J. Kirwan Dam, at Wayland, Ohio
03092500	West Branch Mahoning River near Newton Falls, Ohio
03092090	West Branch River near Ravenna, Ohio
04201400	West Branch Rocky River at West View, Ohio
03150480	West Branch Wolf Creek near Waterford, Ohio
03109200	West Fork Little Beaver Creek at West Point, Ohio
03111500	Wheeling Creek at Brookside, Ohio
03224500	Whetstone Creek near Ashley, Ohio
03129100	White Eyes near Fresno, Ohio
03238500	Whiteoak Creek near Georgetown, Ohio
03142000	Wills Creek at Cambridge, Ohio
03143500	Wills Creek below Wills Creek Dam at Wills Creek, Ohio
03115990	Wolf Creek near Baberton, Ohio
03270800	Wolf Creek at Trotwood, Ohio
03110000	Yellow Creek near Hammondsville, Ohio

MAHONING RIVER BASIN

03086500 Mahoning River at Alliance, Ohio

LOCATION: Lat 40°55'58", long 81°05'41" in SE1/4 sec. 24, T.19 N., R.6 W., Stark County, Hydrologic Unit 05030103, on right bank 15 ft upstream from Webb Avenue Bridge in Alliance, 0.2 mi upstream from water works dam, and 4 mi upstream from Beech Creek.

DRAINAGE AREA: 89.2 mi^2.

TRIBUTARY TO: Head of Beaver River.

DISCHARGE DATA USED: October 1954 to September 1978.

REMARKS: Flow slightly regulated by Westville Reservoir 9.3 miles upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 91.2 ft^3/s (24 years).
Minimum daily discharge: No flow August 1955, 1958.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.0	1.9	0.9	0	0
	7	5.4	3.0	2.3	1.8	1.4
	30	7.7	4.8	3.9	3.3	2.9
May- Nov.	1	4.1	1.9	0.9	0	0
	7	5.4	3.0	2.3	1.8	1.4
	30	7.7	4.8	3.9	3.3	2.9
June-Aug.	1	5.1	2.5	1.4	0	0
	7	7.0	3.9	2.9	2.3	1.7
	30	13	6.4	4.7	3.6	2.7
Sept.-Nov.	1	4.9	2.5	1.8	1.4	1.1
	7	6.4	3.6	2.7	2.2	1.8
	30	11	6.2	4.7	3.8	3.0
Dec.-Feb.	1	17	8.3	5.5	3.8	2.4
	7	20	11	8.3	6.4	4.9
	30	38	19	13	9.6	6.8
Mar.- May	1	18	12	9.6	8.2	6.9
	7	23	14	12	9.8	82
	30	51	30	22	17	13

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.7	5.2	7.2	9.4	13	15	18	24	33	48	69	110	210
May - Nov.	3.2	4.4	5.6	6.8	8.2	9.7	12	16	20	26	36	54	110
June - Aug.	3.0	4.0	5.2	6.2	7.3	8.8	11	14	18	23	30	44	87
Sept.- Nov.	3.2	4.3	5.5	6.5	7.6	8.7	10	14	19	24	32	48	89
Dec. - Feb.	7.7	11	15	18	21	25	29	38	51	70	100	160	300
Mar. - May	13	18	25	30	36	41	48	62	81	100	140	200	350

MAHONING RIVER BASIN

03089500 Mill Creek near Berlin Center, Ohio

LOCATION: Lat 41°00'01", long 80°58'07", in T.1 N., R.5 W., Mahoning County, Hydrologic Unit 05030103, on left bank at downstream side of county road bridge, 1.0 mi upstream from flow line of Berlin Reservoir, 1.2 mi upstream from Turkeybroth Creek and 2.0 mi southwest of Berlin Center.

DRAINAGE AREA: 19.1 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: October 1941 to September 1971.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 16.7 ft^3/s (30 years).
Minimum daily discharge: No flow at times in 1953-1955, 1962, 1965-1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.2	0	0	0	0
	7	0.2	0	0	0	0
	30	0.4	0.2	0.1	0.1	0.1
May- Nov.	1	0.2	0	0	0	0
	7	0.2	0	0	0	0
	30	0.4	0.2	0.1	0.1	0.1
June-Aug.	1	0.2	0	0	0	0
	7	0.3	0.1	0	0	0
	30	0.6	0.2	0.2	0.1	0.1
Sept.-Nov.	1	0.2	0.1	0	0	0
	7	0.3	0.1	0.1	0.1	0
	30	0.6	0.3	0.2	0.2	0.1
Dec.-Feb.	1	1.4	0.8	0.6	0.5	0.4
	7	1.7	1.0	0.7	0.6	0.4
	30	3.7	1.5	1.0	0.7	0.5
Mar.- May	1	1.5	1.0	0.8	0.7	0.6
	7	2.2	1.4	1.1	1.0	0.8
	30	8.3	4.4	3.1	2.3	1.7

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.3	0.4	0.6	0.8	1.0	1.2	1.8	2.9	5.0	8.6	17	37
May - Nov.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	1.0	1.3	1.8	2.8	5.1	13
June - Aug.	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.3	1.9	3.2	7.8
Sept.- Nov.	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.8	1.1	1.4	1.9	3.0	6.7
Dec. - Feb.	0.8	1.0	1.3	1.6	1.9	2.3	2.7	3.9	5.5	8.5	14	26	58
Mar. - May	1.4	1.9	2.8	3.8	4.7	5.7	6.7	9.0	12	17	25	37	73

MAHONING RIVER BASIN

03092000 Kale Creek near Pricetown, Ohio

LOCATION: Lat 41°08'23", long 80°59'43", in T.3 N., R.5 W., Trumbull County, Hydrologic Unit 05030103, on right bank at downstream side of county line road bridge, 0.4 mi north of Mahoning-Trumbull County line, 1.5 mi northwest of Pricetown, 2.2 mi upstream from mouth, and 3.5 mi south of Newton Falls.

DRAINAGE AREA: 21.9 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: May 1941 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 23.1 ft^3/s (37 years).
Minimum daily discharge: No flow at times in 1952-1955, 1962-1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0.1	0.1	0	0
May- Nov.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0.1	0.1	0	0
June-Aug.	1	0.1	0	0	0	0
	7	0.2	0.1	0	0	0
	30	0.4	0.1	0.1	0.1	0
Sept.-Nov.	1	0.1	0	0	0	0
	7	0.2	0.1	0	0	0
	30	0.4	0.2	0.1	0.1	0
Dec.-Feb.	1	1.0	0.5	0.3	0.3	0.2
	7	1.3	0.6	0.4	0.3	0.2
	30	5.0	1.7	0.9	0.6	0.3
Mar.- May	1	1.2	0.7	0.5	0.4	0.3
	7	1.7	1.0	0.8	0.6	0.5
	30	8.7	4.4	3.0	2.2	1.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.1	0.2	0.3	0.4	0.5	0.7	1.0	1.7	3.0	5.4	9.5	20	50
May - Nov.	0	0.1	0.2	0.3	0.3	0.4	0.5	0.7	1.1	1.7	2.9	6.0	17
June - Aug.	0	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.8	1.1	1.6	2.9	8.1
Sept.- Nov.	0	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.9	1.4	2.5	5.0	12
Dec. - Feb.	0.5	0.7	1.0	1.4	1.8	2.2	2.7	4.2	6.5	11	18	34	86
Mar. - May	1.0	1.5	2.3	3.2	4.2	5.2	6.2	8.7	13	18	28	47	94

MAHONING RIVER BASIN

03092090 West Branch Mahoning River near Ravenna, Ohio

LOCATION: Lat 41°09'41", long 81°11'50", in T.3 N., R.8 W., Portage County, Hydrologic Unit 05030103, on left bank at downstream side of bridge on Newton Falls Road, 2.5 mi east of Ravenna.

DRAINAGE AREA: 21.8 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: October 1965 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 27.4 ft^3/s (13 years).
Minimum daily discharge: 0.7 ft^3/s September 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.3	0.9	0.7	0.6	0.5
	7	1.5	1.0	0.8	0.7	0.6
	30	2.1	1.4	1.1	1.0	0.8
May- Nov.	1	1.3	0.9	0.7	0.6	0.5
	7	1.5	1.0	0.8	0.7	0.6
	30	2.1	1.4	1.1	1.0	0.8
June-Aug.	1	1.5	1.1	0.9	0.8	0.7
	7	1.7	1.2	1.0	0.8	0.7
	30	2.9	1.8	1.4	1.1	0.8
Sept.-Nov.	1	1.5	0.9	0.7	0.6	0.5
	7	1.8	1.0	0.8	0.7	0.6
	30	3.9	2.2	1.6	1.2	0.9
Dec.-Feb.	1	6.5	4.3	3.4	2.8	2.3
	7	7.4	5.4	4.6	4.0	3.5
	30	15	7.7	5.5	4.1	3.0
Mar.- May	1	5.2	3.7	3.0	2.6	2.1
	7	7.0	4.8	4.0	3.5	3.0
	30	19	12	9.7	7.8	6.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.2	1.5	2.3	3.0	3.7	4.4	5.2	7.9	11	16	22	33	65
May - Nov.	1.0	1.3	1.6	2.1	2.5	2.9	3.3	4.2	5.4	7.4	10	17	33
June - Aug.	1.1	1.3	1.6	1.8	2.2	2.5	2.8	3.3	3.9	4.6	5.8	8.1	17
Sept.- Nov.	1.0	1.2	1.5	1.9	2.4	2.9	3.3	4.6	6.0	8.2	11	17	31
Dec. - Feb.	4.4	4.9	6.2	7.8	8.8	9.8	12	15	18	24	32	50	100
Mar. - May	4.6	6.3	8.2	9.5	11	13	15	19	23	30	38	55	99

MAHONING RIVER BASIN

03092099 Hinkley Creek at Charlestown, Ohio

LOCATION: Lat 41°09'16", long 81°08'51", Portage County, Hydrologic Unit 05030103, at bridge on Rock Spring Road 0.6 mi south of Charlestown, 2.2 mi upstream from mouth.

DRAINAGE AREA: 7.85 mi^2.

TRIBUTARY TO: West Branch Mahoning River.

DISCHARGE DATA USED: Low-flow measurements 1969-1977 water years.

INDEX STATION: 03093000 Eagle Creek at Phalanx Station, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.1 ft^3/s August 1971.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.3	0.2
	30	0.4	0.2
May - Nov.	7	0.3	0.2
	30	0.4	0.2
June - Aug.	7	0.3	0.2
	30	0.5	0.3
Sept.- Nov.	7	0.3	0.2
	30	0.4	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.3	0.4	0.5	0.6
May - Nov.	0.2	0.2	0.3	0.4	0.4
June - Aug.	0.2	0.2	0.3	0.4	0.4
Sept.- Nov.	0.2	0.2	0.3	0.3	0.4

MAHONING RIVER BASIN

03092460 West Branch Mahoning River below Michael J. Kirwan Dam, at Wayland, Ohio

LOCATION: Lat 41°09'25", long 81°04'19", in T.3 N., R.6 W., Portage County, Hydrologic Unit 05030103, on right bank 200 ft upstream from bridge on Wayland Road, 0.4 mi downstream from Michael J. Kirwan Dam, and 0.2 mi south of Wayland.

DRAINAGE AREA: 81.7 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: October 1968 to September 1979.

REMARKS: Flow completely regulated by Michael J. Kirwan Reservoir since December 1966.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 106 ft^3/s (11 years).
Minimum daily discharge: 2.5 ft^3/s April 1969.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	16	8.6	5.4	3.5	1.9
	7	19	11	6.7	4.2	2.2
	30	20	16	15	14	13
May- Nov.	1	17	12	9.5	8.1	6.7
	7	20	15	12	11	9.6
	30	35	22	17	14	11
June-Aug.	1	29	19	14	10	7.4
	7	35	21	16	12	8.8
	30	61	40	30	22	15
Sept.-Nov.	1	27	18	14	12	9.4
	7	31	19	15	12	9.2
	30	44	26	20	16	12
Dec.-Feb.	1	19	14	12	11	9.6
	7	19	14	13	12	11
	30	34	20	15	12	10
Mar.- May	1	18	9.4	5.9	3.8	2.1
	7	23	12	7.3	4.5	2.3
	30	34	16	9.8	6.2	3.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	13	17	20	23	26	35	43	58	77	96	120	150	210
May - Nov.	17	21	25	29	41	46	56	72	83	97	110	130	180
June - Aug.	17	24	30	41	49	56	66	77	87	96	110	120	140
Sept.- Nov.	17	19	23	26	41	46	59	74	90	110	120	160	220
Dec. - Feb.	12	13	17	19	21	24	31	47	69	130	160	190	300
Mar. - May	4.5	13	18	21	23	24	26	39	44	60	90	140	240

MAHONING RIVER BASIN

03092500 West Branch Mahoning River near Newton Falls, Ohio

LOCATION: Lat 41°10'18", long 81°01'16", in T.3 N., R.6 W., Portage County, Hydrologic Unit 05030103, on right bank 250 ft downstream from bridge on Newton Falls Road, 2.5 mi southwest of Newton Falls, 6 mi upstream from mouth, and 5 mi downstream from Michael J. Kirwan Dam.

DRAINAGE AREA: 96.3 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: April 1967 to September 1978.

REMARKS: Flow regulated by Michael J. Kirwan Reservoir since December 1966.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 114 ft^3/s (11 years).
Minimum daily discharge: 7.0 ft^3/s January 1968.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	17	11	8.7	6.9	5.2	Sept.-Nov.	1	25	14	10	8.0	5.9
	7	22	13	9.8	7.5	5.3		7	27	17	13	11	8.7
	30	29	18	13	10	7.6		30	40	23	17	13	9.8
May- Nov.	1	18	12	9.8	8.3	7.0	Dec.-Feb.	1	23	15	11	8.7	6.5
	7	24	16	14	12	9.8		7	24	14	11	9.7	8.4
	30	35	21	17	13	11		30	48	24	15	10	6.2
June-Aug.	1	26	17	14	12	10	Mar.- May	1	24	15	12	9.5	7.2
	7	35	23	19	16	13		7	29	19	14	11	7.6
	30	56	38	30	24	18		30	43	27	22	18	14

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	14	19	23	27	32	41	48	66	84	100	130	160	230
May - Nov.	15	19	23	29	40	49	57	75	89	100	120	140	190
June - Aug.	20	23	30	43	49	55	61	77	87	95	100	120	140
Sept.- Nov.	14	16	20	22	26	32	49	76	95	110	140	160	220
Dec. - Feb.	11	16	20	23	26	30	35	51	76	120	160	220	330
Mar. - May	15	21	26	29	32	35	40	49	57	82	110	150	220

MAHONING RIVER BASIN

03093000 Eagle Creek at Phalanx Station, Ohio

LOCATION: Lat 41°15'40", long 80°57'16", Trumbull County, Hydrologic Unit 05030103, on right bank 75 ft downstream from county road bridge, 1 mi north of Phalanx Station, 2 mi downstream from Tinkers Creek, and 4 mi upstream from mouth.

DRAINAGE AREA: 97.6 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: June 1926 to September 1934, October 1937 to September 1978.

REMARKS: Low flow slightly regulated by mill several miles upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 108 ft^3/s (49 years).
Minimum daily discharge: 0.9 ft^3/s August 1939.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	7.2	4.0	2.8	2.0	1.3	Sept.-Nov.	1	7.9	4.8	3.7	3.0	2.3
	7	9.6	7.2	6.2	5.5	4.9		7	9.8	7.5	6.9	6.5	6.3
	30	12	9.2	7.9	7.0	6.2		30	14	9.8	8.7	8.1	7.7
May- Nov.	1	7.2	4.0	2.8	2.0	1.3	Dec.-Feb.	1	27	15	10	7.3	4.6
	7	9.5	7.3	6.4	5.8	5.3		7	30	18	14	11	7.8
	30	12	9.2	7.9	7.0	6.2		30	51	28	21	16	13
June-Aug.	1	8.6	4.5	2.9	2.0	1.2	Mar.- May	1	30	20	14	11	7.4
	7	11	8.1	6.8	6.0	5.2		7	34	23	19	16	14
	30	15	11	9.4	8.5	7.8		30	71	44	33	26	19

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	7.4	9.9	13	15	17	20	23	30	40	56	80	130	260
May - Nov.	6.7	8.4	11	12	14	15	17	20	25	30	39	58	110
June - Aug.	6.5	8.3	10	12	13	15	16	19	22	27	33	44	76
Sept.- Nov.	6.0	7.6	9.6	11	12	14	15	18	21	26	34	48	96
Dec. - Feb.	15	18	22	26	30	34	39	50	66	87	120	200	380
Mar. - May	22	28	35	42	48	55	61	77	97	130	170	250	420

MAHONING RIVER BASIN

03095500 Mosquito Creek below Mosquito Creek Dam near Cortland, Ohio

LOCATION: Lat 41°17'59", long 80°45'31", in T.5 N., R.3 W., Trumbull County Hydrologic Unit 05030103, on right bank 100 ft downstream from Mosquito Creek Dam, 0.8 mi upstream from Confusion Run, and 2.5 mi southwest of Cortland.

DRAINAGE AREA: 97.5 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: October 1954 to September 1978.

REMARKS: Flow completely regulated by Mosquito Creek Lake beginning 1943. Diversion at lake outlet for municipal supply of city of Warren since May 1954; diversion not included in figures of daily discharge.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 76.7 ft^3/s (24 years).
Minimum daily discharge: 2.0 ft^3/s April 1968.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.7	3.3	2.8	2.5	2.3
	7	5.3	3.7	3.3	2.9	2.7
	30	6.2	4.2	3.5	3.1	2.7
May- Nov.	1	5.0	3.7	3.3	3.0	2.8
	7	6.3	4.3	3.5	3.1	2.6
	30	12	6.9	4.9	3.7	2.7
June-Aug.	1	6.6	4.5	3.8	3.3	2.9
	7	9.8	5.7	4.4	3.5	2.8
	30	48	22	14	9.1	5.5
Sept.-Nov.	1	8.7	4.6	3.5	2.8	2.3
	7	10	5.5	4.1	3.3	2.6
	30	21	11	7.0	4.8	3.0
Dec.-Feb.	1	6.4	3.9	3.2	2.8	2.4
	7	7.6	4.4	3.4	2.8	2.3
	30	9.6	4.8	3.7	3.0	2.5
Mar.- May	1	5.8	3.7	3.0	2.6	2.2
	7	6.2	4.2	3.6	3.2	2.9
	30	9.8	5.0	3.7	2.9	2.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.7	4.2	4.8	5.4	6.1	7.4	13	21	33	53	84	130	190
May - Nov.	4.0	4.8	6.0	11	17	20	25	38	51	75	100	130	190
June - Aug.	4.2	5.7	12	18	23	37	46	74	91	110	130	150	200
Sept.- Nov.	3.9	4.6	6.1	11	15	18	22	30	40	49	61	85	160
Dec. - Feb.	3.7	3.9	4.3	4.6	4.9	5.3	5.8	7.6	14	20	49	89	190
Mar. - May	3.6	4.0	4.5	4.9	5.3	5.6	6.0	7.8	19	23	48	110	230

MAHONING RIVER BASIN

03097500 Meander Creek at Mineral Ridge, Ohio

LOCATION: Lat 41°09'26", long 80°46'31", in T.3 N., R.3 W., Trumbull County, Hydrologic Unit 05030103, on right bank 0.4 mi upstream from highway bridge, 0.8 mi downstream from Mineral Ridge Dam, and 1.0 mi northwest of Mineral Ridge.

DRAINAGE AREA: 84.3 mi^2.

TRIBUTARY TO: Mahoning River.

DISCHARGE DATA USED: August 1929 to September 1951.

REMARKS: Some diversion upstream from station for municipal supply for McDonald, Niles, and Youngstown. Flow regulated by Meander Creek Reservoir.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 44.1 ft^3/s (22 years).
Minimum daily discharge: No flow August 1934 (affected by ponding of water above new concrete control).

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.4	0.2	0.1	0	0
	7	0.6	0.3	0.2	0.1	0.1
	30	0.7	0.5	0.4	0.3	0.3
May- Nov.	1	0.4	0.2	0.1	0	0
	7	0.6	0.3	0.2	0.1	0.1
	30	0.8	0.5	0.4	0.3	0.3
June-Aug.	1	0.5	0.3	0.2	0.2	0
	7	0.8	0.4	0.3	0.2	0.1
	30	1.0	0.7	0.6	0.5	0.4
Sept.-Nov.	1	0.5	0.2	0.2	0.1	0.1
	7	0.7	0.4	0.3	0.2	0.2
	30	0.9	0.5	0.4	0.4	0.3
Dec.-Feb.	1	0.8	0.4	0.3	0.3	0.2
	7	1.0	0.5	0.4	0.3	0.3
	30	2.8	0.8	0.5	0.3	0.2
Mar.- May	1	1.0	0.6	0.5	0.4	0.3
	7	1.5	0.9	0.6	0.5	0.4
	30	10	3.1	1.6	0.9	0.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.4	1.8	2.8	6.3	28	100
May - Nov.	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.1	1.4	1.7	2.3	4.3	19
June - Aug.	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.3	1.5	1.7	2.3	3.9	9.7
Sept.- Nov.	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.1	1.4	1.7	2.2	3.9
Dec. - Feb.	0.4	0.5	0.7	0.8	0.8	0.9	1.2	1.8	2.5	5.5	16	55	140
Mar. - May	0.7	0.8	1.2	1.7	2.7	3.9	5.1	13	27	49	81	140	280

MAHONING RIVER BASIN

03098000 Mahoning River at Youngstown, Ohio

LOCATION: Lat 41°06'40", long 80°40'23", Mahoning County, Hydrologic Unit 05030103, on left bank 400 ft upstream from Bridge Street bridge in Youngstown, Ohio, and 0.8 mi upstream from Mill Creek.

DRAINAGE AREA: 898 mi^2.

TRIBUTARY TO: Head of Beaver River.

DISCHARGE DATA USED: October 1966 to September 1978.

REMARKS: Water diverted upstream from station for municipal supply for city of Youngstown. Some sewage returned to river upstream from station. Water also diverted upstream and downstream from station by a private company for industrial use, some of which is returned to river upstream from station. Flow regulated by Berlin Lake, 48 mi upstream, beginning in 1942, by Milton Reservoir, 40 mi upstream, by Michael J. Kirwan Reservoir, 43 mi upstream on West Branch, beginning in 1966, by Mosquito Creek Lake, 22 mi upstream, beginning in 1943, by Meander Creek Reservoir, 11 mi upstream, beginning in 1929, and by reservoir on Squaw Creek, 5 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 988 ft^3/s (12 years).
Minimum daily discharge: 177 ft^3/s October 1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	250	212	194	181	167
	7	269	225	206	191	176
	30	336	275	246	223	200
May- Nov.	1	275	234	213	196	177
	7	297	251	227	208	187
	30	358	292	258	231	202
June-Aug.	1	333	297	278	262	243
	7	371	345	332	321	310
	30	454	416	401	391	381
Sept.-Nov.	1	291	232	207	189	170
	7	327	255	222	198	174
	30	405	298	254	223	193
Dec.-Feb.	1	258	208	197	192	189
	7	305	241	224	215	209
	30	552	324	249	201	160
Mar.- May	1	299	246	224	210	196
	7	312	255	240	232	227
	30	524	375	324	292	263

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	240	270	320	350	380	400	430	480	560	720	1000	1600	2300
May - Nov.	240	270	320	340	370	390	410	440	480	540	670	910	1500
June - Aug.	320	340	370	390	410	420	430	450	470	510	570	680	890
Sept.- Nov.	220	240	270	290	320	350	370	410	460	540	730	1100	1700
Dec. - Feb.	220	240	280	320	360	400	460	600	790	1100	1600	2100	2800
Mar. - May	250	300	340	360	400	440	500	670	960	1300	1800	2300	3000

SHENANGO RIVER BASIN

03102950 Pymatuning Creek at Kinsman, Ohio

LOCATION: Lat 41°26'34", long 80°35'18", in T.7 N., R.1 W., Trumbull County, Hydrologic Unit 05030102, on left bank at downstream side of bridge on State Route 7 at Kinsman, 0.8 mi downstream from Sugar Creek, and 1.2 mi upstream from Stratton Creek.

DRAINAGE AREA: 96.7 mi^2.

TRIBUTARY TO: Shenango River.

DISCHARGE DATA USED: October 1965 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 120 ft^3/s (13 years).
Minimum daily discharge: 0.1 ft^3/s August 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.9	0.3	0.2	0.1	0.1
	7	1.2	0.5	0.3	0.2	0.1
	30	3.2	1.4	0.9	0.6	0.4
May- Nov.	1	0.9	0.3	0.2	0.1	0.1
	7	1.3	0.5	0.3	0.2	0.1
	30	3.2	1.4	0.9	0.6	0.4
June-Aug.	1	1.2	0.4	0.2	0.1	0.1
	7	1.7	0.6	0.3	0.2	0.1
	30	4.5	2.0	1.2	0.8	0.5
Sept.-Nov.	1	2.2	0.7	0.4	0.2	0.1
	7	3.0	1.1	0.6	0.4	0.2
	30	11	4.8	3.1	2.2	1.5
Dec.-Feb.	1	30	11	5.4	2.6	0.9
	7	39	18	8.9	4.3	1.6
	30	76	43	31	23	17
Mar.- May	1	14	5.8	3.2	1.8	0.9
	7	20	10	6.4	4.2	2.5
	30	63	42	34	29	23

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.0	2.1	4.0	6.7	10	17	23	37	53	81	120	190	320
May - Nov.	0.6	1.4	2.4	3.5	5.0	6.7	8.7	15	25	36	52	88	170
June - Aug.	0.3	0.8	1.7	2.3	3.0	3.9	5.1	7.4	11	18	28	41	89
Sept.- Nov.	1.4	2.2	3.1	4.5	6.2	8.2	11	19	30	42	64	110	180
Dec. - Feb.	18	22	30	38	45	52	61	83	110	150	200	280	460
Mar. - May	8.6	19	28	35	43	51	60	84	110	150	210	290	430

LITTLE BEAVER CREEK BASIN

03109000 Lisbon Creek at Lisbon, Ohio

LOCATION: Lat 40°46'55", long 80°45'50", in NW1/4 sec. 13, T.14 N., R.3 W., Columbiana County, Hydrologic Unit 05030101, on left bank at City Water Works of Lisbon, 800 ft upstream from bridge on State Route 164 and 1.0 mi upstream from mouth.

DRAINAGE AREA: 6.19 mi^2.

TRIBUTARY TO: Middle Fork Little Beaver Creek.

DISCHARGE DATA USED: October 1946 to September 1962.

REMARKS: Water supply for city of Lisbon is pumped from wells adjacent to Lisbon Creek just upstream from station and is returned as sewage downstream from the station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 5.84 ft^3/s (16 years).
Minimum daily discharge: 0.1 ft^3/s at times during 1946, 1951-1955, 1957, 1959-1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.1	0.1	0.1	0.1	0.1
	7	0.2	0.1	0.1	0.1	0.1
	30	0.2	0.2	0.1	0.1	0.1
May- Nov.	1	0.1	0.1	0.1	0.1	0.1
	7	0.2	0.1	0.1	0.1	0.1
	30	0.2	0.2	0.1	0.1	0.1
June-Aug.	1	0.2	0.1	0.1	0.1	0.1
	7	0.2	0.1	0.1	0.1	0.1
	30	0.4	0.2	0.1	0.1	0.1
Sept.-Nov.	1	0.2	0.1	0.1	0.1	0.1
	7	0.2	0.1	0.1	0.1	0.1
	30	0.3	0.2	0.1	0.1	0.1
Dec.-Feb.	1	0.7	0.3	0.2	0.2	0.1
	7	0.9	0.4	0.3	0.2	0.1
	30	1.9	0.7	0.4	0.2	0.1
Mar.- May	1	1.5	1.0	0.8	0.7	0.6
	7	2.0	1.2	1.0	0.8	0.7
	30	4.6	3.1	2.5	2.0	1.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.2	0.3	0.4	0.5	0.6	0.8	1.3	2.2	3.7	5.3	7.8	14
May - Nov.	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.7	1.0	1.4	2.2	3.6	6.5
June - Aug.	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.6	0.9	1.2	1.7	2.8	5.4
Sept.- Nov.	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6	0.8	1.2	1.9	3.0
Dec. - Feb.	0.3	0.4	0.5	0.6	0.9	1.2	1.5	2.7	4.2	5.4	7.3	11	19
Mar. - May	1.2	1.7	2.5	3.1	3.7	4.2	4.6	5.4	6.5	7.9	10	13	20

LITTLE BEAVER CREEK BASIN

03109100 Middle Fork Little Beaver Creek near Rogers, Ohio

LOCATION: Lat 40°43'22", long 80°38'03", Columbiana County, Hydrologic Unit 05030101, 0.4 mi upstream from West Fork Little Beaver Creek, at State Route 7 bridge, 5.0 mi south of Rogers.

DRAINAGE AREA: 149 mi^2.

TRIBUTARY TO: Head of Little Beaver Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1960, 1972-77 water years.

INDEX STATION: 03109500 Little Beaver Creek near East Liverpool, Ohio.

REMARKS: Salem, Leetonia, and Lisbon (total population 20,000) discharge sewage several miles upstream. Effect is minimal.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 11 ft^3/s August 1973.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	15	10
	30	19	13
May - Nov.	7	15	10
	30	19	13
June - Aug.	7	18	11
	30	25	15
Sept.- Nov.	7	16	12
	30	22	14

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	13	16	19	22	26
May - Nov.	12	14	16	18	20
June - Aug.	12	14	17	19	22
Sept.- Nov.	12	14	16	16	18

LITTLE BEAVER CREEK BASIN

03109200 West Fork Little Beaver Creek at West Point, Ohio

LOCATION: Lat 40°42'38", long 80°41'49", Columbiana County, Hydrologic Unit 05030101, at bridge on U.S. Highway 30, 0.3 mi downstream from Patterson Creek, at West Point.

DRAINAGE AREA: 99.9 mi^2.

TRIBUTARY TO: Little Beaver Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1977 water years.

INDEX STATION: 03109500 Little Beaver Creek near East Liverpool, Ohio.

REMARKS: No diversion, but possible slight regulation at Guilford Lake in headwater upstream.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 5.3 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	4.1	2.2
	30	5.9	3.2
May - Nov.	7	4.1	2.2
	30	5.9	3.2
June - Aug.	7	5.5	2.4
	30	9.8	4.2
Sept.- Nov.	7	4.3	2.7
	30	7.0	3.7

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	3.2	4.3	5.9	7.7	10
May - Nov.	2.8	3.8	4.8	5.6	6.6
June - Aug.	2.6	3.7	4.9	6.1	7.4
Sept.- Nov.	2.8	3.5	4.2	4.8	5.5

LITTLE BEAVER CREEK BASIN

03109400 North Fork Little Beaver Creek near Negley, Ohio

LOCATION: Lat 40°46'30", long 80°32'36", Columbiana County, Hydrologic Unit 05030101, 0.5 mi downstream from Bull Creek at unnamed road bridge at Achor, 1.1 mi south of Negley.

DRAINAGE AREA: 166 mi^2.

TRIBUTARY TO: Little Beaver Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1976 water years.

INDEX STATION: 03109500 Little Beaver Creek near East Liverpool, Ohio.

REMARKS: No major regulation or diversion known. East Palestine (population 5,600) sewage is discharged into Leslie Run 4.0 mi upstream. Although quantity of sewage is unknown, the effect is considered to be minor.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 16 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	16	10
	30	21	13
May - Nov.	7	16	10
	30	21	13
June - Aug.	7	20	11
	30	30	16
Sept.- Nov.	7	17	12
	30	23	15

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	14	17	21	25	30
May - Nov.	12	15	18	20	22
June - Aug.	11	15	18	21	24
Sept.- Nov.	12	14	16	18	20

LITTLE BEAVER CREEK BASIN

03109500 Little Beaver Creek near East Liverpool, Ohio

LOCATION: Lat 40°40'33", long 80°32'27", Columbiana County, Hydrologic Unit 05030101, on right bank at downstream side of Grimms Bridge, 1.5 mi upstream from Island Run, 4 mi upstream from mouth, and 4 mi northeast of East Liverpool.

DRAINAGE AREA: 496 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1915 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 517 ft^3/s (63 years).
Minimum daily discharge: 12 ft^3/s several days in 1918 and 1932.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	29	20	17	15	12
	7	33	22	19	16	14
	30	46	32	27	23	20
May- Nov.	1	29	20	17	15	12
	7	33	22	19	16	14
	30	46	32	27	23	20
June-Aug.	1	36	23	18	15	12
	7	43	26	21	17	14
	30	72	43	34	28	23
Sept.-Nov.	1	31	23	20	19	18
	7	35	25	23	21	20
	30	53	35	30	28	26
Dec.-Feb.	1	117	67	50	39	29
	7	137	77	56	42	31
	30	251	128	89	65	45
Mar.- May	1	164	106	84	68	54
	7	196	128	105	89	76
	30	386	242	187	151	117

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	27	35	46	58	73	90	110	160	230	330	480	720	1200
May - Nov.	24	31	38	44	51	59	69	93	120	170	230	350	640
June - Aug.	22	30	39	47	56	65	74	94	120	150	200	290	520
Sept.- Nov.	24	29	34	38	43	47	52	65	85	110	160	240	420
Dec. - Feb.	53	74	99	120	150	180	210	280	370	480	640	950	1600
Mar. - May	120	160	210	250	290	340	390	490	610	750	940	1300	1900

YELLOW CREEK BASIN

03110000 Yellow Creek near Hammondsville, Ohio

LOCATION: Lat 40°32'16", long 80°43'31", in sec. 29, T.8 N., R.2 W., Jefferson County, Hydrologic Unit 05030101, on right bank 1,000 ft upstream from Lowery Run, 0.9 mi upstream from Brush Creek, and 1.6 mi southwest of Hammondsville.

DRAINAGE AREA: 147 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1940 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 158 ft^3/s (38 years).
Minimum daily discharge: 0.8 ft^3/s September, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.3	2.2	1.5	1.1	0.8
	7	5.3	2.7	1.9	1.3	0.9
	30	8.6	4.7	3.5	2.8	2.2
May- Nov.	1	4.3	2.2	1.5	1.1	0.8
	7	5.3	2.7	1.9	1.3	0.9
	30	8.7	4.7	3.5	2.8	2.2
June-Aug.	1	6.5	3.4	2.4	1.8	1.3
	7	8.6	4.5	3.1	2.3	1.7
	30	18	9.4	6.6	4.9	3.5
Sept.-Nov.	1	4.8	2.3	1.6	1.2	0.9
	7	6.3	3.0	2.0	1.5	1.0
	30	12	6.0	4.3	3.3	2.4
Dec.-Feb.	1	30	15	10	7.6	5.2
	7	41	20	14	9.6	6.3
	30	81	34	21	13	7.5
Mar.- May	1	52	34	27	22	18
	7	66	42	33	28	23
	30	126	78	61	49	38

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.7	6.0	9.8	14	18	23	29	44	69	100	150	230	390
May - Nov.	3.0	4.4	6.8	9.0	12	15	18	24	33	46	67	100	190
June - Aug.	3.5	5.5	8.1	11	13	16	19	24	31	41	54	78	140
Sept.- Nov.	2.4	3.5	4.9	6.4	8.0	9.9	12	17	23	31	44	67	120
Dec. - Feb.	11	17	23	31	41	52	65	90	120	160	210	310	510
Mar. - May	37	49	69	87	100	120	130	160	200	250	310	400	610

YELLOW CREEK BASIN

03110600 North Fork Yellow Creek at Hammondsville, Ohio

LOCATION: Lat 40°33'27", long 80°42'20", Jefferson County, Hydrologic Unit 05030101, at bridge on State Route 213, at north edge of Hammondsville.

DRAINAGE AREA: 59.4 mi^2.

TRIBUTARY TO: Yellow Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1974 water years.

INDEX STATION: 03109500 Little Beaver Creek near East Liverpool, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.0 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.5	0.8
	30	2.4	1.2
May - Nov.	7	1.5	0.8
	30	2.4	1.2
June - Aug.	7	2.2	0.9
	30	4.1	1.6
Sept.- Nov.	7	1.7	1.0
	30	2.8	1.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.2	1.7	2.4	3.2	4.2
May - Nov.	1.0	1.4	1.8	2.2	2.7
June - Aug.	0.9	1.4	1.9	2.4	3.0
Sept.- Nov.	1.0	1.3	1.6	1.8	2.2

ISLAND CREEK BASIN

03110850 Island Creek near Toronto, Ohio

LOCATION: Lat 40°25'44", long 80°37'00", Jefferson County, Hydrologic Unit 05030101, at boat ramp on State Route 7, downstream from Little Island Creek, and 2 mi south of Toronto.

DRAINAGE AREA: 26.4 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1976-1979 water years.

INDEX STATION: 03110000 Yellow Creek near Hammondsville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.3 ft^3/s September 1976.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.4	0.6
	30	2.1	1.0
May - Nov.	7	1.4	0.6
	30	2.2	1.0
June - Aug.	7	2.1	0.9
	30	3.8	1.7
Sept.- Nov.	7	1.7	0.7
	30	2.8	1.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.1	1.6	2.4	3.1	3.8
May - Nov.	0.9	1.3	1.8	2.2	2.8
June - Aug.	1.0	1.5	2.0	2.6	3.0
Sept.- Nov.	0.8	1.0	1.4	1.7	2.0

CROSS CREEK BASIN

03111000 Cross Creek at Mingo Junction, Ohio

LOCATION: Lat 40°18'55", long 80°36'45", Jefferson County, Hydrologic Unit 05030101, at bridge on State Route 7 at Mingo Junction, and 0.8 mi upstream from mouth.

DRAINAGE AREA: 127 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1950, 1951, 1953, 1959, 1962-1971 water years.

INDEX STATION: 03111500 Short Creek near Dillonvale, Ohio

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.1 ft^3/s September 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.7	0.5
	30	6.9	1.3
May - Nov.	7	3.7	0.7
	30	6.9	1.7
June - Aug.	7	8.9	1.3
	30	27	3.7
Sept.- Nov.	7	5.1	0.7
	30	13	2.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.7	3.7	6.9	13	19
May - Nov.	1.3	2.6	4.4	6.9	11
June - Aug.	1.7	3.1	6.0	11	16
Sept.- Nov.	1.0	2.1	3.1	4.4	6.0

SHORT CREEK BASIN

03111500 Short Creek near Dillonvale, Ohio

LOCATION: Lat 40°11'36", long 80°44'04", in sec. 30, T.4 N., R.2 W., Jefferson County, Hydrologic Unit 05030106, on right bank at downstream side of bridge on State Route 150, 2.1 mi east of Dillonvale, 2.2 mi downstream from Jug Run, and 2.9 mi upstream from Little Short Creek.

DRAINAGE AREA: 123 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1941 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 125 ft^3/s (37 years).
Minimum daily discharge: 2.8 ft^3/s September 1947.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	14	8.1	5.9	4.5	3.2	Sept.-Nov.	1	16	8.9	6.5	5.0	3.7
	7	16	10	7.7	6.2	4.8		7	18	11	8.9	7.4	6.2
	30	20	14	11	9.9	8.5		30	25	16	13	11	9.7
May- Nov.	1	15	8.7	6.4	4.9	3.6	Dec.-Feb.	1	31	17	12	8.8	6.2
	7	16	11	8.7	7.3	6.0		7	40	21	14	10	6.9
	30	20	14	12	10	8.8		30	65	32	21	15	9.2
June-Aug.	1	19	11	8.6	6.7	5.0	Mar.- May	1	63	43	35	29	23
	7	22	14	11	9.3	7.5		7	77	55	45	39	32
	30	33	21	16	13	11		30	116	83	69	60	51

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	12	16	20	25	29	34	39	53	70	97	130	180	270
May - Nov.	11	14	17	20	24	27	30	37	47	59	75	100	150
June - Aug.	12	15	19	24	27	31	35	42	50	59	71	92	130
Sept.- Nov.	10	13	15	17	19	21	23	27	32	38	48	66	100
Dec. - Feb.	13	18	26	32	37	45	54	71	98	130	160	210	330
Mar. - May	48	60	75	88	98	110	120	140	170	200	230	290	400

WHEELING CREEK BASIN

03111550 Wheeling Creek at Brookside, Ohio

LOCATION: Lat 40°04'05", long 80°46'50", Belmont County, Hydrologic Unit 05030106, at bridge on County Road 28, in Brookside, 0.1 mi downstream from Mutton Hollow.

DRAINAGE AREA: 103 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1972 water years.

INDEX STATION: 03111500 Short Creek near Dillonvale, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 8.2 ft^3/s August 1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	11	4.5
	30	15	7.0
May - Nov.	7	11	5.3
	30	15	7.8
June - Aug.	7	16	7.0
	30	27	11
Sept.- Nov.	7	13	5.5
	30	19	8.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	7.8	11	15	19	23
May - Nov.	7.0	9.4	12	15	18
June - Aug.	7.8	10	14	18	21
Sept.- Nov.	6.3	8.6	10	12	14

CAPTINA CREEK BASIN

03114000 Captina Creek at Armstrongs Mills, Ohio

LOCATION: Lat 39°54'31", long 80°55'27", in NE1/4 sec. 10, T.5 N., R.4 W., Belmont County, Hydrologic Unit 05030106, on left bank at downstream side of bridge on State Route 148, 0.5 mi east of Armstrongs Mills, and 0.7 mi downstream from Anderson Run.

DRAINAGE AREA: 134 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: August 1926 to September 1935, October 1958 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 160 ft^3/s (29 years).
Minimum daily discharge: No flow many times.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.6	0	0	0	0
	7	1.0	0.1	0	0	0
	30	4.7	0.9	0.2	0	0
May- Nov.	1	0.6	0	0	0	0
	7	1.0	0.1	0	0	0
	30	4.7	0.9	0.2	0	0
June-Aug.	1	1.5	0.2	0	0	0
	7	2.5	0.7	0.3	0	0
	30	13	4.4	2.1	0.7	0
Sept.-Nov.	1	1.2	0	0	0	0
	7	2.3	0.2	0	0	0
	30	7.6	1.3	0.4	0.1	0
Dec.-Feb.	1	33	13	6.8	3.9	1.9
	7	41	16	8.4	4.8	2.4
	30	94	36	19	11	5.3
Mar.- May	1	33	19	13	9.9	6.9
	7	43	23	17	12	8.7
	30	103	54	37	26	17

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	1.2	3.5	6.4	10	15	20	35	58	93	140	220	370
May - Nov.	0.1	0.5	1.6	2.9	4.6	6.4	8.7	15	22	34	53	90	180
June - Aug.	0.1	0.7	1.8	3.1	4.5	6.0	7.8	13	19	27	43	70	160
Sept.- Nov.	0.1	0.2	0.9	1.7	3.0	4.4	6.1	10	16	22	35	60	130
Dec. - Feb.	8.6	17	25	35	45	57	70	100	130	170	230	310	510
Mar. - May	21	31	44	57	70	83	97	130	160	200	260	360	580

LITTLE MUSKINGUM RIVER BASIN

03115300 Little Muskingum River near Rinard Mills, Ohio

LOCATION: Lat 39°36'25', long 81°07'21", Monroe County, Hydrologic Unit 05030201, at County Road 68 bridge, 1.5 mi upstream from Straight Fork, and 2.3 mi northeast of Rinard Mills.

DRAINAGE AREA: 130 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1972-1977 water years.

INDEX STATION: 03115400 Little Muskingum River at Bloomfield, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.3 ft^3/s August 1973.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.7	0.1
	30	1.9	0.3
May - Nov.	7	0.7	0.1
	30	1.9	0.3
June - Aug.	7	2.5	0.4
	30	9.4	1.3
Sept.- Nov.	7	1.0	0.1
	30	3.3	0.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.3	0.8	2.1	4.0	7.0
May - Nov.	0.2	0.4	0.9	1.7	2.7
June - Aug.	0.4	0.8	1.5	2.3	3.4
Sept.- Nov.	0.2	0.3	0.5	0.8	1.3

LITTLE MUSKINGUM RIVER BASIN

03115400 Little Muskingum River at Bloomfield, Ohio

LOCATION: Lat 39°33'47", long 81°12'14", in sec. 22, T.3 N., R.6 W., Washington County, Hydrologic Unit 05030201, on left bank 400 ft upstream from bridge on State Route 260 at Bloomfield, 2.2 mi downstream from Wilson Run.

DRAINAGE AREA: 210 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1958 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 251 ft^3/s (20 years).
Minimum daily discharge : No flow September 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.0	0.3	0.1	0	0
	7	1.3	0.4	0.2	0.1	0.1
	30	3.4	1.1	0.6	0.4	0.2
May- Nov.	1	1.0	0.3	0.1	0	0
	7	1.3	0.4	0.2	0.1	0.1
	30	3.4	1.1	0.6	0.4	0.2
June-Aug.	1	2.9	1.1	0.6	0.4	0.2
	7	4.4	1.6	0.8	0.5	0.2
	30	16	5.0	2.4	1.2	0.5
Sept.-Nov.	1	1.2	0.3	0.1	0	0
	7	1.9	0.5	0.2	0.1	0.1
	30	5.8	1.4	0.7	0.4	0.2
Dec.-Feb.	1	41	17	11	6.8	4.0
	7	52	21	12	7.5	4.3
	30	141	53	29	17	8.5
Mar.- May	1	40	24	18	14	11
	7	51	31	24	19	15
	30	154	89	65	50	36

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.6	1.4	3.7	7.1	12	18	25	45	81	140	210	340	620
May - Nov.	0.4	0.8	1.7	3.0	4.8	7.0	9.5	17	27	43	73	120	270
June - Aug.	0.8	1.4	2.7	4.2	6.0	7.8	9.7	16	23	34	52	84	190
Sept.- Nov.	0.3	0.5	0.9	1.4	2.3	3.4	5.0	9.7	17	27	48	99	230
Dec. - Feb.	14	22	31	41	60	80	100	140	190	250	340	490	890
Mar. - May	29	44	63	77	95	110	140	190	240	320	420	590	960

DUCK CREEK BASIN

03115650 East Fork Duck Creek at Lower Salem, Ohio

LOCATION: Lat 39°34'26", long 81°23'25", Washington County, Hydrologic Unit 05030201, at bridge on Township Road 319, 0.9 mi northeast of Lower Salem, 1.0 mi upstream from Pawpaw Creek.

DRAINAGE AREA: 111 mi^2.

TRIBUTARY TO: Head of Duck Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1976 water years.

INDEX STATION: 03115400 Little Muskingum River at Bloomfield, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.6 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.0	0.4
	30	4.3	1.1
May - Nov.	7	2.0	0.4
	30	4.3	1.1
June - Aug.	7	5.4	1.3
	30	15	3.3
Sept.- Nov.	7	2.7	0.4
	30	6.8	1.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.1	2.1	4.7	7.8	12
May - Nov.	0.8	1.3	2.5	4.0	5.8
June - Aug.	1.3	2.1	3.6	5.2	6.9
Sept.- Nov.	0.6	0.9	1.5	2.1	3.2

DUCK CREEK BASIN

03115800 Duck Creek at Stanleyville, Ohio

LOCATION: Lat 39°28',15", long 81°24'40", Washington County, Hydrologic Unit 05030201, at highway bridge in Stanleyville and 1.0 mi upstream from Sugar Creek.

DRAINAGE AREA: 267 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1973 water years.

INDEX STATION: 03115400 Little Muskingum River near Bloomfield, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.6 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.7	0.5
	30	6.8	1.3
May - Nov.	7	2.7	0.5
	30	6.8	1.3
June - Aug.	7	8.6	1.7
	30	29	4.8
Sept.- Nov.	7	3.9	0.5
	30	11	1.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.3	2.9	7.2	13	22
May - Nov.	0.9	1.7	3.5	6.0	9.3
June - Aug.	1.7	2.9	5.4	8.2	11
Sept.- Nov.	0.7	1.1	1.9	2.9	4.6

MUSKINGUM RIVER BASIN

03115990 Wolf Creek near Barberton, Ohio

LOCATION: Lat 41°02'56", long 81°36'00", Summit County, Hydrologic Unit 05040001, at bridge on Summit Road, 200 ft downstream from mouth of Pigeon Creek, 2.5 mi north of Barberton.

DRAINAGE AREA: 53.9 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1950, 1960, 1974-1978, 1980 water years.

INDEX STATION: 03116000 Tuscarawas River at Clinton, Ohio.

REMARKS: A pumping station, just upstream from bridge, pumps creek water into Barberton Reservoir on Wolf Creek 1.2 mi upstream. Water supply for Barberton is diverted around site.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 4.2 ft^3/s October 1960.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.5	1.5
	30	4.1	1.8
May - Nov.	7	3.5	1.5
	30	4.3	2.0
June - Aug.	7	4.7	2.2
	30	6.7	3.4
Sept.- Nov.	7	3.6	1.6
	30	4.7	2.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.8	2.5	3.4	4.1	5.0
May - Nov.	1.7	2.3	3.1	3.6	4.3
June - Aug.	2.1	2.7	3.5	4.1	4.9
Sept.- Nov.	1.6	2.0	2.5	3.1	3.5

MUSKINGUM RIVER BASIN

03116000 Tuscarawas River at Clinton, Ohio

LOCATION: Lat 40°55'40", long 81°37'58", in NW1/4 sec. 32, T.2 N., R.10 W., Summit County, Hydrologic Unit 05040001, on right bank 100 ft downstream from highway bridge at Clinton, and 1.0 mi upstream from Chippewa Creek.

DRAINAGE AREA: 174 mi^2.

TRIBUTARY TO: Head of Muskingum River.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: Some water diverted through the Portage Lakes into the Ohio Canal at Long Lake 12 mi upstream and 3 mi south of Akron. Flow affected by industrial plants upstream from station and supplemented at times by diversion from Nimisila Reservoir, capacity, 6,500 acre-ft since. 1939.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 157 ft^3/s (39 years).
Minimum daily discharge; 20 ft^3/s October 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	46	35	30	26	22	Sept.-Nov.	1	47	36	31	27	23
	7	50	39	35	31	27		7	51	40	36	32	28
	30	54	43	38	35	31		30	57	45	40	37	34
May- Nov.	1	47	36	31	27	23	Dec.-Feb.	1	55	40	34	30	26
	7	50	40	35	32	28		7	61	45	39	35	31
	30	55	44	39	36	32		30	83	53	43	37	31
June-Aug.	1	53	42	37	33	29	Mar.- May	1	71	55	49	44	38
	7	57	46	41	38	34		7	81	64	57	52	46
	30	66	54	49	45	41		30	118	88	75	66	57

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	38	43	49	54	59	63	67	76	87	110	130	190	340
May - Nov.	37	42	47	51	55	58	61	67	74	82	95	120	180
June - Aug.	40	45	50	54	58	61	64	69	76	83	95	110	170
Sept.- Nov.	36	39	43	47	50	53	55	60	66	72	78	92	130
Dec. - Feb.	36	41	48	54	59	64	70	80	98	120	160	240	470
Mar. - May	58	71	80	88	93	100	110	130	160	190	250	350	550

MUSKINGUM RIVER BASIN

03116080 Chippewa Creek at Sterling, Ohio

LOCATION: Lat 40°57'24", long 81°50'31", Wayne County, Hydrologic Unit 05040001, at bridge on County Road 60, 0.8 mi south of Sterling.

DRAINAGE AREA: 64.4 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03116200 Chippewa Creek at Easton, Ohio.

REMARKS: Possible regulation at Chippewa Lake 8.0 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.7 ft^3/s July 1975.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.9	0.8
	30	2.8	1.1
May - Nov.	7	1.9	0.8
	30	2.8	1.1
June - Aug.	7	2.5	0.9
	30	4.6	1.3
Sept.- Nov.	7	2.5	1.1
	30	4.1	1.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.2	1.6	2.5	3.3	4.6
May - Nov.	1.0	1.4	1.8	2.5	2.8
June - Aug.	1.0	1.3	1.7	2.1	2.5
Sept.- Nov.	1.1	1.4	1.7	2.1	2.5

MUSKINGUM RIVER BASIN

03116100 Little Chippewa Creek near Smithville, Ohio

LOCATION: Lat 40°53'40", long 81°48'50", Wayne County, Hydrologic Unit 05040001, in sec. 3, T.17 N., R.12 W., on left downstream pier of bridge on State Route 5, 3.3 mi northeast from center of Smithville.

DRAINAGE AREA: 16.4 mi^2.

TRIBUTARY TO: Chippewa Creek.

DISCHARGE DATA USED: Low-flow measurements 1965-1967, 1969, 1971-1972 water years.

INDEX STATION: 03116200 Chippewa Creek at Easton, Ohio.

REMARKS: Dam upstream. Construction of dam has resulted in 95 percent controlled drainage area.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.2 ft^3/s September 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.0	1.0
	30	2.7	1.3
May - Nov.	7	2.0	1.0
	30	2.7	1.3
June - Aug.	7	2.5	1.1
	30	4.0	1.5
Sept.- Nov.	7	2.5	1.3
	30	3.6	1.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.4	1.8	2.5	3.0	4.0
May - Nov.	1.2	1.6	1.9	2.5	2.7
June - Aug.	1.2	1.5	1.8	2.2	2.5
Sept.- Nov.	1.3	1.6	1.9	2.2	2.5

MUSKINGUM RIVER BASIN

03116200 Chippewa Creek at Easton, Ohio

LOCATION: Lat 40°56'47", long 81°44'35", in SW1/4 sec. 17, T.18 N., R.11 W., Wayne County, Hydrologic Unit 05040001, on left bank at downstream side of bridge on State Route 585, 0.5 mi southwest of Easton, and 1.5 mi upstream from Red Run.

DRAINAGE AREA: 146 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1960 to September 1978.

REMARKS: Low flow slightly regulated by industry at Rittman 2.5 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 131 ft^3/s (18 years).
Minimum daily discharge: 3.2 ft^3/s July 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	8.2	5.5	4.5	3.8	3.2
	7	9.3	6.6	5.6	5.0	4.4
	30	12	8.0	6.8	6.0	5.3
May- Nov.	1	8.2	5.5	4.5	3.8	3.2
	7	9.3	6.6	5.6	5.0	4.4
	30	12	8.0	6.8	6.0	5.3
June-Aug.	1	9.2	6.0	4.7	3.9	3.1
	7	11	7.2	5.9	5.0	4.2
	30	16	9.7	7.5	6.1	4.8
Sept.-Nov.	1	9.5	6.3	5.1	4.3	3.5
	7	11	7.8	6.7	5.9	5.2
	30	15	9.7	8.6	8.0	7.6
Dec.-Feb.	1	24	13	9.6	7.6	5.9
	7	31	17	13	10	7.6
	30	49	23	16	12	8.6
Mar.- May	1	27	18	15	12	10
	7	35	24	19	16	14
	30	75	44	34	27	21

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	7.2	8.6	11	13	16	19	22	32	44	66	100	160	350
May - Nov.	6.5	7.8	9.1	11	12	14	15	19	25	32	43	69	130
June - Aug.	6.2	7.4	8.7	10	11	13	14	18	23	29	38	54	97
Sept.- Nov.	6.7	7.8	8.9	10	11	13	14	17	20	25	34	50	110
Dec. - Feb.	10	14	19	23	27	32	38	53	73	99	140	220	480
Mar. - May	23	30	37	46	55	65	79	99	130	170	240	360	620

MUSKINGUM RIVER BASIN

03117000 Tuscarawas River at Massillon, Ohio

LOCATION: Lat 40°46'13", long 81°31'27", in sec. 20, T.10 N., R.9 W., Stark County, Hydrologic Unit 05040001, on left bank at sewage-treatment works, 0.7 mi south of Massillon, and 3 mi downstream from Newman Creek.

DRAINAGE AREA: 518 mi^2.

TRIBUTARY TO: Head of Muskingum River.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: Diversion from basin and regulation at Portage Lakes (including Nimisila Reservoir since 1939).

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 433 ft^3/s (39 years).
Minimum daily discharge: 57 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	86	71	64	59	54
	7	94	78	71	65	60
	30	107	86	78	72	66
May- Nov.	1	88	72	65	59	54
	7	96	79	71	65	60
	30	109	87	78	71	65
June-Aug.	1	98	80	71	65	58
	7	108	88	79	72	65
	30	137	107	94	85	76
Sept.-Nov.	1	91	72	64	58	53
	7	99	79	71	65	60
	30	114	89	81	76	72
Dec.-Feb.	1	118	86	75	68	62
	7	135	97	85	76	69
	30	206	123	97	80	66
Mar.- May	1	160	126	113	103	93
	7	190	149	133	122	111
	30	312	222	185	159	135

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	78	88	99	110	120	130	140	170	210	280	370	550	1000
May - Nov.	73	82	93	100	110	120	120	140	160	190	230	310	520
June - Aug.	78	87	96	100	110	120	130	140	160	190	220	290	490
Sept.- Nov.	69	77	85	92	98	100	110	120	130	150	170	220	350
Dec. - Feb.	83	93	110	120	130	140	160	210	270	350	460	710	1400
Mar. - May	140	160	190	220	250	270	300	360	450	560	730	1000	1600

MUSKINGUM RIVER BASIN

03117150 Sandy Creek at Minerva, Ohio

LOCATION: Lat 40°43'53", long 81°05'57", Stark County, Hydrologic Unit 05040001, at bridge on U.S. Highway 30 in Minerva.

DRAINAGE AREA: 61.9 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03117500 Sandy Creek at Waynesburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 8.7 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	4.4	2.7
	30	5.6	3.2
May - Nov.	7	4.6	2.7
	30	5.6	3.2
June - Aug.	7	6.1	3.5
	30	8.5	4.6
Sept.- Nov.	7	4.6	2.7
	30	6.3	3.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	3.4	4.4	5.1	6.1	7.3
May - Nov.	3.2	3.9	4.6	5.2	5.8
June - Aug.	3.7	4.6	5.4	6.1	6.7
Sept.- Nov.	2.7	3.4	3.9	4.4	4.7

MUSKINGUM RIVER BASIN

03117160 Still Fork near Minerva, Ohio

LOCATION: Lat 40°39'49", long 81°02'24", Carroll County, Hydrologic Unit 05040001, at bridge on State Route 9, 1.4 mi downstream from Pipes Fork, 5.5 mi southeast of Minerva.

DRAINAGE AREA: 36.2 mi^2.

TRIBUTARY TO: Sandy Creek.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03117500 Sandy Creek at Waynesburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.4 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.6	0.3
	30	1.0	0.4
May - Nov.	7	0.7	0.3
	30	1.0	0.4
June - Aug.	7	1.1	0.4
	30	1.9	0.7
Sept.- Nov.	7	0.7	0.3
	30	1.1	0.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.4	0.6	0.9	1.1	1.5
May - Nov.	0.4	0.5	0.7	0.9	1.0
June - Aug.	0.5	0.7	0.9	1.1	1.3
Sept.- Nov.	0.3	0.4	0.5	0.6	0.7

MUSKINGUM RIVER BASIN

03117300 Sandy Creek at Malvern, Ohio

LOCATION: Lat 40°41'27", long 81°10'50", Carroll County, Hydrologic Unit 05040001, at bridge on State Route 43 and State Route 183, in Malvern.

DRAINAGE AREA: 163 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1976-1978, 1980 water years.

INDEX STATION: 03117500 Sandy Creek at Waynesburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 33 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	20	14
	30	24	16
May - Nov.	7	21	14
	30	24	16
June - Aug.	7	26	17
	30	34	21
Sept.- Nov.	7	21	14
	30	27	17

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	17	20	23	26	30
May - Nov.	16	19	21	23	25
June - Aug.	18	21	24	26	28
Sept.- Nov.	14	17	19	20	21

MUSKINGUM RIVER BASIN

03117310 Pipe Run at Malvern, Ohio

LOCATION: Lat 40°41'16", long 81°11'02", Carroll County, Hydrologic Unit 05040001, at bridge in Malvern, 200 ft upstream from mouth.

DRAINAGE AREA: 27.7 mi^2.

TRIBUTARY TO: Sandy Creek.

DISCHARGE DATA USED: Low-flow measurements 1976-1978, 1980 water years.

INDEX STATION: 03117500 Sandy Creek at Waynesburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.8 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0.1
	30	0.3	0.1
May - Nov.	7	0.2	0.1
	30	0.3	0.1
June - Aug.	7	0.4	0.1
	30	0.7	0.2
Sept.- Nov.	7	0.2	0.1
	30	0.4	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.2	0.3	0.4	0.5
May - Nov.	0.1	0.1	0.2	0.3	0.3
June - Aug.	0.1	0.2	0.3	0.4	0.4
Sept.- Nov.	0.1	0.1	0.1	0.2	0.2

MUSKINGUM RIVER BASIN

03117500 Sandy Creek at Waynesburg, Ohio

LOCATION: Lat 40°40'21", long 81°15'36", in sec. 21, T.17 N., R.7 W., Stark County Hydrologic Unit 05040001, on upstream side of left pier of bridge on State Route 183 in Waynesburg, 300 ft downstream from Little Sandy Creek, and 0.6 mi upstream from Indian Run.

DRAINAGE AREA: 253 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: December 1938 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 265 ft^3/s (39 years).
Minimum daily discharge: 12 ft^3/s September, October, November 1963 and October 1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	25	18	15	13	12
	7	27	20	17	15	13
	30	34	24	20	18	16
May- Nov.	1	26	18	15	13	12
	7	28	20	17	15	13
	30	34	24	20	18	16
June-Aug.	1	34	24	20	18	15
	7	37	26	22	19	17
	30	51	34	28	25	21
Sept.-Nov.	1	26	18	16	14	12
	7	28	20	17	16	14
	30	38	25	21	18	16
Dec.-Feb.	1	59	34	25	20	15
	7	73	40	29	23	17
	30	120	56	37	26	18
Mar.- May	1	101	70	59	51	43
	7	118	82	69	61	53
	30	209	138	111	92	74

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	21	27	32	37	44	53	63	87	120	180	260	380	630
May - Nov.	20	24	28	32	35	39	44	57	74	96	130	190	320
June - Aug.	23	28	33	37	41	46	51	62	75	92	120	150	240
Sept - Nov.	17	21	24	27	29	31	34	39	48	63	87	130	240
Dec. - Feb.	27	34	45	57	67	80	97	140	200	270	360	520	870
Mar. - May	74	92	120	150	170	200	220	270	330	410	500	640	950

MUSKINGUM RIVER BASIN

03118000 Middle Branch Nimishillen Creek at Canton, Ohio

LOCATION: Lat 40°50'29", long 81°21'14" in NE1/4 sec.27, T.11 N., R.8 W., Stark County, Hydrologic Unit 05040001, on right bank at downstream side of bridge on Martindale Road, 2.4 mi upstream from mouth, and 0.5 mi northeast of Canton.

DRAINAGE AREA: 43.1 mi^2.

TRIBUTARY TO: Sandy Creek.

DISCHARGE DATA USED: October 1941 to September 1978.

REMARKS: Part of municipal water supply for city of Canton is pumped from its northeast well field; a portion of pumpage is believed to be derived from creek as recharge to aquifer supplying well field. Mean pumpage for water year 1977 is 12.7 ft^3/s, At times low flow regulated by small pools above station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 34.6 ft^3/s (37 years).
Minimum daily discharge: 0.3 ft^3/s September 1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	2.8	1.2	0.8	0.5	0.3
	7	3.6	1.7	1.1	0.8	0.5
	30	4.4	2.4	1.8	1.4	1.1
May- Nov.	1	2.9	1.3	0.8	0.5	0.3
	7	3.5	1.8	1.3	1.0	0.7
	30	4.5	2.5	1.8	1.4	1.1
June-Aug.	1	4.2	1.9	1.3	0.9	0.6
	7	5.1	2.5	1.7	1.2	0.8
	30	7.6	4.0	2.8	2.1	1.5
Sept.-Nov.	1	3.1	1.4	0.9	0.6	0.4
	7	3.7	1.9	1.4	1.1	0.8
	30	5.3	2.8	2.0	1.5	1.1
Dec.-Feb.	1	7.2	3.1	1.8	1.1	0.6
	7	8.3	3.5	2.1	1.3	0.7
	30	13	5.6	3.5	2.4	1.5
Mar.- May	1	14	7.5	4.6	2.7	1.3
	7	14	10	9.1	8.3	7.6
	30	26	17	14	12	10

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.8	2.5	3.5	4.6	5.8	7.2	8.7	12	17	22	31	46	78
May - Nov.	1.6	2.2	3.0	3.7	4.5	5.3	6.3	8.4	11	15	19	26	43
June - Aug.	2.0	2.7	3.5	4.2	5.0	6.0	7.0	9.3	12	15	19	24	39
Sept.- Nov.	1.5	1.8	2.3	2.8	3.3	3.9	4.5	5.8	7.5	9.9	13	19	31
Dec. - Feb.	2.0	2.9	4.3	5.5	7.3	8.9	11	15	21	29	40	59	110
Mar. - May	9.8	12	15	17	20	22	25	31	37	46	58	77	120

MUSKINGUM RIVER BASIN

03118100 East Branch Nimishillen Creek near Canton, Ohio

LOCATION: Lat 40°49'24", long 81°17'55", Stark County, Hydrologic Unit 05040001, at bridge on Broadway Avenue, 1 mi east of Canton city limits, 3.5 mi upstream from Middle Branch.

DRAINAGE AREA: 33.4 mi^2.

TRIBUTARY TO: Nimishillen Creek.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03117500 Sandy Creek at Waynesburg, Ohio.

REMARKS: Canton northeast well field affect flow in Middle Branch Nimishillen Creek, but is not known to affect flow in East Branch.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 5.7 ft^3/s June 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.7	2.7
	30	4.4	3.0
May - Nov.	7	3.8	2.7
	30	4.4	3.0
June - Aug.	7	4.7	3.2
	30	6.0	3.8
Sept.- Nov.	7	3.8	2.7
	30	4.8	3.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	3.1	3.7	4.2	4.7	5.4
May - Nov.	3.0	3.4	3.8	4.2	4.5
June - Aug.	3.3	3.8	4.3	4.7	5.1
Sept.- Nov.	2.7	3.1	3.4	3.7	3.9

MUSKINGUM RIVER BASIN

03118500 Nimishillen Creek at North Industry, Ohio

LOCATION: Lat 40°44'03", long 81°21'08", in sec.35, T.10 N., R.8 W., Stark County, Hydrologic Unit 05040001, on left bank just downstream from railroad bridge, 1 mi southeast of North Industry, and 3 mi downstream from Sherrick Run.

DRAINAGE AREA: 175 mi^2.

TRIBUTARY TO: Sandy Creek.

DISCHARGE DATA USED: October 1921 to September 1978.

REMARKS: Low flow slightly regulated by plants at Canton. Records include diversion from Sugar Creek well field. Mean pumpage for the 1976 water year, 16.0 ft^3/s.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 178 ft^3/s (57 years).
Minimum daily discharge: 14 ft^3/s August 1923.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	44	29	23	19	15	Sept.-Nov.	1	46	32	25	21	17
	7	50	36	30	25	21		7	53	37	31	27	22
	30	57	41	35	30	26		30	62	44	38	33	29
May- Nov.	1	44	30	23	19	15	Dec.-Feb.	1	60	43	36	32	27
	7	51	36	30	25	21		7	70	49	41	36	31
	30	58	42	35	30	26		30	102	65	51	42	34
June-Aug.	1	51	34	26	21	16	Mar.- May	1	85	61	49	41	33
	7	59	41	33	28	22		7	100	71	58	48	39
	30	77	54	44	37	30		30	147	100	80	65	51

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	32	41	50	56	61	67	73	89	110	130	170	230	350
May - Nov.	29	36	45	50	55	59	64	73	84	99	120	150	230
June - Aug.	29	37	46	53	58	63	67	78	89	100	120	150	230
Sept.- Nov.	27	33	41	46	50	53	56	62	69	79	94	120	180
Dec. - Feb.	39	47	55	62	68	76	85	100	130	160	200	270	450
Mar. - May	56	71	87	100	110	130	140	160	190	220	260	330	490

MUSKINGUM RIVER BASIN

03119700 Conotton Creek at Jewett, Ohio

LOCATION: Lat 40°21'55", long 81°00'15", Harrison County, Hydrologic Unit 05040001, in NW1/4 sec. 5, T.11 N., R.5 W., on left downstream wingwall of bridge on State Route 9 in Jewett.

DRAINAGE AREA: 14.3 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1965-1970, 1972-1974 water years.

INDEX STATION: 03111500 Short Creek near Dillonville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.2 ft^3/s July 1965.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.3	0.1
	30	0.5	0.2
May - Nov.	7	0.3	0.1
	30	0.5	0.2
June - Aug.	7	0.6	0.2
	30	1.3	0.3
Sept.- Nov.	7	0.4	0.1
	30	0.8	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.3	0.5	0.8	1.0
May - Nov.	0.2	0.3	0.4	0.5	0.7
June - Aug.	0.2	0.3	0.5	0.7	0.9
Sept.- Nov.	0.1	0.2	0.3	0.4	0.5

MUSKINGUM RIVER BASIN

03119900 Conotton Creek at Leesville, Ohio

LOCATION: Lat 40°26'44", long 81°11'49", Carroll County, Hydrologic Unit 05040001, 2.5 mi upstream from McGuire Creek, at State Route 164 bridge, 0.9 mi southeast of Leesville.

DRAINAGE AREA: 87.1 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1977 water years.

INDEX STATION: 03111500 Short Creek near Dillonvale, Ohio.

REMARKS: Scio sewage (untreated) discharges into Conotton Creek 8.0 mi upstream of station. 80,000 gal/d is pumped from ground water for water supply. No record of flow.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 3.6 ft^3/s September 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.7	1.5
	30	4.9	2.3
May - Nov.	7	3.7	1.7
	30	4.9	2.6
June - Aug.	7	5.5	2.3
	30	9.2	3.7
Sept.- Nov.	7	4.3	1.8
	30	6.5	2.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.6	3.7	4.9	6.5	7.8
May - Nov.	2.3	3.1	4.0	4.9	6.1
June - Aug.	2.6	3.4	4.6	6.1	7.1
Sept.- Nov.	2.1	2.8	3.4	4.0	4.6

MUSKINGUM RIVER BASIN

03120500 McGuire Creek below Leesville Dam, near Leesville, Ohio

LOCATION: Lat 40°28'13", long 81°11'48", in E1/2 sec.36, T.13 N., R.6 W., Carroll County, Hydrologic Unit 050400001, on left bank at outlet of Leesville Dam, 1.3 mi upstream from mouth, and 1.4 mi northeast of Leesville.

DRAINAGE AREA: 48.3 mi^2.

TRIBUTARY TO: Conotton Creek.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Leesville Lake.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 52.3 ft^3/s (40 years).
Minimum daily discharge: No flow several days during 1939-41.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.3	1.0	0.8	0	0
	7	1.5	0.9	0.7	0	0
	30	2.1	1.2	0.9	0.7	0
May- Nov.	1	1.4	1.0	0.9	0	0
	7	1.7	1.0	0.6	0	0
	30	2.4	1.3	1.0	0.8	0
June-Aug.	1	2.3	1.4	1.1	0.9	0
	7	2.8	1.6	1.2	1.0	0
	30	5.3	2.3	1.5	1.0	0.7
Sept.-Nov.	1	1.6	1.0	0.8	0	0
	7	2.3	0.9	0.4	0	0
	30	3.2	1.4	1.0	0.6	0
Dec.-Feb.	1	2.1	1.2	1.0	0.8	0
	7	3.1	1.5	1.1	0.8	0
	30	16	5.4	3.1	1.9	1.1
Mar.- May	1	3.6	1.2	0.7	0.4	0
	7	7.1	2.3	1.2	0.6	0
	30	32	13	6.9	4.0	2.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.0	1.4	1.8	2.2	2.7	4.3	6.0	9.8	17	33	60	93	150
May - Nov.	0.3	1.3	1.6	1.9	2.3	2.8	4.3	7.2	9.9	15	27	58	110
June - Aug.	1.3	1.6	2.0	2.4	3.1	4.6	5.7	7.7	9.9	13	20	36	75
Sept.- Nov.	0.7	1.1	1.3	1.5	1.7	2.0	2.2	3.0	6.2	9.0	15	50	120
Dec. - Feb.	1.5	1.9	2.2	2.8	4.4	6.0	8.6	19	30	49	78	120	190
Mar. - May	1.2	1.9	2.9	10	17	25	33	50	65	82	100	140	200

MUSKINGUM RIVER BASIN

03122500 Tuscarawas River below Dover Dam, near Dover, Ohio

LOCATION: Lat 40°31'47", long 81°25'48", in T.9 N., R.2 W., Tuscarawas County, Hydrologic Unit 05040001, on left bank at downstream side of bridge on State Route 416, 2.2 mi downstream from Dover Dam, 1.5 mi east of Dover, and 3.4 mi upstream from Sugar Creek.

DRAINAGE AREA: 1,405 mi^2.

TRIBUTARY TO: Head of Muskingum River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Diversion from basin at Portage Lakes. Records include diversion from Sugar Creek well field. Mean pumpage for the 1978 water year, 16.0 ft^3/s. Flow regulated by four flood-control reservoirs since 1936 at points 2.2 mi to 25 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1,410 ft^3/s (41 years).
Minimum daily discharge: 6.5 ft^3/s October 1948.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	217	97	46	19	40	Sept.-Nov.	1	266	180	130	92	54
	7	266	211	190	174	159		7	282	217	192	175	159
	30	320	250	222	202	183		30	348	257	224	203	183
May- Nov.	1	247	171	128	92	56	Dec.-Feb.	1	396	213	148	106	71
	7	271	213	190	173	157		7	451	299	248	215	186
	30	324	251	221	201	181		30	732	416	314	250	196
June-Aug.	1	290	224	196	176	156	Mar.- May	1	588	281	154	82	35
	7	328	256	226	205	184		7	682	506	441	398	357
	30	440	324	278	245	213		30	1140	791	650	553	460

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	220	250	300	340	380	420	480	600	780	1000	1400	2100	3700
May - Nov.	210	230	270	300	330	360	390	460	550	670	840	1200	1900
June - Aug.	220	250	290	320	350	390	420	480	560	660	810	1100	1800
Sept.- Nov.	190	220	240	260	280	300	330	380	430	520	640	840	1400
Dec. - Feb.	240	290	340	390	450	520	600	800	1100	1400	1900	2800	4500
Mar. - May	440	550	680	800	920	1100	1200	1400	1800	2200	2800	3900	5200

MUSKINGUM RIVER BASIN

03122850 Sugar Creek near Orrville, Ohio

LOCATION: Lat 40°48'43", long 81°45'56", Wayne County, Hydrologic Unit 05040001, at bridge on State Route 57, 2.0 mi south of Orrville.

DRAINAGE AREA: 47.2 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1976-1978, 1980 water years.

INDEX STATION: 03123000 Sugar Creek above Beach City Dam at Beach City, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.5 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.5	0.7
	30	2.2	1.0
May - Nov.	7	1.5	0.7
	30	2.2	1.0
June - Aug.	7	2.0	0.9
	30	3.6	1.7
Sept.- Nov.	7	1.8	0.8
	30	2.7	1.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.0	1.5	2.0	2.5	2.9
May - Nov.	0.9	1.2	1.6	2.0	2.4
June - Aug.	1.0	1.3	1.6	2.0	2.4
Sept.- Nov.	0.8	1.0	1.4	1.7	1.9

MUSKINGUM RIVER BASIN

03122900 Sugar Creek near West Lebanon, Ohio

LOCATION: Lat 40°44'12", long 81°39'12", Wayne County, Hydrologic Unit 05040001, at bridge on county road, 1.1 mi northeast of West Lebanon.

DRAINAGE AREA: 69.8 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1973, 1976-1978, 1980 water years.

INDEX STATION: 03123000 Sugar Creek above Beach City Dam at Beach City, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 4.7 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.3	0.9
	30	3.4	1.4
May - Nov.	7	2.3	0.9
	30	3.4	1.4
June - Aug.	7	3.0	1.3
	30	6.0	2.5
Sept.- Nov.	7	2.8	1.0
	30	4.4	1.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.4	2.2	3.1	4.1	4.7
May - Nov.	1.2	1.7	2.3	3.0	3.7
June - Aug.	1.4	1.8	2.4	3.1	3.7
Sept.- Nov.	1.0	1.3	2.0	2.5	2.9

MUSKINGUM RIVER BASIN

03123000 Sugar Creek above Beach City Dam, at Beach City, Ohio

LOCATION: Lat 40°39'24", long 81°34'37", in NE1/4 sec.35, T.11 N., R.10 W., Stark County, Hydrologic Unit 05040001, on right bank at downstream side of Third Avenue Bridge at Beach City, 2.3 mi upstream from Beach City Dam.

DRAINAGE AREA: 160 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: April 1945 to September 1975.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 141 ft^3/s (30 years).
Minimum daily discharge: 1.5 ft^3/s August 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	6.0	3.3	2.5	1.9	1.5	Sept.-Nov.	1	7.2	3.9	2.9	2.2	1.6
	7	7.4	4.1	3.0	2.3	1.7		7	9.1	4.9	3.5	2.6	1.8
	30	11	6.3	4.8	3.9	3.0		30	14	7.2	5.2	4.0	3.0
May- Nov.	1	6.0	3.3	2.5	1.9	1.5	Dec.-Feb.	1	19	10	7.6	5.9	4.6
	7	7.4	4.1	3.0	2.3	1.7		7	25	13	9.5	7.4	5.7
	30	11	6.3	4.8	3.9	3.0		30	51	22	15	11	7.4
June-Aug.	1	7.7	4.3	3.2	2.5	1.9	Mar.- May	1	36	25	20	16	13
	7	9.9	5.7	4.3	3.4	2.6		7	46	31	25	21	17
	30	19	11	8.3	6.8	5.4		30	91	57	44	34	26

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.7	7.1	10	13	15	19	23	35	51	77	120	190	350
May - Nov.	4.0	5.6	7.7	9.8	12	13	15	20	28	38	55	84	170
June - Aug.	4.6	5.9	7.9	10	12	14	16	22	28	37	50	76	150
Sept.- Nov.	3.5	4.5	6.7	8.2	9.6	11	12	14	18	24	32	49	88
Dec. - Feb.	9.9	13	18	23	28	33	39	56	84	120	180	270	520
Mar. - May	26	36	48	58	68	79	91	110	140	180	230	320	510

MUSKINGUM RIVER BASIN

03123300 South Fork Sugar Creek at Dundee, Ohio

LOCATION: Lat 40°35'35", long 81°36'55", Tuscarawas County, Hydrologic Unit 05040001, 200 ft upstream from county road bridge and 0.5 mi northwest of Dundee.

DRAINAGE AREA: 124 mi^2.

TRIBUTARY TO: Sugar Creek.

DISCHARGE DATA USED: Low-flow measurements 1945-1957, 1960, 1962 water years.

INDEX STATION: 03123000 Sugar Creek above Beach City Dam at Beach City, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.0 ft^3/s September 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.8	1.1
	30	6.4	2.1
May - Nov.	7	3.8	1.1
	30	6.4	2.1
June - Aug.	7	5.6	1.8
	30	14	4.4
Sept.- Nov.	7	5.0	1.4
	30	8.9	2.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.1	3.6	5.7	8.0	9.7
May - Nov.	1.6	2.6	4.0	5.5	7.2
June - Aug.	2.0	2.8	4.1	5.7	7.2
Sept.- Nov.	1.4	1.9	3.3	4.3	5.4

MUSKINGUM RIVER BASIN

03124000 Sugar Creek below Beach City Dam near Beach City, Ohio

LOCATION: Lat 40°38'08", long 81°33'11", in T.10 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on right bank 1,000 ft downstream from Beach City Dam, 0.4 mi downstream from South Fork, and 1.8 mi southeast of Beach City.

DRAINAGE AREA: 300 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Beach City Lake since 1937.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 268 ft^3/s (40 years).
Minimum daily discharge: No flow October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	13	4.9	2.0	0.4	0
	7	14	6.2	3.2	1.2	0
	30	21	8.2	3.9	1.6	0.3
May- Nov.	1	13	4.9	2.0	0.5	0
	7	14	6.3	3.2	1.3	0
	30	21	8.4	3.9	1.6	0.2
June-Aug.	1	19	7.8	4.1	2.2	1.0
	7	21	10	6.6	4.5	2.8
	30	38	21	15	11	8.3
Sept.-Nov.	1	14	6.0	2.7	0.7	0
	7	15	6.9	4.1	2.4	0
	30	26	10	4.5	1.6	0.3
Dec.-Feb.	1	40	19	12	8.6	5.7
	7	50	23	15	10	6.8
	30	99	39	23	15	9.2
Mar.- May	1	66	43	34	27	21
	7	89	59	48	40	33
	30	175	108	82	65	50

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	7.4	12	18	24	30	37	46	69	100	160	240	380	730
May - Nov.	5.9	9.4	14	18	21	26	30	42	57	78	110	170	330
June - Aug.	6.9	11	16	21	26	31	36	47	59	78	110	160	320
Sept.- Nov.	3.8	7.2	11	13	16	18	21	27	34	46	67	100	190
Dec. - Feb.	15	20	29	37	47	60	75	110	170	240	340	530	1100
Mar. - May	50	67	92	110	140	160	180	230	300	380	490	700	1300

MUSKINGUM RIVER BASIN

03124500 Sugar Creek at Strasburg, Ohio

LOCATION: Lat 40°35'15", long 81°31'24", in NW1/4 sec. 1, T.9 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on left bank 150 ft upstream from bridge on State Route 21, 0.8 mi upstream from Broad Run, and 0.1 mi southeast of Strasburg.

DRAINAGE AREA: 311 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1962 to September 1978.

REMARKS: Flow regulated by Beach City Lake 5.0 mi upstream, since August 1937. Part of municipal water supply for city of Canton, starting May 1962, is pumped from well field 4.3 mi upstream; pumpage is returned to Nimishillen Creek. Mean pumpage for water year 1978, 16.0 ft^3/s.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge; 293 ft^3/s (16 years).
Minimum daily discharge: No flow September, October, November 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	16	3.3	0.6	0	0
	7	21	4.4	0.8	0	0
	30	30	8.7	2.7	0	0
May- Nov.	1	16	3.3	0.6	0	0
	7	21	4.4	0.8	0	0
	30	31	8.8	2.7	0	0
June-Aug.	1	21	6.9	2.6	0.9	0.2
	7	24	11	6.5	4.1	2.3
	30	46	24	16	11	7.4
Sept.-Nov.	1	23	4.6	0.8	0	0
	7	28	5.4	0.9	0	0
	30	41	11	2.2	0	0
Dec.-Feb.	1	58	22	12	6.7	3.3
	7	78	31	17	9.3	4.5
	30	140	50	26	15	7.2
Mar.- May	1	80	49	37	29	22
	7	98	68	57	49	42
	30	181	116	92	77	63

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.9	9.4	21	32	41	52	63	90	130	180	270	420	790
May - Nov.	0.9	5.6	14	21	27	34	41	57	75	99	130	200	380
June - Aug.	5.6	11	19	25	31	37	44	57	72	89	120	170	320
Sept.- Nov.	0.1	1.4	5.8	13	19	23	29	41	56	76	100	150	300
Dec. - Feb.	9.0	31	40	51	65	80	97	140	190	260	360	570	1000
Mar. - May	60	80	100	120	150	170	200	260	320	420	560	790	1400

MUSKINGUM RIVER BASIN

03124520 Sugar Creek at Dover, Ohio

LOCATION: Lat 40°31'40", long 81°29'43", Tuscarawas County, Hydrologic Unit 05040001, at bridge on State Route 39, 0.2 mi west of Dover city limits, 1.8 mi upstream from mouth.

DRAINAGE AREA: 348 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1940, 1974-1978, 1980 water years.

INDEX STATION: 03123000 Sugar Creek at Strasburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 52 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	20	8.1
	30	30	13
May - Nov.	7	20	8.1
	30	30	13
June - Aug.	7	27	12
	30	50	22
Sept.- Nov.	7	25	9.4
	30	38	14

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	13	19	27	35	40
May - Nov.	11	15	21	26	32
June - Aug.	12	16	21	27	32
Sept.- Nov.	9.4	12	18	22	26

MUSKINGUM RIVER BASIN

03125000 Home Creek near New Philadelphia, Ohio

LOCATION: Lat 40°28'06", long 81°24'10", Tuscarawas County, Hydrologic Unit 05040001, on right bank 100 ft downstream from highway bridge, 0.5 mi upstream from the mouth, and 1.5 mi southeast of New Philadelphia.

DRAINAGE AREA: 1.64 mi^2.

TRIBUTARY TO: Beaverdam Creek.

DISCHARGE DATA USED: December 1936 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1.27 ft^3/s (41 years).
Minimum daily discharge: No flow many times.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.1	0	0	0	0
Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
Dec.-Feb.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.4	0.1	0.1	0	0
Mar.- May	1	0.2	0.1	0.1	0.1	0
	7	0.3	0.1	0.1	0.1	0.1
	30	0.7	0.4	0.3	0.2	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.6	1.0	1.6	2.9
May - Nov.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.7	1.4
June - Aug.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	1.1
Sept.- Nov.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.9
Dec. - Fe	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.5	0.8	1.1	1.5	2.2	4.2
Mar. - Ma	0.1	0.2	0.3	0.4	0.6	0.7	0.8	1.0	1.2	1.6	2.0	2.8	4.6

MUSKINGUM RIVER BASIN

03125900 Boggs Fork at Piedmont, Ohio

LOCATION: Lat 40°11'40", long 81°12'35", Belmont County, Hydrologic Unit 05040001, in sec. 35, T.10 N., R.6 W., at bridge on U.S. Highway 22, 0.3 mi upstream from mouth and outlet of Piedmont Reservoir, 0.5 mi upstream from gage on Stillwater Creek 0.5 mi downstream from Plum Run and 0.5 mi northwest of Piedmont.

DRAINAGE AREA: 36.5 mi^2.

TRIBUTARY TO: Stillwater Creek.

DISCHARGE DATA USED: Low-flow measurements 1935-1952, 1959, 1962 water years.

INDEX STATION: 03144000 Wakatomika Creek near Frazeyburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.2 ft^3/s. August 1945.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.5	0.1
	30	1.1	0.2
May - Nov.	7	0.6	0.1
	30	1.1	0.2
June - Aug.	7	1.1	0.2
	30	3.1	0.6
Sept.- Nov.	7	0.7	0.1
	30	1.7	0.3

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.3	0.5	1.1	1.7	2.5
May - Nov.	0.2	0.3	0.6	0.9	1.3
June - Aug.	0.2	0.5	0.8	1.3	1.7
Sept.- Nov.	0.1	0.2	0.4	0.6	0.8

MUSKINGUM RIVER BASIN

03126000 Stillwater Creek at Piedmont, Ohio

LOCATION: Lat 40°11'41", long 81°12'56", in sec 35, T.10 N., R.6 W., Harrison County, Hydrologic Unit 05040001, on left bank 400 ft downstream from outlet of Piedmont Dam and Boggs Fork, and 0.7 mi northwest of Piedmont.

DRAINAGE AREA: 122 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: February 1939 to September 1978.

REMARKS: Flow regulated by Piedmont Lake.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 133 ft^3/s (39 years).
Minimum daily discharge: 0.2 ft^3/s September 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	3.6	1.3	0.7	0.4	0.2	Sept.-Nov.	1	4.5	1.6	0.9	0.5	0.3
	7	4.2	1.6	1.0	0.6	0.4		7	5.2	1.9	1.1	0.7	0.4
	30	6.0	2.4	1.5	1.0	0.6		30	7.9	2.8	1.6	1.1	0.6
May- Nov.	1	3.6	1.3	0.7	0.4	0.2	Dec.-Feb.	1	19	8.9	5.8	4.0	2.6
	7	4.3	1.6	0.9	0.6	0.4		7	26	11	6.7	4.4	2.7
	30	6.1	2.4	1.5	1.0	0.6		30	71	26	14	7.8	3.9
June-Aug.	1	6.6	2.3	1.2	0.7	0.4	Mar.- May	1	38	21	15	12	8.9
	7	8.4	2.9	1.6	1.0	0.6		7	54	29	21	15	11
	30	18	6.6	3.8	2.4	1.4		30	108	58	40	28	19

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.9	3.3	6.1	9.6	14	19	25	43	67	100	150	240	360
May - Nov.	1.5	2.4	3.7	5.8	8.0	11	14	23	36	53	80	130	220
June - Aug.	1.9	2.9	5.1	7.8	11	14	18	28	41	53	71	110	190
Sept.- Nov.	0.9	1.8	2.7	3.6	4.7	6.3	7.7	12	17	25	40	85	190
Dec. - Feb.	4.8	8.4	14	20	28	38	49	79	110	170	250	320	440
Mar. - May	20	33	50	64	79	93	100	130	170	220	280	370	480

MUSKINGUM RIVER BASIN

03127000 Stillwater Creek at Tippecanoe, Ohio

LOCATION: Lat 40°16'13", long 81°17'26", in NW1/4 sec. 22, T.12 N., R.7 W., Harrison County, Hydrologic Unit 05040001, on left bank at downstream side of highway bridge at Tippecanoe, 0.4 mi downstream from Brushy Fork, 3.6 mi upstream from Weaver Run, 6 mi upstream from Laurel Creek, and 9 mi south of Dennison.

DRAINAGE AREA: 282 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: January 1939 to September 1978.

REMARKS: Flow regulated by Clendening Lake on Brushy Fork, 1.9 mi upstream and Piedmont Lake, 16 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 309 ft^3/s (39 years).
Minimum daily discharge: 1.1 ft^3/s October 1939.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	9.5	4.9	3.3	2.3	1.5
	7	11	5.4	3.7	2.6	1.8
	30	14	7.1	4.9	3.6	2.6
May- Nov.	1	9.5	4.9	3.3	2.3	1.5
	7	11	5.4	3.7	2.6	1.8
	30	14	7.1	4.9	3.6	2.6
June-Aug.	1	14	6.8	4.6	3.3	2.3
	7	17	8.0	5.4	4.0	2.8
	30	35	16	10	7.1	4.8
Sept.-Nov.	1	10	4.9	3.3	2.4	1.6
	7	11	5.5	3.9	3.0	2.2
	30	17	7.8	5.5	4.2	3.2
Dec.-Feb.	1	49	22	14	9.2	5.7
	7	69	29	18	11	6.7
	30	170	61	33	19	9.2
Mar.- May	1	90	54	40	32	24
	7	122	72	53	41	30
	30	238	135	97	73	52

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	6.1	8.9	15	21	29	40	54	91	150	220	340	530	890
May - Nov.	5.1	7.2	9.9	14	18	22	28	44	68	100	160	260	480
June - Aug.	6.4	8.6	13	18	22	27	34	50	69	93	130	200	360
Sept.- Nov.	3.9	5.7	7.7	9.4	12	14	17	24	35	54	93	190	380
Dec. - Feb.	12	36	36	55	74	94	120	180	270	400	540	740	1100
Mar. - May	55	120	120	150	180	210	230	290	380	510	690	950	1200

MUSKINGUM RIVER BASIN

03127100 Crooked Creek near Stillwater, Ohio

LOCATION: Lat 40°18'29", long 81°19'26", Tuscarawas County, Hydrologic Unit 05040001, at bridge on State Route 258, 0.7 mi upstream from mouth, 1.2 mi southwest of Stillwater.

DRAINAGE AREA: 47.5 mi^2.

TRIBUTARY TO: Stillwater Creek.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03140000 Mill Creek near Coshocton, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.3 ft^3/s September 1976.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.4	0.1
	30	1.0	0.2
May - Nov.	7	0.4	0.1
	30	1.0	0.2
June - Aug.	7	1.0	0.2
	30	3.0	0.7
Sept.- Nov.	7	0.6	0.1
	30	1.5	0.3

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.4	1.1	1.7	2.4
May - Nov.	0.2	0.3	0.6	1.0	1.4
June - Aug.	0.2	0.4	0.8	1.2	1.7
Sept.- Nov.	0.1	0.2	0.3	0.6	0.8

MUSKINGUM RIVER BASIN

03127500 Stillwater Creek at Uhrichsville, Ohio

LOCATION: Lat 40°23'10", long 81°20'50", Tuscarawas County, Hydrologic Unit 05040001, on left bank at concrete dam of Dennison Water Supply Co. at Uhrichsville, 2.2 mi upstream from Little Stillwater Creek.

DRAINAGE AREA: 367 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Flow regulated by Piedmont Lake, 35 mi upstream, and Clendening Lake on Brushy Fork, 22 mi upstream, beginning in 1938. Water is diverted from Uhrichsville; diversion not included in figures on daily discharge.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 414 ft^3/s (41 years).
Minimum ddily discharge: No flow September 1973.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	9.1	2.7	1.1	0.4	0
	7	12	4.3	2.1	1.1	0.5
	30	19	7.6	4.4	2.6	1.4
May- Nov.	1	9.1	2.7	1.1	0.4	0
	7	12	4.3	2.1	1.1	0.5
	30	19	7.6	4.4	2.6	1.4
June-Aug.	1	16	6.9	4.3	2.9	1.8
	7	21	9.3	5.8	3.8	2.4
	30	50	21	13	9.0	5.7
Sept.-Nov.	1	11	2.9	1.1	0.4	0
	7	15	4.6	2.3	1.2	0.5
	30	25	9.0	5.0	3.0	1.7
Dec.-Feb.	1	61	28	18	13	8.3
	7	86	36	23	15	9.4
	30	221	82	45	26	13
Mar.- May	1	117	72	55	43	33
	7	159	93	69	53	39
	30	325	186	135	102	73

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	6.5	12	20	30	41	53	72	120	190	290	460	720	1200
May - Nov.	4.5	8.5	14	19	25	32	40	60	90	140	210	330	630
June - Aug.	7.5	11	18	24	31	38	47	67	92	120	170	260	510
Sept.- Nov.	2.8	5.2	9.4	13	17	20	25	36	48	70	120	230	460
Dec. - Feb.	18	32	49	76	100	130	160	240	360	530	720	970	1400
Mar. - May	777	110	160	200	240	270	320	410	540	730	960	1200	1700

MUSKINGUM RIVER BASIN

03128500 Little Stillwater Creek below Tappan Dam, at Tappan, Ohio

LOCATION: Lat 40°21'25", long 81°13'49", in NW1/4 sec. 4, T.13 N., R.7 W., Harrison County, Hydrologic Unit 05040001, on right bank 150 ft downstream from outlet of lake at Tappan Dam, 1 mi west of Tappan, and 2 mi upstream from Plum Run.

DRAINAGE AREA: 71.1 mi^2.

TRIBUTARY TO: Stillwater Creek.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow completely regulated by Tappan Lake.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 75 ft^3/s (40 years).
Minimum daily discharge: No flow September, October 1939.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.4	0.7	0.4	0.2	0
	7	1.7	1.0	0.8	0.7	0
	30	3.0	1.2	0.7	0.4	0.2
May- Nov.	1	1.7	0.8	0.5	0.4	0
	7	2.2	1.1	0.8	0.6	0
	30	3.7	1.5	0.8	0.5	0.2
June-Aug.	1	3.1	1.2	0.7	0.4	0.2
	7	3.6	1.6	1.0	0.7	0.4
	30	7.3	3.2	2.1	1.5	1.1
Sept.-Nov.	1	1.9	1.2	1.0	0.9	0
	7	2.5	1.5	1.2	1.0	0
	30	4.4	1.4	0.8	0.5	0.3
Dec.-Feb.	1	2.6	1.3	1.0	0.8	0.7
	7	3.7	1.5	1.1	0.8	0.6
	30	24	7.3	3.8	2.2	1.1
Mar.- May	1	3.8	1.1	0.6	0.3	0.2
	7	7.9	2.1	1.1	0.6	0.3
	30	42	11	4.8	2.1	0.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.3	1.7	2.1	2.5	3.0	4.5	6.8	14	23	46	73	140	230
May - Nov.	1.2	1.7	2.1	2.4	2.9	3.9	5.3	9.7	15	22	41	70	150
June - Aug.	1.2	1.8	2.4	3.1	4.3	5.6	7.1	11	14	20	30	51	100
Sept.- Nov.	1.2	1.5	1.8	2.1	2.3	2.5	2.8	4.5	8.2	15	24	75	170
Dec. - Feb.	1.5	1.9	2.2	2.5	3.2	5.3	9.9	21	43	67	120	180	260
Mar. - May	1.3	1.8	2.4	6.2	19	30	40	54	69	110	150	210	320

MUSKINGUM RIVER BASIN

03128600 Little Stillwater Creek near Dennison, Ohio

LOCATION: Lat 40°24"19", long 81°17'18", Tuscarawas County, Hydrologic Unit 05040001, at county road bridge, 1.3 mi upstream from Irish Run, 2.5 mi east of Dennison.

DRAINAGE AREA: 96.4 mi^2.

TRIBUTARY TO: Stillwater Creek.

DISCHARGE DATA USED: Low-flow measurements 1974-1978, 1980 water years.

INDEX STATION: 03129000 Tuscarawas River at Newcomerstown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 8.1 ft^3/s September 1976.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.9	2.0
	30	5.2	2.6
May - Nov.	7	3.9	2.1
	30	5.3	2.6
June - Aug.	7	6.2	2.8
	30	12	4.3
Sept.- Nov.	7	4.1	2.2
	30	6.1	2.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.8	3.6	5.0	6.5	8.1
May - Nov.	2.5	3.1	4.0	5.0	6.1
June - Aug.	2.9	3.8	5.2	6.3	7.7
Sept.- Nov.	2.2	2.6	3.3	3.8	4.4

MUSKINGUM RIVER BASIN

03129000 Tuscarawas River at Newcomerstown, Ohio

LOCATION: Lat 40°15'41", long 81°36'33", in T.5 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on right bank 150 ft upstream from highway bridge, 0.2 mi south of Newcomerstown, 2 mi upstream from Buckhorn Creek, and 4 mi downstream from Dunlap Creek.

DRAINAGE AREA: 2,443 mi^2.

TRIBUTARY TO: Head of Muskingum River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Diversion from basin at Portage. Flow regulated by eight flood-control reservoirs at points 40 mi to 64 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 2,489 ft^3/s (41 years).
Minimum daily discharge: 216 ft^3/s August 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	343	271	242	221	201
	7	364	285	253	232	210
	30	433	329	291	266	242
May- Nov.	1	344	272	242	222	201
	7	365	285	254	232	210
	30	435	329	290	265	241
June-Aug.	1	441	332	286	252	218
	7	483	357	306	270	235
	30	689	465	385	332	282
Sept.-Nov.	1	344	270	247	233	222
	7	375	287	259	242	228
	30	471	333	289	261	237
Dec.-Feb.	1	679	430	344	289	240
	7	753	461	364	303	249
	30	1290	666	468	349	250
Mar.- May	1	1060	779	668	591	516
	7	1260	906	776	689	608
	30	2140	1450	1180	990	810

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	300	350	420	490	560	660	780	1000	1400	1900	2700	3900	6600
May - Nov.	280	320	370	420	470	520	580	740	930	1200	1500	2100	3500
June - Aug.	310	360	430	480	540	600	660	800	950	1100	1400	1900	3200
Sept.- Nov.	260	290	330	360	390	420	450	520	630	830	1100	1400	2200
Dec. - Feb.	350	420	520	620	750	880	1000	1400	2000	2600	3600	5200	8000
Mar. - May	830	1000	1300	1500	1800	2000	2200	2700	3400	4200	5200	6900	9000

MUSKINGUM RIVER BASIN

03129100 White Eyes Creek near Fresno, Ohio

LOCATION: Lat 40°18'17", long 81°45'01", Coshocton County, Hydrologic Unit 05040001, at bridge on private road adjacent to State Route 93, 2 mi south of Fresno.

DRAINAGE AREA: 52.1 mi^2

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1972-1977 water years.

INDEX STATION: 03140000 Mill Creek near Coshocton, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.9 ft^3/s June 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.5	0.1
	30	1.2	0.2
May - Nov.	7	0.5	0.1
	30	1.2	0.2
June - Aug.	7	1.2	0.2
	30	4.7	0.8
Sept.- Nov.	7	0.7	0.1
	30	2.1	0.3

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.5	1.4	2.3	3.6
May - Nov.	0.2	0.3	0.7	1.2	1.9
June - Aug.	0.2	0.5	1.0	1.6	2.3
Sept.- Nov.	0.1	0.2	0.3	0.7	1.0

MUSKINGUM RIVER BASIN

03129150 Tuscarawas River at Coshocton, Ohio

LOCATION: Lat 40°16'44", long 81°52'15", Coshocton County, Hydrologic Unit 05040001, at bridge on Bridge Street at Coshocton city limits, 0.3 mi upstream from confluence with Walhonding River.

DRAINAGE AREA: 2,596 mi^2.

TRIBUTARY TO: Head of Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1974-1980 water years.

INDEX STATION: 03129000 Tuscarawas River at Newcomerstown, Ohio.

REMARKS: Regulation and diversions may occur at various and sundry points upstream from site.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 727 ft^3/s September 1976.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	420	300
	30	500	340
May - Nov.	7	420	300
	30	500	340
June - Aug.	7	550	350
	30	780	440
Sept.- Nov.	7	430	300
	30	540	340

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	350	410	490	560	640
May - Nov.	330	370	430	490	540
June - Aug.	360	420	500	550	610
Sept.- Nov.	300	340	380	420	450

MUSKINGUM RIVER BASIN

03129400 Black Fork above Charles Mill Dam, near Mifflin, Ohio

LOCATION: Lat 40°47'50", long 82°23'25", Ashland County, Hydrologic Unit 05040002, 0.3 mi downstream from Steigerwal Bridge, 2.1 mi northwest of Mifflin.

DRAINAGE AREA: 193 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: Low-flow measurements 1944-1967, 1971 water years.

INDEX STATION: 03137000 Kokosing River at Millwood, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.9 ft^3/s September 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	6.4	4.7
	30	7.1	5.2
May - Nov.	7	6.4	4.7
	30	7.1	5.2
June - Aug.	7	7.3	5.0
	30	9.4	6.1
Sept.- Nov.	7	6.6	4.8
	30	7.5	5.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.1	5.8	6.7	7.5	8.3
May - Nov.	4.8	5.4	6.2	6.8	7.3
June - Aug.	5.0	5.7	6.6	7.3	8.0
Sept.- Nov.	4.6	5.0	5.6	6.1	6.6

MUSKINGUM RIVER BASIN

03130000 Black Fork below Charles Mill Dam, near Mifflin, Ohio

LOCATION: Lat 40°44'16", long 82°21'48", in NE1/4 sec. 35, T.23 N., R.17 W., Ashland County, Hydrologic Unit 05040002, on left bank 700 ft downstream from Charles Mill Dam, 2.5 mi south of Mifflin, and 4 mi upstream from Rocky Fork.

DRAINAGE AREA: 217 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Charles Mill Lake.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 197 ft^3/s (40 years).
Minimum daily discharge: 0.9 ft^3/s April 1940.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	9.8	4.8	2.8	1.6	0.6
	7	16	8.3	5.2	3.3	1.8
	30	17	12	9.9	8.6	7.4
May- Nov.	1	12	6.2	3.7	2.2	1.0
	7	16	8.3	5.2	3.3	1.8
	30	18	12	10	8.6	7.3
June-Aug.	1	15	7.6	4.9	3.3	2.0
	7	22	12	7.8	5.2	3.1
	30	28	18	15	14	12
Sept.-Nov.	1	15	8.1	5.4	3.6	2.2
	7	17	9.6	6.5	4.5	2.9
	30	20	12	10	9.0	8.0
Dec.-Feb.	1	27	13	8.9	6.4	4.3
	7	41	20	14	11	7.8
	30	82	34	21	14	8.7
Mar.- May	1	32	13	6.8	3.8	1.9
	7	62	36	27	20	15
	30	132	75	55	42	31

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.4	14	18	22	25	29	34	50	78	120	190	310	570
May - Nov.	8.3	12	16	19	21	23	26	32	41	57	82	140	300
June - Aug.	11	15	19	21	24	26	28	34	43	56	75	120	300
Sept.- Nov.	7.5	9.1	13	15	17	19	20	23	28	35	49	77	140
Dec. - Feb.	13	18	22	28	36	47	66	110	150	190	250	410	710
Mar. - May	28	39	60	76	94	110	130	180	250	340	460	590	840

MUSKINGUM RIVER BASIN

03130500 Touby Run at Mansfield, Ohio

LOCATION: Lat 40°45'53", long 82°32'43", in NW1/4 sec. 20, T.21 N., R.18 W., Richland County, Hydrologic Unit 05040002, on left bank 100 ft downstream from West 4th Street Bridge at west edge of Mansfield, and 2 mi upstream from mouth.

DRAINAGE AREA: 5.44 mi^2.

TRIBUTARY TO: Rocky Fork.

DISCHARGE DATA USED: October 1946 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 5.12 ft^3/s (32 years).
Minimum daily discharge: No flow July 1975.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.2	0.1	0	0	0
	7	0.3	0.2	0.1	0.1	0.1
	30	0.6	0.3	0.2	0.2	0.1
May- Nov.	1	0.2	0.1	0	0	0
	7	0.3	0.2	0.1	0.1	0.1
	30	0.6	0.3	0.2	0.2	0.1
June-Aug.	1	0.3	0.2	0.1	0	0
	7	0.4	0.2	0.2	0.1	0.1
	30	0.9	0.5	0.4	0.3	0.3

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	0.3	0.1	0.1	0.1	0
	7	0.4	0.2	0.1	0.1	0.1
	30	0.7	0.4	0.3	0.2	0.1
Dec.-Feb.	1	0.6	0.2	0.1	0.1	0.1
	7	0.7	0.3	0.2	0.2	0.1
	30	2.0	0.8	0.5	0.3	0.2
Mar.- May	1	0.7	0.5	0.3	0.3	0.2
	7	1.0	0.6	0.5	0.4	0.3
	30	3.0	1.7	1.2	0.9	0.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.3	0.4	0.6	0.7	0.8	0.9	1.2	1.6	2.3	3.5	5.7	12
May - Nov.	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.4	1.8	2.8	5.8
June - Aug.	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	1.0	1.2	1.6	2.4	4.9
Sept.- Nov.	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.2	1.5	2.1	4.4
Dec. - Feb.	0.2	0.4	0.6	0.8	0.9	1.1	1.3	1.7	2.3	3.3	4.9	7.9	16
Mar. - May	0.5	0.8	1.1	1.5	1.8	2.1	2.4	3.0	4.0	5.3	7.1	11	21

MUSKINGUM RIVER BASIN

03131500 Black Fork at Loudonville, Ohio

LOCATION: Lat 40°38'09", long 82°14'22", in NW1/4 sec. 1, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on right bank at upstream side of bridge on State Route 3 at Loudonville, 1.5 mi downstream from Big Run.

DRAINAGE AREA: 349 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1936 to September 1978.

REMARKS: Flow regulated since 1936 by Charles Mill Lake, 16 mi upstream from station. Records include diversion from Clear Fork Reservoir which enters the Black Fork drainage as sewage effluent from the city of Mansfield.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 353 ft^3/s (42 years).
Minimum daily discharge: 34 ft^3/s September 1939, January 1940.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	65	51	44	39	35	Sept.-Nov.	1	67	51	45	40	35
	7	70	56	50	46	42		7	72	56	50	46	42
	30	77	62	57	54	51		30	81	64	59	56	53
May- Nov.	1	66	51	44	40	35	Dec.-Feb.	1	99	66	54	47	40
	7	71	56	50	46	41		7	113	74	60	51	44
	30	78	63	58	54	51		30	180	99	74	58	44
June-Aug.	1	75	59	53	48	44	Mar.- May	1	138	104	90	79	69
	7	81	65	60	56	53		7	169	125	107	93	80
	30	102	78	70	65	60		30	271	183	148	124	102

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	55	64	74	81	89	98	110	140	190	260	360	560	880
May - Nov.	53	60	68	75	80	85	91	110	130	160	200	280	540
June - Aug.	60	67	76	82	87	93	99	110	130	160	200	290	550
Sept.- Nov.	48	55	61	66	71	75	78	85	96	110	140	180	260
Dec. - Feb.	56	66	80	91	100	130	160	210	270	350	490	700	1100
Mar. - May	110	130	160	190	220	250	280	350	470	600	740	930	1200

MUSKINGUM RIVER BASIN

03132000 Clear Fork at Butler, Ohio

LOCATION: Lat 40°35'37", long 82°25'20", in NE1/4 sec.20, T.21 N., R.17 W., Richland County, Hydrologic Unit 05040002, on left bank at downstream side of bridge on State Route 95, 0.3 mi northeast of Butler.

DRAINAGE AREA: 136 mi^2.

TRIBUTARY TO: Black Fork.

DISCHARGE DATA USED: October 1953 to September 1975.

REMARKS: Flow regulated by Clear Fork Reservoir, 16 mi upstream from station since 1949. Water diverted from Clear Fork for municipal supply of city of Mansfield since 1953.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 136 ft^3/s (22 years).
Minimum daily discharge: 16 ft^3/s September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	24	20	18	17	15	Sept.-Nov.	1	24	20	18	17	16
	7	25	20	19	17	16		7	25	20	19	18	16
	30	27	22	20	19	17		30	28	22	21	20	19
May- Nov.	1	24	20	18	16	15	Dec.-Feb.	1	35	25	22	20	19
	7	25	20	19	17	16		7	39	28	24	22	20
	30	27	22	20	19	17		30	58	35	28	24	20
June-Aug.	1	30	23	20	18	16	Mar.- May	1	60	44	36	31	25
	7	31	24	21	20	18		7	70	53	46	41	36
	30	38	28	25	23	21		30	107	76	65	57	50

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	22	24	26	30	33	37	41	51	67	89	120	180	310
May - Nov.	20	23	25	26	28	31	34	39	46	56	71	100	170
June - Aug.	22	24	27	31	33	35	38	43	50	59	71	91	140
Sept.- Nov.	19	21	23	24	25	26	27	31	35	39	45	55	79
Dec. - Feb.	24	26	30	34	38	44	49	64	82	100	140	200	350
Mar. - May	47	58	69	79	89	98	110	130	160	190	240	330	530

MUSKINGUM RIVER BASIN

03133500 Clear Fork below Pleasant Hill Dam, near Perrysville, Ohio

LOCATION: Lat 40°37'13", long 82°19'28", in NE1/4 sec. 7, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on right bank 0.2 mi downstream from Pleasant Hill Dam, 2.8 mi south of Perrysville, and 4.7 mi upstream from the confluence of Clear Fork and Black Fork.

DRAINAGE AREA: 198 mi^2.

TRIBUTARY TO: Black Fork.

DISCHARGE DATA USED: November 1938 to September 1978.

REMARKS: Flow regulated by Pleasant Hill Lake. Water diverted from Clear Fork Reservoir (upstream from Pleasant Hill Lake) for municipal supply of city of Mansfield since 1953.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 195 ft^3/s (39 years).
Minimum daily discharge: 0.6 ft^3/s November, 1938.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	26	19	15	12	9.4	Sept.-Nov.	1	29	21	17	14	11
	7	28	22	19	17	14		7	31	23	20	17	15
	30	34	26	22	19	16		30	38	27	22	19	16
May- Nov.	1	28	20	17	14	11	Dec.-Feb.	1	39	24	20	17	14
	7	30	23	20	17	15		7	47	29	23	19	16
	30	35	26	22	19	16		30	89	45	32	24	18
June-Aug.	1	30	22	19	16	14	Mar.- May	1	56	30	21	15	9.8
	7	35	25	21	19	16		7	83	48	34	25	18
	30	44	31	27	25	22		30	157	103	81	67	53

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	21	27	31	36	40	45	51	67	92	130	180	280	530
May - Nov.	19	26	29	32	36	39	42	51	63	80	110	150	270
June - Aug.	25	27	31	35	39	43	46	54	65	78	99	140	230
Sept.- Nov.	16	21	26	28	31	33	35	40	46	54	68	95	150
Dec. - Feb.	25	30	35	40	47	56	64	90	130	170	240	400	660
Mar. - May	29	62	84	100	120	140	150	190	240	300	420	540	720

MUSKINGUM RIVER BASIN

03134000 Jerome Fork at Jeromeville, Ohio

LOCATION: Lat 40°48'07", long 82°12'01", in SW1/4 sec. 5, T.2 N., R.15 W., Ashland County, Hydrologic Unit 05040002, at highway bridge at Jeromeville, 1.0 mi upstream from Oldtown Run.

DRAINAGE AREA: 120 mi^2.

TRIBUTARY TO: Mohican River.

DISCHARGE DATA USED: October 1925 to September 1949.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 100 ft^3/s (24 years).
Minimum daily discharge: 2.0 ft^3/s July, August 1934, January 1935, October 1939.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	3.4	2.4	2.1	1.8	1.6
	7	4.0	2.9	2.5	2.2	1.9
	30	6.3	4.5	3.9	3.4	3.0
May- Nov.	1	3.7	2.6	2.2	1.9	1.6
	7	4.2	3.0	2.5	2.2	1.9
	30	6.5	4.7	3.9	3.4	2.9
June-Aug.	1	4.4	2.8	2.2	1.9	1.6
	7	5.2	3.3	2.7	2.3	1.9
	30	11	6.7	5.2	4.2	3.3
Sept.-Nov.	1	4.5	3.2	2.6	2.3	1.9
	7	4.9	3.5	3.1	2.8	2.6
	30	7.5	4.9	4.3	4.0	3.8
Dec.-Feb.	1	9.9	4.9	3.3	2.3	1.6
	7	12	6.0	4.1	3.0	2.1
	30	31	12	6.9	4.4	2.6
Mar.- May	1	20	12	8.8	6.7	4.8
	7	24	15	12	9.2	7.2
	30	46	24	18	14	10

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.4	4.2	5.4	6.7	8.2	10	12	18	26	41	64	110	220
May - Nov.	3.2	3.8	4.6	5.4	6.2	7.3	8.5	11	15	20	29	45	98
June - Aug.	2.8	3.5	4.4	5.2	6.0	7.3	8.5	12	14	19	26	40	82
Sept.- Nov.	3.3	3.9	4.4	5.0	5.5	6.1	6.8	8.4	11	13	18	28	64
Dec. - Feb.	4.2	5.4	7.5	9.8	13	16	20	30	46	68	98	160	340
Mar. - May	13	18	23	28	33	39	44	57	75	100	140	210	390

MUSKINGUM RIVER BASIN

03134300 Muddy Fork near Rowsburg, Ohio

LOCATION: Lat 40°50'10", long 82°08'16", Ashland County, Hydrologic Unit 05040002, at bridge on Township Road 1550, 1.8 mi southeast of Rowsburg.

DRAINAGE AREA: 66.2 mi^2.

TRIBUTARY TO: Lake Fork.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1976, 1978 water years.

INDEX STATION: 03144000 Wakatomika Creek near Frazeysburg, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.6 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.0	1.7
	30	3.9	2.1
May - Nov.	7	3.0	1.7
	30	3.9	2.1
June - Aug.	7	3.9	2.2
	30	6.0	3.0
Sept.- Nov.	7	3.3	1.8
	30	4.7	2.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.2	2.9	3.9	4.7	5.4
May - Nov.	1.9	2.5	3.1	3.6	4.2
June - Aug.	2.2	2.8	3.5	4.2	4.7
Sept.- Nov.	1.6	2.1	2.7	3.0	3.4

MUSKINGUM RIVER BASIN

03135000 Lake Fork below Mohicanville Dam, near Mohicanville, Ohio

LOCATION: Lat 40°43'24", long 82°09'18", in sec. 3, T.20 N., R.15 W., Ashland County Hydrologic Unit 05040002, on right bank 800 ft downstream from Mohicanville Dam, 2 mi east of Mohicanville, and 2.4 mi downstream from the confluence of Jerome and Muddy Forks.

DRAINAGE AREA: 271 mi^2.

TRIBUTARY TO: Mohican River

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Mohicanville Reservoir.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 234 ft^3/s (40 years)
Minimum daily discharge: 1 ft^3/s June 1947, January 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	11	5.6	3.6	2.3	1.3
	7	14	8.9	7.2	6.1	5.1
	30	18	12	9.4	8.0	6.7
May- Nov.	1	13	7.0	4.8	3.3	2.1
	7	14	8.9	7.2	6.1	5.1
	30	18	12	9.4	8.0	6.7
June-Aug.	1	17	9.1	6.0	4.0	2.4
	7	17	11	9.4	8.0	6.8
	30	33	19	15	12	10
Sept.-Nov.	1	13	8.0	6.4	5.4	4.5
	7	14	9.1	7.3	6.1	5.1
	30	20	12	9.8	8.6	7.7
Dec.-Feb.	1	29	12	7.4	4.7	2.7
	7	37	20	15	12	9.0
	30	79	32	21	14	9.6
Mar.- May	1	48	24	15	9.6	5.4
	7	74	52	43	37	31
	30	158	94	71	56	43

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.1	13	16	20	24	29	35	52	77	120	180	320	800
May - Nov.	8.2	11	14	16	19	21	24	32	44	59	82	130	300
June - Aug.	10	13	16	19	21	24	27	34	43	57	77	110	260
Sept.- Nov.	7.4	8.6	11	13	15	16	18	22	28	38	52	74	140
Dec. - Feb.	13	17	23	28	34	43	55	82	120	170	260	490	1000
Mar. - May	41	55	73	89	100	120	140	180	240	340	550	850	1100

MUSKINGUM RIVER BASIN

03136000 Mohican River at Greer, Ohio

LOCATION: Lat 40°30'53", long 82°11'44", in NW1/4 sec.10, T.8 N., R.10 W., Knox County, Hydrologic Unit 05040002, on left bank 3,000 ft downstream from bridge on State Route 514 at Greer, 5 mi upstream from Negro Run, and 7 mi downstream from Lake Fork.

DRAINAGE AREA: 948 mi^2.

TRIBUTARY TO: Tuscarawas River.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Charles Mill Lake on Black Fork, 30 mi upstream, Pleasant Hill Lake on Clear Fork, 17 mi upstream, and Mohicanville Reservoir on Lake Fork, 19 mi upstream, beginning August 1936.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 899 ft^3/s (40 years).
Minimum daily discharge: 77 ft^3/s September 1941.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	128	103	93	86	79
	7	139	112	101	93	86
	30	153	127	119	115	112
May- Nov.	1	132	105	95	87	80
	7	141	114	103	95	87
	30	155	127	118	114	110
June-Aug.	1	148	118	107	100	94
	7	159	127	117	110	105
	30	221	164	146	136	127
Sept.-Nov.	1	136	107	95	86	78
	7	145	114	102	94	85
	30	168	130	119	113	109
Dec.-Feb.	1	212	134	108	92	79
	7	240	151	122	105	89
	30	405	211	154	120	92
Mar.- May	1	343	249	211	183	156
	7	426	306	259	225	193
	30	730	486	389	322	259

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	120	130	150	170	190	210	240	320	450	630	930	1400	2400
May - Nov.	110	130	140	150	170	180	200	240	280	360	490	740	1300
June - Aug.	120	140	150	170	180	200	210	250	290	370	480	720	1300
Sept.- Nov.	100	120	130	140	150	150	160	180	210	250	310	420	660
Dec. - Feb.	120	140	170	190	220	270	320	460	610	840	1200	1800	3000
Mar. - May	270	330	420	500	580	670	760	980	1200	1500	2000	2600	3300

MUSKINGUM RIVER BASIN

03136500 Kokosing River at Mount Vernon, Ohio

LOCATION: Lat 40°24'20", long 82°30'00", in sec.2, T.6 N., R.13 W., Knox County, Hydrologic Unit 05040003, on right bank at downstream side of Tilden Avenue Bridge at Mount Vernon, 0.8 mi downstream from North Branch, and 2.7 mi upstream from Dry Creek.

DRAINAGE AREA: 202 mi^2.

TRIBUTARY TO: Mohican River.

DISCHARGE DATA USED: October 1954 to September 1978.

REMARKS: Some regulation by Knox Lake, capacity 3,750 acre-ft, 8.2 mi upstream on East Branch of North Branch Kokosing River beginning in 1954 and North Branch Kokosing River Lake 10.0 mi upstream on North Branch Kokosing River, beginning in June 1972.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 211 ft^3/s (24 years).
Minimum daily discharge: 14 ft^3/s September, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	27	20	17	15	13	Sept.-Nov.	1	29	21	18	15	13
	7	29	21	18	16	14		7	31	22	18	16	13
	30	33	24	20	18	15		30	34	24	21	19	17
May- Nov.	1	27	20	17	15	13	Dec.-Feb.	1	53	33	26	21	17
	7	29	21	18	16	14		7	60	36	28	23	18
	30	33	24	20	18	15		30	98	52	38	29	22
June-Aug.	1	32	24	21	19	17	Mar.- May	1	75	51	41	33	26
	7	34	26	23	20	18		7	89	60	49	41	33
	30	49	32	27	24	21		30	150	93	72	59	46

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	21	25	31	35	41	47	53	72	98	130	180	260	460
May - Nov.	19	23	27	31	34	37	41	50	61	78	100	150	240
June - Aug.	23	26	30	33	37	41	44	52	63	80	100	150	230
Sept.- Nov.	17	19	23	26	29	31	33	39	45	54	68	89	140
Dec. - Feb.	26	32	42	50	58	68	77	110	140	180	240	340	610
Mar. - May	53	70	90	100	120	130	150	180	220	280	350	470	760

MUSKINGUM RIVER BASIN

031370000 Kokosing River at Millwood, Ohio

LOCATION: Lat 40°23'51", long 82°17'09", in SE1/4 T.7 N., R.11 W., Knox County, Hydrologic Unit 05040003, on left bank 0.4 mi west of Millwood, 1.5 mi upstream from Honey Run, and 2.0 mi downstream from Jelloway Creek.

DRAINAGE AREA: 455 mi^2.

TRIBUTARY TO: Mohican River.

DISCHARGE DATA USED: October 1921 to September 1974.

REMARKS: Some regulation by North Branch Kokosing River Lake, 29.0 mi upstream on North Branch Kokosing River, beginning June 1972.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 481 ft^3/s (53 years).
Minimum daily discharge: 34 ft^3/s August 1932, September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	59	45	40	36	32	Sept.-Nov.	1	62	48	41	37	32
	7	62	48	42	38	34		7	65	50	44	40	36
	30	71	54	48	44	40		30	75	57	50	44	38
May- Nov.	1	60	46	40	36	32	Dec.-Feb.	1	102	66	53	45	37
	7	62	48	43	38	34		7	118	73	58	47	38
	30	71	54	48	44	39		30	214	108	76	56	41
June-Aug.	1	68	50	43	38	33	Mar.- May	1	176	121	97	79	63
	7	73	54	46	41	36		7	209	139	111	92	73
	30	101	69	59	52	46		30	328	203	157	127	99

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	47	55	66	75	85	94	110	150	200	290	410	620	1100
May - Nov.	44	51	60	67	73	80	86	100	120	160	220	310	560
June - Aug.	46	54	64	73	81	88	96	120	140	170	210	300	520
Sept.- Nov.	41	46	53	59	64	68	72	80	89	100	120	170	290
Dec. - Feb.	54	64	78	96	120	150	170	230	310	420	580	830	1500
Mar. - May	110	140	190	230	260	290	320	400	490	610	780	1100	1700

MUSKINGUM RIVER BASIN

03138500 Walhonding River below Mohawk Dam, at Nellie, Ohio

LOCATION: Lat 40°20'29", long 82°03'56", in T.6 N., R.8 W., Coshocton County, Hydrologic Unit 05040003, on right bank at upstream side of bridge on U.S. Highway 36 at Nellie, 0.5 mi upstream from Mohawk Creek, and 1.7 mi downstream from Mohawk Dam.

DRAINAGE AREA: 1,505 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Flow regulated beginning 1936 by 5 flood-control reservoirs at points 1.7 mi to 54 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1,486 ft^3/s (41 years).
Minimum daily discharge: 19 ft^3/s February, 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	162	87	54	34	18
	7	214	176	162	151	142
	30	242	201	189	183	178
May- Nov.	1	205	145	116	93	71
	7	216	178	163	153	143
	30	244	201	188	181	176
June-Aug.	1	257	180	141	111	83
	7	258	207	190	180	171
	30	373	274	243	224	210
Sept.-Nov.	1	207	156	135	120	105
	7	223	179	162	151	140
	30	261	203	187	177	170
Dec.-Feb.	1	310	148	89	51	24
	7	402	247	196	164	135
	30	699	360	257	195	145
Mar.- May	1	460	210	115	62	26
	7	705	520	443	388	333
	30	1180	782	633	533	440

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	180	210	240	270	310	350	400	540	730	1000	1500	2200	4000
May - Nov.	180	200	220	250	270	290	320	380	470	610	800	1200	2100
June - Aug.	200	220	260	280	300	330	360	420	510	630	810	1200	2000
Sept.- Nov.	160	180	200	210	230	240	260	290	330	390	490	660	1000
Dec. - Feb.	190	230	280	330	400	480	570	760	1000	1400	1900	2900	5100
Mar. - May	420	550	690	820	940	1100	1200	1500	1900	2400	3200	4300	5900

MUSKINGUM RIVER BASIN

03138790 Killbuck Creek at Burbank, Ohio

LOCATION: Lat 40°59'24", long 81°59'41", Wayne-Medina County line, Hydrologic Unit 05040003, at bridge on State Route 76 at at Burbank, Ohio.

DRAINAGE AREA: 42.4 mi^2.

TRIBUTARY TO: Walhonding River.

DISCHARGE DATA USED: Low-flow measurements 1975-current water years.

INDEX STATION: 03139000 Killbuck Creek at Killbuck.

REMARKS: Three medium-flow measurements and one low-flow measurement is taken annually.

SELECTED DISCHARGE CHARACTERISTICS: Minimum flow observed: 0.9 ft^3/s September 1978.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.4	0.1
	30	0.6	0.2
May - Nov.	7	0.4	0.1
	30	0.6	0.2
June - Aug.	7	0.7	0.2
	30	1.8	0.4
Sept.- Nov.	7	0.4	0.1
	30	0.8	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.3	0.5	0.7	1.0
May - Nov.	0.1	0.2	0.4	0.5	0.6
June - Aug.	0.2	0.3	0.4	0.6	0.8
Sept.- Nov.	0.1	0.2	0.3	0.3	0.4

MUSKINGUM RIVER BASIN

03138800 Killbuck Creek at Wooster, Ohio

LOCATION: Lat 40°48'05", long 81°58'30", Wayne County, Hydrologic Unit 05040003, at bridge on Old Mansfield Road, 2.0 mi northwest of Wooster.

DRAINAGE AREA: 128 mi^2.

TRIBUTARY TO: Walhonding River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1978 water years.

INDEX STATION: 03139000 Killbuck Creek at Killbuck, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.5 ft^3/s September 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.8	2.0
	30	4.9	2.5
May - Nov.	7	3.8	2.0
	30	4.9	2.5
June - Aug.	7	5.0	2.4
	30	8.8	3.7
Sept.- Nov.	7	4.0	2.1
	30	5.5	2.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.6	3.3	4.2	5.3	6.5
May - Nov.	2.2	2.9	3.6	4.1	4.9
June - Aug.	2.6	3.2	3.9	4.7	5.6
Sept.- Nov.	2.0	2.5	3.1	3.5	3.9

MUSKINGUM RIVER BASIN

03139000 Killbuck Creek at Killbuck, Ohio

LOCATION: Lat 40°28'53", long 81°59'10", Holmes County, Hydrologic Unit 05040003, on right bank at downstream side of U.S. Highway 62 bridge south of Killbuck, 1.2 mi downstream from Black Creek. Prior to Oct. 5, 1976, at site 0.9 mi upstream.

DRAINAGE AREA: 464 mi^2.

TRIBUTARY TO: Walhonding River.

DISCHARGE DATA USED: October 1930 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 402 ft^3/s (48 years).
Minimum daily discharge: 23 ft^3/s September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	44	32	28	25	22
	7	47	34	29	26	23
	30	57	40	34	30	26
May- Nov.	1	44	32	28	25	22
	7	47	34	29	26	23
	30	57	40	34	30	26
June-Aug.	1	52	37	31	27	23
	7	58	40	33	29	25
	30	88	57	46	39	33
Sept.-Nov.	1	46	33	28	25	23
	7	49	35	30	27	24
	30	62	41	35	30	27
Dec.-Feb.	1	81	51	41	35	30
	7	92	56	44	37	31
	30	156	78	56	43	32
Mar.- May	1	149	101	81	67	53
	7	183	122	98	80	64
	30	313	195	149	118	91

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	35	42	51	60	70	81	94	130	180	260	380	580	1000
May - Nov.	31	38	45	50	57	63	71	89	110	150	200	290	510
June - Aug.	35	41	48	55	63	71	79	98	120	150	200	290	500
Sept.- Nov.	29	34	40	44	48	52	56	66	78	94	120	160	270
Dec. - Feb.	43	54	65	78	90	100	120	170	250	350	480	750	1300
Mar. - May	100	130	180	210	250	280	320	390	490	610	800	1100	1500

MUSKINGUM RIVER BASIN

03140000 Mill Creek near Coshocton, Ohio

LOCATION: Lat 40°21'46", long 81°51'45", Coshocton County, Hydrologic Unit 05040003, on left bank 0.5 mi downstream from Little Mill Creek and 6 mi north of Coshocton.

DRAINAGE AREA: 27.2 mi^2.

TRIBUTARY TO: Walhonding River.

DISCHARGE DATA USED: November 1936 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 27.4 ft^3/s (41 years).
Minimum daily discharge: No flow September 1954 to August 1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.3	0.1	0.1	0	0
	7	0.4	0.2	0.1	0.1	0
	30	0.8	0.3	0.2	0.1	0.1
May- Nov.	1	0.3	0.1	0.1	0	0
	7	0.4	0.2	0.1	0.1	0
	30	0.8	0.3	0.2	0.1	0.1
June-Aug.	1	0.6	0.2	0.1	0.1	0
	7	0.8	0.3	0.2	0.1	0.1
	30	2.2	0.9	0.6	0.4	0.2
Sept.-Nov.	1	0.4	0.2	0.1	0.1	0
	7	0.5	0.2	0.1	0.1	0.1
	30	1.3	0.5	0.3	0.2	0.1
Dec.-Feb.	1	3.1	1.0	0.5	0.2	0.1
	7	4.7	1.6	0.8	0.4	0.2
	30	10	3.4	1.7	1.0	0.5
Mar.- May	1	6.5	4.2	3.3	2.7	2.2
	7	8.5	5.4	4.3	3.5	2.8
	30	18	11	8.3	6.5	5.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.4	0.9	1.3	1.8	2.4	3.2	5.7	9.6	16	24	37	63
May - Nov.	0.2	0.3	0.5	0.8	1.1	1.4	1.8	2.6	4.0	6.3	9.8	17	32
June - Aug.	0.2	0.4	0.7	1.0	1.3	1.7	2.1	3.0	4.2	5.9	8.6	14	29
Sept.- Nov.	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.6	2.2	3.0	4.8	9.1	19
Dec. - Feb.	0.9	1.4	2.2	3.2	4.6	6.0	7.7	13	19	25	35	50	89
Mar. - May	4.8	6.5	9.2	12	14	17	19	24	30	37	47	62	100

MUSKINGUM RIVER BASIN

03140500 Muskingum River near Coshocton, Ohio

LOCATION: Lat 40°14'54", long 81°52'23", in T.5 N., R.6 W., Coshocton County, Hydrologic Unit 05040004, on right bank at upstream side of highway bridge, 1 mi southwest of Coshocton, and 2 mi downstream from confluence of Tuscarawas and Walhonding Rivers.

DRAINAGE AREA: 4,859 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Flow regulated by 13 flood-control reservoirs at points 19 mi to 88 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 4,805 ft^3/s (41 years).
Minimum daily discharge: 420 ft^3/s September, 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	668	530	472	430	388	Sept.-Nov.	1	678	531	479	444	413
	7	700	555	496	454	413		7	713	558	505	471	441
	30	809	624	557	513	472		30	886	638	534	500	452
May- Nov.	1	677	537	478	435	393	Dec.-Feb.	1	1280	773	603	495	400
	7	709	561	500	457	414		7	1450	859	660	534	424
	30	822	628	556	509	464		30	2440	1250	875	651	466
June-Aug.	1	827	635	563	513	467	Mar.- May	1	2190	1560	1290	1090	904
	7	907	689	609	555	506		7	2540	1810	1530	1330	1140
	30	1310	913	768	671	581		30	4200	2830	2280	1890	1530

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	560	660	800	920	1100	1300	1500	2000	2700	3700	5100	7600	13000
May - Nov.	530	610	720	800	890	990	1100	1400	1700	2200	2900	4100	6700
June - Aug.	610	720	840	950	1100	1200	1300	1500	1900	2300	2900	3900	6100
Sept.- Nov.	500	540	610	680	740	790	840	960	1200	1500	1900	2500	3800
Dec. - Feb.	620	780	950	1200	1500	1800	2000	2700	3800	5000	6700	10000	16000
Mar. - May	1600	2000	2600	3100	3500	4000	4400	5500	6800	8300	10000	12000	17000

MUSKINGUM RIVER BASIN

03141500 Seneca Fork below Senecaville Dam, near Senecaville, Ohio

LOCATION: Lat 39°55'28", long 81°26'17", Guernsey County, Hydrologic Unit 05040005, on left bank 650 ft downstream from Senecaville Dam, and 1.5 mi southeast of Senecaville.

DRAINAGE AREA: 118 mi^2.

TRIBUTARY TO: Wills Creek.

DISCHARGE DATA USED: September 1938 to September 1978.

REMARKS: Flow regulated by Senecaville Lake. Water is diverted from Senecaville Lake for U.S. Fish Hatchery.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 128 ft^3/s (40 years).
Minimum daily discharge: No flow January, February, April, 1952.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.7	0.2	0.1	0	0
	7	2.2	0.9	0.5	0.3	0.2
	30	3.1	1.7	1.3	1.0	0.8
May- Nov.	1	1.6	0.6	0.4	0.2	0.1
	7	2.5	1.0	0.6	0.4	0.2
	30	3.4	1.8	1.3	1.0	0.8
June-Aug.	1	3.1	1.1	0.7	0.5	0.3
	7	5.2	1.8	1.0	0.6	0.3
	30	14	5.3	3.2	2.2	1.4
Sept.-Nov.	1	2.1	1.0	0.7	0.5	0.3
	7	2.9	1.3	0.8	0.6	0.4
	30	4.0	1.8	1.3	1.1	0.9
Dec.-Feb.	1	2.0	0.4	0.2	0.1	0
	7	7.4	2.0	1.0	0.6	0.3
	30	48	11	4.3	1.8	0.6
Mar.- May	1	2.3	0.6	0.3	0.1	0
	7	14	4.0	2.0	1.1	0.6
	30	76	21	9.0	4.0	1.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.5	1.9	2.5	3.0	3.6	5.0	8.1	21	44	78	130	240	430
May - Nov.	1.5	1.9	2.3	2.7	3.2	3.8	5.0	11	22	39	64	110	260
June - Aug.	1.8	2.2	2.7	3.3	3.9	5.6	8.0	17	27	41	58	86	190
Sept.- Nov.	1.3	1.7	2.0	2.2	2.5	2.8	3.2	4.3	8.2	15	27	76	220
Dec. - Feb.	1.5	2.0	2.6	3.3	4.7	12	24	54	98	160	250	380	530
Mar. - May	1.8	2.5	3.9	7.2	26	45	58	88	120	160	260	400	550

MUSKINGUM RIVER BASIN

03141900 Leatherwood Creek near Cambridge, Ohio

LOCATION: Lat 40°01'15", long 81°32'55", Guernsey County, Hydrologic Unit 05040005, at bridge on County Road 461, 2.3 mi east of Cambridge, and 3.5 mi upstream from mouth.

DRAINAGE AREA: 88 mi^2.

TRIBUTARY TO: Wills Creek.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1967, 1969-1973 water years.

INDEX STATION: 03149500 Salt Creek near Chandlersville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.4 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.8	0.2
	30	2.5	0.8
May - Nov.	7	0.8	0.1
	30	2.5	0.8
June - Aug.	7	2.5	0.1
	30	10	2.4
Sept.- Nov.	7	1.0	0.2
	30	3.9	1.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.7	1.7	3.1	4.4	5.9
May - Nov.	0.5	1.0	2.0	2.9	3.8
June - Aug.	0.6	1.3	2.4	3.3	4.4
Sept.- Nov.	0.4	0.7	1.3	2.0	2.7

MUSKINGUM RIVER BASIN

03142000 Wills Creek at Cambridge, Ohio

LOCATION: Lat 40°00'52", long 81°35'14", Guernsey County, Hydrologic Unit 05040005, on left bank at upstream side of bridge on Campbell Avenue in Cambridge, 0.9 mi downstream from Leatherwood Creek.

DRAINAGE AREA: 406 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Flow regulated by Senecaville Lake on Seneca Fork, 22 mi upstream, beginning in 1937. Water is diverted 2.7 mi upstream from station for municipal supply of city of Cambridge.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 431 ft^3/s (41 years).
Minimum daily discharge: 0.7 ft^3/s October, 1960.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	6.9	2.9	1.8	1.3	0.8
	7	9.1	4.0	2.6	1.8	1.2
	30	15	6.8	4.5	3.1	2.1
May- Nov.	1	7.0	2.9	1.9	1.3	0.8
	7	9.1	4.0	2.6	1.8	1.2
	30	15	7.0	4.6	3.2	2.2
June-Aug.	1	13	5.5	3.4	2.3	1.4
	7	19	8.5	5.5	3.8	2.5
	30	52	21	12	7.0	3.7
Sept.-Nov.	1	7.9	3.2	2.1	1.4	1.0
	7	10	4.4	2.8	2.0	1.4
	30	18	7.7	5.2	3.8	2.7
Dec.-Feb.	1	62	22	10	4.7	1.6
	7	78	27	13	5.8	2.1
	30	250	75	33	15	5.6
Mar.- May	1	98	56	39	29	19
	7	135	73	52	38	27
	30	291	154	106	75	50

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.0	7.9	16	24	35	48	63	110	170	280	460	750	1200
May - Nov.	3.3	5.3	11	16	20	26	33	52	79	120	180	320	660
June - Aug.	4.1	8.1	16	22	29	36	43	61	82	110	160	280	600
Sept.- Nov.	2.9	3.8	6.0	9.0	13	16	19	26	38	58	99	190	410
Dec. - Feb.	8.8	22	48	66	94	120	160	240	380	570	790	1100	1600
Mar. - May	56	90	130	160	200	240	280	380	520	690	890	1200	1700

MUSKINGUM RIVER BASIN

03143500 Wills Creek below Wills Creek Dam, at Wills Creek, Ohio

LOCATION: Lat 40°09'34", long 81°50'51", in sec.22, T.4 N., R.6 W., Coshocton County, Hydrologic Unit 05040005, on left bank 1,200 ft downstream from Wills Creek Dam, 1.3 mi southeast of town of Wills Creek, 2.7 mi southeast of Conesville, and 6.2 mi upstream from mouth.

DRAINAGE AREA: 842 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: Flow regulated by Senecaville Lake on Seneca Fork, 80 mi upstream, Salt Fork Reservoir, 43 mi upstream, and Wills Creek Lake, 0.2 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 909 ft^3/s (40 years).
Minimum daily discharge: 1.0 ft^3/s many times.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	11	3.2	1.6	0.8	0.4
	7	33	15	9.3	5.8	3.2
	30	42	25	19	16	13
May- Nov.	1	26	9.4	4.8	2.5	1.1
	7	33	15	9.3	5.8	3.2
	30	42	25	19	16	13
June-Aug.	1	48	17	8.4	4.1	1.6
	7	57	32	24	19	14
	30	124	59	39	28	19
Sept.-Nov.	1	31	12	6.2	3.5	1.7
	7	34	15	9.2	6.0	3.7
	30	47	26	20	17	15
Dec.-Feb.	1	119	25	6.7	1.7	0.2
	7	205	87	54	35	21
	30	470	179	100	59	32
Mar.- May	1	151	29	9.2	3.1	0.8
	7	350	217	167	134	104
	30	713	423	316	246	183

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	20	31	48	66	89	120	150	260	410	640	970	1500	2600
May - Nov.	17	24	36	46	57	69	86	130	190	270	410	700	1300
June - Aug.	23	36	52	66	82	99	120	160	210	270	390	650	1200
Sept.- Nov.	14	18	25	32	38	44	50	66	89	130	200	340	720
Dec. - Feb.	40	75	120	170	240	310	380	550	790	1100	1500	2100	3200
Mar. - May	160	250	350	430	520	600	700	900	1100	1500	1900	2700	3900

MUSKINGUM RIVER BASIN

03144000 Wakatomika Creek near Frazeysburg, Ohio

LOCATION: Lat 40°07'57", long 82°08'53", in NW1/4 sec.13, T.3 N., R.9 W., Muskingum County, Hydrologic Unit 05040004, on right bank 2.0 mi northwest of Frazeysburg, 2.0 mi downstream from Fivemile Run, and 2.5 mi upstream from Black Run.

DRAINAGE AREA: 140 mi^2.

TRIBUTARY TO: Muskingum River

DISCHARGE DATA USED: October 1936 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 148 ft^3/s (42 years).
Minimum daily discharge: 2.6 ft^3/s October, 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	7.2	4.4	3.4	2.7	2.1
	7	7.9	4.9	3.8	3.1	2.4
	30	11	6.8	5.2	4.1	3.1
May- Nov.	1	7.4	4.5	3.5	2.8	2.1
	7	8.0	4.9	3.8	3.1	2.4
	30	11	6.8	5.2	4.1	3.1
June-Aug.	1	9.6	6.1	4.7	3.7	2.9
	7	11	6.9	5.3	4.3	3.4
	30	19	11	8.1	6.4	4.9
Sept.-Nov.	1	8.1	4.9	3.7	2.9	2.2
	7	9.1	5.4	4.1	3.2	2.5
	30	14	7.4	5.4	4.2	3.2
Dec.-Feb.	1	27	13	8.3	5.8	3.7
	7	33	17	12	8.5	5.9
	30	65	29	18	12	7.6
Mar.- May	1	46	30	22	17	13
	7	56	37	28	22	17
	30	112	70	53	41	31

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	5.4	7.6	11	14	17	21	27	40	59	90	130	200	340
May - Nov.	4.5	6.3	8.3	10	12	14	17	23	30	43	60	93	170
June - Aug.	5.5	7.2	9.6	12	14	16	18	24	31	40	53	75	140
Sept.- Nov.	3.7	5.0	6.9	8.1	9.4	11	12	16	21	26	36	56	100
Dec. - Feb.	9.5	13	18	30	36	44	52	74	100	140	190	280	470
Mar. - May	32	45	58	72	85	97	110	140	170	210	250	350	520

MUSKINGUM RIVER BASIN

03144500 Muskingum River at Dresden, Ohio

LOCATION: Lat 40°07'13", long 81°59'59", Muskingum County, Hydrologic Unit 05040004, on left bank 70 ft downstream from bridge on State Route 208, 0.5 mi east of Dresden, and 0.5 mi downstream from Wakatomika Creek.

DRAINAGE AREA: 5,993 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1952 to September 1978.

REMARKS: Flow regulated by 16 flood-control reservoirs at points 15 mi to 105 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 6,086 ft^3/s (26 years).
Minimum daily discharge: 460 September, 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	835	617	525	459	393
	7	885	648	549	478	409
	30	1020	718	608	533	464
May- Nov.	1	842	619	524	457	390
	7	895	650	548	475	405
	30	1040	724	607	527	453
June-Aug.	1	1080	780	661	577	496
	7	1180	848	717	628	543
	30	1710	1120	905	762	630
Sept.-Nov.	1	860	614	524	463	406
	7	918	650	554	490	431
	30	1130	748	616	530	453
Dec.-Feb.	1	1740	987	743	590	458
	7	1990	1100	815	636	482
	30	3040	1500	1020	742	515
Mar.- May	1	2760	1910	1570	1330	1100
	7	3300	2300	1920	1670	1440
	30	5580	3690	2980	2490	2040

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	630	770	980	1200	1400	1600	1900	2600	3500	4800	6800	10000	16000
May - Nov.	600	690	860	980	1100	1200	1400	1800	2300	2900	3800	5400	9300
June - Aug.	710	850	1000	1100	1300	1400	1600	1900	2300	2900	3700	4900	8300
Sept.- Nov.	540	610	690	800	890	970	1100	1300	1600	2000	2600	3600	5300
Dec. - Feb.	700	950	1200	1500	1900	2300	2600	3400	4800	6300	8400	12000	18000
Mar. - May	2100	2500	3400	4000	4600	5200	5800	7300	9100	11000	14000	18000	23000

MUSKINGUM RIVER BASIN

03145000 South Fork Licking River near Hebron, Ohio

LOCATION: Lat 39°59'19", long 82°28'30", in NW1/4 sec.3, T.1 N., N.12 W., Licking County, Hydrologic Unit 05040006, on left bank at upstream side of bridge on county road, 800 ft downstream from Beaver Run, 2.3 mi north of Hebron, and 2.5 mi upstream from Ramp Creek.

DRAINAGE AREA: 133 mi^2.

TRIBUTARY TO: Head of Licking River.

DISCHARGE DATA USED: October 1939 to September 1948, July 1968 to September 1978.

REMARKS: Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft, on unnamed tributary 5.6 mi upstream from station. Occasional diversion from Buckeye Lake into Jonathan Creek which bypasses station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 145 ft^3/s (19 years).
Minimum daily discharge: No flow August 1942.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	3.9	1.5	0.7	0	0
	7	4.8	2.2	1.4	1.0	0.6
	30	7.9	4.1	2.8	2.0	1.4
May- Nov.	1	3.9	1.5	0.7	0	0
	7	4.8	2.2	1.4	1.0	0.6
	30	8.2	4.2	2.8	2.0	1.4
June-Aug.	1	5.7	2.5	1.4	0	0
	7	7.1	3.3	2.0	1.3	0.8
	30	16	7.0	4.3	2.8	1.7

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	5.3	2.2	1.4	0.9	0.5
	7	6.8	3.2	2.1	1.4	0.9
	30	14	7.2	5.1	3.9	2.8
Dec.-Feb.	1	15	6.6	4.0	2.5	1.5
	7	19	7.7	4.5	2.7	1.5
	30	59	21	12	7.0	3.7
Mar.- May	1	21	9.1	4.7	2.4	1.0
	7	26	12	6.6	3.6	1.6
	30	77	29	16	9.0	4.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.7	4.2	6.8	9.8	13	16	20	29	43	66	110	210	420
May - Nov.	2.1	3.1	4.9	6.6	8.6	11	13	18	24	35	53	100	250
June - Aug.	1.9	3.1	5.4	7.7	9.6	11	13	17	21	29	43	71	200
Sept.- Nov.	2.5	3.2	4.5	5.6	6.8	8.0	9.8	15	21	31	50	110	260
Dec. - Feb.	4.0	7.4	13	17	21	27	34	51	81	130	200	320	560
Mar. - May	5.7	16	23	29	35	41	48	65	93	140	220	350	610

MUSKINGUM RIVER BASIN

03146000 North Fork Licking River at Utica, Ohio

LOCATION: Lat 40°13'41", long 82°27'06", in T.4 N., R.12 W., Licking County, Hydrologic Unit 05040006, on left bank at upstream side of bridge on State Route 13 at south edge of Utica, 0.2 mi downstream from unnamed right bank tributary, and 2.0 mi upstream from Lake Fork.

DRAINAGE AREA: 116 mi^2.

TRIBUTARY TO: South Fork Licking River.

DISCHARGE DATA USED: October 1939 to September 1948, October 1969 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 133 ft^3/s (18 years).
Minimum daily discharge: 0.7 ft^3/s August, 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	3.7	2.2	1.5	1.1	0.7
	7	4.3	2.8	2.1	1.6	1.1
	30	5.9	3.8	3.0	2.5	2.0
May- Nov.	1	3.7	2.2	1.5	1.1	0.8
	7	4.3	2.8	2.1	1.6	1.1
	30	5.9	3.8	3.0	2.5	2.0
June-Aug.	1	4.6	2.5	1.7	1.2	0.8
	7	5.5	3.1	2.2	1.7	1.2
	30	9.3	4.6	3.3	2.6	2.0
Sept.-Nov.	1	4.2	2.3	1.7	1.2	0.8
	7	4.9	2.9	2.2	1.7	1.4
	30	7.9	4.1	3.1	2.6	2.1
Dec.-Feb.	1	15	6.7	4.4	3.0	2.0
	7	18	8.2	5.3	3.7	2.5
	30	57	18	9.0	4.9	2.4
Mar.- May	1	19	11	8.2	6.3	4.5
	7	24	14	9.7	7.1	4.9
	30	60	27	17	11	6.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.8	3.9	5.4	7.0	9.0	12	15	25	39	59	92	150	300
May - Nov.	2.3	3.4	4.3	5.3	6.4	7.5	8.9	13	19	28	43	72	140
June - Aug.	2.5	3.7	4.6	5.6	6.6	7.6	9.0	13	17	23	37	62	130
Sept.- Nov.	2.1	2.8	3.7	4.3	5.1	6.0	7.0	9.3	13	20	29	50	100
Dec. - Feb.	4.2	5.9	9.4	13	19	25	33	50	69	100	140	220	440
Mar. - May	8.2	17	23	30	37	44	52	68	91	120	170	250	510

MUSKINGUM RIVER BASIN

03146250 North Fork Licking River above Newark, Ohio

LOCATION: Lat 40°06'19", long 82°25'02", Licking County, Hydrologic Unit 05040006, at American Aggregates Plant, 1.3 mi downstream from Dry Creek, and 1.5 mi upstream from Newark water plant.

DRAINAGE AREA: 224 mi^2.

TRIBUTARY TO: South Fork Licking River.

DISCHARGE DATA USED: Low-flow measurements 1944, 1964, 1972-1977 water years.

INDEX STATION: 03146500 Licking River near Newark, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 19 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	26	18
	30	29	20
May - Nov.	7	26	19
	30	30	20
June - Aug.	7	33	23
	30	44	27
Sept.- Nov.	7	27	19
	30	31	20

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	19	23	27	31	36
May - Nov.	19	22	25	28	31
June - Aug.	23	27	30	33	37
Sept.- Nov.	17	19	21	23	25

MUSKINGUM RIVER BASIN

03146500 Licking River near Newark, Ohio

LOCATION: Lat 40°03'33", long 82°20'23", in SW1/4 T.2 N., R.11 W., Licking County, Hydrologic Unit 05040006, on right bank at downstream side of Stadden Bridge, 1.0 mi downstream from Shawnee Run, 1.5 mi upstream from Equality Run, and 3.5 mi east of Newark.

DRAINAGE AREA: 537 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: Occasional regulation by Buckeye Lake, capacity 27,300 acre-ft on South Fork 15.2 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 566 ft^3/s (39 years).
Minimum daily discharge: 28 ft^3/s September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	57	44	39	34	30
	7	60	47	41	37	33
	30	70	53	46	40	35
May- Nov.	1	58	45	39	34	30
	7	62	48	42	37	33
	30	72	54	46	40	35
June-Aug.	1	74	57	50	45	40
	7	81	62	54	49	43
	30	112	75	64	56	50
Sept.-Nov.	1	59	45	39	34	30
	7	63	48	42	37	32
	30	74	53	46	41	37
Dec.-Feb.	1	103	60	46	37	29
	7	124	69	51	40	31
	30	255	108	67	44	28
Mar.- May	1	174	124	100	81	63
	7	202	145	120	102	84
	30	357	222	173	140	110

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	44	53	64	75	88	100	120	170	230	320	470	730	1300
May - Nov.	43	50	59	67	74	83	91	110	140	180	240	350	640
June - Aug.	54	63	72	81	90	99	110	130	150	180	240	350	650
Sept.- Nov.	38	43	49	54	59	64	69	80	93	120	160	230	420
Dec. - Feb.	45	53	66	87	120	150	180	260	370	520	740	1100	1900
Mar. - May	120	150	200	230	260	290	330	420	520	670	880	1200	2100

MUSKINGUM RIVER BASIN

03147500 Licking River below Dillon Dam, near Dillon Falls, Ohio

LOCATION: Lat 39°59'18", long 82°04'50", in T.1 N., R.8 W., Muskingum County, Hydrologic Unit 05040006, on left bank 500 ft downstream from Dillon Dam, 2.0 mi northwest of Dillon Falls, and 5.8 mi upstream from mouth.

DRAINAGE AREA: 742 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1960 to September 1978.

REMARKS: Flow regulated by Dillon Lake since December 1960.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 823 ft^3/s (18 years).
Minimum daily discharge: 19 ft^3/s December 1960.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	66	56	51	48	44	Sept.-Nov.	1	77	62	55	50	46
	7	80	66	59	54	48		7	92	68	58	52	46
	30	105	77	64	55	46		30	134	82	64	53	44
May- Nov.	1	68	57	52	48	45	Dec.-Feb.	1	129	69	47	34	23
	7	80	65	59	54	49		7	245	110	66	41	23
	30	106	77	64	55	46		30	457	203	126	83	50
June-Aug.	1	77	62	55	51	46	Mar.- May	1	104	70	59	53	47
	7	97	75	67	60	55		7	217	112	77	56	38
	30	161	107	89	76	65		30	535	292	209	157	113

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	66	76	90	110	130	150	190	260	360	510	730	1200	2400
May - Nov.	64	71	82	92	100	120	130	170	220	290	400	590	1100
June - Aug.	66	77	90	100	110	120	140	170	210	250	320	470	920
Sept.- Nov.	59	67	75	82	88	97	110	130	180	240	350	520	870
Dec. - Feb.	70	89	130	170	220	260	300	420	560	740	1000	1500	2700
Mar. - May	80	120	230	300	360	430	500	660	840	1200	1700	2700	3900

MUSKINGUM RIVER BASIN

03148300 Moxanala Creek at Roseville, Ohio

LOCATION: Lat 39°48'40", long 82°04'10", Muskingum County, Hydrologic Unit 05040004, at pumping station about 2,500 ft downstream from First Street Bridge in Roseville.

DRAINAGE AREA: 80.6 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1961-1971 water years.

INDEX STATION: 03202000 Raccoon Creek at Adamsville, Ohio.

REMARKS: Flood flow controlled by levee on left bank.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 3.3 ft^3/s August 1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	8.2	3.6
	30	11	4.6
May - Nov.	7	8.2	3.6
	30	11	4.6
June - Aug.	7	12	7.4
	30	18	9.7
Sept.- Nov.	7	8.5	3.6
	30	12	4.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.0	6.7	10	13	16
May - Nov.	4.2	5.7	8.2	10	12
June - Aug.	7.4	9.1	11	13	14
Sept.- Nov.	3.1	4.3	5.4	6.2	7.8

MUSKINGUM RIVER BASIN

03148400 Moxahala Creek at Roberts, Ohio

LOCATION: Lat 39°51'20", long 82°03'25", Muskingum County, Hydrologic Unit 05040004, at bridge on county road, 0.5 mi east of former location of Roberts, 2.5 mi southeast of White Cottage, 2.6 mi southeast of present (1965) Roberts, and 2.1 mi upstream from Jonathan Creek.

DRAINAGE AREA: 98.1 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1971 water years.

INDEX STATION: 03157000 Clear Creek near Rockbridge, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 3.9 ft^3/s August 1962.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	7.6	3.2
	30	10	5.3
May - Nov.	7	7.6	3.2
	30	10	5.3
June - Aug.	7	10	3.9
	30	21	7.6
Sept.- Nov.	7	8.8	4.1
	30	15	6.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.3	7.6	12	15	19
May - Nov.	4.4	6.4	8.8	10	13
June - Aug.	4.4	6.4	8.8	12	13
Sept.- Nov.	4.4	5.3	7.6	8.8	10

MUSKINGUM RIVER BASIN

03148450 Jonathan Creek at East Fultonham, Ohio

LOCATION: Lat 39°51'20", long 82°07'35", Muskingum County, Hydrologic Unit 05040004, at old U.S. Highway 22 bridge in East Fultonham 1.0 mi upstream from Buckeye Fork.

DRAINAGE AREA: 125 mi^2.

TRIBUTARY TO: Moxahala Creek.

DISCHARGE DATA USED: Low-flow measurements 1942, 1959, 1965, 1972-1977 water years.

INDEX STATION: 03146500 Licking River near Newark, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 3.2 ft^3/s August 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	5.4	3.3
	30	6.6	3.8
May - Nov.	7	5.6	3.4
	30	6.8	3.8
June - Aug.	7	8.0	4.7
	30	12	5.9
Sept.- Nov.	7	5.8	3.4
	30	7.1	3.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	3.6	4.6	5.9	7.2	8.9
May - Nov.	3.5	4.3	5.3	6.2	7.1
June - Aug.	4.7	5.8	6.8	8.0	9.2
Sept.- Nov.	3.0	3.5	4.1	4.7	5.3

MUSKINGUM RIVER BASIN

03148600 Moxahala Creek near Zanesville, Ohio

LOCATION: Lat 39°53'45", long 82°00'20", Muskingum County, Hydrologic Unit 05040004, 1.0 mi east of South Zanesville, and 0.5 mi upstream from mouth.

DRAINAGE AREA: 302 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1973 water years.

INDEX STATION: 03157000 Clear Creek near Rockbridge, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 8.3 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	14	5.2
	30	19	9.4
May - Nov.	7	14	5.2
	30	19	9.4
June - Aug.	7	19	6.6
	30	40	14
Sept.- Nov.	7	16	7.0
	30	29	11

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	9.4	14	22	29	36
May - Nov.	7.6	11	16	19	25
June - Aug.	7.6	11	16	22	25
Sept.- Nov.	7.6	9.4	14	16	19

MUSKINGUM RIVER BASIN

03149500 Salt Creek near Chandlersville, Ohio

LOCATION: Lat 39°54'31", long 81°51'36", in SW1/4 sec.10, T.13 N., R.12 W., Muskingum County, Hydrologic Unit 05040004, just upstream from highway bridge 1.0 mi upstream from Buffalo Fork, and 2 mi northwest of Chandlersville.

DRAINAGE AREA: 75.7 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: October 1935 to September 1947.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 89.2 ft^3/s (12 years)

Minimum daily discharge: No flow July 1936, August 1944, September 1947.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.6	0.1	0	0	0
	7	0.7	0.1	0.1	0	0
	30	2.2	1.0	0.7	0.5	0.3
May- Nov.	1	0.6	0.1	0	0	0
	7	0.7	0.1	0.1	0	0
	30	2.2	1.0	0.7	0.5	0.3
June-Aug.	1	1.6	0.4	0	0	0
	7	2.2	0.4	0.1	0	0
	30	9.4	3.6	2.1	1.3	0.7
Sept.-Nov.	1	0.8	0.2	0.1	0.1	0
	7	0.9	0.3	0.2	0.1	0.1
	30	3.5	1.4	0.9	0.6	0.4
Dec.-Feb.	1	9.8	3.3	1.6	0.8	0.3
	7	13	4.3	2.1	1.1	0.5
	30	39	17	10	6.1	3.3
Mar.- May	1	15	8.1	5.5	3.8	2.5
	7	22	11	7.5	5.1	3.1
	30	45	24	17	13	9.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.6	1.5	2.8	4.0	5.4	7.1	9.7	19	30	44	66	100	200
May - Nov.	0.4	0.9	1.8	2.6	3.4	4.3	5.3	8.0	13	21	32	52	100
June - Aug.	0.5	1.1	2.1	3.0	4.0	5.1	6.5	9.9	16	24	35	56	120
Sept.- Nov.	0.3	0.6	1.1	1.8	2.4	3.0	3.5	4.9	6.5	9.3	16	28	65
Dec. - Feb.	2.7	3.9	6.3	10	18	23	28	39	52	71	99	150	260
Mar. - May	8.7	14	22	29	34	39	45	59	80	100	140	200	340

MUSKINGUM RIVER BASIN

03150000 Muskingum River at McConnelsville, Ohio

LOCATION: Lat 39°38'42", long 81°51'00", in SE1/4 sec.11, T.10 N., R.12 W., Morgan County, Hydrologic Unit 05040004, on left bank just upstream from Dam 7, at McConnelsville, and 3.5 mi downstream from Oilspring Run.

DRAINAGE AREA: 7,422 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1937 to September 1978.

REMARKS: Flow regulated by 17 flood-control reservoirs 36.6 mi to 148 mi upstream from station. Some regulation at low flow by power plant 19 mi upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 7,457 ft^3/s (41 years)
Minimum daily discharge: 385 ft^3/s September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	876	634	532	459	387
	7	958	732	641	575	511
	30	1140	843	731	656	585
May- Nov.	1	891	641	536	461	388
	7	977	740	643	574	507
	30	1170	850	731	650	573
June-Aug.	1	1160	833	703	613	528
	7	1330	979	845	753	666
	30	1990	1320	1070	914	766
Sept.-Nov.	1	907	642	544	477	415
	7	987	738	653	598	550
	30	1260	870	738	653	577
Dec.-Feb.	1	1960	1120	847	672	520
	7	2220	1260	945	746	574
	30	3870	1900	1290	934	641
Mar.- May	1	3350	2400	1990	1700	1420
	7	3840	2740	2320	2020	1740
	30	6440	4290	3440	2860	2310

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	750	930	1100	1300	1600	1900	2200	3000	4100	5700	8100	12000	20000
May - Nov.	700	840	1000	1100	1300	1400	1600	2100	2600	3400	4500	6200	10000
June - Aug.	860	1000	1200	1400	1600	1800	2000	2400	2900	3500	4500	6100	9700
Sept.- Nov.	630	710	840	940	1000	1100	1200	1400	1700	2100	2700	3700	5800
Dec. - Feb.	890	1100	1400	1900	2300	2800	3200	4300	6100	8200	11000	16000	24000
Mar. - May	2500	3000	3900	4600	5300	6000	6700	8500	11000	13000	17000	21000	27000

MUSKINGUM RIVER BASIN

03150250 Meigs Creek near Beverly, Ohio

LOCATION: Lat 39°36'00", long 81°42'42", Morgan County, Hydrologic Unit 05040004, on right bank 400 ft downstream from county road bridge at Mill Giane, 0.4 mi downstream from Perry Run, 0.5 mi upstream from Onion Run, 2.2 mi upstream from mouth, and 5.3 mi northwest of Beverly.

DRAINAGE AREA: 136 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1972-1974 water years.

INDEX STATION: 03115400 Little Muskingum River at Bloomfield, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 4.5 ft^3/s September 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.3	0.8
	30	6.8	1.8
May - Nov.	7	3.3	0.8
	30	6.8	1.8
June - Aug.	7	8.2	2.3
	30	22	5.2
Sept.- Nov.	7	4.4	0.8
	30	10	2.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.8	3.5	7.2	12	18
May - Nov.	1.4	2.3	4.0	6.2	8.7
June - Aug.	2.3	3.5	5.7	7.9	10
Sept.- Nov.	1.1	1.6	2.5	3.5	5.0

MUSKINGUM RIVER BASIN

03150480 West Branch Wolf Creek near Waterford, Ohio

LOCATION: Lat 39°31'43", long 81°39'22", Washington County, Hydrologic Unit 05040004, 400 ft upstream from South Branch adjacent to State Route 76 and 1.2 mi southwest of Waterford.

DRAINAGE AREA: 144 mi^2.

TRIBUTARY TO: Muskingum River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1977 water years.

INDEX STATION: 03159500 Hocking River at Athens.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum flow observed: 0.3 ft^3/s September 1957.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.6	0.1
	30	1.1	0.2
May - Nov.	7	0.6	0.1
	30	1.1	0.2
June - Aug.	7	1.4	0.3
	30	5.9	0.7
Sept.- Nov.	7	0.7	0.1
	30	1.4	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.3	0.5	0.9	1.5	2.5
May - Nov.	0.2	0.4	0.6	0.9	1.3
June - Aug.	0.3	0.6	1.0	1.5	1.9
Sept.- Nov.	0.1	0.2	0.4	0.6	0.7

MUSKINGUM RIVER BASIN

03150490 South Branch Wolf Creek near Waterford, Ohio

LOCATION: Lat 39°31'28", long 81°39'31", Washington County, Hydrologic Unit 05040004, 4,000 ft upstream from mouth, at State Route 76 bridge, 1.5 mi southwest of Waterford.

DRAINAGE AREA: 79.3 mi^2.

TRIBUTARY TO: Wolf Creek.

DISCHARGE DATA USED: Low-flow measurements 1972-1977 water years.

INDEX STATION: 03115400 Little Muskingum River at Bloomfield.

REMARKS: Three medium to low-flow discharge were obtained each year to correlate with Little Muskingum River at Bloomfield.

SELECTED DISCHARGE CHARACTERISTICS: Minimum flow observed: 0.7 ft^3/s August 1973.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.3	0.1
	30	0.8	0.2
May - Nov.	7	0.3	0.1
	30	0.8	0.2
June - Aug.	7	1.1	0.2
	30	3.5	0.6
Sept.- Nov.	7	0.5	0.1
	30	1.4	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.4	0.9	1.6	2.7
May - Nov.	0.1	0.2	0.4	0.7	1.1
June - Aug.	0.2	0.4	0.7	1.0	1.4
Sept.- Nov.	0.1	0.1	0.2	0.4	0.6

LITTLE HOCKING RIVER BASIN

03155800 Little Hocking River near Little Hocking, Ohio

LOCATION: Lat 39°17'38", long 81°41'17", Washington County, Hydrologic Unit 05030202, at bridge on county road 3.2 mi upstream from mouth and 2.2 mi north-northeast of Little Hocking.

DRAINAGE AREA: 47.9 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959-1969, 1971-1974 water years.

INDEX STATION: 03159500 Hocking River at Athens, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: No flow September 1959, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0	0
	30	0.1	0
May - Nov.	7	0	0
	30	0.1	0
June - Aug.	7	0.1	0
	30	0.8	0
Sept.- Nov.	7	0	0
	30	0.1	0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0	0	0	0.1	0.2
May - Nov.	0	0	0	0	0.1
June - Aug.	0	0	0	0.1	0.1
Sept.- Nov.	0	0	0	0	0

HOCKING RIVER BASIN

03156000 Hunters Run at Lancaster, Ohio

LOCATION: Lat 39°41'57", long 82°37'18", in NE1/4 sec. 11, T.14 N., R.19 W., Fairfield County, Hydrologic Unit 05030204, on right bank at downstream side of bridge on U.S. Highway 22, 1.0 mi southwest of Lancaster, and 1.5 mi upstream from mouth.

DRAINAGE AREA: 10.0 mi^2.

TRIBUTARY TO: Hocking River.

DISCHARGE DATA USED: January 1956 to September 1978.

REMARKS: Flood peaks affected by temporary retention in four retarding basins upstream from station, combined capacity, 2,800 acre-ft. Controlled drainage area is 8.49 mi^2.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 10 ft^3/s (22 years)
Minimum daily discharge: 0.08 ft^3/s July 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.9	0.5	0.3	0.2	0.1
	7	1.0	0.6	0.4	0.4	0.3
	30	1.3	0.9	0.8	0.7	0.6
May- Nov.	1	0.9	0.5	0.3	0.2	0.1
	7	1.0	0.6	0.4	0.4	0.3
	30	1.4	1.0	0.8	0.7	0.6
June-Aug.	1	1.2	0.6	0.3	0.2	0.1
	7	1.3	0.7	0.5	0.4	0.3
	30	2.1	1.3	1.1	0.9	0.8
Sept.-Nov.	1	1.0	0.6	0.4	0.3	0.2
	7	1.1	0.7	0.5	0.4	0.4
	30	1.7	1.1	0.8	0.7	0.6
Dec.-Feb.	1	2.3	1.2	0.9	0.6	0.4
	7	2.9	1.5	1.1	0.8	0.6
	30	5.4	2.6	1.7	1.1	0.7
Mar.- May	1	3.6	2.6	2.2	1.9	1.6
	7	4.5	3.2	2.6	2.1	1.7
	30	7.0	4.9	4.1	3.6	3.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.7	1.0	1.3	1.5	1.9	2.2	2.6	3.6	4.9	6.5	8.8	13	20
May - Nov.	0.7	0.9	1.1	1.3	1.4	1.7	1.9	2.4	3.0	3.8	5.1	7.2	12
June - Aug.	0.7	0.9	1.2	1.4	1.7	1.9	2.2	2.5	3.0	3.7	4.7	6.9	12
Sept.- Nov.	0.6	0.8	1.0	1.1	1.2	1.3	1.4	1.7	2.1	2.5	3.4	4.9	7.6
Dec. - Feb.	0.8	1.2	1.9	2.5	3.0	3.6	4.2	5.5	6.9	8.9	12	16	25
Mar. - May	2.9	3.6	4.5	5.0	5.6	6.3	6.9	8.4	10	12	15	20	31

HOCKING RIVER BASIN

03156400 Hocking River at Lancaster, Ohio

LOCATION: Lat 39°42'24", long 82°36'03", in NE1/4 sec. 12, T.14 N., R.19 W., Fairfield County, Hydrologic Unit 05030204, on right bank 25 ft upstream from Columbus Street Bridge in Lancaster, and 0.5 mi downstream from Hunters Run.

DRAINAGE AREA: 48.2 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: June 1956 to September 1974.

REMARKS: Some diurnal fluctuation caused by industrial plants upstream from station. Water supply for city of Lancaster is pumped from wells adjacent to the Hocking River 1.1 mi upstream from station. The pumpage averaged 8.5 ft^3/s in 1974 and is returned as sewage 0.8 mi downstream from the station. Flood flow affected by temporary retention in eight retarding basins, combined capacity 8,710 acre-ft upstream from station. Controlled drainage area is 24.4 mi^2.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 41.4 ft^3/s (18 years).
Minimum daily discharge: 1.4 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.0	2.4	1.8	1.5	1.1
	7	5.1	3.1	2.4	1.9	1.5
	30	6.6	4.3	3.5	3.0	2.5
May- Nov.	1	4.1	2.5	1.9	1.6	1.2
	7	5.1	3.1	2.5	2.0	1.6
	30	6.7	4.4	3.5	3.0	2.5
June-Aug.	1	5.9	3.6	2.8	2.2	1.7
	7	7.3	5.0	4.1	3.6	3.0
	30	11	7.0	5.9	5.1	4.5
Sept.-Nov.	1	4.8	2.9	2.1	1.7	1.2
	7	5.6	3.4	2.6	2.1	1.6
	30	8.1	4.9	3.8	3.1	2.4
Dec.-Feb.	1	10	5.3	3.5	2.3	1.4
	7	13	7.8	5.6	4.1	2.9
	30	23	13	8.8	6.2	4.1
Mar.- May	1	16	13	12	11	9.5
	7	19	15	13	12	11
	30	28	21	19	17	16

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.4	4.7	6.2	7.5	8.8	10	12	16	21	26	35	50	83
May - Nov.	3.0	4.0	5.2	6.1	7.0	7.8	8.6	11	14	17	21	28	48
June - Aug.	4.0	5.0	6.3	7.1	8.0	8.7	9.5	12	14	17	21	28	50
Sept.- Nov.	2.5	3.2	4.2	4.9	5.6	6.2	6.9	8.2	9.8	12	15	20	31
Dec. - Feb.	4.9	7.0	10	13	15	17	19	23	29	36	46	60	100
Mar. - May	15	17	19	21	23	26	28	33	39	47	57	79	130

HOCKING RIVER BASIN

03156700 Rush Creek near Sugar Grove, Ohio

LOCATION: Lat 39°38'15", long 82°30'40", Fairfield County, Hydrologic Unit 05020304, at highway bridge on Berne Township Road 294, 2 mi northeast of Sugar Grove.

DRAINAGE AREA: 229 mi^2.

TRIBUTARY TO: Hocking River.

DISCHARGE DATA USED: Low-flow measurements 1962-1973 water years.

INDEX STATION: 03157500 Hocking River at Enterprise, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: None.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	9.0	3.7
	30	14	5.2
May - Nov.	7	9.5	3.7
	30	14	5.2
June - Aug.	7	14	5.2
	30	32	9.8
Sept.- Nov.	7	10	3.9
	30	17	5.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.2	7.8	12	16	21
May - Nov.	4.7	6.4	9.0	12	14
June - Aug.	5.8	8.2	11	14	19
Sept.- Nov.	3.9	5.0	6.9	8.6	10

HOCKING RIVER BASIN

03157000 Clear Creek near Rockbridge, Ohio

LOCATION: Lat 39°35'18", long 82°34'43", in NE1/4 sec. 20, T.13 N., R.18 W., Hocking County, Hydrologic Unit 05030204, on left bank at upstream side of county road bridge, 400 ft downstream from unnamed right bank tributary, 2.0 mi upstream from mouth, and 3 mi west of Rockbridge.

DRAINAGE AREA: 89.0 mi^2.

TRIBUTARY TO: Hocking River.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 86.7 ft^3/s (39 years).
Minimum daily discharge: 3.5 ft^3/s August 1942.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	13	9.1	7.4	6.1	4.9
	7	13	9.8	8.5	7.6	6.7
	30	15	12	11	10	9.1
May- Nov.	1	13	9.0	7.4	6.1	4.9
	7	13	9.8	8.5	7.6	6.8
	30	15	12	11	10	9.1
June-Aug.	1	14	10	8.0	6.5	5.0
	7	15	11	9.4	8.2	7.0
	30	21	15	13	11	9.9
Sept.-Nov.	1	13	9.7	8.4	7.4	6.4
	7	14	11	9.7	9.0	8.4
	30	18	14	12	11	10
Dec.-Feb.	1	24	16	13	11	9.3
	7	27	18	15	13	11
	30	48	27	20	16	12
Mar.- May	1	35	27	24	21	18
	7	41	32	28	25	22
	30	62	44	37	32	28

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	11	13	16	18	20	22	25	32	41	55	74	110	180
May - Nov.	10	12	14	15	17	18	19	23	27	33	41	57	93
June - Aug.	10	12	14	16	17	19	21	24	27	32	40	55	94
Sept.- Nov.	10	11	13	14	15	16	17	19	21	24	28	36	53
Dec. - Feb.	15	18	21	25	30	34	38	49	63	80	100	140	240
Mar. - May	28	34	40	45	50	55	60	72	86	100	130	170	280

HOCKING RIVER BASIN

03157500 Hocking River at Enterprise, Ohio

LOCATION: Lat 39°33'54", long 82°28'29", in NW1/4 sec. 5, T.14 N., R.17 W., Hocking County, Hydrologic Unit 05030204, at right bank at upstream side of abandoned bridge at Enterprise, 4.0 mi downstream from Buck Run, and 4.3 mi upstream from Scott Creek.

DRAINAGE AREA: 459 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: May 1931 to September 1978.

REMARKS: Flood flow affected by temporary retention in eight retarding basins. upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 450 ft^3/s (47 years).
Minimum daily discharge: 23 ft^3/s August 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	43	32	28	25	23
	7	47	35	30	27	24
	30	59	42	36	32	27
May- Nov.	1	43	32	28	25	23
	7	48	35	30	27	24
	30	60	43	36	32	27
June-Aug.	1	52	38	32	28	24
	7	59	42	36	31	27
	30	90	59	49	43	38
Sept.-Nov.	1	46	34	29	26	23
	7	51	37	31	28	25
	30	66	44	37	32	28
Dec.-Feb.	1	92	55	42	34	27
	7	110	62	47	37	29
	30	223	108	73	52	35
Mar.- May	1	151	107	88	73	59
	7	183	126	101	84	67
	30	312	203	162	134	108

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	36	44	54	63	73	86	100	140	190	270	390	590	1000
May - Nov.	34	40	47	54	60	66	74	92	120	150	200	290	510
June - Aug.	38	45	53	60	68	76	84	100	120	150	200	290	520
Sept.- Nov.	31	35	41	46	50	54	58	67	80	97	130	170	290
Dec. - Feb.	46	58	75	100	120	150	170	240	320	430	570	810	1400
Mar. - May	110	150	180	210	240	270	310	380	460	580	730	1000	1700

HOCKING RIVER BASIN

03159000 Sunday Creek at Glouster, Ohio

LOCATION: Lat 39°30'03", long 82°05'07", Athens County, Hydrologic Unit 05030204, on left bank 150 ft downstream from West Branch and 200 ft upstream from bridge on State Route 78 at Glouster.

DRAINAGE AREA: 104 mi^2.

TRIBUTARY TO: Hocking River.

DISCHARGE DATA USED: October 1951 to September 1978.

REMARKS: Flow partly regulated by Burr Oak Reservoir 5.2 mi upstream. Most of small diversion downstream from Burr Oak Reservoir, average discharge 0.90 ft^3/s is returned to stream upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 101 ft^3/s (27 years).
Minimum daily discharge: 0.5 ft^3/s November, December 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.3	2.3	1.6	1.1	0.7
	7	5.0	2.7	1.8	1.3	0.8
	30	6.2	3.2	2.2	1.6	1.1
May- Nov.	1	4.3	2.3	1.6	1.1	0.7
	7	5.0	2.7	1.8	1.3	0.8
	30	6.3	3.2	2.2	1.6	1.1
June-Aug.	1	5.7	3.1	2.0	1.4	0.9
	7	6.7	3.7	2.5	1.7	1.1
	30	11	5.3	3.6	2.5	1.7
Sept.-Nov.	1	4.8	2.5	1.6	1.1	0.7
	7	5.6	2.8	1.8	1.2	0.8
	30	7.4	3.3	2.1	1.5	1.0
Dec.-Feb.	1	13	5.1	2.7	1.6	0.8
	7	18	7.2	4.0	2.3	1.2
	30	52	17	8.3	4.2	1.8
Mar.- May	1	22	14	11	9.5	7.6
	7	27	18	14	12	9.5
	30	66	41	32	27	22

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.1	3.7	5.1	6.4	8.1	11	13	19	31	51	83	140	300
May - Nov.	1.8	3.0	4.2	5.1	5.9	6.9	8.0	11	15	20	29	52	130
June - Aug.	2.5	3.9	5.1	6.1	7.0	7.8	8.8	11	14	18	23	33	81
Sept.- Nov.	1.1	2.3	3.2	3.9	4.6	5.1	5.6	7.2	11	14	19	30	88
Dec. - Feb.	3.5	5.8	11	14	18	24	30	45	65	89	130	210	400
Mar. - May	16	22	30	38	46	54	61	78	100	130	170	280	490

HOCKING RIVER BASIN

03159500 Hocking River at Athens, Ohio

LOCATION: Lat 39°19'44", long 82°05'16", in T.9 N., R.14 W., Athens County, Hydrologic Unit 05030204, on right bank 0.8 mi east of business section of Athens, 1.4 mi downstream from Coats Run, and 3.0 mi downstream from Margaret Creek.

DRAINAGE AREA: 943 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1915 to September 1976.

REMARKS: Some regulation by Burr Oak Reservoir on East Branch Sunday Creek 29 mi upstream beginning 1952; by Hocking Lake, capactiy 3,080 acre-ft, on Clear Fork 39.4 mi upstream beginning in 1949; and by temporary retention in eight retarding basins, combined capacity, 8,710 acre-ft, constructed between 1955 and 1961 upstream from Lancaster. Diurnal fluctuation at low flow caused by mill 3.2 mi upstream from station. Channel work has destroyed stage-discharge relationship that existed prior to June 1970.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 986 ft^3/s (61 years).
Minimum daily discharge: 10 ft^3/s October 1930.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	65	40	30	23	17	Sept.-Nov.	1	71	43	33	26	19
	7	73	50	41	34	28		7	76	50	41	35	29
	30	90	61	50	43	36		30	96	61	50	43	38
May- Nov.	1	65	40	30	23	17	Dec.-Feb.	1	166	87	62	47	35
	7	73	50	41	34	28		7	205	105	73	54	39
	30	91	61	50	43	36		30	473	206	128	84	51
June-Aug.	1	85	53	39	30	22	Mar.- May	1	303	201	157	126	96
	7	97	66	55	46	39		7	372	238	183	145	110
	30	164	98	76	62	49		30	662	401	305	242	185

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	52	66	83	100	120	140	180	270	400	590	850	1300	2400
May - Nov.	46	58	72	83	94	110	120	150	200	280	390	610	1100
June - Aug.	55	69	85	100	110	130	140	180	230	290	380	570	1100
Sept.- Nov.	40	49	60	69	75	82	88	100	120	160	210	320	660
Dec. - Feb.	66	87	130	180	250	310	380	530	710	950	1300	1900	3400
Mar. - May	200	270	350	430	510	570	650	790	970	1200	1600	2300	3900

SHADE RIVER BASIN

03159540 Shade River near Chester, Ohio

LOCATION: Lat 39°03'49", long 81°52'55", in NE1/4 sec. 10, T.3 N., R.12 W., Meigs County, Hydrologic Unit 05030202, on right bank at downstream side of bridge on Oak Hill Road, 200 ft upstream from Sugar Run, 2.8 mi southeast of Chester, and 8.5 mi northeast of Pomeroy.

DRAINAGE AREA: 156 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: June 1965 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 168 ft^3/s (13 years).
Minimum daily discharge: 0.3 ft^3/s September 1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	2.9	1.4	0.8	0.5	0.2
	7	3.6	1.6	1.0	0.6	0.3
	30	8.9	3.9	2.3	1.3	0.7
May- Nov.	1	2.9	1.4	0.8	0.5	0.2
	7	3.6	1.6	1.0	0.6	0.3
	30	8.9	3.9	2.3	1.3	0.7
June-Aug.	1	3.3	1.5	1.0	0.7	0.4
	7	4.6	2.1	1.3	0.9	0.6
	30	15	6.4	4.0	2.7	1.7
Sept.-Nov.	1	3.5	1.5	0.9	0.5	0.3
	7	5.2	2.3	1.2	0.7	0.3
	30	15	7.0	4.6	3.2	2.1
Dec.-Feb.	1	27	15	10	8.0	5.9
	7	33	17	13	9.6	7.2
	30	85	40	26	18	12
Mar.- May	1	23	15	12	10	9.0
	7	29	19	16	14	12
	30	95	58	46	38	31

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.3	4.4	6.8	9.5	13	17	22	34	54	85	130	200	390
May - Nov.	1.9	3.1	4.8	6.2	7.5	9.3	11	16	24	34	52	87	190
June - Aug.	1.4	2.1	3.7	5.0	6.1	7.3	8.7	13	18	25	35	56	110
Sept.- Nov.	1.2	2.7	4.5	5.8	7.0	8.4	10	13	18	28	40	68	140
Dec. - Feb.	15	18	22	27	35	44	59	85	110	150	210	300	580
Mar. - May	19	26	38	48	56	66	77	100	130	170	230	340	660

SHADE RIVER BASIN

03159550 Shade River at Keno, Ohio

LOCATION: Lat 39°05'45", long 81°51'50", Meigs County, Hydrologic Unit 05030202, at highway bridge in Keno. To reach station from Chester, follow State Route 248 east 4.1 mi to intersection on small road on right. Turn sharp right and proceed 0.5 mi to bridge in Keno. Portland quadrangle.

DRAINAGE AREA: 160 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1955-1964 water years.

INDEX STATION: 03202000 Raccoon Creek at Adamsville.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: None.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.3	0.1
	30	1.3	0.2
May - Nov.	7	1.3	0.1
	30	1.3	0.2
June - Aug.	7	5.4	1.0
	30	20	2.5
Sept.- Nov.	7	1.5	0.1
	30	4.6	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.7	2.7	6.6	10
May - Nov.	0.1	0.4	1.3	2.7	4.6
June - Aug.	1.0	2.0	4.0	6.6	9.2
Sept.- Nov.	0.1	0.1	0.3	0.5	1.1

RACCOON CREEK BASIN

03201800 Sandy Run near Lake Hope, Ohio

LOCATION: Lat 39°20'01", long 82°19'56", in T.11 N., R.16 W., Vinton County, Hydrologic Unit 05090101, on right bank at upstream side on bridge of King Hollow Trail, 1,200 ft downstream from Harbargar Hollow, 2.6 mi upstream from spillway of Lake Hope, and 5.0 mi northeast of Zaleski.

DRAINAGE AREA: 4.99 mi^2.

TRIBUTARY TO: Raccoon Creek.

DISCHARGE DATA USED: October 1957 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 573 ft^3/s (21 years).
Minimum daily discharge: No flow at times most years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0	Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0		7	0	0	0	0	0
	30	0.1	0	0	0	0		30	0.1	0	0	0	0
May- Nov.	1	0	0	0	0	0	Dec.-Feb.	1	0.5	0.2	0	0	0
	7	0	0	0	0	0		7	0.7	0.3	0.1	0	0
	30	0.1	0	0	0	0		30	2.3	0.8	0.4	0.2	0.1
June-Aug.	1	0	0	0	0	0	Mar.- May	1	0.9	0.4	0.3	0.2	0.1
	7	0	0	0	0	0		7	1.2	0.6	0.3	0.2	0.1
	30	0.2	0.1	0	0	0		30	4.3	2.5	1.9	1.4	1.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0.0	0.0	0.1	0.2	0.3	0.4	0.8	1.4	2.5	4.0	6.6	14
May - Nov.	0	0	0	0	0.1	0.1	0.2	0.3	0.5	0.8	1.3	2.4	5.1
June - Aug.	0	0	0	0	0.1	0.1	0.2	0.3	0.4	0.6	0.9	1.3	3.1
Sept.- Nov.	0	0	0	0	0	0.1	0.1	0.2	0.4	0.6	0.9	1.5	3.2
Dec. - Feb.	0.1	0.3	0.4	0.7	0.9	1.2	1.5	2.2	3.2	4.4	6.2	9.3	17
Mar. - May	0.4	0.9	1.4	2.0	2.5	2.9	3.3	4.4	5.7	7.4	10	15	24

RACCOON CREEK BASIN

03201900 Raccoon Creek near Prattsville, Ohio

LOCATION: Lat 39°14'20", long 82°17'10", Vinton County, Hydrologic Unit 05090101, at bridge on U.S. Highway 50, five miles east of Prattsville, 1 1/2 miles above Russell Run.

DRAINAGE AREA: 200 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1951-1971 water years.

INDEX STATION: 03202000 Raccoon Creek at Adamsville.

REMARKS: Discontinued in 1971 as sufficient length of record had been obtained to define low-flow characteristics.

SELECTED DISCHARGE CHARACTERISTICS: Minimum flow observed: 0 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.0	0.1
	30	2.2	0.2
May - Nov.	7	1.0	0.1
	30	2.2	0.2
June - Aug.	7	3.3	0.8
	30	10	1.7
Sept.- Nov.	7	1.1	0.1
	30	2.9	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.6	1.9	4.0	7.4
May - Nov.	0.1	0.4	1.0	1.9	2.9
June - Aug.	0.8	1.4	2.6	4.0	5.2
Sept.- Nov.	0.1	0.1	0.3	0.4	0.9

RACCOON CREEK BASIN

03201990 Little Raccoon Creek near Vinton, Ohio

LOCATION: Lat 38°57'12", long 82°21'57", Gallia County, Hydrologic Unit 05090101, 1.2 mi upstream from mouth at bridge on State Route 325, 2.0 mi southwest of Vinton.

DRAINAGE AREA: 154 mi^2.

TRIBUTARY TO: Raccoon Creek.

DISCHARGE DATA USED: Low-flow measurements 1951-1953, 1959, 1965, 1972-1975 water years.

INDEX STATION: 03202000 Raccoon Creek at Adamsville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 4.6 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	4.6	1.3
	30	6.9	1.9
May - Nov.	7	4.6	1.3
	30	6.9	1.9
June - Aug.	7	8.6	4.0
	30	15	6.0
Sept.- Nov.	7	4.9	1.3
	30	8.0	1.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.1	3.4	6.3	9.4	13
May - Nov.	1.6	2.6	4.6	6.3	8.0
June - Aug.	4.0	5.4	7.4	9.4	11
Sept.- Nov.	1.0	1.6	2.4	3.0	4.3

RACCOON CREEK BASIN

03202000 Raccoon Creek at Adamsville, Ohio

LOCATION: Lat 38°52'25", long 82°21'22", in SE1/4 sec. 26, T.6 N., R.16 W., Gallia County, Hydrologic Unit 05090101, on left bank at downstream side of U.S. Highway 35 bridge at Adamsville, 1.3 mi upstream from Ryan Run, and 1.4 mi downstream from Indian Creek.

DRAINAGE AREA: 585 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1938 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 620 ft^3/s (40 years).
Minimum daily discharge: 1.1 ft3/s October 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	12	4.8	2.8	1.8	1.0
	7	14	5.9	3.5	2.2	1.3
	30	22	8.8	5.3	3.4	2.0
May- Nov.	1	12	4.8	2.8	1.8	1.0
	7	14	5.9	3.5	2.2	1.3
	30	22	8.8	5.3	3.4	2.0
June-Aug.	1	23	13	9.5	7.4	5.5
	7	28	16	12	9.1	6.8
	30	53	27	19	15	11
Sept.-Nov.	1	13	4.9	2.8	1.8	1.0
	7	15	5.8	3.4	2.2	1.3
	30	26	9.0	5.1	3.2	1.8
Dec.-Feb.	1	91	34	17	8.7	3.4
	7	112	43	21	11	4.1
	30	324	103	44	17	4.4
Mar.- May	1	162	106	83	67	52
	7	205	130	101	82	63
	30	474	285	216	171	131

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	6.0	10	20	31	44	59	76	120	210	350	550	910	1700
May - Nov.	4.5	7.5	14	20	26	33	41	61	86	120	190	320	660
June - Aug.	12	17	24	31	36	44	51	69	89	120	160	230	460
Sept.- Nov.	2.7	4.6	6.9	8.7	13	17	21	32	47	66	96	150	310
Dec. - Feb.	11	35	69	96	140	180	220	340	490	680	930	1400	2300
Mar. - May	110	150	280	280	330	390	440	570	730	940	1300	1800	2900

INDIAN GUYAN CREEK BASIN

03205210 Indian Guyan Creek near Bradrick, Ohio

LOCATION: Lat 38°28'41", long 82°23'54", Lawrence County, Hydrologic Unit 05090101, 200 ft upstream from relocated Fourmile Creek at bridge on Indian Guyan Road (Township Road C-69) 2.5 mi north of Bradrick.

DRAINAGE AREA: 67.5 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1977 water years.

INDEX STATION: 03202000 Raccoon Creek at Adamsville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.8 ft^3/s September 1976.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0
	30	0.4	0
May - Nov.	7	0.2	0
	30	0.4	0
June - Aug.	7	0.6	0.2
	30	1.8	0.3
Sept.- Nov.	7	0.2	0
	30	0.5	0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.1	0.4	0.7	1.3
May - Nov.	0	0.1	0.2	0.4	0.5
June - Aug.	0.2	0.3	0.5	0.7	0.9
Sept.- Nov.	0	0	0.1	0.1	0.2

SCIOTO RIVER BASIN

03217400 Scioto River near Kenton, Ohio

LOCATION: Lat 40°38'20", long 83°38'20", Hardin County, Hydrologic Unit 05060001, at bridge on County Road 130, 1 1/2 mi west of court house in Kenton.

DRAINAGE AREA: 129 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1961-1973 water years.

INDEX STATION: 03217500 Scioto River at La Rue.

REMARKS: Discontinued in 1973 as sufficient record had been obtained to define low-flow characteristics.

SELECTED DISCHARGE CHARACTERISTICS: Minimum flow observed: 3.3 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.2	2.0
	30	4.2	2.4
May - Nov.	7	3.2	2.0
	30	4.3	2.5
June - Aug.	7	4.4	2.2
	30	7.3	2.8
Sept.- Nov.	7	3.6	2.1
	30	5.4	2.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.4	2.9	4.0	5.0	6.4
May - Nov.	2.4	2.6	3.2	4.0	4.7
June - Aug.	2.4	2.8	3.3	4.1	4.9
Sept.- Nov.	2.2	2.4	2.7	3.3	3.9

SCIOTO RIVER BASIN

03217500 Scioto River at LaRue, Ohio

LOCATION: Lat 40°34'28", long 83°23'15", Marion County, Hydrologic Unit 05060001, on right bank 200 ft downstream from county highway bridge at LaRue 500 ft downstream from Cleveland, Cincinnati, Chicago and St. Louis Railway bridge and 3.5 mi upstream from Rush Creek.

DRAINAGE AREA: 257 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1926 to September 1935, October 1938 to September 1951.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 214 ft^3/s (22 years).
Minimum daily discharge: 2.8 ft^3/s October 1941, 1942, 1946.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	4.6	3.1	2.6	2.3	2.1	Sept.-Nov.	1	4.8	3.1	2.7	2.4	2.2
	7	5.3	3.6	3.1	2.8	2.5		7	6.1	3.9	3.3	2.9	2.5
	30	7.3	4.7	3.9	3.4	3.0		30	9.9	5.4	4.2	3.4	2.8
May- Nov.	1	4.6	3.1	2.6	2.3	2.1	Dec.-Feb.	1	15	6.9	4.6	3.3	2.3
	7	5.3	3.6	3.1	2.8	2.5		7	17	7.7	5.1	3.7	2.6
	30	7.5	4.8	4.0	3.5	3.1		30	50	15	8.0	4.7	2.6
June-Aug.	1	6.3	3.9	3.1	2.6	2.1	Mar.- May	1	29	18	14	11	8.9
	7	7.7	4.5	3.4	2.8	2.2		7	35	21	16	13	9.6
	30	14	6.5	4.6	3.6	2.7		30	83	39	27	19	13

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.9	4.7	6.9	8.9	12	14	17	28	47	78	130	230	530
May - Nov.	3.8	4.2	5.4	7.0	8.4	10	12	16	22	32	53	95	220
June - Aug.	3.9	4.5	5.5	7.1	8.8	12	14	19	25	35	54	96	230
Sept.- Nov.	3.5	3.9	4.4	5.5	6.7	7.8	8.6	11	14	17	24	49	140
Dec. - Feb.	4.4	6.8	9.8	13	18	25	35	58	90	140	220	390	940
Mar. - May	18	24	34	42	51	62	73	100	140	200	290	440	840

SCIOTO RIVER BASIN

03218000 Little Scioto River above Marion, Ohio

LOCATION: Lat 40°37'43", long 83°10'11", in NE1/4 sec. 7, T.5 S., R.15 E., Marion County, Hydrologic Unit 05060001, on left bank at downstream side of Chesapeake & Ohio Railway bridge, 1.0 mi downstream from Rock Fork, 3.5 mi northwest of Marion, and 7.2 mi upstream from Honey Creek.

DRAINAGE AREA: 72.4 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1938 to September 1971.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 50.2 ft^3/s (33 years).
Minimum daily discharge: No flow many times.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0	0	0	0
June-Aug.	1	0.2	0	0	0	0
	7	0.4	0.1	0	0	0
	30	1.1	0.4	0.2	0.1	0
Sept.-Nov.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.4	0	0	0	0
Dec.-Feb.	1	2.3	0.3	0	0	0
	7	3.3	0.4	0	0	0
	30	11	0.9	0.1	0	0
Mar.- May	1	8.0	4.5	3.2	2.4	1.7
	7	10	6.2	4.7	3.7	2.8
	30	22	12	8.7	6.6	4.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0.1	0.2	0.4	0.7	1.2	2.0	5.2	11	20	33	61	130
May - Nov.	0	0	0.1	0.2	0.4	0.5	0.7	1.5	3.2	6.1	11	22	51
June - Aug.	0.1	0.1	0.3	0.5	0.7	0.9	1.3	2.4	3.9	6.5	11	22	52
Sept.- Nov.	0	0	0	0.1	0.1	0.1	0.3	0.5	0.8	1.5	3.1	6.3	18
Dec. - Feb.	0	0.1	0.5	1.2	2.5	4.8	7.3	14	21	33	54	91	200
Mar. - May	5.6	7.6	11	14	17	21	24	34	47	64	89	130	230

SCIOTO RIVER BASIN

03218500 Little Scioto River at Sewage Treatment Plant, near Marion, Ohio

LOCATION: Lat 40°35'31", long 83°11'04", in SW1/4 sec. 19, T.5 S., R.15 E., Marion County, Hydrologic Unit 05060001, at outfall of sewage treatment plant, 300 ft downstream from Erie Railroad crossing, 2.0 mi west of Marion, and 5 mi upstream from Honey Creek.

DRAINAGE AREA: 85.8 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: August 1925 to December 1935, January 1938 to March 1939.

REMARKS: City of Marion pumps from well field in basin upstream from station and return as sewage.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 75 ft^3/s (10 years)
Minimum daily discharge: 0.1 ft^3/s October, December 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	1.1	0.4	0.3	0.1	0.1	Sept.-Nov.	1	1.3	0.5	0.3	0.2	0.1
	7	1.2	0.6	0.4	0.3	0.2		7	1.4	0.6	0.5	0.4	0.3
	30	1.6	0.8	0.5	0.4	0.3		30	2.5	0.9	0.6	0.5	0.4
May- Nov.	1	1.2	0.5	0.3	0.2	0.1	Dec.-Feb.	1	5.3	1.2	0.5	0.2	0.1
	7	1.3	0.7	0.5	0.3	0.2		7	6.0	1.5	0.6	0.3	0.1
	30	1.8	0.9	0.6	0.5	0.3		30	16	3.2	1.2	0.5	0.2
June-Aug.	1	1.7	0.8	0.5	0.4	0.2	Mar.- May	1	9.9	3.9	2.1	1.1	0.5
	7	2.2	1.1	0.7	0.5	0.3		7	12	5.5	3.4	2.2	1.3
	30	4.1	1.9	1.2	0.8	0.5		30	23	9.7	6.4	4.6	3.3

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.5	0.8	1.2	1.7	2.3	3.3	4.4	8.3	15	27	45	80	190
May - Nov.	0.5	0.8	1.1	1.4	1.8	2.2	2.7	4.1	6.4	10	18	33	75
June - Aug.	0.7	0.9	1.2	1.6	2.1	2.8	3.6	5.1	6.8	9.3	14	22	47
Sept.- Nov.	0.3	0.5	0.9	1.2	1.4	1.6	1.9	2.4	3.4	5.1	12	37	90
Dec. - Feb.	0.4	0.6	1.8	4.1	5.6	7.5	10	20	30	50	77	140	310
Mar. - May	3.6	6.6	9.7	13	17	20	23	33	43	61	86	150	300

SCIOTO RIVER BASIN

03219500 Scioto River near Prospect, Ohio

LOCATION: Lat 40°25'10", long 83°11'50", Delaware County, Hydrologic Unit 05060001, on downstream side of pier of Hoskins Bridge, 1.5 mi upstream from Ottawa Creek, 2.0 mi south of Prospect, and 2.5 mi downstream from Patton Run.

DRAINAGE AREA: 567 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1925 to September 1932, October 1939 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 453 ft^3/s (46 years).
Minimum daily discharge: 4.5 ft^3/s September 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	13	8.5	6.9	5.8	4.9	Sept.-Nov.	1	14	9.0	7.1	5.8	4.7
	7	16	11	9.3	8.1	7.0		7	17	11	9.6	8.3	7.1
	30	20	13	11	10	8.9		30	21	13	12	11	10
May- Nov.	1	13	8.5	6.9	5.8	4.9	Dec.-Feb.	1	41	20	14	11	7.8
	7	16	11	9.3	8.1	7.0		7	49	24	16	12	8.6
	30	20	13	11	10	8.9		30	119	41	23	15	8.5
June-Aug.	1	17	12	9.5	8.2	6.9	Mar.- May	1	78	53	43	37	31
	7	21	14	11	9.9	8.6		7	92	64	54	47	41
	30	33	18	15	13	11		30	193	111	85	69	54

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	12	16	20	23	28	34	44	73	120	190	310	560	1300
May - Nov.	11	14	17	20	22	25	29	39	56	83	130	220	490
June - Aug.	13	16	19	22	25	29	34	46	62	88	130	220	500
Sept.- Nov.	9.3	11	14	16	18	20	21	26	31	40	56	110	280
Dec. - Feb.	16	19	25	32	44	62	84	140	200	310	510	900	2000
Mar. - May	60	74	93	120	140	160	190	260	360	500	720	1200	2100

SCIOTO RIVER BASIN

03220000 Mill Creek near Bellepoint, Ohio

LOCATION: Lat 40°14'54", long 83°10'26", Delaware County, Hydrologic Unit 05060001, on left bank at upstream side of county road bridge, 1.2 mi west of Bellepoint, 1.5 mi upstream from mouth, and 2.3 mi downstream from Blues Creek.

DRAINAGE AREA: 178 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1943 to September 1978.

REMARKS: Diurnal fluctuation caused by stone quarry upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 150 ft^3/s (35 years).
Minimum daily discharge: No flow September 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	1.3	0.4	0.2	0.1	0	Sept.-Nov.	1	1.5	0.5	0.2	0.1	0
	7	1.8	0.7	0.4	0.2	0.1		7	2.3	0.8	0.5	0.3	0.2
	30	2.9	1.3	0.9	0.7	0.5		30	4.0	1.7	1.1	0.8	0.5
May- Nov.	1	1.3	0.4	0.2	0.1	0	Dec.-Feb.	1	9.9	4.5	3.0	2.1	1.4
	7	1.8	0.7	0.4	0.2	0.1		7	12	5.4	3.5	2.5	1.7
	30	2.9	1.4	0.9	0.7	0.5		30	39	11	5.3	2.9	1.5
June-Aug.	1	2.3	0.9	0.4	0.2	0.1	Mar.- May	1	16	10	8.0	6.5	5.1
	7	3.0	1.3	0.8	0.5	0.3		7	20	12	9.4	7.5	5.8
	30	6.8	2.9	1.9	1.4	1.0		30	55	27	18	14	9.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.0	1.7	3.3	4.4	5.8	7.3	9.1	15	25	41	70	140	330
May - Nov.	0.8	1.2	2.0	3.0	3.9	4.7	5.7	8.0	11	17	25	44	110
June - Aug.	0.9	1.7	2.6	3.5	4.2	5.0	6.0	8.0	11	15	22	38	100
Sept.- Nov.	0.7	0.9	1.3	1.8	2.6	3.4	4.1	5.6	7.4	9.6	14	23	53
Dec. - Feb.	3.4	4.1	5.8	8.1	11	15	20	33	53	79	130	250	640
Mar. - May	10	16	22	26	31	37	43	59	81	120	180	300	700

SCIOTO RIVER BASIN

03221000 Scioto River below O'Shaughnessy Dam, near Dublin, Ohio

LOCATION: Lat 40°08'36", long 83°07'14", Delaware County, Hydrologic Unit 05060001, on left bank, 0.2 mi north of county line, 0.8 mi downstream from O'Shaughnessy Dam, and 3.0 mi north of Dublin.

DRAINAGE AREA: 980 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1924 to September 1978.

REMARKS: Flow regulated since 1924 by O'Shaughnessy Reservoir, 0.8 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 775 ft^3/s (54 years).
Minimum daily discharge: 0.4 ft^3/s November 1924.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	11	4.1	2.4	1.5	0.9	Sept.-Nov.	1	15	5.2	2.8	1.6	0.8
	7	21	7.8	4.3	2.5	1.3		7	28	11	5.9	3.0	1.3
	30	45	27	20	15	11		30	51	35	28	24	19
May- Nov.	1	12	4.5	2.6	1.6	0.9	Dec.-Feb.	1	49	13	6.2	3.1	1.3
	7	24	9.7	5.3	3.0	1.5		7	68	21	9.9	5.1	2.2
	30	48	34	28	24	20		30	190	60	32	19	10
June-Aug.	1	31	14	8.1	5.0	2.8	Mar.- May	1	127	55	29	15	6.0
	7	48	26	17	12	7.4		7	144	81	59	44	32
	30	77	50	43	39	36		30	322	166	118	89	65

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	14	32	43	52	59	69	79	110	180	290	480	900	2200
May - Nov.	12	29	39	46	52	58	63	78	97	130	200	340	800
June - Aug.	23	35	46	52	59	66	73	89	110	150	220	370	840
Sept.- Nov.	6.3	18	32	37	42	47	51	58	68	79	95	140	370
Dec. - Feb.7	10	28	43	54	66	83	120	200	310	500	830	1500	3400
Mar. - May	66	100	140	180	220	260	310	430	590	840	1200	2000	3600

SCIOTO RIVER BASIN

03223000 Olentangy River at Claridon, Ohio

LOCATION: Lat 40°34'58", long 82°59'20", in NW1/4 sec. 26, T.5 S., R.16 E., Marion County, Hydrologic Unit 05060001, on left bank 900 ft downstream from bridge on State Route 95, 0.5 mi east of Claridon, 0.8 mi downstream from Otter Creek, and 1.4 mi upstream from Beaver Run.

DRAINAGE AREA: 157 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1946 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 150 ft^3/s (32 years).
Minimum daily discharge: No flow October 1953, September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.8	0.6	0.2	0	0
	7	2.4	0.7	0.3	0	0
	30	4.5	1.3	0.5	0.2	0
May- Nov.	1	1.8	0.6	0.2	0	0
	7	2.4	0.7	0.3	0	0
	30	4.5	1.2	0.5	0.2	0
June-Aug.	1	3.0	1.2	0.7	0.4	0.2
	7	4.2	1.7	1.0	0.6	0.3
	30	10	4.6	3.0	2.2	1.5
Sept.-Nov.	1	2.0	0.6	0.2	0	0
	7	2.7	0.8	0.3	0	0
	30	6.2	1.5	0.6	0.2	0.1
Dec.-Feb.	1	14	5.5	3.2	1.9	1.0
	7	18	7.0	3.9	2.2	1.1
	30	52	16	7.6	4.1	1.9
Mar.- May	1	20	14	12	10	8.6
	7	27	18	15	12	10
	30	71	38	27	20	15

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.9	2.1	3.8	5.5	7.3	9.5	13	22	37	60	96	170	380
May - Nov.	0.6	1.2	2.5	3.6	4.7	5.9	7.0	10	16	23	36	65	150
June - Aug.	1.2	2.3	3.4	4.6	5.8	6.8	8.0	11	15	22	34	58	130
Sept.- Nov.	0.3	0.7	1.3	2.1	2.9	3.8	4.5	6.2	8.4	12	19	32	81
Dec. - Feb.	3.4	5.6	9.0	13	19	26	34	50	71	110	170	290	680
Mar. - May	16	22	29	37	46	54	64	85	120	160	230	360	660

WABASH RIVER BASIN

03322480 Wabash River above Beaver Creek at Wabash, Ohio

LOCATION: Lat 40°32'44", long 84°44'29", Mercer County, Hydrologic Unit 05120101, at bridge on State Route 29, 0.5 mi east of Wabash and 0.2 mi upstream from Crab Branch.

DRAINAGE AREA: 119 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1974 water years.

INDEX STATION: 03264000 Greenville Creek near Bradford, Ohio.

REMARKS: Three U.S. Soil Conservation Service retarding structures in headwaters are assumed to have small effect on low flow. Fort Recovery sewage discharges into Wabash River and a new plant is being constructed. Fort Recovery water system pumps 115,000 to 150,000 gal/d from ground water wells.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.1 ft^3/s September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.8	0.3
	30	1.1	0.4
May - Nov.	7	0.8	0.3
	30	1.1	0.4
June - Aug.	7	1.2	0.4
	30	2.4	0.5
Sept.- Nov.	7	0.8	0.3
	30	1.5	0.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.4	0.5	1.0	1.5	1.9
May - Nov.	0.4	0.5	0.7	1.0	1.4
June - Aug.	0.4	0.5	0.9	1.2	1.6
Sept.- Nov.	0.3	0.4	0.5	0.7	0.9

SCIOTO RIVER BASIN

03224500 Whetstone Creek near Ashley, Ohio

LOCATION: Lat 40°27'18", long 82°57'28", in NW1/4 sec. 19, T.7 N., R.18 W., Morrow County, Hydrologic Unit 05060001, on left bank 400 ft upstream from unnamed right bank tributary, 800 ft upstream from bridge on State Route 746, 0.6 mi downstream from Shaw Creek, and 3.2 mi north of Ashley.

DRAINAGE AREA: 98.7 mi^2.

TRIBUTARY TO: Olentangy River.

DISCHARGE DATA USED: October 1954 to September 1974.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 97.9 ft^3/s (20 years).
Minimum daily discharge: No flow October 1954, September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.9	0.5	0.2	0	0
	7	2.5	0.6	0.2	0	0
	30	3.7	1.2	0.6	0.4	0.2
May- Nov.	1	1.9	0.5	0.2	0	0
	7	2.5	0.6	0.2	0	0
	30	3.7	1.2	0.6	0.4	0.2
June-Aug.	1	3.0	1.0	0.5	0.3	0.1
	7	3.6	1.4	0.8	0.5	0.3
	30	8.4	3.6	2.4	1.8	1.3
Sept.-Nov.	1	2.3	0.6	0.2	0	0
	7	3.0	0.8	0.3	0	0
	30	5.1	2.0	1.1	0.6	0.3
Dec.-Feb.	1	12	5.9	4.1	3.0	2.1
	7	15	7.2	4.8	3.4	2.2
	30	31	13	7.5	4.8	2.8
Mar.- May	1	16	9.5	7.0	5.3	3.9
	7	22	13	9.0	6.7	4.7
	30	50	26	19	14	10

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.2	2.3	3.7	5.2	6.9	9.1	12	19	29	44	66	110	220
May - Nov.	0.8	1.6	2.6	3.5	4.4	5.4	6.6	9.5	14	21	33	56	120
June - Aug.	1.2	2.0	2.8	3.6	4.5	5.6	6.8	9.9	14	19	29	49	110
Sept.- Nov.	0.4	1.0	2.0	2.7	3.4	4.1	4.8	6.4	8.5	12	18	31	70
Dec. - Feb.	3.9	6.1	9.4	12	15	19	23	32	43	58	85	140	320
Mar. - May	11	17	23	28	33	38	45	60	78	100	140	200	400

SCIOTO RIVER BASIN

03225500 Olentangy River near Delaware, Ohio

LOCATION: Lat 40°21'18", long 83°04'02", in NE1/4 T.5 N., R.19 W., Delaware County, Hydrologic Unit 05060001, on left bank 500 ft upstream from highway bridge, 1,000 ft downstream from Delaware Dam, 1,300 ft upstream from Norfolk and Western Railway bridge, and 4.0 mi north of Delaware.

DRAINAGE AREA: 393 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1950 to September 1978.

REMARKS: Flow completely regulated by Delaware Lake since 1951.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 335 ft^3/s 28 years).
Minimum daily discharge: 4.1 ft3/s April 1951, February 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	8.4	5.4	4.4	3.8	3.2	Sept.-Nov.	1	15	9.9	8.2	7.0	6.0
	7	11	6.7	5.2	4.3	3.4		7	16	11	9.3	8.0	6.7
	30	17	12	9.6	8.0	6.4		30	20	14	12	10	9.0
May- Nov.	1	11	6.7	5.3	4.4	3.6	Dec.-Feb.	1	30	14	8.8	6.1	4.0
	7	13	8.1	6.3	5.1	4.1		7	44	19	11	7.5	4.6
	30	19	13	10	8.8	7.4		30	115	39	22	13	7.3
June-Aug.	1	14	8.2	6.0	4.6	3.4	Mar.- May	1	14	7.5	5.4	4.1	3.1
	7	19	10	7.4	5.5	3.8		7	32	13	8.1	5.2	3.1
	30	34	19	15	12	11		30	145	63	40	27	17

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.0	13	18	21	23	28	34	46	76	130	210	370	880
May - Nov.	9.1	12	15	19	21	23	26	33	42	53	89	170	360
June - Aug.	8.5	13	21	24	27	30	33	39	43	50	74	150	340
Sept.- Nov.	9.4	11	13	15	18	19	20	22	26	34	53	110	230
Dec. - Feb.	11	17	21	27	42	55	71	120	160	230	360	620	1400
Mar. - May	6.5	15	28	50	65	91	120	160	240	330	480	840	1700

SCIOTO RIVER BASIN

03226800 Olentangy River near Worthington, Ohio

LOCATION: Lat 40°06'37", long 83°01'55", in NW1/4 T.2 N., R.18 W., Franklin County, Hydrologic Unit 05060001, on left bank 350 ft downstream from Interstate Highway 270 bridge, 1.5 mi northwest of Worthington and 2.8 mi upstream from Rush Run.

DRAINAGE AREA: 497 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1955 to September 1978.

REMARKS: Flow regulated by Delaware Lake 21 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 444 ft^3/s (23 years).
Minimum daily discharge: 8.5 ft^3/s September 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	15	10	8.9	7.9	7.1	Sept.-Nov.	1	17	11	9.4	8.1	6.9
	7	17	12	11	9.7	8.9		7	20	14	11	9.9	8.6
	30	24	16	13	12	11		30	29	18	14	12	9.5
May- Nov.	1	15	11	8.8	7.7	6.7	Dec.-Feb.	1	49	25	18	13	9.5
	7	18	13	11	9.6	8.5		7	63	29	19	13	9.0
	30	26	17	14	13	11		30	162	55	30	17	9.1
June-Aug.	1	24	16	13	10	8.1	Mar.- May	1	43	26	20	16	13
	7	29	19	15	13	10		7	65	37	28	22	17
	30	52	29	23	20	17		30	223	101	65	45	29

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	14	18	25	31	37	44	52	77	130	200	320	550	1200
May - Nov.	13	16	22	26	31	35	39	48	62	92	160	270	560
June - Aug.	15	23	30	35	38	42	45	51	63	85	150	260	530
Sept.- Nov.	11	13	16	20	22	25	27	33	41	55	90	160	300
Dec. - Feb.	14	20	31	51	66	86	110	170	230	330	530	880	1800
Mar. - May	28	39	66	90	120	150	170	240	350	500	720	1200	2100

SCIOTO RIVER BASIN

03227500 Scioto River at Columbus, Ohio

LOCATION: Lat 39°54'34", long 83°00'33", Franklin County, Hydrologic Unit 05060001, on right bank at sewage-treatment plant of city of Columbus, 0.4 mi downstream from bridge on Frank Road, 2.8 mi upstream from Scioto Big Run, and 5 mi downstream from Olentangy River.

DRAINAGE AREA: 1,629 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1950 to September 1978.

REMARKS: Flow regulated by Griggs Reservoir 10.4 mi upstream, O'Shaughnessy Reservoir 20.4 mi upstream, and Delaware Lake 35 mi upstream from station. Records include sewage return flow from Frank Road Treatment Plant. Shadeville Treatment Plant flow enters downstream. Water supply for city of Columbus is obtained from Scioto River downstream from Griggs Dam, Big Walnut Creek downstream from Central College, and from well field in Alum Creek basin.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1,392 ft^3/s (28 years).
Minimum daily discharge: 68 ft^3/s December 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	122	96	84	75	66
	7	140	109	95	86	76
	30	157	118	105	97	90
May- Nov.	1	124	98	86	77	69
	7	144	112	98	87	77
	30	164	123	109	100	92
June-Aug.	1	154	121	107	96	86
	7	183	142	124	111	97
	30	239	168	150	141	135
Sept.-Nov.	1	125	97	85	77	69
	7	144	112	98	87	77
	30	161	122	112	106	102
Dec.-Feb.	1	208	123	95	77	61
	7	248	143	108	87	69
	30	477	199	129	91	61
Mar.- May	1	277	189	153	128	104
	7	349	240	200	172	147
	30	741	442	341	276	219

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	100	120	140	160	180	210	240	320	450	660	1000	1700	3800
May - Nov.	99	110	130	150	160	180	190	230	280	370	510	790	1500
June - Aug.	110	130	150	170	180	200	220	250	310	400	540	810	1500
Sept.- Nov.	89	100	120	130	140	150	160	180	200	240	300	440	730
Dec. - Feb.	92	120	140	180	220	270	330	500	720	1000	1600	2800	5500
Mar. - May	220	290	370	430	510	610	710	950	1300	1800	2500	4000	6700

SCIOTO RIVER BASIN

03228000 Scioto Big Run at Briggsdale, Ohio

LOCATION: Lat 39°54'55", long 83°03'55", Franklin County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on U.S. Highway 62 at Briggsdale, 2.8 mi northeast of Grove City, and 4.0 mi upstream from station.

DRAINAGE AREA: 11.0 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1946 to September 1958.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 10.7 ft^3/s (12 years).
Minimum daily discharge: No flow many times each year.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.1	0	0	0	0
Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
Dec.-Feb.	1	0.2	0	0	0	0
	7	0.4	0	0	0	0
	30	2.3	0.2	0	0	0
Mar.- May	1	0.4	0.2	0.1	0.1	0.1
	7	0.8	0.5	0.3	0.3	0.2
	30	4.4	2.2	1.4	0.9	0.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0	0.1	0.1	0.1	0.1	0.4	1.2	2.6	5.2	9.9	24
May - Nov.	0	0	0	0	0	0.1	0.1	0.1	0.2	0.4	1.0	2.2	5.7
June - Aug.	0	0	0	0	0	0.1	0.1	0.1	0.2	0.4	0.9	2.0	7.4
Sept.- Nov.	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.3	0.9	3.1
Dec. - Feb.	0	0.1	0.2	0.3	0.5	0.9	1.3	2.4	4.7	8.2	14	24	46
Mar. - May	0.4	0.8	1.2	1.6	2.2	2.7	3.3	4.5	6.3	8.6	12	18	35

SCIOTO RIVER BASIN

03228200 Big Walnut Creek above Sunbury, Ohio

LOCATION: Lat 40°15'04", long 82°50'46", Delaware County, Hydrologic Unit 05060001, at U.S. Highway 36 bridge at north edge of Sunbury, 0.5 mi downstream from Perfect Creek.

DRAINAGE AREA: 77.8 mi^2.

TRIBUTARY TO:

DISCHARGE DATA USED: Low-flow measurements 1972-1977 water years.

INDEX STATION: 03220000 Mill Creek near Bellepoint, Ohio.

REMARKS: None upstream. 400,000 to 500,000 gal/d are pumped through Sunbury water supply and intake pumps at dam; can pump a maximum of 1,550 gal/d of water directly from Big Walnut Creek.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.0 ft^3/s August 1974.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.1	0
	30	0.2	0
May - Nov.	7	0.1	0
	30	0.2	0
June - Aug.	7	0.3	0
	30	1.1	0.1
Sept.- Nov.	7	0.2	0
	30	0.4	0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0	0.1	0.3	0.5	0.8
May - Nov.	0	0.1	0.1	0.3	0.4
June - Aug.	0	0.1	0.2	0.3	0.5
Sept.- Nov.	0	0	0.1	0.1	0.2

SCIOTO RIVER BASIN

03228700 Blacklick Creek near Groveport, Ohio

LOCATION: Lat 39°53'25", long 82°51'50", Franklin County, Hydrologic Unit 05060001, at bridge on old U.S. Highway 33, Winchester Pike, 2.0 mi upstream from mouth and 2.5 mi northeast of Groveport.

DRAINAGE AREA: 57.4 mi^2.

TRIBUTARY TO: Big Walnut Creek.

DISCHARGE DATA USED: Low-flow measurements 1950, 1961-1967, 1969, 1971-1972 water years.

INDEX STATION: 03146500 Licking River near Newark, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.8 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.4	1.0
	30	3.5	1.3
May - Nov.	7	2.6	1.0
	30	3.8	1.3
June - Aug.	7	5.0	1.9
	30	11	2.8
Sept.- Nov.	7	2.7	1.0
	30	4.0	1.3

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.2	1.8	2.8	4.2	6.2
May - Nov.	1.1	1.6	2.3	3.2	4.0
June - Aug.	1.9	2.7	3.8	5.0	6.5
Sept.- Nov.	0.8	1.1	1.5	1.9	2.3

SCIOTO RIVER BASIN

03229800 Walnut Creek near Ashville, Ohio

LOCATION: Lat 39°40'56", long 82°58'30", Pickaway County, Hydrologic Unit 05060001, at bridge on U.S. Highway 23, 2.5 mi southeast of South Bloomfield and 2.5 mi southwest of Ashville.

DRAINAGE AREA: 285 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: Low-flow measurements 1952, 1954, 1961-1973 water years.

INDEX STATION: 03157500 Hocking River at Enterprise, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 11 ft^3/s October 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	22	11
	30	31	15
May - Nov.	7	23	11
	30	32	15
June - Aug.	7	31	15
	30	58	24
Sept.- Nov.	7	25	12
	30	37	15

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	15	20	27	34	42
May - Nov.	13	17	22	27	32
June - Aug.	16	20	26	32	39
Sept.- Nov.	12	14	18	21	24

SCIOTO RIVER BASIN

03230200 Big Darby Creek at Plain City, Ohio

LOCATION: Lat 40°06'25", long 83°15'20", Union County, Hydrologic Unit 05060001, at bridge on State Route 161 at Plain City.

DRAINAGE AREA: 151 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: Low-flow measurements 1950, 1961-1970 water years.

INDEX STATION: 03230500 Big Darby Creek at Darbyville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.2 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.5	0.6
	30	3.5	1.0
May - Nov.	7	2.5	0.6
	30	3.5	1.0
June - Aug.	7	4.4	1.2
	30	8.3	2.3
Sept.- Nov.	7	2.7	0.6
	30	3.9	1.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.1	2.0	3.2	4.4	5.7
May - Nov.	0.8	1.5	2.3	3.2	4.0
June - Aug.	1.4	2.2	3.4	4.6	5.7
Sept.- Nov.	0.6	0.9	1.5	2.2	2.7

SCIOTO RIVER BASIN

03230300 Little Darby Creek at Chuckery, Ohio

LOCATION: Lat 40°06'40", long 83°23'30", Union County, Hydrologic Unit 05060001, at bridge on State Route 161 at Chuckery, Ohio.

DRAINAGE AREA: 71.4 mi^2.

TRIBUTARY TO: Big Darby Creek.

DISCHARGE DATA USED: Low-flow measurements 1950, 1962-1971 water years.

INDEX STATION: 03230500 Big Darby Creek at Darbyville, Ohio

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discnarge observed: 1.7 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.4	0.3
	30	4.0	0.6
May - Nov.	7	2.4	0.3
	30	4.0	0.6
June - Aug.	7	5.7	0.8
	30	15	2.2
Sept.- Nov.	7	2.6	0.3
	30	4.7	0.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.7	1.7	3.4	5.7	8.3
May - Nov.	0.4	1.2	2.2	3.4	5.0
June - Aug.	1.0	2.0	3.7	6.0	8.3
Sept.- Nov.	0.3	0.5	1.2	2.0	2.6

SCIOTO RIVER BASIN

03230500 Big Darby Creek at Darbyville, Ohio

LOCATION: Lat 39°42'02", long 83°06'37", Pickaway County, Hydrologic Unit 05060001, on right bank on downstream side of bridge on State Route 316, 0.4 mi northeast of Darbyville, 0.4 mi upstream from Lizzard Run, and 3 mi downstream from Greenbrier Creek.

DRAINAGE AREA: 534 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1921 to September 1935, October 1938 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 443 ft^3/s (54 years).
Minimum daily discharge: 1.4 ft^3/s September 1932.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	16	7.1	4.4	2.8	1.6	Sept.-Nov.	1	18	7.7	4.7	2.9	1.7
	7	18	8.4	5.3	3.5	2.1		7	19	8.4	5.2	3.4	2.0
	30	24	12	8.4	6.0	4.0		30	26	13	8.4	5.9	4.0
May- Nov.	1	16	7.1	4.4	2.8	1.6	Dec.-Feb.	1	60	29	20	14	10
	7	18	8.3	5.3	3.5	2.1		7	70	32	21	15	9.9
	30	24	12	8.4	6.0	4.0		30	147	53	31	19	11
June-Aug.	1	24	12	7.9	5.2	3.0	Mar.- May	1	110	65	48	36	26
	7	29	15	9.9	6.8	4.1		7	130	77	57	43	31
	30	49	24	17	13	8.2		30	240	134	99	77	59

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.3	15	22	29	36	44	55	89	140	210	330	540	1100
May - Nov.	7.0	12	17	22	27	32	37	51	72	100	150	240	460
June - Aug.	11	16	23	30	36	41	48	65	87	120	160	240	450
Sept.- Nov.	5.1	7.9	12	16	19	21	24	31	39	50	72	110	220
Dec. - Feb.	19	24	34	43	56	77	100	180	260	380	550	860	1600
Mar. - May	60	86	120	140	170	190	220	300	380	510	690	990	1700

SCIOTO RIVER BASIN

03230600 Hominy Creek at Circleville, Ohio

LOCATION: Lat 39°36'25", long 82°55'25", Pickaway County, Hydrologic Unit 05060002, in sec. 29, T.11 N., R.21 W., on left upstream wingwall of private farm bridge across creek. Gage is reached by driving southeast 0.4 mi on State Route 56 from railroad crossing at east edge of Circleville and turning left on farm road to bridge.

DRAINAGE AREA: 5.66 mi^2.

TRIBUTARY TO: Hargus Creek.

DISCHARGE DATA USED: Low-flow measurements 1962-1973 water years.

INDEX STATION: 03157500 Hocking River at Enterprise, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.2 ft^3/s August 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.3	0.1
	30	0.4	0.2
May - Nov.	7	0.3	0.1
	30	0.4	0.2
June - Aug.	7	0.4	0.2
	30	0.6	0.3
Sept.- Nov.	7	0.3	0.2
	30	0.4	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.2	0.3	0.4	0.5
May - Nov.	0.2	0.2	0.3	0.3	0.4
June - Aug.	0.2	0.2	0.3	0.4	0.4
Sept.- Nov.	0.2	0.2	0.2	0.3	0.3

SCIOTO RIVER BASIN

03230800 Deer Creek at Mount Sterling, Ohio

LOCATION: Lat 39°42'54", long 83°15'26", Madison County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on State Route 56, 0.2 mi downstream from unnamed right bank tributary, 0.6 mi southeast of Mount Sterling, and 4.9 mi upstream from Duffs Fork.

DRAINAGE AREA: 228 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1966 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 224 ft^3/s (12 years).
Minimum daily discharge: 5.4 ft^3/s July 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	10	7.0	5.9	5.3	4.7	Sept.-Nov.	1	13	8.0	6.3	5.2	
	7	12	8.6	7.4	6.7	6.0		7	15	9.6	7.4	6.0	4.8
	30	15	11	9.3	8.2	7.3		30	24	15	12	9.4	7.3
May- Nov.	1	11	7.2	6.0	5.2	4.5	Dec.-Feb.	1	57	30	18	12	6.2
	7	13	9.0	7.6	6.6	5.7		7	65	33	20	12	6.3
	30	17	12	10	8.7	7.6		30	135	53	29	17	8.5
June-Aug.	1	12	8.1	6.9	6.2	5.6	Mar.- May	1	62	39	28	20	13
	7	15	11	9.4	8.7	8.3		7	73	43	31	23	16
	30	26	16	13	12	10		30	134	71	47	31	18

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.7	13	18	23	29	37	44	62	91	130	180	290	530
May - Nov.	9.1	12	15	18	21	24	28	38	49	66	93	130	250
June - Aug.	10	13	16	19	21	24	28	37	49	66	91	130	240
Sept.- Nov.	8.4	10	13	15	17	20	230	29	37	45	57	81	130
Dec. - Feb.	9.9	14	43	54	67	81	97	140	180	240	310	440	740
Mar. - May	34	47	62	78	94	110	120	150	180	240	330	470	800

SCIOTO RIVER BASIN

03231300 Kinnikinnick Creek near Kinnikinnick, Ohio

LOCATION: Lat 39°26'25", long 82°58'36", Ross County, Hydrologic Unit 05060002, at bridge on old U.S. Highway 23, 1.5 mi northwest of Kinnikinnick, and 1.0 mi upstream from mouth.

DRAINAGE AREA: 36.2 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: Low-flow measurements 1953, 1958, 1961-1973 water years.

INDEX STATION: 03157000 Clear Creek near Rockbridge, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 5.5 ft^3/s October 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	7.9	5.8
	30	8.8	7.0
May - Nov.	7	7.9	5.8
	30	8.8	7.0
June - Aug.	7	8.8	6.2
	30	11	7.9
Sept.- Nov.	7	8.3	6.4
	30	10	7.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	7.0	7.9	9.3	10	11
May - Nov.	6.5	7.4	8.3	8.8	9.7
June - Aug.	6.5	7.4	8.3	9.3	9.7
Sept.- Nov.	6.5	7.0	7.9	8.3	8.8

SCIOTO RIVER BASIN

03231500 Scioto River at Chillicothe, Ohio

LOCATION: Lat 39°20'29", long 82°58'16", Ross County, Hydrologic Unit 05060002, on right bank at north end of Chillicothe, 1,400 ft downstream from Bridge Street bridge, 7.4 mi upstream from Paint Creek, and 15.4 mi downstream from Deer Creek.

DRAINAGE AREA: 3,849 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: April 1921 to September 1978.

REMARKS: Flow regulated by six reservoirs 36 mi to 91 mi upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 3,360 ft^3/s (57 years).
Minimum daily discharge: 166 ft^3/s September 1944.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	291	223	196	177	159
	7	311	235	204	183	163
	30	359	265	230	207	186
May- Nov.	1	293	224	196	177	158
	7	314	235	204	183	162
	30	363	265	230	206	184
June-Aug.	1	381	277	236	208	181
	7	426	304	257	224	194
	30	626	406	341	302	270
Sept.-Nov.	1	303	223	194	175	157
	7	313	230	204	188	175
	30	356	260	238	228	216
Dec.-Feb.	1	576	333	255	207	165
	7	644	359	271	217	171
	30	1260	555	362	254	170
Mar.- May	1	991	650	508	409	315
	7	1140	741	584	477	377
	30	1950	1140	861	684	529

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	220	270	330	390	450	530	640	910	1300	1900	2800	4400	8600
May - Nov.	210	250	290	340	380	420	470	610	780	1000	1400	2100	3900
June - Aug.	250	310	380	430	480	540	600	730	910	1200	1600	2300	4000
Sept.- Nov.	190	220	250	270	300	320	350	400	470	590	770	1100	2000
Dec. - Feb.	250	310	380	480	610	780	960	1500	2100	3000	4300	6800	13000
Mar. - May	600	810	1000	1200	1400	1700	1900	2400	3100	4100	5600	8300	14000

SCIOTO RIVER BASIN

03232500 Rocky Fork near Barretts Mills, Ohio

LOCATION: Lat 39°13'06", long 83°23'08", Highland County, Hydrologic Unit 05060003, on left bank at downstream side of highway bridge, 1.1 mi north of Barretts Mills, 2 mi east of Rainsboro, 2.8 mi upstream from mouth, and 6 mi downstream from Rocky Fork Lake.

DRAINAGE AREA: 140 mi^2.

TRIBUTARY TO: Paint Creek.

DISCHARGE DATA USED: October 1952 to September 1978.

REMARKS: Some diurnal fluctuation caused by mill 6 mi upstream from station. Flow regulated by Rocky Fork Lake 6 mi upstream, since 1952, capacity, 34,100 acre-ft.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 149 ft^3/s (26 years).
Minimum daily discharge: 0.5 ft^3/s October 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	5.2	1.9	1.1	0.7	0.4	Sept.-Nov.	1	6.3	2.1	1.1	0.7	0.4
	7	7.4	2.8	1.6	1.0	0.6		7	9.0	3.2	1.7	1.0	0.5
	30	11	4.7	2.9	2.0	1.2		30	16	6.3	3.6	2.2	1.2
May- Nov.	1	5.2	1.9	1.1	0.7	0.4	Dec.-Feb.	1	20	7.3	4.0	2.3	1.2
	7	7.4	2.8	1.6	1.0	0.6		7	24	9.8	6.2	4.2	2.8
	30	12	4.9	3.0	2.0	1.2		30	71	27	15	9.1	4.9
June-Aug.	1	9.0	3.9	2.4	1.6	1.0	Mar.- May	1	25	14	10	7.7	5.8
	7	13	5.5	3.3	2.1	1.2		7	33	17	12	9.0	6.4
	30	25	11	7.3	5.0	3.2		30	69	36	25	19	13

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.9	4.8	9.2	14	20	23	27	39	61	91	130	210	370
May - Nov.	2.1	3.5	5.7	9.0	14	19	22	27	34	49	73	110	210
June - Aug.	2.9	4.8	7.9	13	18	20	22	27	33	45	63	95	170
Sept.- Nov.	1.6	2.7	3.8	5.1	7.1	10	14	22	27	33	51	90	200
Dec. - Feb.	6.0	8.8	12	17	25	32	47	74	110	160	210	300	450
Mar. - May	13	18	30	40	49	60	73	98	130	160	220	320	540

SCIOTO RIVER BASIN

03234500 Scioto River at Higby, Ohio

LOCATION: Lat 39°12'44", long 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, Hydrologic Unit 05060002, on left bank at downstream side of highway bridge, 0.8 mi downstream from Walnut Creek, 1.2 mi north of Higby, 3 mi northwest of Richmondale and 5.0 mi upstream from Salt Creek.

DRAINAGE AREA: 5,131 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1930 to September 1978.

REMARKS: Flow slightly regulated by 7 reservoirs 45 mi to 105 mi upstream from station and since 1952 by Rocky Fork Lake 31 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 4,490 ft^3/s (48 years).
Minimum daily discharge: 244 ft^3/s October 1930.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	422	323	282	253	225
	7	446	339	296	266	237
	30	518	377	323	287	253
May- Nov.	1	431	327	284	254	224
	7	455	342	297	266	235
	30	529	380	324	286	250
June-Aug.	1	572	419	359	318	278
	7	638	458	390	343	299
	30	953	623	523	464	414
Sept.-Nov.	1	451	337	290	258	226
	7	475	348	299	266	235
	30	558	377	315	276	241
Dec.-Feb.	1	770	436	332	269	214
	7	851	466	350	280	221
	30	1670	715	460	320	212
Mar.- May	1	1490	981	756	596	445
	7	1700	1130	895	731	576
	30	2870	1740	1350	1090	867

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	320	390	480	560	660	800	960	1300	1900	2700	3900	6200	11000
May - Nov.	300	350	440	490	550	620	700	910	1200	1600	2100	3000	5200
June - Aug.	430	490	580	660	740	830	930	1100	1400	1800	2200	3200	5500
Sept.- Nov.	280	310	340	390	430	460	490	570	680	860	1100	1600	2600
Dec. - Feb.	340	400	490	600	790	1100	1300	1900	2900	4000	6000	9000	17000
Mar. - May	900	1200	1600	1900	2200	2500	2800	3600	4700	6100	8100	11000	18000

SCIOTO RIVER BASIN

03235000 Salt Creek at Tarlton, Ohio

LOCATION: Lat 39°33'20", long 82°46'50", in NW1/4 sec. 3, T.11 N., R.20 W., Pickaway County, Hydrologic Unit 05060002, on left bank at bridge on State Route 159 in Tarlton, and 5.7 mi upstream from Plum Run.

DRAINAGE AREA: 11.5 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1946 to September 1961.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 10.4 ft^3/s (15 years).
Minimum daily discharge: No flow at times each year.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.1	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.1	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.4	0.1	0.1	0	0
Sept.-Nov.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0	0	0	0
Dec.-Feb.	1	0.9	0.4	0.2	0.2	0.1
	7	1.3	0.5	0.3	0.2	0.1
	30	4.8	1.5	0.7	0.4	0.2
Mar.- May	1	1.1	0.8	0.6	0.5	0.4
	7	1.7	1.2	1.0	0.9	0.8
	30	4.3	2.5	1.9	1.5	1.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0.1	0.2	0.2	0.3	0.5	0.6	1.3	2.2	3.9	6.4	11	22
May - Nov.	0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.7	1.2	1.8	3.0	7.0
June - Aug.	0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.6	0.9	1.5	2.8	8.9
Sept.- Nov.	0	0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.7	1.1	1.8	3.3
Dec. - Feb.	0.3	0.5	0.9	1.3	1.7	2.3	2.9	4.6	6.9	9.6	14	21	46
Mar. - May	1.1	1.5	2.1	2.6	3.1	3.6	4.1	5.2	6.6	8.7	12	17	32

SCIOTO RIVER BASIN

03235500 Tar Hollow Creek at Tar Hollow State Park, Ohio

LOCATION: Lat 39°23'22", long 82°45'03", in NE1/4 sec. 36, T.10 N., R.20 W., Ross County, Hydrologic Unit 05060002, in Tar Hollow State Park, on left bank 2.0 mi upstream from mouth and 5.2 mi south of Adelphi.

DRAINAGE AREA: 1.35 mi^2.

TRIBUTARY TO: Pike Run.

DISCHARGE DATA USED: October 1946 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1.24 ft^3/s (32 years).
Minimum daily discharge: No flow many days each year.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
Dec.-Feb.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.4	0.1	0	0	0
Mar.- May	1	0.1	0	0	0	0
	7	0.2	0	0	0	0
	30	0.9	0.4	0.3	0.2	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0	0	0	0	0	0	0.2	0.5	0.9	1.6	3.2
May - Nov.	0	0	0	0	0	0	0	0	0	0.1	0.2	0.4	1.1
June - Aug.	0	0	0	0	0	0	0	0	0	0	0.1	0.2	0.5
Sept.- Nov.	0	0	0	0	0	0	0	0	0	0	0.1	0.2	0.4
Dec. - Feb.	0	0	0	0	0	0.1	0.2	0.4	0.6	1.0	1.5	2.2	3.8
Mar. - May	0	0.1	0.3	0.4	0.6	0.7	0.8	1.1	1.5	1.9	2.6	3.7	6.2

SCIOTO RIVER BASIN

03236000 Salt Creek near Londonderry, Ohio

LOCATION: Lat 39°15'22", long 82°46'12", in SW1/4 sec. 13, T.8 N., R.20 W., Ross County, Hydrologic Unit 05060002, at bridge on U.S. Highway 20, 1.3 mi southeast of Londonderry, 2.3 mi downstream from Poe Run, and 4.3 mi upstream from Little Salt Creek.

DRAINAGE AREA: 286 mi^2.

TRIBUTARY TO: Scioto River.

DISCHARGE DATA USED: October 1938 to September 1950.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 299 ft^3/s (12 years).
Minimum daily discharge: 4.9 ft^3/s September 1939.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	8.2	6.2	5.6	5.3	5.1	Sept.-Nov.	1	8.9	6.5	5.8	5.4	5.1
	7	8.7	6.7	6.1	5.8	5.6		7	9.2	6.9	6.2	5.9	5.6
	30	13	9.1	8.0	7.3	6.8		30	15	9.7	7.9	6.8	5.9
May- Nov.	1	8.2	6.2	5.6	5.3	5.1	Dec.-Feb.	1	31	17	12	9.5	7.0
	7	8.7	6.7	6.2	5.8	5.6		7	34	19	14	11	7.9
	30	13	9.1	8.0	7.3	6.8		30	91	40	27	19	13
June-Aug.	1	13	9.0	7.5	6.5	5.7	Mar.- May	1	65	43	34	27	21
	7	15	10	8.4	7.1	5.9		7	96	65	49	38	27
	30	29	18	14	12	10		30	183	108	85	70	57

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	8.5	11	14	18	22	28	34	55	85	140	230	390	710
May - Nov.	7.8	9.3	12	14	16	18	21	30	43	60	85	150	350
June - Aug.	8.8	12	16	19	23	27	31	40	51	65	84	130	280
Sept.- Nov.	6.7	8.1	9.7	11	12	13	14	17	20	25	38	58	120
Dec. - Feb.	17	21	27	32	43	58	73	110	150	230	350	530	910
Mar. - May	50	69	91	110	130	150	170	230	310	410	530	760	1200

UPPER TWIN CREEK BASIN

03237280 Upper Twin Creek at McGaw, Ohio

LOCATION: Lat 38°38'37", long 83°12'57", Scioto County, Hydrologic Unit 05090201, on right bank, 0.3 mi downstream from Brown Run, 0.3 mi upstream from Tucker Run, 0.7 mi upstream from bridge on U.S. Highway 52 at McGaw, 2.7 mi northeast of Buena Vista, and 3.2 mi upstream from mouth.

DRAINAGE AREA: 12.2 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: July 1963 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 13.2 ft^3/s (15 years).
Minimum daily discharge: No flow for many days most years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	0.2	0	0	0	0
June-Aug.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.5	0.2	0.1	0.1	0.1
Sept.-Nov.	1	0.1	0	0	0	0
	7	0.1	0	0	0	0
	30	0.4	0	0	0	0
Dec.-Feb.	1	0.9	0.3	0	0	0
	7	1.3	0.3	0	0	0
	30	3.9	2.2	1.4	0	0
Mar.- May	1	1.4	0.6	0.3	0	0
	7	2.1	0.6	0.3	0.1	0
	30	8.5	4.0	2.6	1.8	1.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0.2	0.3	0.4	0.6	0.9	1.7	3.1	5.8	10	17	31
May - Nov.	0	0	0	0.1	0.2	0.3	0.4	0.6	0.9	1.5	2.6	5.1	11
June - Aug.	0	0	0.1	0.2	0.2	0.3	0.3	0.5	0.7	1.0	1.6	2.6	6.8
Sept.- Nov.	0	0	0	0	0	0.1	0.2	0.4	0.7	1.1	1.8	3.2	6.9
Dec. - Feb.	0	0.6	1.2	1.7	2.3	2.8	3.7	5.5	8.6	12	17	23	37
Mar. - May	0.7	1.2	2.2	3.6	5.0	6.2	7.3	11	14	19	25	36	60

OHIO BRUSH CREEK BASIN

03237500 Ohio Brush Creek near West Union, Ohio

LOCATION: Lat 38°48'13", long 83°25'16", Adams County, Hydrologic Unit 05090201, on right bank at downstream side of bridge on State Route 348, 0.3 mi downstream from Cedar Run, 7.0 mi east of West Union, and 7.1 mi upstream from Beasley Fork.

DRAINAGE AREA: 387 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1926 to September 1935, October 1940 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 446 ft^3/s (47 years).
Minimum daily discharge: No flow September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.8	0.5	0.2	0.1	0
	7	2.4	0.6	0.3	0.1	0
	30	6.8	1.8	0.9	0.4	0.2
May- Nov.	1	1.8	0.5	0.2	0.1	0
	7	2.4	0.6	0.3	0.1	0
	30	6.9	1.8	0.9	0.4	0.2
June-Aug.	1	4.1	1.3	0.7	0.4	0.2
	7	6.0	2.0	1.1	0.6	0.3
	30	33	11	5.5	3.1	1.5
Sept.-Nov.	1	2.3	0.5	0.2	0.1	0
	7	3.1	0.7	0.3	0.1	0
	30	11	2.8	1.2	0.6	0.2
Dec.-Feb.	1	37	11	4.8	2.1	0.6
	7	56	16	6.5	2.5	0.7
	30	226	59	22	8.4	2.2
Mar.- May	1	46	22	14	9.2	5.5
	7	63	30	19	12	7.4
	30	178	83	56	40	28

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.9	2.4	5.3	9.1	15	23	33	60	100	160	260	450	970
May - Nov.	0.5	1.4	3.0	4.9	7.1	9.7	13	24	38	60	94	170	390
June - Aug.	1.1	2.6	5.2	7.6	10	13	17	26	39	59	91	160	380
Sept.- Nov.	0.3	0.6	1.6	2.5	3.6	4.9	6.3	11	19	34	58	100	250
Dec. - Feb.	4.1	12	32	51	67	86	110	170	240	340	490	770	1600
Mar. - May	26	44	65	86	110	130	150	200	270	370	530	820	1700

EAGLE CREEK BASIN

03238200 Eagle Creek near Ripley, Ohio

LOCATION: Lat 38°43'35", long 83°47'15", Brown County, Hydrologic Unit 05090201, at highway bridge 3.3 mi southeast of Ripley and 0.4 mi upstream from Beetle Creek.

DRAINAGE AREA: 137 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1959-1973 water years.

INDEX STATION: 03237500 Ohio Brush Creek near West Union, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0
	30	0.4	0.1
May - Nov.	7	0.2	0
	30	0.4	0.1
June - Aug.	7	0.3	0.1
	30	1.0	0.3
Sept.- Nov.	7	0.2	0
	30	0.5	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.2	0.3	0.4	0.6
May - Nov.	0.1	0.1	0.2	0.3	0.4
June - Aug.	0.1	0.2	0.3	0.4	0.4
Sept.- Nov.	0	0.1	0.1	0.2	0.2

WHITEOAK CREEK BASIN

03238500 Whiteoak Creek near Georgetown, Ohio

LOCATION: Lat 38°51'29", long 83°55'43", Brown County, Hydrologic Unit 05090201, on left bank 150 ft upstream from diversion dam for Georgetown water treatment plant, 0.7 mi upstream from Town Run, 1.4 mi southwest of Georgetown, and 7.2 mi upstream from mouth.

DRAINAGE AREA: 218 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 253 ft^3/s (39 years).
Minimum daily discharge: No flow at times many years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.4	0	0	0	0
	7	0.7	0.2	0	0	0
	30	2.7	0.6	0.2	0.1	0
May- Nov.	1	0.4	0	0	0	0
	7	0.7	0.2	0	0	0
	30	2.8	0.6	0.3	0.1	0
June-Aug.	1	1.1	0.2	0	0	0
	7	2.0	0.6	0.3	0	0
	30	17	5.8	3.0	1.7	0.8
Sept.-Nov.	1	0.6	0.1	0	0	0
	7	1.0	0.2	0	0	0
	30	4.9	0.8	0.3	0.1	0
Dec.-Feb.	1	13	4.4	2.3	1.3	0.6
	7	19	6.4	3.4	1.9	1.0
	30	100	24	9.4	3.9	1.3
Mar.- May	1	17	8.8	5.4	3.2	1.6
	7	23	12	7.8	5.2	3.0
	30	75	38	26	19	13

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.3	0.8	2.4	4.3	6.7	10	15	25	42	68	110	210	550
May - Nov.	0.1	0.4	1.1	2.2	3.2	4.6	6.2	10	17	26	41	74	180
June - Aug.	0.4	1.0	2.1	3.2	4.3	5.6	7.1	11	17	25	40	72	170
Sept.- Nov.	0.1	0.2	0.4	0.8	1.4	2.3	3.0	5.4	9.1	17	26	48	120
Dec. - Feb.	1.9	4.8	13	19	25	32	41	66	99	150	230	420	1000
Mar. - May	11	17	25	32	40	48	56	76	100	150	230	420	960

LITTLE MIAMI RIVER BASIN

03240000 Little Miami River near Oldtown, Ohio

LOCATION: Lat 39°44'54", long 83°55'53", in sec. 34, R.7, T.4, Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on U.S. Highway 68, 0.8 mi downstream from Conner Branch, 0.9 mi upstream from Massies Creek, 1.3 mi northeast of Oldtown, and at mile 82.25.

DRAINAGE AREA: 129 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: August 1952 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 108 ft^3/s (26 years).
Minimum daily discharge: 6.9 ft^3/s September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	13	8.8	7.3	6.4	5.5
	7	15	9.8	8.1	7.0	6.0
	30	16	11	9.0	7.7	6.6
May- Nov.	1	14	9.1	7.5	6.4	5.4
	7	15	10	8.3	7.1	5.9
	30	17	11	9.3	7.9	6.6
June-Aug.	1	17	11	9.4	8.2	7.1
	7	19	13	11	9.1	7.8
	30	25	16	13	12	10

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	14	9.1	7.5	6.4	5.4
	7	15	10	8.2	7.0	6.0
	30	19	12	9.5	8.0	6.5
Dec.-Feb.	1	26	15	11	8.9	6.7
	7	31	18	13	9.9	7.4
	30	48	24	16	12	8.3
Mar.- May	1	50	35	29	24	19
	7	58	40	34	29	24
	30	84	55	44	37	30

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.8	12	16	19	22	26	30	41	53	72	100	140	240
May - Nov.	8.9	11	14	16	19	21	23	29	37	46	58	81	130
June - Aug.	10	14	17	20	22	24	27	32	39	48	61	82	130
Sept.- Nov.	8.1	9.7	11	13	14	16	17	20	23	28	37	47	65
Dec. - Feb.	11	13	18	23	29	35	41	56	76	96	130	190	300
Mar. - May	33	41	50	58	65	74	83	100	120	140	180	240	360

LITTLE MIAMI RIVER BASIN

03240500 North Fork Massies Creek at Cedarville, Ohio

LOCATION: Lat 39°45'25", long 83°47'25", Greene County, Hydrologic Unit 05090202, on left bank at downstream side of bridge on James Barber Road, 1.0 mi upstream from confluence with South Fork and 1.0 mi northeast of Cedarville.

DRAINAGE AREA: 28.9 mi^2.

TRIBUTARY TO: Little Miami River.

DISCHARGE DATA USED: July 1954 to September 1968.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 26.1 ft^3/s (14 years).
Minimum daily discharge: No flow at times in 1954-55, 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.7	0.3	0	0	0
	7	1.0	0.1	0	0	0
	30	1.1	0.4	0.2	0.1	0.1
May- Nov.	1	0.7	0.3	0	0	0
	7	1.0	0.1	0	0	0
	30	1.1	0.4	0.2	0.1	0.1
June-Aug.	1	1.1	0.4	0.1	0	0
	7	1.4	0.5	0.3	0.1	0.1
	30	2.4	1.2	0.9	0.8	0.7
Sept.-Nov.	1	0.7	0	0	0	0
	7	1.0	0	0	0	0
	30	1.4	0.5	0.3	0.1	0.1
Dec.-Feb.	1	4.1	1.8	1.1	0.7	0.4
	7	5.7	2.6	1.5	0.9	0.5
	30	9.9	4.5	2.6	1.5	0.7
Mar.- May	1	6.8	5.1	4.5	4.2	3.8
	7	7.7	5.7	5.2	4.8	4.6
	30	15	9.0	7.1	5.9	4.9

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.4	0.9	1.4	1.8	2.5	3.4	4.3	6.7	9.9	15	22	35	65
May - Nov.	0.3	0.6	1.0	1.3	1.6	1.9	2.4	3.5	4.8	6.7	9.7	16	33
June - Aug.	0.3	0.7	1.3	1.8	2.2	2.6	3.0	4.0	5.2	6.7	9.5	15	32
Sept.- Nov.	0.1	0.3	0.7	0.9	1.1	1.3	1.5	1.8	2.5	3.6	4.9	7.6	16
Dec. - Feb.	1.5	2.2	3.5	5.1	6.6	7.9	9.3	12	17	22	30	43	76
Mar. - May	5.2	6.4	8.4	11	12	14	16	22	29	37	50	68	100

LITTLE MIAMI RIVER BASIN

03241000 South Fork Massies Creek near Cedarville, Ohio

LOCATION: Lat 39°44'20", long 83°45'50", Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on Weimer Road, 2.3 mi east of Cedarville and 2.4 mi upstream from confluence with North Fork.

DRAINAGE AREA: 17.1 mi^2.

TRIBUTARY TO: Massies Creek.

DISCHARGE DATA USED: July 1954 to September 1968.

REMARKS: none.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 18.1 ft^3/s (14 years).
Minimum daily discharge: No flow at times in 1954-1955, 1957, 1964-1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.2	0	0	0	0
	7	0.2	0	0	0	0
	30	0.3	0.1	0	0	0
May- Nov.	1	0.2	0	0	0	0
	7	0.2	0	0	0	0
	30	0.3	0.1	0	0	0
June-Aug.	1	0.3	0.1	0	0	0
	7	0.5	0.1	0	0	0
	30	1.6	0.4	0.1	0.1	0
Sept.-Nov.	1	0.2	0	0	0	0
	7	0.2	0	0	0	0
	30	0.3	0.1	0	0	0
Dec.-Feb.	1	1.7	0.5	0.2	0.1	0
	7	2.2	0.7	0.3	0.1	0.1
	30	4.3	1.3	0.6	0.3	0.1
Mar.- May	1	4.1	2.9	2.5	2.1	1.8
	7	4.9	3.4	2.9	2.6	2.2
	30	9.1	5.5	4.3	3.6	3.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0.2	0.4	0.6	0.9	1.3	2.1	3.6	5.3	7.9	13	21	44
May - Nov.	0	0	0.2	0.4	0.5	0.6	0.8	1.6	2.6	3.8	5.4	9.3	21
June - Aug.	0	0.2	0.5	0.7	0.9	1.2	1.5	2.1	3.0	4.2	5.7	9.3	21
Sept.- Nov.	0	0	0	0.2	0.3	0.3	0.4	0.5	0.7	1.1	2.1	3.4	64
Dec. - Feb.	0.3	0.5	1.0	2.1	3.2	3.7	4.3	6.1	8.8	12	17	27	55
Mar. - May	2.9	4.0	5.1	6.1	7.0	7.8	9.2	12	16	22	30	47	81

LITTLE MIAMI RIVER BASIN

03241500 Massies Creek at Wilberforce, Ohio

LOCATION: Lat 39°43'22", long 83°52'58", Greene County, Hydrologic Unit 05090202, on right bank 200 ft downstream from bridge on Wilberforce-Clifton Road, 0.5 mi northwest of Wilberforce 0.6 mi downstream from unnamed right bank tributary and 1.7 mi upstream from Clark Run.

DRAINAGE AREA: 63.2 mi^2.

TRIBUTARY TO: Little Miami River.

DISCHARGE DATA USED: September 1952 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 59.1 ft^3/s (26 years).
Minimum daily discharge: 0.3 ft^3/s September 1954.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	3.3	1.6	1.0	0.6	0.3
	7	3.8	1.8	1.1	0.7	0.4
	30	4.8	2.6	1.7	1.2	0.7
May- Nov.	1	3.3	1.6	1.0	0.7	0.4
	7	4.0	1.9	1.2	0.7	0.4
	30	5.0	2.6	1.8	1.2	0.8
June-Aug.	1	3.9	1.9	1.3	1.0	0.7
	7	4.9	2.4	1.7	1.2	0.8
	30	8.5	3.8	2.6	1.9	1.3
Sept.-Nov.	1	3.5	1.6	1.0	0.7	0.4
	7	4.1	1.9	1.2	0.8	0.4
	30	5.8	2.7	1.8	1.3	0.9
Dec.-Feb.	1	11	4.9	2.9	1.9	1.1
	7	14	6.0	3.6	2.3	1.4
	30	24	9.4	5.4	3.3	1.9
Mar.- May	1	20	13	9.8	7.8	5.9
	7	22	14	11	9.5	7.7
	30	37	22	17	14	11

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.7	2.9	4.3	5.7	7.2	9.0	12	18	25	35	51	78	140
May - Nov.	1.2	2.3	3.3	4.3	5.3	6.3	7.4	10	14	19	26	40	74
June - Aug.	1.2	2.5	3.8	5.0	6.0	7.1	8.3	11	15	20	27	39	72
Sept.- Nov.	1.1	1.8	2.6	3.3	3.9	4.5	5.0	6.5	8.4	11	15	22	36
Dec. - Feb.	2.5	4.4	6.5	9.9	14	18	21	30	42	55	75	110	180
Mar. - May	12	16	20	24	28	32	36	46	57	72	96	140	230

LITTLE MIAMI RIVER BASIN

03242050 Little Miami River near Spring Valley, Ohio

LOCATION: Lat 39°35'00", long 84°01'49", Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on New Burlington Road, 0.3 mi upstream from unnamed right bank tributary, 2.2 mi southwest of Spring Valley, 2.8 mi downstream from Glady Run, and at mile 61.95.

DRAINAGE AREA: 366 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1925 to September 1935, October 1939 to September 1951, July 1968 to September 1978.

REMARKS: None

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 379 ft^3/s (32 years).
Minimum daily discharge: 24 ft^3/s July, 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	58	39	32	26	22	Sept.-Nov.	1	65	43	35	29	24
	7	62	42	34	29	24		7	68	45	36	31	26
	30	74	51	42	35	29		30	84	52	42	35	30
May- Nov.	1	60	40	32	27	21	Dec.-Feb.	1	105	60	45	36	28
	7	64	43	34	29	23		7	119	65	48	37	27
	30	76	52	42	35	29		30	206	99	66	47	31
June-Aug.	1	69	44	35	29	23	Mar.- May	1	161	98	71	54	38
	7	75	49	39	31	25		7	178	106	77	58	41
	30	107	68	53	44	35		30	258	149	110	84	61

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	38	46	60	72	84	97	110	150	190	260	350	480	780
May - Nov.	36	42	51	62	72	81	91	110	140	170	220	300	470
June - Aug.	36	46	61	74	84	94	100	120	150	180	220	290	460
Sept.- Nov.	35	39	45	51	59	66	73	88	100	120	150	200	330
Dec. - Feb.	42	52	67	81	97	130	160	220	300	380	490	670	1100
Mar. - May	68	98	140	160	180	210	240	300	360	420	510	660	1100

LITTLE MIAMI RIVER BASIN

03242150 Caesar Creek near Xenia, Ohio

LOCATION: Lat 39°37'25", long 83°54'09", Greene County, Hydrologic Unit 05090202, on left bank at downstream side of bridge on Winchester Road, 0.2 mi downstream from unnamed left bank tributary, 4.5 mi south of Xenia, 7.4 mi upstream from Anderson Fork, and at mile 22.1.

DRAINAGE AREA: 71.4 mi^2.

TRIBUTARY TO: Little Miami River.

DISCHARGE DATA USED: August 1968 to September 1979.

REMARKS: Since 1964, some regulation by seasonal changes in storage in Lake Shawnee, 7.2 mi upstream, drainage area 10.9 mi^2. Summer storage is about 1,100 acre-ft more than winter.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 81 ft^3/s (11 years).
Minimum daily discharge: 0.42 ft^3/s July 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	1.4	0.7	0.5	0.4	0.3	Sept.-Nov.	1	1.6	0.8	0.6	0.4	0.3
	7	1.8	1.0	0.7	0.6	0.4		7	2.0	1.0	0.7	0.5	0.4
	30	2.9	1.7	1.3	1.1	0.9		30	4.0	1.8	1.3	1.0	0.7
May- Nov.	1	1.4	0.7	0.5	0.4	0.3	Dec.-Feb.	1	16	5.9	3.1	1.7	0.8
	7	1.8	1.0	0.7	0.6	0.4		7	21	7.2	3.6	1.9	0.8
	30	3.0	1.9	1.5	1.3	1.1		30	58	18	7.5	3.0	0.9
June-Aug.	1	1.9	0.8	0.6	0.4	0.3	Mar.- May	1	14	7.8	5.4	3.9	2.6
	7	2.5	1.3	0.9	0.7	0.5		7	17	9.0	6.1	4.3	2.8
	30	6.6	2.9	1.9	1.3	0.9		30	42	21	14	9.8	6.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.3	1.7	2.6	4.0	5.8	7.9	11	19	29	42	61	99	180
May - Nov.	1.0	1.5	2.1	2.7	3.5	4.5	5.7	8.4	13	19	29	45	91
June - Aug.	1.0	1.5	2.2	2.8	3.7	4.9	6.0	8.7	13	18	25	38	77
Sept.- Nov.	0.8	1.3	1.6	1.9	2.3	2.8	3.4	5.3	8.1	12	21	38	91
Dec. - Feb.	1.4	2.1	12	19	25	30	36	48	63	85	110	170	280
Mar. - May	6.4	12	16	21	26	30	35	43	52	71	100	140	290

LITTLE MIAMI RIVER BASIN

03242200 Anderson Fork near New Burlington, Ohio

LOCATION: Lat 39°33'59", long 83°54'10", Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on Old Winchester Trail, 1.0 mi downstream from Painters Run, 3.4 mi east of New Burlington, 5.0 mi upstream from mouth, and at mile 19.7.

DRAINAGE AREA: 77.8 mi^2.

TRIBUTARY TO: Caesar Creek.

DISCHARGE DATA USED: July 1968 to September 1979.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 87.7 ft^3/s (11 years)
Minimum daily discharge: 0.16 ft^3/s September 1970.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.2	0.5	0.3	0.2	0.1
	7	1.6	0.6	0.4	0.3	0.2
	30	3.1	1.1	0.6	0.4	0.2
May- Nov.	1	1.3	0.5	0.3	0.2	0.1
	7	1.7	0.7	0.4	0.3	0.2
	30	3.4	1.4	0.8	0.5	0.3
June-Aug.	1	1.9	0.7	0.5	0.3	0.2
	7	2.5	1.1	0.7	0.5	0.4
	30	6.4	2.4	1.5	1.0	0.6
Sept.-Nov.	1	1.7	0.6	0.3	0.2	0.1
	7	2.2	0.8	0.5	0.3	0.2
	30	5.2	1.9	1.0	0.6	0.3
Dec.-Feb.	1	15	3.5	1.3	0.5	0.1
	7	18	4.0	1.5	0.6	0.2
	30	62	15	4.7	1.5	0.3
Mar.- May	1	16	9.7	6.7	4.7	3.0
	7	20	11	7.7	5.3	3.3
	30	47	23	14	8.8	4.7

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.6	1.1	2.3	4.2	6.2	8.4	11	19	29	43	63	110	200
May - Nov.	0.6	1.0	1.8	2.7	3.8	5.0	6.2	9.0	13	20	30	48	92
June - Aug.	0.8	1.5	2.4	3.3	4.3	5.3	6.5	9.3	13	18	26	43	84
Sept.- Nov.	0.4	0.8	1.2	1.5	1.9	2.4	3.2	6.0	8.3	13	21	37	84
Dec. - Feb.	0.6	1.0	10	16	22	29	34	46	65	90	130	180	320
Mar. - May	5.8	13	18	22	25	30	35	43	54	71	100	160	300

LITTLE MIAMI RIVER BASIN

03243400 Cowan Creek at Clinton County A.F.B., Ohio

LOCATION: Lat 39°24'25", long 83°47'55", Clinton County, Hydrologic Unit 05090202, at bridge on Jenkins Road, at Clinton County Air Force Base, 500 ft upstream from Indian Run and 3.0 mi southeast of Wilmington.

DRAINAGE AREA: 29.7 mi^2.

TRIBUTARY TO: Todd Fork.

DISCHARGE DATA USED: Low-flow measurements 1959-1964 water years.

INDEX STATION: 03240000 Little Miami River near Oldtown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: No flow several times.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.1	0
	30	0.1	0
May - Nov.	7	0.1	0
	30	0.1	0
June - Aug.	7	0.1	0
	30	0.4	0
Sept.- Nov.	7	0.1	0
	30	0.1	0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0	0	0.1	0.1	0.2
May - Nov.	0	0	0	0.1	0.1
June - Aug.	0	0	0.1	0.2	0.2
Sept.- Nov.	0	0	0	0	0

LITTLE MIAMI RIVER BASIN

03246500 East Fork Little Miami River at Williamsburg, Ohio

LOCATION: Lat 39°03'09", long 84°03'02", Clermont County, Hydrologic Unit 05090202, on right bank at downstream side of Main Street Bridge in Williamsburg, 1.1 mi upstream from Todd Run, and 2.4 mi downstream from Crane Run.

DRAINAGE AREA: 237 mi^2.

TRIBUTARY TO: Little Miami River.

DISCHARGE DATA USED: March 1949 to September 1953, October 1960 to September 1974.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 277 ft^3/s (18 years). Minimum daily discharge: No flow for many days in 1951-1953, 1963-1965.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.5	0	0	0	0
	7	0.8	0.1	0	0	0
	30	1.7	0.3	0.1	0.1	0
May- Nov.	1	0.5	0	0	0	0
	7	0.8	0.1	0	0	0
	30	1.7	0.3	0.1	0.1	0
June-Aug.	1	1.3	0.2	0	0	0
	7	2.2	0.7	0.4	0	0
	30	12	3.7	2.0	1.2	0.7

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	0.6	0	0	0	0
	7	1.1	0.1	0	0	0
	30	2.5	0.3	0.1	0	0
Dec.-Feb.	1	19	5.8	2.3	0.8	0.2
	7	29	8.5	3.5	1.5	0.4
	30	118	36	16	6.6	2.1
Mar.- May	1	22	15	12	9.9	7.9
	7	29	18	14	11	8.7
	30	92	42	27	19	12

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.6	1.7	3.3	5.5	10	16	29	47	77	130	240	610
May - Nov.	0.1	0.2	0.8	1.5	2.3	3.3	4.7	9.7	18	28	43	74	190
June - Aug.	0.4	1.2	2.2	3.1	4.2	5.3	6.9	11	16	24	37	62	160
Sept.- Nov.	0	0.1	0.2	0.4	0.7	1.1	1.5	2.9	5.3	15	29	51	140
Dec. - Feb.	3.3	16	21	25	32	39	50	77	110	170	270	470	1200
Mar. - May	15	22	32	42	50	58	68	91	130	180	270	500	1200

MILL CREEK BASIN

03255500 Mill Creek at Reading, Ohio

LOCATION: Lat 39°13'14", long 84°26'49", in sec. 32, R.1, T.4, Hamilton County, Hydrologic Unit 05090203, on right bank at upstream side of Koehler Street Bridge at Reading, 1.0 mi upstream from West Fork Mill Creek, and 13.0 mi upstream from mouth.

DRAINAGE AREA: 73.0 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: April 1953 to September 1978.

REMARKS: Some diversion and ground water pumpage from Mill Creek and Great Miami River basin by industrial plants of the greater Cincinnati area upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 66.4 ft^3/s (25 years).
Minimum daily discharge: 1.8 ft^3/s September 1970.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.2	2.7	2.2	1.8	1.5
	7	7.1	5.0	4.0	3.3	2.6
	30	11	7.3	5.7	4.6	3.5
May- Nov.	1	4.3	2.8	2.3	1.9	1.5
	7	7.0	5.3	4.6	4.1	3.7
	30	11	8.1	7.2	6.5	5.8
June-Aug.	1	5.1	3.3	2.7	2.2	1.8
	7	8.2	6.0	5.1	4.4	3.8
	30	14	10	8.5	7.4	6.2
Sept.-Nov.	1	5.2	3.4	2.7	2.2	1.8
	7	8.0	6.0	5.2	4.6	4.0
	30	13	9.0	7.6	6.7	5.8
Dec.-Feb.	1	8.2	4.6	3.5	2.8	2.2
	7	12	6.6	4.8	3.7	2.8
	30	24	11	7.2	4.9	3.1
Mar.- May	1	9.5	3.2	3.8	2.8	2.1
	7	15	9.7	7.8	6.5	5.3
	30	32	20	15	13	10

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.7	6.0	7.4	8.6	10	12	13	16	21	29	42	66	140
May - Nov.	4.5	5.7	6.8	7.7	8.6	9.8	11	13	15	18	24	36	74
June - Aug.	4.2	5.4	6.6	7.6	8.6	9.8	11	13	15	19	24	35	76
Sept.- Nov.	4.6	5.8	6.7	7.5	8.2	8.9	9.9	12	14	16	19	26	51
Dec. - Feb.	4.7	6.2	7.8	9.6	12	14	17	23	30	42	57	91	170
Mar. - May	8.0	11	14	17	20	24	27	34	44	56	77	120	230

MILL CREEK BASIN

03257500 West Fork Mill Creek at Woodland, Ohio

LOCATION: Lat 39°15'14", long 84°28'13", in NE1/4 sec. 10, R.1, T.3, Hamilton County, Hydrologic Unit 05090203, on left bank at upstream side of Riddle Road Bridge in Woodlawn, 0.5 mi upstream from small left bank tributary, 1.9 mi downstream from West Fork Mill Creek Dam, and 4.0 mi upstream from mouth.

DRAINAGE AREA: 32.2 mi^2.

TRIBUTARY TO: Mill Creek.

DISCHARGE DATA USED: December 1952 to September 1978.

REMARKS: Flow regulated by West Fork Mill Creek Reservoir 1.9 mi upstream beginning 1953.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 32.8 ft^3/s (25 years).
Minimum daily discharge: No flow for many days most years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.7	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.7	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	3.6	1.3	0.6	0.2	0

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	2.0	0.2	0	0	0
Dec.-Feb.	1	0.5	0	0	0	0
	7	1.4	0.2	0	0	0
	30	9.0	3.7	0.8	0	0
Mar.- May	1	0.8	0.1	0	0	0
	7	1.8	0.5	0.2	0.1	0
	30	10	4.6	2.9	1.9	1.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0.1	0.3	0.6	1.0	1.7	3.3	5.8	9.7	17	29	71
May - Nov.	0	0	0	0.1	0.2	0.3	0.5	1.2	2.4	4.0	7.6	15	34
June - Aug.	0	0	0	0.1	0.2	0.3	0.5	1.0	2.0	3.3	7.0	15	33
Sept.- Nov.	0	0	0	0	0	0.1	0.3	0.6	1.5	2.8	5.5	11	27
Dec. - Feb.	0	0.1	0.6	1.0	2.0	2.9	3.7	5.7	8.9	15	24	42	110
Mar. - May	0.2	0.7	2.1	3.2	4.1	5.4	6.8	10	15	22	32	48	140

MILL CREEK BASIN

03259000 Mill Creek at Carthage, Ohio

LOCATION: Lat 39°12'07", long 84°28'16", in SW1/4 sec.1, R.1, T.3, Hamilton County Hydrologic Unit 05090203, on right bank 100 ft downstream from Anthony Wayne Avenue Bridge in Carthage, 1.0 mi downstream from West Fork Mill Creek, and 11.0 mi upstream from mouth.

DRAINAGE AREA: 115 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: April 1952 to September 1978.

REMARKS: Some inter-basin transfers of water between Mill Creek and Great Miami River basins by industrial and municipal operations. Flow regulated by West Fork Mill Creek Reservoir, 6.9 mi upstream, beginning 1953.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 102 ft^3/s (26 years).
Minimum daily discharge: 0.3 ft^3/s November 1951.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	4.6	2.5	1.8	1.3	0.9	Sept.-Nov.	1	5.5	3.1	2.2	1.6	1.1
	7	7.8	5.4	4.4	3.6	2.8		7	8.9	6.3	5.1	4.2	3.4
	30	12	8.2	6.7	5.6	4.6		30	15	9.1	6.9	5.5	4.3
May- Nov.	1	4.9	2.7	1.9	1.4	0.9	Dec.-Feb.	1	10	5.2	3.7	2.9	2.1
	7	8.1	5.6	4.5	3.7	2.8		7	14	8.8	7.1	6.0	5.0
	30	13	8.4	6.8	5.6	4.5		30	37	19	13	9.6	6.7
June-Aug.	1	6.2	3.4	2.3	1.7	1.1	Mar.- May	1	15	8.6	6.2	4.7	3.3
	7	9.6	6.8	5.5	4.5	3.6		7	22	15	12	9.5	7.4
	30	20	12	9.9	8.4	7.1		30	47	28	21	16	12

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	5.2	7.1	9.0	11	12	14	16	21	29	41	62	100	220
May - Nov.	4.4	6.0	7.7	9.1	10	11	13	15	19	24	34	52	120
June - Aug.	4.5	6.2	8.0	9.5	11	12	13	16	20	25	33	51	120
Sept.- Nov.	4.0	5.4	7.0	8.0	9.0	10	11	13	15	19	25	38	84
Dec. - Feb.	7.0	8.7	12	14	17	20	23	33	46	66	91	140	330
Mar. - May	11	15	20	25	29	33	37	48	63	85	110	190	440

GREAT MIAMI RIVER BASIN

03260600 Great Miami River at Russells Point, Ohio

LOCATION: Lat 40°27'02", long 83°54'25", Logan County, Hydrologic Unit 05080001, in N1/2 sec. 11, T.7 S., R.8 E., on a concrete bridge 2.7 mi upstream from Muchinippi Creek.

DRAINAGE AREA: 133 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1947-1949, 1957-1963 water years.

INDEX STATION: 03261500 Great Miami River at Sidney, Ohio.

REMARKS: Flow regulated by Indian Lake.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 2.9 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	5.0	3.2
	30	5.6	3.8
May - Nov.	7	5.0	3.2
	30	5.6	3.8
June - Aug.	7	5.8	3.8
	30	7.7	4.3
Sept.- Nov.	7	5.1	3.4
	30	6.1	4.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	4.0	4.7	5.5	6.2	7.0
May - Nov.	3.7	4.3	5.0	5.4	5.9
June - Aug.	3.9	4.5	5.1	5.7	6.2
Sept.- Nov.	3.5	3.9	4.5	5.0	5.3

GREAT MIAMI RIVER BASIN

03260620 Muchinippi Creek near Russells Point, Ohio

LOCATION: Lat 40°26'21", long 83°56'28", Logan County, Hydrologic Unit 05080001, 2.3 mi upstream from mouth at State Route 274 bridge, 3.5 mi southwest of Russells Point.

DRAINAGE AREA: 86.2 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1972-1974 water years.

INDEX STATION: 03262000 Loramie Creek at Lockington, Ohio

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.8 ft^3/s. September 1959.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.3	0.7
	30	1.7	0.8
May - Nov.	7	1.3	0.7
	30	1.7	0.8
June - Aug.	7	2.0	0.9
	30	3.6	1.3
Sept.- Nov.	7	1.4	0.7
	30	2.0	0.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.9	1.2	1.7	2.1	2.6
May - Nov.	0.8	1.0	1.3	1.7	2.0
June - Aug.	0.9	1.3	1.7	2.1	2.5
Sept.- Nov.	0.7	0.9	1.0	1.3	1.5

GREAT MIAMI RIVER BASIN

03260700 Bokengehalas Creek near DeGraff, Ohio

LOCATION: Lat 40°20'50", long 83°53'28", in E1/2 sec. 3, R.14, T.2, Logan County, Hydrologic Unit 05080001, on right bank at downstream side of county road bridge, 2 mi downstream from Bluejacket Creek, 2.8 mi northeast of DeGraff, and 4 mi upstream from mouth.

DRAINAGE AREA: 36.3 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1957 to September 1978.

REMARKS: Diurnal fluctuation caused by municipal plant operation in Bellefontaine, 9.8 mi upstream; since storage capacity is small, daily flows are not affected appreciably.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 32.3 ft^3/s (21 years).
Minimum daily discharge: 2.2 ft^3/s September, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	5.4	3.8	3.1	2.7	2.3
	7	5.9	4.1	3.4	3.0	2.6
	30	6.6	4.7	4.0	3.5	3.1
May- Nov.	1	5.4	3.7	3.1	2.7	2.3
	7	5.9	4.1	3.5	3.0	2.6
	30	6.7	4.7	4.0	3.6	3.1
June-Aug.	1	6.3	4.7	4.1	3.7	3.4
	7	7.0	5.1	4.5	4.1	3.7
	30	8.9	6.1	5.3	4.9	4.5
Sept.-Nov.	1	5.6	3.8	3.1	2.7	2.3
	7	6.2	4.2	3.5	3.0	2.6
	30	7.0	4.8	4.0	3.6	3.1
Dec.-Feb.	1	9.5	5.6	4.2	3.4	2.6
	7	11	6.5	4.8	3.8	2.8
	30	17	8.6	5.9	4.3	3.0
Mar.- May	1	14	9.2	7.3	6.0	4.7
	7	17	11	9.4	8.1	6.8
	30	26	17	14	11	9.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.2	4.9	5.7	6.6	7.4	8.4	9.8	13	17	23	31	43	70
May - Nov.	4.0	4.7	5.4	6.0	6.6	7.2	7.8	9.5	12	15	19	26	41
June - Aug.	4.8	5.5	6.5	6.8	7.3	7.8	8.4	9.9	13	16	19	25	39
Sept.- Nov.	3.4	4.1	4.7	5.1	5.5	5.9	6.3	7.2	8.5	10	13	16	22
Dec. - Feb.	4.2	4.8	5.6	7.2	9.0	12	14	18	23	29	37	52	83
Mar. - May	10	13	15	18	21	24	26	32	37	44	54	72	110

GREAT MIAMI RIVER BASIN

03260800 Stony Creek near DeGraff, Ohio

LOCATION: Lat 40°17'27", long 83°54'36", in NW1/4 sec.5, R.13, T.3, Logan County, Hydrologic Unit 05080001, on right bank at downstream side of county road bridge, 0.6 mi downstream from Lee Creek, 1.5 mi south of DeGraff, and 1.5 mi upstream from mouth.

DRAINAGE AREA: 59.1 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1957 to September 1975.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 53.2 ft^3/s (18 years).
Minimum daily discharge: 5 ft^3/s September 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	11	7.4	6.1	5.2	4.3
	7	11	7.7	6.4	5.5	4.6
	30	12	8.5	7.1	6.2	5.4
May- Nov.	1	11	7.4	6.1	5.2	4.3
	7	11	7.7	6.4	5.5	4.6
	30	12	8.5	7.1	6.2	5.4
June-Aug.	1	12	8.5	7.2	6.2	5.4
	7	13	8.9	7.4	6.4	5.5
	30	16	10	8.1	6.9	5.9
Sept.-Nov.	1	11	7.6	6.2	5.3	4.4
	7	12	8.0	6.6	5.6	4.7
	30	14	8.9	7.3	6.2	5.3
Dec.-Feb.	1	17	11.0	8.4	6.8	5.4
	7	18	11	8.9	7.1	5.5
	30	27	15	11	8.6	6.5
Mar.- May	1	25	17	14	12	9.6
	7	29	21	18	15	13
	30	40	28	23	19	15

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	7.3	8.7	10	12	14	16	18	22	28	36	48	66	110
May - Nov.	6.7	8.0	9.2	10	12	13	14	17	21	25	31	42	62
June - Aug.	7.4	8.5	9.6	11	13	14	15	18	22	26	33	42	62
Sept.- Nov.	6.0	7.1	8.6	9.2	9.8	11	12	14	16	19	23	29	40
Dec. - Feb.	8.1	10	12	14	17	20	24	30	36	46	60	84	140
Mar. - May	19	22	24	28	32	36	40	48	55	65	81	110	170

GREAT MIAMI RIVER BASIN

03261500 Great Miami River at Sidney, Ohio

LOCATION: Lat 40°17'13", long 84°09'00", Shelby County, Hydrologic Unit 05080001, on right bank 50 ft upstream from North Street Bridge in Sidney, and 0.5 mi downstream from Tawawa Creek.

DRAINAGE AREA: 541 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1926 to September 1978.

REMARKS: Water supply for city of Sidney is pumped from the Great Miami River 1,200 ft upstream and from wells adjacent to Great Miami River upstream from station. The pumpage averaged 4.6 ft^3/s in 1978 and is returned as sewage 1.2 mi downstream from the station. Some regulation by Indian Lake, 28 mi upstream, capacity 45,900 acre-ft prior to 1926; water diverted into Miami and Erie Canal at Port Jefferson, 2.8 mi upstream, prior to 1926; amount of diversion not published.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 471 ft^3/s (52 years).
Minimum daily discharge: 8.0 ft^3/s September 1935.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	33	21	16	13	10
	7	37	25	21	18	16
	30	44	31	26	23	20
May- Nov.	1	33	21	16	13	10
	7	37	26	21	18	16
	30	44	31	26	23	20
June-Aug.	1	40	26	21	18	15
	7	46	32	26	23	20
	30	68	40	31	27	22
Sept.-Nov.	1	35	22	17	13	10
	7	39	27	22	19	16
	30	49	33	28	25	23
Dec.-Feb.	1	74	45	35	29	23
	7	86	51	39	32	25
	30	175	80	54	39	27
Mar.- May	1	119	75	58	46	34
	7	138	90	72	61	50
	30	245	145	112	91	72

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	28	35	43	50	59	70	82	120	170	240	360	590	1200
May - Nov.	25	31	37	42	47	54	60	77	100	130	180	280	510
June - Aug.	27	33	39	45	51	58	65	82	100	140	190	280	540
Sept.- Nov.	23	27	33	37	41	44	48	57	69	88	120	170	290
Dec. - Feb.	40	46	57	68	83	110	130	190	270	380	570	910	1800
Mar. - May	79	100	130	150	180	210	240	320	430	570	780	1200	1900

GREAT MIAMI RIVER BASIN

03261950 Loramie Creek near Newport, Ohio

LOCATION: Lat 40°18'25", long 84°23'02", in SE1/4 sec.24, T.11 N., R.4 E., Shelby County, Hydrologic Unit 05080001, right bank at downstream side of bridge on Cardo Roman Road, 1.1 mi northwest of Newport, 3 mi south of Fort Loramie, 3 mi downstream from Mile Creek, and at mile 16.5.

DRAINAGE AREA: 152 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1964 to September 1978.

REMARKS: Some regulation by Lake Loramie 5 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 128 ft^3/s (14 years).
Minimum daily discharge: 0.1 ft^3/s August 1965, September 1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.5	0.2	0.1	0.1	0
	7	0.7	0.3	0.2	0.1	0
	30	1.4	0.6	0.3	0.1	0.1
May- Nov.	1	0.5	0.2	0.1	0.1	0
	7	0.8	0.4	0.2	0.1	0
	30	1.6	0.7	0.3	0.1	0
June-Aug.	1	0.8	0.3	0.2	0.1	0
	7	1.0	0.4	0.3	0.2	0.1
	30	3.0	0.9	0.5	0.3	0.1
Sept.-Nov.	1	0.6	0.3	0.2	0.1	0
	7	1.0	0.4	0.3	0.1	0.1
	30	2.2	1.0	0.8	0.7	0.6
Dec.-Feb.	1	6.0	0.9	0.4	0.2	0.1
	7	6.6	1.3	0.6	0.3	0.2
	30	33	6.3	2.3	1.0	0.3
Mar.- May	1	8.0	3.1	1.4	0.5	0.1
	7	12	4.1	1.8	0.8	0.2
	30	36	17	11	8.3	5.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.4	0.7	1.2	1.7	2.5	3.4	4.7	10	20	34	66	150	360
May - Nov.	0.3	0.6	0.9	1.1	1.5	1.9	2.4	3.7	5.9	11	21	41	110
June - Aug.	0.3	0.6	0.8	1.1	1.4	1.8	2.2	3.2	5.1	9.0	17	30	85
Sept.- Nov.	0.3	0.5	0.8	1.1	1.3	1.6	2.0	2.8	3.9	5.9	11	27	96
Dec. - Feb.	0.6	1.1	2.0	3.7	7.3	11	17	26	44	83	150	270	580
Mar. - May	4.0	6.9	12	16	21	25	31	45	68	110	180	320	660

GREAT MIAMI RIVER BASIN

03262000 Loramie Creek at Lockington, Ohio

LOCATION: Lat 40°12'35", long 84°14'32", in NE1/4 sec.30, T.7 N., R.6 E., Shelby County, Hydrologic Unit 05080001, on left bank at downstream side of county road bridge, 1,300 ft downstream from Lockington Dam, 0.5 mi northwest of Lockington, and at mile 1.9.

DRAINAGE AREA: 257 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1915 to September 1978.

REMARKS: Slight regulation by Lake Loramie 18 mi upstream. Flood flow regulated by Lockington retarding basin beginning 1921.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 206 ft^3/s (63 years).
Minimum daily discharge: 1.7 ft^3/s September 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	5.2	3.4	2.8	2.4	2.1	Sept.-Nov.	1	5.5	3.6	3.0	2.6	2.2
	7	5.6	3.8	3.3	2.9	2.6		7	6.0	3.9	3.3	3.0	2.7
	30	6.9	4.6	3.8	3.4	3.0		30	8.0	4.7	3.9	3.5	3.2
May- Nov.	1	5.2	3.4	2.8	2.5	2.2	Dec.-Feb.	1	14	8.0	6.0	4.8	3.8
	7	5.6	3.9	3.3	3.0	2.7		7	18	9.2	6.5	4.9	3.6
	30	7.0	4.6	3.9	3.4	3.0		30	48	16	9.3	5.8	3.4
June-Aug.	1	7.3	4.7	3.8	3.2	2.7	Mar.- May	1	25	15	12	9.2	7.0
	7	8.2	5.3	4.3	3.7	3.2		7	30	19	15	12	9.1
	30	13	7.2	5.6	4.6	3.9		30	72	37	26	19	14

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.0	5.3	6.9	8.4	9.9	12	15	24	39	61	100	200	520
May - Nov.	3.7	4.6	5.8	6.9	8.0	9.1	10	14	19	27	42	69	170
June - Aug.	4.3	5.6	7.1	8.5	9.8	11	13	17	21	29	42	68	160
Sept.- Nov.	3.3	4.0	4.7	5.5	6.2	6.9	7.6	9.1	11	15	21	39	100
Dec. - Feb.	5.5	7.3	9.2	13	18	24	31	50	74	120	210	390	860
Mar. - May	17	22	29	37	45	53	62	85	120	180	270	470	960

GREAT MIAMI RIVER BASIN

03262500 Great Miami River at Piqua, Ohio

LOCATION: Lat 40°08'58", long 84°13'48", Miami County, Hydrologic Unit 05080001, on North Main Street (U.S. Highway 36) bridge in Piqua, and 3.0 mi downstream from Loramie Creek.

DRAINAGE AREA: 866 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1948, 1956-1970 water years.

INDEX STATION: 03263000 Great Miami River at Taylorsville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 11 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	40	24
	30	49	28
May - Nov.	7	40	25
	30	50	29
June - Aug.	7	54	31
	30	82	38
Sept.- Nov.	7	40	26
	30	54	30

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	30	37	46	57	68
May - Nov.	29	33	40	46	52
June - Aug.	32	39	46	52	63
Sept.- Nov.	25	30	34	38	42

GREAT MIAMI RIVER BASIN

03262700 Great Miami River at Troy, Ohio

LOCATION: Lat 40°02'25", long 84°11'52", Miami County, Hydrologic Unit 05080001, 400 ft downstream from B.& O. Railroad bridge, 1,300 ft downstream from bridge on State Route 55 at Troy, 1.2 mi upstream from small left bank tributary, 2.3 mi downstream from Spring Creek, and at mile 105.

DRAINAGE AREA: 926 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1962 to September 1978.

REMARKS: Flood flow regulated by retarding basin on Loramie Creek, 18 mi upstream. Low and medium flow slightly regulated by Indian Lake; capacity, 45,900 acre-ft 54 mi upstream. Water supply for city of Troy is pumped from wells adjacent to the Great Miami River upstream from the station. The pumpage averaged 5.0 ft^3/s in 1978 and is returned as sewage 1 mi downstream from the station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 776 ft^3/s (16 years).
Minimum daily discharge: 4.3 ft^3/s July 1977, result of dam closure upstream.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	48	23	13	8.3	4.5	Sept.-Nov.	1	52	32	25	21	17
	7	56	34	27	22	17		7	61	39	30	25	19
	30	68	41	31	25	19		30	77	45	37	32	28
May- Nov.	1	50	23	14	8.5	4.5	Dec.-Feb.	1	126	58	38	26	17
	7	58	37	29	24	19		7	138	65	42	29	19
	30	71	45	35	28	21		30	260	85	49	32	20
June-Aug.	1	63	27	15	9.0	4.6	Mar.- May	1	177	105	78	60	43
	7	72	47	38	33	29		7	215	140	115	99	85
	30	102	59	47	40	34		30	427	262	207	172	141

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	34	47	61	74	88	110	130	180	260	360	560	950	2100
May - Nov.	32	44	54	63	72	80	90	120	150	200	280	400	790
June - Aug.	39	48	60	70	79	89	100	130	160	210	280	370	670
Sept.- Nov.	24	35	46	54	59	65	71	84	100	130	170	230	410
Dec. - Feb.	31	50	72	100	130	160	190	290	390	550	850	1400	2800
Mar. - May	140	180	230	270	310	360	410	540	700	950	1400	2100	3800

GREAT MIAMI RIVER BASIN

03262800 Lost Creek near Troy, Ohio

LOCATION: Lat 40°01,05", long 84°09'25", Miami County, Hydrologic Unit 05080001, at Knoop Road bridge, 0.2 mi south of State Route 70, 2.8 mi southeast of Troy, 2.8 mi southwest of Casstown, and 4.3 mi upstream from mouth.

DRAINAGE AREA: 55.3 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1961-1970 water years.

INDEX STATION: 03263000 Great Miami River at Taylorsville, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.5 ft^3/s September 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.7	0.7
	30	2.5	0.9
May - Nov.	7	1.7	0.8
	30	2.5	1.0
June - Aug.	7	2.9	1.1
	30	6.2	1.5
Sept.- Nov.	7	1.7	0.8
	30	2.9	1.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.1	1.5	2.2	3.2	4.3
May - Nov.	1.0	1.2	1.7	2.2	2.7
June - Aug.	1.2	1.6	2.2	2.7	3.8
Sept.- Nov.	0.8	1.0	1.3	1.6	1.9

GREAT MIAMI RIVER BASIN

03262900 Honey Creek near New Carlisle, Ohio

LOCATION: Lat 39°58'11", long 84°06'33", Miami County, Hydrologic Unit 05080001, at bridge on Rudy Road, 0.5 mi downstream from Indian Creek and 5.0 mi northwest of New Carlisle.

DRAINAGE AREA: 72.8 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1969-1974 water years.

INDEX STATION: 03264000 Greenville Creek near Bradford, Ohio.

REMARKS: New Carlisle ground water supply is discharged as sewage into Honey Creek, 5.0 mi upstream from station. Average sewage discharge was 377,000 gal/d in 1971.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 7.8 ft^3/s June 1971.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	7.0	3.8
	30	8.1	4.7
May - Nov.	7	7.0	3.8
	30	8.1	4.7
June - Aug.	7	8.6	4.7
	30	12	5.8
Sept.- Nov.	7	7.0	3.9
	30	9.3	5.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.0	5.8	7.8	9.3	11.0
May - Nov.	4.7	5.4	6.6	7.8	9.0
June - Aug.	5.0	5.8	7.4	8.6	9.7
Sept.- Nov.	4.3	5.0	5.8	6.6	7.4

GREAT MIAMI RIVER BASIN

03263000 Great Miami River at Taylorsville, Ohio

LOCATION: Lat 39°52'22", long 84°09'51", in SW1/4 sec.36, R.8, T.2, Montgomery County, Hydrologic Unit 05080001, on left bank 600 ft downstream from Taylorsville Dam, 0.8 mi north of Taylorsville, 2.1 mi east of Vandalia, 9.5 mi upstream from Stillwater River, and at mile 90.8.

DRAINAGE AREA: 1,149 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: January 1922 to September 1978.

REMARKS: Flood flow regulated by retarding basins on Great Miami River, just upstream from station and on Loramie Creek 28 mi upstream from station beginning in 1921. Low and medium flow regulated by Indian Lake 64 mi upstream from station, and by Lake Loramie 47 mi upstream from station on Loramie Creek; combined capacity, 58,900 acre-ft.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 966 ft^3/s (56 years).
Minimum daily discharge: 25 ft^3/s July 1977.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	70	48	41	36	32	Sept.-Nov.	1	72	52	46	42	39
	7	79	56	48	42	37		7	78	58	53	50	48
	30	96	66	56	49	43		30	104	70	61	56	52
May- Nov.	1	70	50	42	38	34	Dec.-Feb.	1	152	88	66	52	40
	7	79	57	50	45	41		7	183	103	75	58	44
	30	97	68	59	52	47		30	363	159	103	72	47
June-Aug.	1	91	62	51	44	38	Mar.- May	1	275	174	133	106	80
	7	104	72	62	55	48		7	322	206	162	133	106
	30	157	93	74	63	53		30	544	330	254	206	162

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	61	73	90	110	130	150	180	260	360	510	750	1200	2400
May - Nov.	58	66	79	90	100	120	130	170	220	300	400	580	1100
June - Aug.	64	76	90	100	120	140	150	190	250	330	430	600	1100
Sept.- Nov.	51	60	67	75	83	91	99	120	140	180	240	330	580
Dec. - Feb.	67	87	110	140	170	210	260	380	550	770	1200	1800	3500
Mar. - May	170	230	300	350	400	460	520	690	870	1100	1500	2300	3900

GREAT MIAMI RIVER BASIN

03264000 Greenville Creek near Bradford, Ohio

LOCATION: Lat 40°06'08", long 84°25'48", in SW1/4 NW1/4 sec.34, T.9 N., R.4 E., Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on State Route 721, 0.8 mi downstream from small left bank tributary, 1.8 mi south of Bradford, and 6 mi upstream from mouth.

DRAINAGE AREA: 193 mi^2.

TRIBUTARY TO: Stillwater River.

DISCHARGE DATA USED: March 1931 to September 1978.

REMARKS: Some diurnal fluctuation caused by mill 8 mi upstream from station, daily flows are not affected appreciably.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 171 ft^3/s (47 years).
Minimum daily discharge: 5.3 ft^3/s September 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	14	9.2	7.4	6.2	5.1	Sept.-Nov.	1	15	10	8.2	6.9	5.7
	7	18	12	9.9	8.5	7.1		7	18	13	10	9.0	7.7
	30	21	15	12	10	8.7		30	24	16	13	11	9.4
May- Nov.	1	14	9.2	7.4	6.2	5.1	Dec.-Feb.	1	33	21	16	12	9.6
	7	18	12	9.9	8.5	7.1		7	39	23	17	14	10
	30	21	15	12	10	8.8		30	68	33	22	16	11
June-Aug.	1	18	12	9.4	7.9	6.5	Mar.- May	1	62	40	31	24	18
	7	22	15	12	11	9.1		7	69	46	36	29	22
	30	30	19	15	13	12		30	106	68	54	44	35

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	13	15	20	24	27	32	37	49	66	92	130	200	380
May - Nov.	12	14	17	20	23	26	28	35	43	55	75	110	180
June - Aug.	13	15	19	22	25	28	31	38	47	59	77	110	190
Sept.- Nov.	11	13	15	17	19	21	23	27	31	37	45	59	96
Dec. - Feb.	14	18	24	29	37	43	51	71	94	130	180	280	550
Mar. - May	37	49	60	70	82	92	100	120	150	190	240	350	620

GREAT MIAMI RIVER BASIN

03265000 Stillwater River at Pleasant Hill, Ohio

LOCATION: Lat 40°03'28", long 84°21'22", in SW1/4 sec.18, T.7 N., R.5 E., Miami County Hydrologic Unit 05080001, on left bank at downstream side of bridge on Laurer Road, 0.8 mi northwest of Pleasant Hill, 2 mi downstream from Painter Creek, 2 mi upstream from Canyon Run, and at mile 28.35.

DRAINAGE AREA: 503 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1916 to September 1928, December 1934 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 440 ft^3/s (55 years).
Minimum daily discharge: 4 ft^3/s October 1920, July, August, 1921.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	18	9.9	7.3	5.7	4.3
	7	25	15	12	9.7	7.7
	30	33	21	17	14	11
May- Nov.	1	18	9.9	7.3	5.7	4.3
	7	25	15	12	9.7	7.7
	30	33	21	17	14	11
June-Aug.	1	26	15	11	8.1	6.0
	7	34	22	18	16	13
	30	53	32	26	23	20
Sept.-Nov.	1	19	11	8.1	6.4	5.0
	7	27	16	12	10	8.0
	30	37	21	17	15	13
Dec.-Feb.	1	54	29	20	15	10
	7	69	37	26	19	13
	30	133	56	36	24	16
Mar.- May	1	108	70	53	41	29
	7	128	86	67	53	40
	30	226	141	108	86	66

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	16	23	31	39	48	57	67	94	130	190	280	470	1000
May - Nov.	14	19	26	32	37	43	49	62	80	110	150	220	440
June - Aug.	18	24	31	38	44	50	57	72	92	120	150	220	430
Sept.- Nov.	11	15	20	25	29	32	36	44	53	64	79	120	250
Dec. - Feb.	21	28	41	55	69	84	100	150	210	290	420	700	1500
Mar. - May	71	90	110	130	160	180	200	260	330	430	590	910	1800

GREAT MIAMI RIVER BASIN

03266000 Stillwater River at Englewood, Ohio

LOCATION: Lat 39°52'10", long 84°16'57", in NW1/4 sec.23, T.5 N., R.5 E., Montgomery County, Hydrologic Unit 05080001, on right bank 1,000 ft downstream from Englewood Dam, 1 mi southeast of Englewood, and at mile 8.9.

DRAINAGE AREA: 650 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: November 1925 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 563 ft^3/s (52 years).
Minimum daily discharge: 4.8 ft^3/s September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	26	14	9.8	7.2	5.1
	7	34	20	15	12	8.9
	30	42	26	20	17	13
May- Nov.	1	26	14	9.8	7.2	5.1
	7	34	20	15	12	8.9
	30	42	26	20	17	13
June-Aug.	1	38	22	16	12	8.9
	7	47	29	23	18	15
	30	70	40	32	27	23
Sept.-Nov.	1	27	14	10	7.7	5.6
	7	34	20	16	13	11
	30	45	27	22	19	17
Dec.-Feb.	1	80	41	28	20	14
	7	96	52	37	28	20
	30	190	78	49	33	21
Mar.- May	1	154	89	61	43	27
	7	179	109	79	59	41
	30	308	181	133	102	74

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	21	29	40	50	60	72	86	120	180	260	380	620	1400
May - Nov.	18	25	33	41	47	54	62	80	110	140	200	300	580
June - Aug.	22	31	41	49	57	66	75	96	120	160	210	300	590
Sept.- Nov.	15	20	26	31	36	41	45	55	67	82	100	150	290
Dec. - Feb.	28	39	52	69	87	110	130	200	270	380	570	980	2300
Mar. - May	82	120	160	190	220	250	280	350	450	590	810	1200	2500

GREAT MIAMI RIVER BASIN

03266500 Mad River at Zanesfield, Ohio

LOCATION: Lat 40°21'01", long 83°40'28", Logan County, Hydrologic Unit 05080001, on left bank at upstream side of bridge on County Road No. 5 (adjacent to former U.S. Highway 33), 0.8 mi upstream from Sugar Creek, 1 mi north of Zanesfield, and at mile 61.45.

DRAINAGE AREA: 7.31 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1946 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 7.73 ft^3/s (32 years).
Minimum daily discharge: 0.5 ft^3/s December 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	1.1	0.8	0.7	0.6	0.5	Sept.-Nov.	1	1.2	0.9	0.7	0.7	0.6
	7	1.2	0.9	0.7	0.6	0.6		7	1.2	0.9	0.8	0.7	0.6
	30	1.4	1.0	0.9	0.8	0.7		30	1.4	1.0	0.9	0.9	0.8
May- Nov.	1	1.1	0.8	0.7	0.6	0.6	Dec.-Feb.	1	1.8	1.1	0.8	0.7	0.5
	7	1.2	0.9	0.8	0.7	0.6		7	2.2	1.3	1.0	0.7	0.5
	30	1.4	1.0	0.9	0.8	0.7		30	3.6	1.8	1.2	0.9	0.6
June-Aug.	1	1.3	1.0	0.8	0.8	0.7	Mar.- May	1	3.5	2.5	2.1	1.8	1.5
	7	1.4	1.0	0.9	0.9	0.8		7	4.1	3.0	2.6	2.3	2.0
	30	1.7	1.3	1.1	1.0	0.8		30	6.7	4.6	3.8	3.3	2.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.9	1.0	1.2	1.4	1.6	1.8	2.1	2.7	3.7	4.9	6.9	10	17
May - Nov.	0.9	1.0	1.2	1.3	1.4	1.6	1.7	2.0	2.4	3.0	4.0	5.5	9.3
June - Aug.	1.0	1.1	1.3	1.4	1.6	1.7	1.8	2.1	2.4	2.9	3.7	4.8	7.4
Sept.- Nov.	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.1	2.4	3.3	4.9
Dec. - Feb.	0.8	1.0	1.3	1.6	1.9	2.4	2.8	3.7	4.8	6.3	8.8	13	21
Mar. - May	2.9	3.4	4.0	4.6	5.2	5.8	6.5	7.9	9.5	11	14	17	27

GREAT MIAMI RIVER BASIN

03267000 Mad River near Urbana, Ohio

LOCATION: Lat 40°06'27", long 83°47'57", on west line of sec.35, T.5 E., R.11 N., Champaign Coutny, Hydrologic Unit 05080001, on left bank at downstream side of bridge on U.S. Highway 36, 1.8 mi upstream from Dugan Run, 1.8 mi downstream from Muddy Creek, 2.5 mi west of Urbana, and at mile 39.7.

DRAINAGE AREA: 162 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1925 to September 1931, October 1939 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 141 ft^3/s (45 years).
Minimum daily discharge: 24 ft^3/s February 1945, January 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	49	36	30	26	23
	7	51	37	32	28	24
	30	55	41	35	31	28
May- Nov.	1	52	39	34	31	28
	7	54	41	36	32	28
	30	58	43	37	33	30
June-Aug.	1	63	46	39	35	30
	7	66	49	41	36	31
	30	76	54	46	41	35
Sept.-Nov.	1	52	40	35	31	28
	7	55	41	36	32	28
	30	57	43	37	34	31
Dec.-Feb.	1	59	40	32	27	22
	7	64	43	35	29	24
	30	82	52	41	34	27
Mar.- May	1	92	65	54	45	37
	7	103	75	64	56	47
	30	128	92	77	67	57

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	36	41	47	53	59	64	71	85	100	120	150	180	260
May - Nov.	36	41	46	51	56	60	64	74	86	100	120	140	190
June - Aug.	40	46	53	59	64	69	74	85	97	110	130	150	190
Sept.- Nov.	32	37	41	44	47	51	54	59	64	73	84	98	130
Dec. - Feb.	33	40	44	48	54	61	69	86	100	120	150	200	310
Mar. - May	62	72	84	93	100	110	120	140	160	190	210	260	340

GREAT MIAMI RIVER BASIN

03267400 Cedar Run near Tremont City, Ohio

LOCATION: Lat 40°01'49", long 83°48'59", Champaign County, Hydrologic Unit 05080001, at private road bridge, 1,500 ft upstream from mouth, 900 ft north of County Line Road and 1.6 mi northeast of Tremont City.

DRAINAGE AREA: 2.08 mi^2.

TRIBUTARY TO: Mad River.

DISCHARGE DATA USED: Low-flow measurements 1972-1974 water years.

INDEX STATION: 03267000 Mad River near Urbana, Ohio

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 5.4 ft^3/s. August 1972.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	3.3	2.1
	30	3.5	2.3
May - Nov.	7	3.4	2.4
	30	3.7	2.4
June - Aug.	7	4.1	2.7
	30	4.7	3.0
Sept.- Nov.	7	3.5	2.4
	30	3.6	2.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.4	2.7	3.0	3.4	3.7
May - Nov.	2.4	2.7	3.0	3.3	3.5
June - Aug.	2.6	3.0	3.4	3.7	4.0
Sept.- Nov.	2.1	2.4	2.7	2.9	3.0

GREAT MIAMI RIVER BASIN

03267600 Chapman Creek at Tremont City, Ohio

LOCATION: Lat 40°00'38", long 83°50'08", Clark County, Hydrologic Unit 05080001, 0.8 mi upstream from mouth and at bridge on Upper Valley Pike in Tremont City.

DRAINAGE AREA: 24 mi^2.

TRIBUTARY TO: Mad River.

DISCHARGE DATA USED: Low-flow measurements 1944, 1948, 1968, 1969, 1972-1974 water years.

INDEX STATION: 03267000 Mad River near Urbana, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.4 ft^3/s October 1943.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.9	0.4
	30	1.1	0.5
May - Nov.	7	1.1	0.5
	30	1.2	0.5
June - Aug.	7	1.6	0.6
	30	2.0	0.8
Sept.- Nov.	7	1.1	0.5
	30	1.2	0.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.5	0.6	0.8	1.0	1.2
May - Nov.	0.5	0.6	0.8	0.9	1.1
June - Aug.	0.6	0.8	1.0	1.2	1.5
Sept.- Nov.	0.4	0.5	0.6	0.7	0.8

GREAT MIAMI RIVER BASIN

03267900 Mad River at St. Paris Pike at Eagle City, Ohio

LOCATION: Lat 39°57'51", long 83°49'54", in W1/2 sec.1, R.10, T.4, Clark County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on St. Paris Pike, 0.8 mi southeast of Eagle City, 1.1 mi downstream from Moore Run, 3.1 mi upstream from Buck Creek, 3.3 mi south of Tremont City, and at mile 29.5.

DRAINAGE AREA: 310 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1965 to September 1978.

REMARKS: Water supply for city of Springfield is pumped from wells, adjacent to Mad River, just upstream from station. Recharge to the well field is largely by induced infiltration from Mad River and Moore Run. Pumpage, averaging 24.5 ft^3/s in 1978, is returned as sewage 1.4 mi upstream from Buck Creek, 3.3 mi south of Tremont City, and at mile 29.5.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 296 ft^3/s (13 years).
Minimum daily discharge: 60 ft^3/s January 1972 (result of freezup).

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	109	85	74	67	59
	7	114	89	77	70	60
	30	121	98	88	81	74
May- Nov.	1	111	93	87	82	78
	7	115	97	90	86	81
	30	122	103	96	91	86
June-Aug.	1	129	103	93	86	79
	7	138	109	98	89	81
	30	161	122	108	98	89
Sept.-Nov.	1	111	93	87	82	78
	7	115	98	91	86	82
	30	126	105	97	92	87
Dec.-Feb.	1	145	102	84	71	56
	7	163	113	91	75	59
	30	209	134	105	85	66
Mar.- May	1	182	147	133	122	110
	7	203	159	140	126	112
	30	274	205	172	147	121

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	94	100	110	120	140	150	160	180	210	250	310	380	550
May - Nov.	94	100	110	110	120	130	140	150	170	200	230	280	370
June - Aug.	99	110	120	130	140	150	160	180	200	220	250	290	360
Sept.- Nov.	91	98	100	110	110	110	120	130	140	150	170	190	240
Dec. - Feb.	85	100	120	130	150	170	180	210	250	310	360	450	660
Mar. - May	140	160	170	190	210	230	250	290	320	360	430	550	760

GREAT MIAMI RIVER BASIN

03268000 Buck Creek at New Moorefield, Ohio

LOCATION: Lat 39°59'15", long 83°42'55", in NE1/4 sec.9, R.10, T.5, Clark County, Hydrologic Unit 05080001, on right bank at downstream side of New York Central Railroad bridge at south edge of New Moorefield, 1.5 mi downstream from East Fork, and 5 mi upstream from Beaver Creek.

DRAINAGE AREA: 65.3 mi^2.

TRIBUTARY TO: Mad River.

DISCHARGE DATA USED: October 1942 to September 1958.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 65.6 ft^3/s (16 years).
Minimum daily discharge: 13 ft^3/s August 1944, September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	23	17	14	12	11	Sept.-Nov.	1	24	18	15	14	12
	7	24	18	15	13	11		7	25	19	16	14	12
	30	26	20	17	15	13		30	27	20	18	16	14
May- Nov.	1	23	17	14	13	11	Dec.-Feb.	1	27	21	18	16	14
	7	24	18	15	13	11		7	29	22	19	18	16
	30	26	20	17	15	13		30	39	26	21	18	14
June-Aug.	1	27	19	16	13	11	Mar.- May	1	43	31	27	23	20
	7	28	20	16	14	12		7	45	33	28	25	21
	30	33	23	19	17	15		30	56	40	33	28	23

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	18	21	23	25	27	29	32	37	44	51	61	79	110
May - Nov.	16	19	22	23	25	27	30	33	37	43	50	59	78
June - Aug.	16	19	23	26	29	32	35	39	44	50	56	67	93
Sept.- Nov.	16	18	21	22	23	24	25	28	30	33	36	40	50
Dec. - Feb.	20	22	24	25	27	29	31	40	47	55	70	100	150
Mar. - May	27	31	37	43	47	51	54	61	70	81	92	110	140

GREAT MIAMI RIVER BASIN

03269500 Mad River near Springfield, Ohio

LOCATION: Lat 39°55'23", long 83°52'13", in NW1/4 sec.16, R.9, T.4, Clark County, Hydrologic Unit 05080001, on right bank 150 ft downstream from Rock Run, 300 ft downstream from bridge on Lower Valley Pike, 2 mi downstream from Buck Creek, 3 mi west of Springfield, and at mile 24.1.

DRAINAGE AREA: 490 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1914 to September 1978.

REMARKS: Some regulation by C.J. Brown Reservoir, 8.3 mi upstream on Buck Creek, since 1972. Occasional low-flow regulation by powerplant 2.3 mi upstream; daily flows are not affected appreciably.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 483 ft^3/s (64 years).
Minimum daily discharge: 86 ft^3/s July 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	157	124	110	100	89
	7	166	133	118	108	97
	30	182	146	130	118	107
May- Nov.	1	185	142	129	110	97
	7	195	150	131	118	104
	30	229	172	152	137	124
June-Aug.	1	164	131	116	105	94
	7	171	137	122	112	100
	30	187	150	133	121	108
Sept.-Nov.	1	169	134	119	107	95
	7	173	139	126	117	108
	30	189	153	141	133	126
Dec.-Feb.	1	119	147	126	112	98
	7	223	164	140	123	107
	30	292	195	159	135	113
Mar.- May	1	285	215	185	162	139
	7	323	242	205	178	151
	30	410	293	245	212	180

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	130	150	170	180	200	210	230	270	320	380	470	600	880
May - Nov.	120	140	160	170	180	200	210	230	260	300	360	440	620
June - Aug.	120	140	170	180	200	210	230	260	290	330	380	460	620
Sept.- Nov.	120	130	150	160	170	170	180	200	220	240	260	310	410
Dec. - Feb.	130	150	170	190	210	230	250	300	360	440	560	730	1100
Mar. - May	190	230	260	290	320	350	380	450	510	580	680	840	1200

GREAT MIAMI RIVER BASIN

03270000 Mad River near Dayton, Ohio

LOCATION: 39°47'50", long 84°05'19", in SW1/4 sec.7, R.8, T.2, Green County, Hydrologic Unit 05080001, on left bank in retarding basin 300 ft upstream from Huffman Dam, 2.3 mi downstream from Mud Run, 6.2 mi northeast of Dayton and at mile 6.1.

DRAINAGE AREA: 635 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1914 to September 1921, October 1924 to September 1978.

REMARKS: Flood flows affected by backwater from Huffman retarding dam beginning in 1921, some regulation by C.J. Brown Reservoir 26 mi upstream on Buck Creek since 1972.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 614 ft^3/s (61 years).
Minimum daily discharge: 94 ft^3/s August 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	186	144	125	112	99	Sept.-Nov.	1	196	148	129	115	101
	7	195	150	131	118	104		7	204	154	135	121	108
	30	216	165	145	130	115		30	227	174	154	140	128
May- Nov.	1	192	146	127	113	99	Dec.-Feb.	1	247	182	156	137	120
	7	200	153	133	118	104		7	272	198	168	147	126
	30	220	168	146	130	115		30	367	239	193	162	133
June-Aug.	1	219	163	140	123	107	Mar.- May	1	356	261	219	187	156
	7	232	172	148	130	113		7	402	293	244	207	170
	30	278	200	171	151	134		30	526	368	302	255	209

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	150	170	190	220	240	260	280	330	400	490	600	780	1200
May - Nov.	140	160	180	200	220	230	250	280	320	380	450	570	790
June - Aug.	140	160	190	220	240	250	270	310	360	410	470	580	800
Sept.- Nov.	130	150	160	180	190	200	210	240	260	300	330	400	540
Dec. - Feb.	160	170	200	230	250	290	320	310	460	570	730	960	1400
Mar. - May	220	270	330	370	410	450	500	570	660	750	890	1100	1500

GREAT MIAMI RIVER BASIN

03270500 Great Miami River at Dayton, Ohio

LOCATION: Lat 39°45'55", long 84°11'51", in sec.10, R.7, T.1, Montgomery County, Hydrologic Unit 05080002, on left bank 1,000 ft downstream from Main Street Bridge in Dayton, 0.7 mi upstream from Wolf Creek, 0.8 mi downstream from Mad River, and at mile 80.0.

DRAINAGE AREA: 2,511 mi^2.

TRIBUTARY TO: Ohio River

DISCHARGE DATA USED: April 1913 to September 1978.

REMARKS: Flood flow regulated by four retarding basins upstream from station beginning in 1920 on Mad River 6.5 mi upstream, on Stillwater River 10.5 mi upstream, on Great Miami River 11.5 mi upstream, and on Loramie Creek 40 mi upstream. Water is diverted 6 mi upstream from station for use in Dayton; most of return flow from diversions bypasses station in Dayton sewer systems.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 2,190 ft^3/s (65 years).
Minimum daily discharge: 109 ft^3/s August 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	277	190	154	129	105	Sept.-Nov.	1	290	197	161	135	111
	7	299	207	169	143	117		7	303	210	176	154	134
	30	344	241	199	170	142		30	365	250	214	192	173
May- Nov.	1	278	190	154	129	105	Dec.-Feb.	1	501	321	254	209	168
	7	301	208	170	143	117		7	584	362	281	228	179
	30	348	243	200	171	142		30	953	491	348	262	191
June-Aug.	1	335	227	185	155	127	Mar.- May	1	813	543	427	344	265
	7	375	252	205	173	143		7	933	627	501	414	330
	30	493	313	256	221	191		30	1450	914	710	573	448

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	200	260	320	370	420	480	560	740	980	1300	1900	2700	5000
May - Nov.	180	230	280	320	360	400	440	530	660	830	1100	1500	2600
June - Aug.	210	250	310	360	400	450	490	600	740	900	1100	1500	2500
Sept.- Nov.	160	200	240	280	310	330	360	410	470	560	680	870	1500
Dec. - Feb.	250	290	370	450	540	640	760	1100	1400	1900	2600	3800	7200
Mar. - May	500	650	810	950	1100	1200	1400	1700	2100	2600	3300	4700	8200

GREAT MIAMI RIVER BASIN

03270800 Wolf Creek at Trotwood, Ohio

LOCATION: Lat 39°47'39", long 84°18'36", Montgomery County, Hydrologic Unit 05080002, on right bank 350 ft downstream from Union Road Bridge, 700 ft downstream from unnamed right bank tributary, 0.2 mi south of Trotwood, and 0.3 mi upstream from North Branch.

DRAINAGE AREA: 22.7 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1962 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 20.5 ft^3/s (16 years).
Minimum daily discharge: No flow September 1964, 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.2	0	0	0	0
	7	0.4	0.1	0	0	0
	30	0.7	0.3	0.2	0.1	0.1
May- Nov.	1	0.2	0	0	0	0
	7	0.4	0.1	0	0	0
	30	0.7	0.3	0.2	0.1	0.1
June-Aug.	1	0.4	0.2	.01	0	0
	7	0.5	0.3	0.2	0.2	0.1
	30	1.4	0.6	0.4	0.3	0.2
Sept.-Nov.	1	0.4	0.1	0	0	0
	7	0.5	0.1	0	0	0
	30	1.0	0.4	0.2	0.1	0.1
Dec.-Feb.	1	2.2	0.9	0.5	0.3	0.2
	7	3.1	1.1	0.6	0.4	0.2
	30	6.2	1.6	0.7	0.3	0.1
Mar.- May	1	3.4	2.4	2.0	1.8	1.5
	7	4.5	2.9	2.3	2.0	1.7
	30	10	6.3	5.0	4.3	3.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.4	0.5	0.8	1.2	1.6	2.2	3.6	5.6	8.7	13	22	45
May - Nov.	0.2	0.3	0.4	0.5	0.7	0.9	1.2	1.8	2.7	3.8	5.5	9.0	19
June - Aug.	0.2	0.3	0.4	0.6	0.8	1.0	1.3	1.8	2.6	3.7	5.3	7.6	15
Sept.- Nov.	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.2	1.7	2.3	3.3	4.8	10
Dec. - Feb.	0.4	0.5	1.1	1.8	2.6	3.5	4.6	7.4	9.9	14	21	33	65
Mar. - May	3.0	3.7	5.0	6.2	7.3	8.7	10	13	17	22	30	44	83

GREAT MIAMI RIVER BASIN

03271300 Holes Creek near Kettering, Ohio

LOCATION: Lat 39°39'15", long 84°11'45", Montgomery County, Hydrologic Unit 05080002, at Mad River Road bridge, 200 ft south of Alexandria-Bellbrook Road, 2.8 mi southwest of Kettering.

DRAINAGE AREA: 18.7 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1959-1972 water years.

INDEX STATION: 03272000 Twin Creek near Germantown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.0 ft^3/s November 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.2	0.3
	30	1.5	0.8
May - Nov.	7	1.2	0.7
	30	1.4	0.8
June - Aug.	7	1.6	0.9
	30	2.3	1.2
Sept.- Nov.	7	1.3	0.7
	30	1.6	0.9

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.8	1.1	1.4	1.6	2.0
May - Nov.	0.8	1.0	1.2	1.4	1.6
June - Aug.	0.9	1.1	1.4	1.6	1.8
Sept.- Nov.	0.7	0.8	1.0	1.2	1.3

GREAT MIAMI RIVER BASIN

03271620 Great Miami River at Franklin, Ohio

LOCATION: Lat 39°33'44", long 84°18'18", Warren County, Hydrologic Unit 05080002, at bridge on State Route 123 in Franklin.

DRAINAGE AREA: 2,727 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1965-1969 water years.

INDEX STATION: 03271500 Great Miami River at Miamisburg, Ohio.

REMARKS: Diurnal fluctuation caused by upstream power plant.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 311 ft^3/s August 1965.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	380	235
	30	435	270
May - Nov.	7	390	240
	30	445	270
June - Aug.	7	490	285
	30	605	350
Sept.- Nov.	7	385	255
	30	460	285

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	260	320	400	450	520
May - Nov.	240	290	360	410	450
June - Aug.	290	350	410	670	520
Sept.- Nov.	220	250	290	350	390

GREAT MIAMI RIVER BASIN

03271700 Clear Creek at Franklin, Ohio

LOCATION: Lat 39°33'05", long 84°17'55", Warren County, Hydrologic Unit 05080002, at bridge on Shaker Road at south edge of Franklin, and 1.6 mi upstream from mouth.

DRAINAGE AREA: 51.5 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1959-1969 water years.

INDEX STATION: 03272000 Twin Creek near Germantown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: No flow August 1965.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.8	0.2
	30	1.2	0.4
May - Nov.	7	0.8	0.3
	30	1.1	0.4
June - Aug.	7	1.3	0.4
	30	2.8	0.8
Sept.- Nov.	7	0.9	0.3
	30	1.4	0.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.4	0.6	1.1	1.4	2.1
May - Nov.	0.3	0.5	0.8	1.1	1.3
June - Aug.	0.4	0.7	1.1	1.4	1.8
Sept.- Nov.	0.2	0.3	0.5	0.7	0.9

GREAT MIAMI RIVER BASIN

03271800 Twin Creek near Ingomar, Ohio

LOCATION: Lat 39°42'28", long 84°31'30", in sec.15, T.5 N., R.3 E., Preble County, Hydrologic Unit 05080002, on left bank at downstream side of bridge on Halderman Road, 0.5 mi downstream from Bantas Fork, 1.4 mi west of Ingomar, and 4.8 mi upstream from Aukerman Creek.

DRAINAGE AREA: 197 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: October 1962 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 181 ft^3/s (16 years)
Minimum daily discharge: 2.5 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	6.4	4.0	3.1	2.6	2.1
	7	7.1	4.4	3.5	2.9	2.3
	30	8.9	5.5	4.3	3.5	2.7
May- Nov.	1	6.4	4.0	3.1	2.6	2.1
	7	7.1	4.4	3.5	2.9	2.3
	30	8.9	5.5	4.3	3.5	2.7
June-Aug.	1	8.6	5.6	4.6	4.0	3.5
	7	10	6.6	5.4	4.7	4.1
	30	15	8.8	7.1	6.1	5.2
Sept.-Nov.	1	6.6	4.0	3.2	2.6	2.1
	7	7.5	4.6	3.6	2.9	2.4
	30	10	6.2	4.6	3.5	2.6
Dec.-Feb.	1	25	11	7.0	4.6	2.7
	7	30	14	8.0	4.8	2.5
	30	64	21	11	5.8	2.8
Mar.- May	1	39	26	21	17	14
	7	47	31	26	22	18
	30	92	58	46	39	31

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.8	6.1	8.2	11	14	17	21	32	50	75	110	190	410
May - Nov.	4.2	5.5	6.9	8.5	10	12	14	18	24	32	48	79	150
June - Aug.	5.9	7.3	9.2	11	13	15	17	21	27	36	48	72	130
Sept.- Nov.	3.5	4.2	5.4	6.2	7.1	8.1	9.5	13	16	19	23	29	72
Dec. - Feb.	5.8	7.2	15	21	28	36	44	61	82	110	180	280	640
Mar. - May	29	40	50	58	67	77	88	110	140	190	250	390	810

GREAT MIAMI RIVER BASIN

03272000 Twin Creek near Germantown, Ohio

LOCATION: Lat 39°38'10", long 84°23'48", in NW1/4 sec. 11, T.3 N., R.4 E., Montgomery County, Hydrologic Unit 05080002, on right bank 0.3 mi downstream from Germantown Dam, 1.4 mi northwest of Germantown, and 3 mi upstream from Little Twin Creek.

DRAINAGE AREA: 275 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: May 1914 to December 1923, January 1927 to September 1978.

REMARKS: Flood flow regulated by Germantown retarding basin 0.3 mi upstream beginning 1920.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 259 ft^3/s (60 years).
Minimum daily discharge: 2.0 ft^3/s September 1941.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	9.3	5.2	3.8	2.9	2.2	Sept.-Nov.	1	9.8	5.5	4.1	3.2	2.4
	7	10	5.9	4.4	3.4	2.6		7	11	6.2	4.7	3.8	3.0
	30	14	7.8	5.9	4.7	3.7		30	16	8.6	6.5	5.3	4.2
May- Nov.	1	9.4	5.3	3.9	3.0	2.2	Dec.-Feb.	1	34	17	11	7.7	5.0
	7	10	6.0	4.5	3.5	2.6		7	41	19	12	8.3	5.3
	30	13	7.7	6.0	5.0	4.1		30	98	34	18	11	5.8
June-Aug.	1	13	7.6	5.8	4.6	3.6	Mar.- May	1	59	36	27	21	15
	7	15	8.8	6.7	5.3	4.2		7	70	43	32	25	18
	30	26	14	10	8.0	6.2		30	126	72	53	41	31

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	5.9	8.7	13	16	21	26	32	49	77	120	180	290	590
May - Nov.	5.1	7.3	10	13	15	18	21	28	38	53	80	130	270
June - Aug.	6.6	9.2	13	16	19	23	26	34	44	58	83	130	270
Sept.- Nov.	4.2	5.6	7.6	9.4	11	13	15	18	22	29	37	58	130
Dec. - Feb.	9.1	13	19	28	39	53	68	100	140	200	300	470	940
Mar. - May	34	48	63	76	89	100	120	150	190	250	340	500	930

GREAT MIAMI RIVER BASIN

03272200 Elk Creek at Miltonville, Ohio

LOCATION: Lat 39°30'05". long 84°27'35", Butler County, Hydrologic Unit 05080002, at county road bridge at east edge of Miltonville and 1.5 mi upstream from mouth.

DRAINAGE AREA: 46.2 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1960-67 water years.

INDEX STATION: 03272000 Twin Creek near Germantown, Ohio

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.2 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.8	0.3
	30	1.2	0.4
May - Nov.	7	0.8	0.3
	30	1.1	0.4
June - Aug.	7	1.3	0.5
	30	2.8	0.8
Sept.- Nov.	7	0.9	0.3
	30	1.4	0.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.4	0.6	1.1	1.4	2.1
May - Nov.	0.3	0.5	0.8	1.1	1.3
June - Aug.	0.5	0.7	1.1	1.4	1.8
Sept.- Nov.	0.2	0.4	0.5	0.7	0.9

GREAT MIAMI RIVER BASIN

03272300 Dicks Creek near Excello, Ohio

LOCATION: Lat 39°28'25", long 84°23'50", Butler County, Hydrologic Unit 05080002, at Yankee Road Bridge, 0.2 mi south of the city limits of Middletown, 1.3 mi southeast of Excello, and 2.5 mi upstream from mouth.

DRAINAGE AREA: 44.7 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1960-1969 water years.

INDEX STATION: 03272000 Twin Creek near Germantown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 1.4 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	2.0	1.0
	30	2.5	1.3
May - Nov.	7	2.0	1.1
	30	2.4	1.3
June - Aug.	7	2.7	1.4
	30	4.1	2.0
Sept.- Nov.	7	2.1	1.1
	30	2.8	1.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	1.3	1.8	2.4	2.8	3.5
May - Nov.	1.2	1.5	2.0	2.4	2.7
June - Aug.	1.4	1.8	2.4	2.8	3.2
Sept.- Nov.	1.0	1.3	1.6	2.0	2.1

GREAT MIAMI RIVER BASIN

03272800 Sevenmile Creek at Collinsville, Ohio

LOCATION: Lat 39°31'23", long 84°36'39", in SE1/4 sec.14, T.5 N., R.2 E., Butler County, Hydrologic Unit 05080002, on left bank at downstream side of bridge, 0.3 mi north of Collinsville, 1.0 mi downstream from Ninemile Creek, and 5.5 mi upstream from mouth.

DRAINAGE AREA: 120 mi^2.

TRIBUTARY TO: Fourmile Creek.

DISCHARGE DATA USED: July 1960 to September 1972.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 103 ft^3/s (42 years).
Minimum daily discharge: 0.8 ft^3/s September 1960.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	3.5	2.2	1.7	1.4	1.1	Sept.-Nov.	1	3.4	1.9	1.3	1.0	0.7
	7	4.0	2.5	2.0	1.6	1.3		7	3.9	2.1	1.5	1.1	0.8
	30	5.6	3.2	2.3	1.7	1.2		30	6.3	3.1	2.0	1.4	0.8
May- Nov.	1	3.5	2.2	1.7	1.4	1.1	Dec.-Feb.	1	12	5.0	2.8	1.6	0.7
	7	4.0	2.5	2.0	1.6	1.3		7	17	6.5	3.4	1.8	0.8
	30	5.6	3.2	2.3	1.7	1.2		30	29	8.4	4.0	2.1	0.9
June-Aug.	1	5.4	3.3	2.7	2.3	2.0	Mar.- May	1	29	18	13	9.7	6.5
	7	6.4	3.9	3.2	2.7	2.4		7	32	24	22	21	20
	30	9.5	5.4	4.2	3.6	3.1		30	59	40	34	30	27

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.2	3.1	5.2	7.0	8.5	10	13	21	32	47	71	120	210
May - Nov.	2.1	2.6	3.9	5.2	6.3	7.4	8.6	11	15	22	32	50	95
June - Aug.	3.4	4.4	5.6	6.6	7.5	8.6	9.7	13	17	23	31	43	72
Sept.- Nov.	1.6	2.0	2.3	2.7	3.3	4.1	4.9	6.6	8.4	11	14	19	32
Dec. - Feb.	2.2	4.7	7.2	8.6	12	19	25	35	51	67	87	140	260
Mar. - May	25	30	36	42	49	58	67	88	110	140	190	260	470

GREAT MIAMI RIVER BASIN

03274000 Great Miami River at Hamilton, Ohio

LOCATION: Lat 39°23'28", long 84°34'20", in NE1/4 sec.6, T.1 N., R.3 E., Butler County, Hydrologic Unit 05080002, on right bank 1,000 ft downstream from Columbia Bridge at Hamilton, 3 mi downstream from Four Mile Creek, 4.3 mi upstream from Pleasant Run, and at mile 34.8.

DRAINAGE AREA: 3,630 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: October 1930 to September 1976.

REMARKS: Some regulation at low flow by industrial plants upstream from station. Flood flow regulated by five retarding basins upstream from station beginning in 1920. Small diversion about 6 mi upstream from gage for municipal supply of Hamilton. Diversion averaged 0.89 ft^3/s in 1978 and is returned as sewage 1.4 mi downstream from the station. The Miami and Erie Canal diverted water from the basin 1.7 mi upstream from station until Nov. 1, 1930, when the canal was abandoned; amount of diversion not known.

SELECTED DISCHARGE CHARACTERISTICS.-- Average discharge: 3,158 ft^3/s (48 years)
Minimimum daily discharge: 155 ft^3/s September, 1941.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	405	287	239	206	173	Sept.-Nov.	1	423	300	251	216	183
	7	458	335	284	249	214		7	472	345	294	258	223
	30	516	380	327	291	255		30	561	403	344	304	268
May- Nov.	1	415	294	244	208	174	Dec.-Feb.	1	723	448	350	286	229
	7	465	339	287	249	213		7	841	518	404	331	264
	30	525	385	330	291	254		30	1380	687	478	356	256
June-Aug.	1	521	361	298	254	213	Mar.- May	1	1220	793	607	476	353
	7	597	419	350	302	256		7	1420	930	727	586	453
	30	787	516	435	387	348		30	2150	1370	1070	874	691

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	320	390	480	550	630	730	840	1100	1400	2000	2800	4100	7300
May - Nov.	300	360	430	500	550	600	660	810	990	1200	1600	2200	3700
June - Aug.	340	420	500	570	640	720	790	950	1100	1400	1700	2300	3700
Sept.- Nov.	280	320	360	410	460	500	530	600	680	810	980	1200	1800
Dec. - Feb.	350	420	500	610	750	900	1100	1500	2000	2800	3900	5800	11000
Mar. - May	700	940	1200	1500	1700	1900	2100	2700	3300	4000	5100	7200	12000

GREAT MIAMI RIVER BASIN

03274200 Indian Creek near Millville, Ohio

LOCATION: Lat 39°21'45", long 84°38'35", Butler County, Hydrologic Unit 05080002, at Hamilton-New London Road Bridge, 1.9 mi south of Millville, and 4.3 mi upstream from mouth.

DRAINAGE AREA: 102 mi^2.

TRIBUTARY TO: Great Miami River.

DISCHARGE DATA USED: Low-flow measurements 1961-1969 water years.

INDEX STATION: 03272000 Twin Creek near Germantown, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.4 ft^3/s September 1965.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.6	0.1
	30	1.1	0.2
May - Nov.	7	0.6	0.1
	30	0.9	0.2
June - Aug.	7	1.3	0.2
	30	3.9	0.6
Sept.- Nov.	7	0.7	0.1
	30	1.5	0.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.2	0.4	0.9	1.5	2.5
May - Nov.	0.1	0.3	0.6	0.9	1.3
June - Aug.	0.2	0.5	0.9	1.5	2.0
Sept.- Nov.	0.1	0.2	0.3	0.5	0.7

GREAT MIAMI RIVER BASIN

03274600 Great Miami River at New Baltimore, Ohio

LOCATION: Lat 39°15'50", long 84°40'04", Hamilton County, Hydrologic Unit 05080002, at bridge on Blue Rock Road at New Baltimore.

DRAINAGE AREA: 3,814 mi^2.

TRIBUTARY TO: Ohio River.

DISCHARGE DATA USED: Low-flow measurements 1955, 1956, 1959, 1961-1970 water years.

INDEX STATION: 03274000 Great Miami River at Hamilton, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 263 ft^3/s September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	465	270
	30	530	320
May - Nov.	7	475	275
	30	545	320
June - Aug.	7	630	345
	30	860	440
Sept.- Nov.	7	480	280
	30	585	335

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	310	390	490	570	670
May - Nov.	290	350	430	510	570
June - Aug.	330	420	510	600	680
Sept.- Nov.	265	310	350	410	470

MAUMEE RIVER BASIN

04177100 East Branch St. Joseph River near Pioneer, Ohio

LOCATION: Lat 41°39'55", long 84°32'30', Williams County, Hydrologic Unit 04100003, at bridge on U.S. Highway 20, 0.6 mi east of State Route 15, and 1.3 mi southeast of Pioneer.

DRAINAGE AREA: 158 mi^2.

TRIBUTARY TO: Head of Maumee River.

DISCHARGE DATA USED: Low-flow measurements 1955-1956, 1962-1974 water years.

INDEX STATION: 04184500 Bean Creek at Powers, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 4.1 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	9.0	4.1
	30	12	5.6
May - Nov.	7	9.0	4.1
	30	12	5.6
June - Aug.	7	12	6.2
	30	19	7.0
Sept.- Nov.	7	11	6.2
	30	16	6.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.5	9.0	12	16	21
May - Nov.	4.6	7.0	10	12	15
June - Aug.	4.6	7.0	10	12	15
Sept.- Nov.	4.0	5.8	8.0	10	12

MAUMEE RIVER BASIN

04183500 Maumee River at Antwerp, Ohio

LOCATION: Lat 41°11'56", long 84°44'40", in sec. 22, T.3 N., R.1 E., Paulding County, Hydrologic Unit 04100005, on left bank 425 ft downstream from bridge on State Route 49, 1 mi north of Antwerp, 7 mi downstream from Indiana State line and 10 mi upstream from Marie DeLarme Creek.

DRAINAGE AREA: 2,129 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1921 to September 1935, April 1939 to September 1978.

REMARKS: Low flow slightly regulated by power plant at Fort Wayne, Indiana, 32 mi upstream. Flow slightly regulated by upstream reservoirs.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1,684 ft^3/s (53 years).
Minimum daily discharge: 26 ft^3/s July 1933.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	99	66	52	42	33
	7	117	84	70	60	51
	30	152	108	91	80	70
May- Nov.	1	99	66	52	42	33
	7	118	84	70	60	51
	30	154	109	91	80	69
June-Aug.	1	125	83	66	54	43
	7	155	108	90	77	66
	30	237	149	123	107	94
Sept.-Nov.	1	102	68	56	48	41
	7	122	85	72	62	54
	30	166	112	93	81	70
Dec.-Feb.	1	254	152	117	95	75
	7	284	169	130	106	84
	30	565	260	173	123	84
Mar.- May	1	420	248	184	142	105
	7	518	333	266	223	183
	30	1150	640	469	361	268

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	92	120	150	170	200	240	290	420	620	910	1500	2400	4700
May - Nov.	81	100	120	140	160	190	210	270	360	470	710	1100	2200
June - Aug.	93	120	140	160	190	210	240	300	380	490	670	1000	1800
Sept.- Nov.	73	88	110	120	130	150	160	190	240	300	400	640	1400
Dec. - Feb.	130	150	190	220	280	360	440	660	920	1300	2100	3400	6400
Mar. - May	290	390	510	640	780	930	1100	1400	1900	2600	3600	5000	7300

MAUMEE RIVER BASIN

04184500 Bean Creek at Powers, Ohio

LOCATION: Lat 41°40'39", long 84°13'56", in NE1/4 sec. 24, T.9 S., R.1 E., Fulton County, Hydrologic Unit 04100006, on right bank at downstream side of bridge on U.S. Highway 20, 1 mi east of Powers, 2.2 mi upstream from Iron Creek, 3 mi downstream from Silver Creek, and 5.2 mi east of Fayette.

DRAINAGE AREA: 206 mi^2.

TRIBUTARY TO: Maumee River.

DISCHARGE DATA USED: October 1940 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 163 ft^3/s (38 years).
Minimum daily discharge: 5.2 ft^3/s August 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	12	8.4	6.9	5.9	4.9	Sept.-Nov.	1	14	9.2	7.4	6.2	5.0
	7	13	9.2	7.6	6.5	5.5		7	15	10	8.1	6.8	5.6
	30	16	11	9.4	8.0	6.7		30	19	12	9.9	8.4	7.0
May- Nov.	1	12	8.5	6.9	5.9	4.9	Dec.-Feb.	1	32	19	14	12	9.0
	7	13	9.3	7.6	6.5	5.4		7	36	21	16	13	10
	30	16	11	9.4	8.0	6.7		30	58	29	21	15	11
June-Aug.	1	15	9.5	7.6	6.3	5.1	Mar.- May	1	58	37	28	23	17
	7	16	10	8.5	7.2	6.0		7	68	45	36	30	24
	30	21	13	11	9.1	7.6		30	133	85	66	54	42

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	9.3	13	16	19	23	27	31	43	63	94	140	220	400
May - Nov.	8.2	11	14	16	18	20	23	29	37	48	67	100	190
June - Aug.	8.4	11	14	16	18	21	23	29	35	44	56	81	140
Sept.- Nov.	7.5	9.6	12	14	16	17	19	23	28	34	44	62	120
Dec. - Feb.	15	18	22	28	32	38	48	66	92	120	180	280	540
Mar. - May	39	53	70	84	98	110	130	160	200	250	330	440	690

MAUMEE RIVER BASIN

04185000 Tiffin River at Stryker, Ohio

LOCATION: Lat 41°30'16", long 84°25'47", in SW1/4 sec. 5, T.6 N., R.4 E., Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Route 191 at west edge of Stryker, 0.6 mi upstream from Penn Central bridge, and 1.6 mi downstream from Leatherwood Creek.

DRAINAGE AREA: 410 mi^2.

TRIBUTARY TO: Maumee River.

DISCHARGE DATA USED: October 1921 to September 1928, October 1940 to September 1978.

REMARKS: Small diversion about 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 1.58 ft^3/s in 1978 and is returned as sewage to Brush Creek which flows into Tiffin River about 15 mi downstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 312 ft^3/s (45 years).
Minimum daily discharge: 3.9 ft^3/s August, September 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	15	9.3	7.2	5.8	4.5
	7	16	10	8.0	6.5	5.1
	30	21	14	11	9.0	7.2
May- Nov.	1	15	9.3	7.2	5.7	4.4
	7	16	10	8.1	6.5	5.1
	30	21	14	11	9.0	7.2
June-Aug.	1	18	11	8.5	6.6	5.0
	7	21	13	9.5	7.5	5.6
	30	31	19	15	12	9.8
Sept.-Nov.	1	17	10	7.5	5.9	4.5
	7	18	11	8.8	7.2	5.8
	30	25	15	12	9.7	8.1
Dec.-Feb.	1	46	25	18	14	11
	7	54	29	21	17	13
	30	100	44	29	20	14
Mar.- May	1	87	55	43	34	26
	7	102	68	55	46	38
	30	209	124	95	75	58

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	12	16	22	27	32	39	47	70	110	160	250	420	890
May - Nov.	9.9	13	18	21	25	29	33	43	56	78	110	180	350
June - Aug.	11	15	19	22	26	29	32	41	52	68	92	140	260
Sept.- Nov.	8.7	12	15	18	21	23	26	33	42	53	75	110	240
Dec. - Feb.	19	24	31	41	53	66	81	120	170	240	360	600	1200
Mar. - May	61	78	100	130	150	180	210	270	350	460	620	930	1400

MAUMEE RIVER BASIN

04187500 Ottawa River at Allentown, Ohio

LOCATION: Lat 40°45'18', long 84°11'41", in NW1/4 sec. 29, T.3 S., R.6 E., Allen County, Hydrologic Unit 04100007, on left bank at upstream side of bridge on State Route 81 at Allen town, 0.3 mi downstream from Kessler Run, and 1.5 mi upstream from McBride Ditch.

DRAINAGE AREA: 160 mi^2.

TRIBUTARY TO: Auglaize River.

DISCHARGE DATA USED: October 1943 to September 1978.

REMARKS: Diurnal fluctuation and some regulation caused by operation of water-supply and sewage-treatment plants of city of Lima upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 128 ft^3/s (35 years).
Minimum daily discharge: 9.0 ft^3/s January, February 1945.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	15	12	10	9.3	8.4	Sept.-Nov.	1	15	12	11	9.8	8.8
	7	17	14	13	12	11		7	18	15	13	12	11
	30	21	17	15	14	13		30	21	17	16	15	15
May- Nov.	1	15	12	11	9.6	8.6	Dec.-Feb.	1	19	14	12	11	9.1
	7	18	15	13	12	11		7	22	16	14	13	11
	30	21	18	16	15	14		30	36	20	15	13	11
June-Aug.	1	18	15	13	12	11	Mar.- May	1	26	21	18	17	15
	7	21	18	16	15	14		7	31	24	21	19	16
	30	24	20	20	20	20		30	65	40	31	25	20

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	15	17	19	20	22	23	25	29	35	45	66	110	290
May - Nov.	15	17	18	19	20	21	23	25	29	33	40	55	100
June - Aug.	16	18	19	20	21	22	23	26	29	33	39	50	92
Sept.- Nov.	14	15	17	18	18	19	20	22	25	28	32	39	62
Dec. - Feb.	15	17	19	20	22	23	25	31	40	55	86	170	460
Mar. - May	22	25	30	35	40	45	50	65	84	120	170	280	580

MAUMEE RIVER BASIN

04188300 Blanchard River at Mt. Blanchard, Ohio

LOCATION: Lat 40°53'28", long 83°33'50", Hancock County, Hydrologic Unit 04100008, on south boundary of sec. 2, R.2 S., R.11 E., at bridge on State Route 103, 0.6 mi southwest of Mt. Blanchard and 0.4 mi west of intersection with State Route 37.

DRAINAGE AREA: 109 mi^2.

TRIBUTARY TO: Auglaize River.

DISCHARGE DATA USED: Low-flow measurements 1970-1977 water years.

INDEX STATION: 04189000 Blanchard River near Findlay, Ohio.

REMARKS: Prior to 1970 measured at site at bridge on Brooklyn Street, northwest edge of Mt. Blanchard.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0 ft^3/s September 1970.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0
	30	0.3	.1
May - Nov.	7	0.2	0
	30	0.4	.1
June - Aug.	7	0.5	0.1
	30	1.2	0.2
Sept.- Nov.	7	0.2	0
	30	0.5	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.1	0.3	0.4	0.7
May - Nov.	0.0	0.1	0.2	0.3	0.4
June - Aug.	0.1	0.1	0.3	0.5	0.6
Sept.- Nov.	0.0	0.1	0.1	0.2	0.2

MAUMEE RIVER BASIN

04188500 Eagle Creek near Findlay, Ohio

LOCATION: Lat 40°59'35", long 83°39'05", Hancock County, Hydrologic Unit 04100008, on line between sec.1, T.1 S., R.10 E., and sec.36, T.1 N., R.10 E.,on right bank at downstream side of highway bridge, 3.3 mi south of Findlay, and 4.3 mi upstream from mouth.

DRAINAGE AREA: 55 mi^2.

TRIBUTARY TO: Blanchard River

DISCHARGE DATA USED: January 1947 to July 1957.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 44.7 ft^3/s (10 years).
Minimum daily discharge: No flow for many days.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.8	0.1	0	0	0
Sept.-Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0	0	0	0	0
Dec.-Feb.	1	1.2	0	0	0	0
	7	1.9	0.5	0	0	0
	30	6.3	0.7	0.2	0.1	0
Mar.- May	1	3.6	2.2	1.5	1.1	0.7
	7	4.9	3.0	2.1	1.5	1.0
	30	21	9.5	6.0	4.1	2.6

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0.1	0.1	0.2	0.6	1.1	2.8	6.0	11	21	41	100
May - Nov.	0	0	0	0.1	0.1	0.1	0.2	0.7	1.6	3.2	5.9	12	33
June - Aug.	0	0	0.1	0.1	0.1	0.2	0.4	0.8	1.5	2.6	4.0	7.2	17
Sept.- Nov.	0	0	0	0	0.1	0.1	0.1	0.1	0.3	1.0	2.5	6.4	22
Dec. - Feb.	0.1	0.2	0.7	1.1	2.0	2.8	4.9	7.7	14	23	42	84	190
Mar. - May	2.5	4.6	6.1	7.7	9.5	12	15	20	28	39	60	98	190

MAUMEE RIVER BASIN

04189000 Blanchard River near Findlay, Ohio

LOCATION: Lat 41°03'21", long 83°41'17", on east line of sec. 10, T.1 N., R.10 E., Hancock County, Hydrologic Unit 04100008, on left bank at upstream side of county road bridge, 2 mi west of Findlay, 3 mi downstream from Eagle Creek, and 3 mi upstream from Aurand Run.

DRAINAGE AREA: 346 mi^2.

TRIBUTARY TO: Auglaize River.

DISCHARGE DATA USED: October 1923 to December 1935, October 1940 to September 1978.

REMARKS: Water is diverted upstream from station into Findlay Reservoir. Storage in Findlay Reservoir used for water supply of city of Findlay, and is available for low-flow augmentation. All water returns to stream upstream from station. No releases have been made for low-flow augmentation.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 244 ft^3/s (50 years).
Minimum daily discharge: 0.4 ft^3/s August, September 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	5.3	2.6	1.7	1.2	0.7
	7	6.4	3.3	2.3	1.6	1.1
	30	9.1	4.7	3.2	2.4	1.6
May- Nov.	1	5.2	2.5	1.6	1.1	0.7
	7	6.4	3.3	2.2	1.6	1.1
	30	9.2	4.7	3.2	2.3	1.6
June-Aug.	1	8.3	3.9	2.4	1.6	0.9
	7	11	5.2	3.3	2.1	1.2
	30	20	8.7	5.5	3.7	2.3
Sept.-Nov.	1	5.6	2.6	1.7	1.2	0.7
	7	6.7	3.4	2.4	1.8	1.4
	30	11	5.3	3.7	2.7	1.9
Dec.-Feb.	1	16	7.9	5.4	3.9	2.7
	7	20	9.6	6.5	4.6	3.2
	30	51	17	9.2	5.7	3.3
Mar.- May	1	35	21	15	11	7.7
	7	43	27	21	17	13
	30	105	54	38	28	20

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.2	5.3	7.7	10	14	17	21	33	50	77	130	240	600
May - Nov.	2.6	4.0	6.0	7.6	9.5	12	14	20	28	39	59	99	230
June - Aug.	2.8	5.3	7.9	11	13	15	18	24	31	40	57	89	190
Sept.- Nov.	2.3	3.1	4.4	5.5	6.6	7.5	8.5	12	16	21	30	52	140
Dec. - Feb.	5.9	7.6	11	15	20	25	32	49	74	120	200	390	990
Mar. - May	23	31	43	52	61	72	84	120	160	230	340	580	1100

MAUMEE RIVER BASIN

04189500 Blanchard River at Glandorf, Ohio

LOCATION: Lat 41°02'40", long 84°04'55", Putnam County, Hydrologic Unit 04100008, in NE1/4 sec.17, T.1 N., R.7 E., near center of span on upstream side of highway bridge 0.5 mi upstream from Pike Run and 0.8 mi north of Glandorf.

DRAINAGE AREA: 644 mi^2.

TRIBUTARY TO: Auglaize River.

DISCHARGE DATA USED: September 1921 to July 1928, February 1947 to December 1951.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 595 ft^3/s (10 years).
Minimum daily discharge: 0.3 ft^3/s October 1951.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	11	7.0	5.5	4.4	3.4
	7	13	9.5	8.0	6.9	5.8
	30	20	16	14	12	11
May- Nov.	1	11	4.1	1.8	0.7	0.2
	7	13	7.0	4.3	2.7	1.4
	30	20	13	9.9	7.8	5.9
June-Aug.	1	13	8.3	6.3	4.9	3.5
	7	15	9.9	8.0	6.6	5.3
	30	35	21	17	14	11
Sept.-Nov.	1	13	4.7	2.0	0.8	0.2
	7	15	7.6	4.5	2.7	1.3
	30	24	14	11	10	9.0
Dec.-Feb.	1	50	27	19	14	10
	7	71	34	22	15	9.5
	30	192	88	59	44	31
Mar.- May	1	78	50	38	31	24
	7	93	58	45	36	28
	30	301	120	71	44	25

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	12	17	22	27	35	47	63	100	160	250	430	810	2000
May - Nov.	7.2	12	16	20	23	26	31	44	67	100	150	250	670
June - Aug.	9.5	13	17	20	24	29	34	48	65	86	120	180	370
Sept.- Nov.	5.9	9.1	14	17	19	21	23	27	38	61	120	200	520
Dec. - Feb.	23	42	73	93	120	150	190	260	350	540	850	1600	3000
Mar. - May	42	60	85	110	140	180	220	300	430	630	960	1600	2800

MAUMEE RIVER BASIN

04191500 Auglaize River near Defiance, Ohio

LOCATION: Lat 41°14'15", long 84°23'57", in NE1/4 sec.9, T.3 N., R.4 E., Defiance County, Hydrologic Unit 04100007, on right bank 125 ft downstream from dam of Toledo Edison Co., 0.2 mi upstream from Jackson ditch, and 3 mi south of Defiance.

DRAINAGE AREA: 2,318 mi^2.

TRIBUTARY TO: Maumee River.

DISCHARGE DATA USED: October 1915 to September 1978.

REMARKS: Flow regulated by dam at former powerplant 125 ft upstream from station; reservoir capacity, 9,800 acre-ft, operation of plant discontinued Jan. 10, 1963; occasional gate operation subsequently. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 1,705 ft^3/s (63 years).
Minimum daily discharge: 0.5 ft^3/s October 1952 during repairs to powerplant dam.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	26	12	6.4	3.6	1.4
	7	36	18	11	6.0	2.5
	30	63	31	20	13	8.0
May- Nov.	1	28	13	7.1	3.9	1.5
	7	37	19	12	7.2	3.8
	30	64	36	26	19	13
June-Aug.	1	35	22	18	15	12
	7	56	36	29	24	21
	30	124	65	48	38	29
Sept.-Nov.	1	31	14	7.6	4.1	1.8
	7	38	18	11	7.3	4.3
	30	66	34	26	21	18
Dec.-Feb.	1	44	18	12	8.0	5.4
	7	122	42	22	13	6.5
	30	378	111	55	30	14
Mar.- May	1	69	31	22	17	12
	7	269	124	77	50	29
	30	876	402	258	175	110

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	20	27	36	44	59	87	130	240	380	630	1100	2100	4700
May - Nov.	19	25	31	37	42	50	63	110	190	300	470	820	1900
June - Aug.	25	29	36	42	51	63	85	140	220	320	460	750	1600
Sept.- Nov.	13	20	26	30	34	38	42	58	90	140	230	420	1100
Dec. - Feb.	18	30	45	73	120	180	260	420	640	1000	1800	3300	6900
Mar. - May	40	130	250	350	450	550	670	960	1400	2100	3100	4800	8600

MAUMEE RIVER BASIN

04193500 Maumee River at Waterville, Ohio

LOCATION: Lat 41°30'00", long 83°42'46", Lucas County, Hydrologic Unit 04100009, on downstream side of second pier from left end of bridge on State Route 64 at Waterville, 3 mi downstream from Tontogany Creek, and 20.7 mi upstream from mouth.

DRAINAGE AREA: 6,330 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: Low flow slightly regulated by power plants upstream from station. Small diversion upstream from gage into Portage River basin.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 4,922 ft^3/s (39 years).
Minimum daily discharge: 26 ft^3/s October 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	147	82	57	41	27
	7	201	124	95	74	56
	30	264	169	136	114	94
May- Nov.	1	147	82	57	41	27
	7	201	124	94	73	55
	30	268	170	136	113	93
June-Aug.	1	225	146	117	96	77
	7	298	197	158	133	109
	30	492	289	232	198	171
Sept.-Nov.	1	153	85	59	42	28
	7	207	124	93	73	55
	30	284	168	137	120	107
Dec.-Feb.	1	436	235	169	128	95
	7	527	282	205	158	119
	30	1220	466	279	183	113
Mar.- May	1	878	531	400	313	235
	7	1130	751	613	521	435
	30	3190	1770	1270	910	620

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	140	190	250	310	390	490	610	960	1500	2300	3900	7000	14000
May - Nov.	120	160	210	250	300	360	420	580	810	1200	1800	3100	6300
June - Aug.	170	210	260	320	380	440	510	680	930	1300	1800	2800	5500
Sept.- Nov.	100	130	160	190	210	240	280	360	460	620	880	1500	3500
Dec. - Feb.	190	230	300	380	510	650	850	1400	2000	3200	5400	9900	19000
Mar. - May	660	890	1200	1600	2000	2300	2700	3900	5400	7400	11000	15000	22000

PORTAGE RIVER BASIN

04195500 Portage River at Woodville, Ohio

LOCATION: Lat 41°26'58", long 83°21'41", in sec. 28, T.6 N., R.13 E., Sandusky County, Hydrologic Unit 04100010, on left bank at upstream side of bridge on U.S. Highway 20 in Woodville, 600 ft downstream from unnamed right bank tributary, and 10.3 mi upstream from Sugar Creek.

DRAINAGE AREA: 428 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1951 to September 1978.

REMARKS: Flow supplemented by water imported from Maumee River basin for municipal supply for city of Bowling Green 16 mi upstream. The importation of this water began Sept. 1, 1951.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 318 ft^3/s (27 years).
Minimum daily discharge: 1.8 ft^3/s September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	5.1	3.2	2.5	2.0	1.5
	7	6.3	4.1	3.2	2.6	2.0
	30	8.2	5.5	4.6	4.1	3.6
May- Nov.	1	5.2	3.3	2.6	2.1	1.6
	7	6.4	4.3	3.4	2.8	2.2
	30	8.5	5.7	4.8	4.3	3.8
June-Aug.	1	6.6	4.4	3.6	3.1	2.7
	7	8.3	5.9	4.9	4.0	3.2
	30	17	10	8.5	7.6	6.9
Sept.-Nov.	1	5.1	3.2	2.6	2.2	2.0
	7	6.6	4.2	3.3	2.7	2.1
	30	11	6.2	4.8	3.9	3.2
Dec.-Feb.	1	18	7.5	4.5	3.0	1.8
	7	23	9.2	5.6	3.7	2.2
	30	58	17	9.0	5.2	2.8
Mar.- May	1	46	26	19	13	8.9
	7	56	33	24	18	13
	30	158	89	65	49	36

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.4	6.2	8.2	11	13	17	22	37	63	100	170	330	800
May - Nov.	3.8	5.5	7.2	8.6	10	12	14	20	29	46	74	130	320
June - Aug.	5.1	6.7	8.1	10	12	14	16	23	32	47	69	110	270
Sept.- Nov.	3.1	4.3	5.8	6.9	7.9	9.0	10	13	17	32	33	59	170
Dec. - Feb.	5.0	6.7	9.7	13	20	30	40	64	100	150	260	510	1200
Mar. - May	28	44	62	77	92	110	130	170	240	330	500	820	1700

SANDUSKY RIVER BASIN

04196000 Sandusky River near Bucyrus, Ohio

LOCATION: Lat 40°48'13", long 83°00'21", in NE1/4 sec.10, T.3 S., R.16 E., Crawford County, Hydrologic Unit 04100111, on right bank at downstream side of bridge on township road, 1 mi upstream from unnamed left bank tributary, 1.5 mi west of Bucyrus, and 12 mi downstream from Loss Creek.

DRAINAGE AREA: 88.8 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: September 1925 to November 1935, August 1938 to December 1951, January 1964 to September 1978.

REMARKS: Low flow slightly affected by operation of reservoirs 5.3 mi to 6.0 mi upstream from station, for municipal supply of Bucyrus.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 84.9 ft^3/s (2.4 m^3/s) (37 years).
Minimum daily discharge: 0.6 ft^3/s September 1941, 1946.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.7	1.0	0.8	0.7	0.5
	7	2.4	1.4	1.1	0.9	0.7
	30	3.8	2.3	1.7	1.4	1.1
May- Nov.	1	1.7	1.0	0.8	0.7	0.5
	7	2.4	1.5	1.1	0.9	0.7
	30	3.9	2.3	1.8	1.4	1.1
June-Aug.	1	2.1	1.3	1.1	0.9	0.7
	7	3.1	1.9	1.5	1.2	0.9
	30	6.1	3.1	2.3	1.8	1.3
Sept.-Nov.	1	1.9	1.1	0.9	0.7	0.6
	7	2.7	1.5	1.2	1.0	0.8
	30	5.0	2.5	1.8	1.5	1.2
Dec.-Feb.	1	6.8	2.9	1.8	1.2	0.7
	7	9.5	4.1	2.4	1.5	0.9
	30	30	8.8	4.3	2.2	1.0
Mar.- May	1	11	5.9	3.8	2.4	1.3
	7	15	8.3	5.8	4.1	2.7
	30	36	17	11	7.7	5.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.3	2.0	3.0	3.9	5.0	6.5	8.2	14	21	34	54	90	190
May - Nov.	1.2	1.7	2.4	3.0	3.5	4.2	4.9	6.9	9.9	14	22	39	86
June - Aug.	1.2	1.8	2.5	3.1	3.7	4.3	5.0	6.6	8.7	12	17	29	64
Sept.- Nov.	1.1	1.4	2.0	2.5	2.9	3.3	3.8	5.0	6.8	10	16	29	68
Dec. - Feb.	1.3	2.6	5.2	9.0	12	15	18	27	39	56	82	140	330
Mar. - May	6.8	10	15	19	23	28	33	45	60	80	110	170	320

SANDUSKY RIVER BASIN

04196200 Broken Sword Creek at Nevada, Ohio

LOCATION: Lat 40°49'34", long 83°09'11", Wyandot County, Hydrologic Unit 04100011, at bridge on State Route 182, 1.0 mi northwest of Nevada and 5.0 mi upstream from mouth.

DRAINAGE AREA: 83.8 mi^2.

TRIBUTARY TO: Sandusky River.

DISCHARGE DATA USED: Low-flow measurements 1959, 1962-1965, 1967, 1969-1971 water years.

INDEX STATION: 04196500 Sandusky River near Upper Sandusky, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0 ft^3/s October 1963, September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0
	30	0.6	0.1
May - Nov.	7	0.2	0
	30	0.6	0.1
June - Aug.	7	0.5	0.1
	30	1.6	0.3
Sept.- Nov.	7	0.3	0
	30	0.9	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.2	0.5	0.9	1.4
May - Nov.	0.1	0.1	0.3	0.5	0.7
June - Aug.	0.1	0.2	0.4	0.6	0.9
Sept.- Nov.	0.0	0.1	0.2	0.2	0.4

SANDUSKY RIVER BASIN

04196500 Sandusky River near Upper Sandusky, Ohio

LOCATION: Lat 40°51'02", long 83°15'23", in sec. 21, T.2 S., R.14 E., Wyandot County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 0.7 mi downstream from unnamed right bank tributary, 0.8 mi upstream from Rock Run, and 2 mi northeast of Upper Sandusky.

DRAINAGE AREA: 298 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1921 to September 1935, April 1938 to September 1976.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 242 ft^3/s (54 years).
Minimum daily discharge: 0.6 ft^3/s September 1955, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.0	2.0	1.3	0.9	0.6
	7	5.1	2.5	1.7	1.2	0.8
	30	8.4	4.1	2.8	2.0	1.3
May- Nov.	1	4.0	2.0	1.3	0.9	0.6
	7	5.1	2.5	1.7	1.2	0.8
	30	8.4	4.1	2.8	2.0	1.3
June-Aug.	1	5.8	3.0	2.1	1.6	1.2
	7	7.6	4.0	2.8	2.1	1.5
	30	15	7.8	5.8	4.6	3.7
Sept.-Nov.	1	4.6	2.1	1.4	1.0	0.6
	7	5.8	2.7	1.8	1.3	0.9
	30	11	4.4	2.9	2.1	1.5
Dec.-Feb.	1	22	9.5	6.0	4.1	2.6
	7	29	12	7.5	4.9	3.1
	30	77	25	13	7.4	3.9
Mar.- May	1	41	24	18	13	9.6
	7	52	31	23	18	13
	30	109	56	39	29	21

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.9	4.8	7.7	11	14	18	23	37	59	98	160	280	610
May - Nov.	2.3	3.6	5.5	7.5	9.5	12	14	20	28	40	62	110	240
June - Aug.	3.0	4.5	6.6	8.7	11	13	16	21	28	38	55	91	200
Sept.- Nov.	1.7	2.6	4.0	5.2	6.7	8.2	9.7	13	17	23	33	58	160
Dec. - Feb.	6.4	9.4	14	20	29	38	50	80	120	180	270	470	1000
Mar. - May	25	37	50	63	76	90	110	140	190	260	370	570	1000

SANDUSKY RIVER BASIN

04197000 Sandusky River near Mexico, Ohio

LOCATION: Lat 41°02'39", long 83°11'42", in sec.13, T.1 N., R.14 E., Seneca County, Hydrologic Unit 0410011, on right bank at downstream side of county road bridge, 4.1 mi upstream from Honey Creek, 4.2 mi north of Mexico, 4.9 mi south of Tiffin, and 6.3 mi downstream from Mile Run.

DRAINAGE AREA: 774 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: March 1923 to December 1935, August 1938 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 577 ft^3/s (52 years).
Minimum daily discharge: 2.0 ft^3/s October 1943.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	14	7.5	5.4	4.1	3.0	Sept.-Nov.	1	16	8.4	6.0	4.5	3.3
	7	16	9.8	7.6	6.2	4.9		7	17	9.8	7.8	6.7	5.7
	30	23	14	11	9.3	7.6		30	26	14	11	9.7	8.5
May- Nov.	1	14	7.5	5.4	4.1	3.0	Dec.-Feb.	1	56	29	20	15	11
	7	16	9.8	7.6	6.2	4.9		7	70	34	23	17	12
	30	23	14	11	9.3	7.6		30	163	58	34	21	13
June-Aug.	1	19	11	8.5	6.7	5.1	Mar.- May	1	91	59	47	38	30
	7	24	15	12	9.5	7.7		7	110	70	55	45	36
	30	40	24	19	16	14		30	236	122	88	67	49

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	12	17	23	30	37	46	57	86	140	220	360	650	1600
May - Nov.	10	14	18	23	27	32	38	50	67	93	140	250	550
June - Aug.	13	17	22	26	31	37	43	55	72	96	140	220	460
Sept.- Nov.	8.6	11	14	17	20	23	26	34	42	54	74	130	330
Dec. - Feb.	22	28	37	50	66	84	110	170	260	390	600	1100	2700
Mar. - May	58	79	110	130	160	190	230	320	440	600	920	1500	2800

SANDUSKY RIVER BASIN

04198000 Sandusky River near Fremont, Ohio

LOCATION: Lat 41°18'28", long 83°09'32", in sec.17, T.4 N., R.15 E., Sandusky County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 2.3 mi upstream from Ballville diversion dam, 2.5 mi downstream from Wolf Creek, and 3.5 mi southwest of Fremont.

DRAINAGE AREA: 1,251 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1923 to September 1935, August 1938 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 956 ft^3/s (52 years).
Minimum daily discharge: 5.0 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	21	13	10	8.0	6.1
	7	26	16	12	9.6	7.3
	30	35	22	17	14	11
May- Nov.	1	21	13	10	8.0	6.1
	7	26	16	12	9.6	7.3
	30	36	22	17	14	11
June-Aug.	1	29	19	16	13	11
	7	36	24	20	17	15
	30	70	41	32	26	22
Sept.-Nov.	1	24	14	10	8.0	6.0
	7	28	16	12	9.6	7.2
	30	39	21	17	15	13
Dec.-Feb.	1	92	46	31	23	16
	7	109	52	35	25	17
	30	267	91	52	32	19
Mar.- May	1	164	96	71	54	39
	7	200	125	97	79	62
	30	441	233	166	126	92

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	19	26	36	45	55	68	86	140	230	370	590	1100	2600
May - Nov.	15	21	28	35	41	48	56	76	110	160	250	430	920
June - Aug.	21	26	34	42	50	58	66	88	120	160	230	370	760
Sept.- Nov.	12	16	22	26	31	35	39	49	61	78	110	210	560
Dec. - Feb.	33	41	55	74	100	140	180	290	430	640	1100	1900	4400
Mar. - May	100	140	200	250	290	350	400	540	740	1100	1600	2500	4500

HURON RIVER BASIN

04198020 West Branch Huron River near Monroeville, Ohio

LOCATION: Lat 41°16'40", long 82°40'30", Huron County, Hydrologic Unit 04100012, at bridge on Lamoreaux Road, 2.5 mi northeast of Monroeville.

DRAINAGE AREA: 220 mi^2.

TRIBUTARY TO: Head of Huron River.

DISCHARGE DATA USED: Low-flow measurements 1960-1967, 1970-1978 water years.

INDEX STATION: 04199000 Huron River at Milan, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.7 ft^3/s October 1973.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	5.3	1.0
	30	9.0	2.3
May - Nov.	7	5.3	1.0
	30	9.0	2.2
June - Aug.	7	9.0	2.3
	30	16	6.5
Sept.- Nov.	7	6.5	1.0
	30	11	2.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	2.4	5.3	9.0	12	14
May - Nov.	1.7	3.5	6.5	9.0	10
June - Aug.	2.6	4.4	7.9	9.5	11
Sept.- Nov.	1.2	2.0	4.6	7.9	8.3

HURON RIVER BASIN

04198500 East Branch Huron River near Norwalk, Ohio

LOCATION: Lat 41°14'58", long 80°38'52", Huron County, Hydrologic Unit 04100012, at highway bridge 1.3 mi northwest of Norwalk and 1.5 mi below mouth of Cole Creek.

DRAINAGE AREA: 85.5 mi^2.

TRIBUTARY TO: West Branch Huron River.

DISCHARGE DATA USED: November 1923 to September 1935.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 62.8 ft^3/s (11 years).
Minimum daily discharge: 0.2 ft^3/s July 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	2.0	0.8	0.4	0.2	0.1	Sept.-Nov.	1	2.7	1.5	1.0	0.7	0.5
	7	2.4	1.0	0.6	0.4	0.2		7	3.4	1.8	1.4	1.1	0.8
	30	3.6	1.8	1.2	0.9	0.6		30	5.3	3.0	2.2	1.6	1.1
May- Nov.	1	2.0	0.8	0.4	0.2	0.1	Dec.-Feb.	1	11	6.4	5.0	4.0	3.2
	7	2.4	1.0	0.6	0.4	0.2		7	12	6.8	5.1	4.0	3.0
	30	3.6	1.8	1.2	0.9	0.6		30	27	12	8.1	5.6	3.7
June-Aug.	1	2.2	0.9	0.5	0.2	0.1	Mar.- May	1	11	6.8	5.0	3.7	2.6
	7	2.7	1.2	0.7	0.4	0.2		7	12	7.4	5.7	4.5	3.5
	30	4.9	2.1	1.4	1.0	0.7		30	20	10	7.9	6.6	5.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.4	2.3	3.5	4.6	5.7	6.9	8.3	12	17	24	39	64	150
May - Nov.	1.0	1.7	2.6	3.3	3.9	4.6	5.3	6.7	8.6	11	16	27	66
June - Aug.	0.6	1.3	1.9	2.6	3.2	3.9	4.5	5.7	7.1	9.0	12	20	58
Sept.- Nov.	1.4	2.0	3.0	3.5	4.1	4.7	5.3	6.4	7.7	9.2	13	23	57
Dec. - Feb.	5.2	7.6	11	13	15	17	19	25	36	48	69	120	270
Mar. - May	6.2	9.0	12	14	16	19	21	27	35	49	69	110	220

HURON RIVER BASIN

04199000 Huron River at Milan, Ohio

LOCATION: Lat 41°18'06", long 82°36'25", in SW1/4 sec.4, T.5 N., R.22 W., Erie County Hydrologic Unit 04100012, on right bank 500 ft downstream from bridge on U.S. Highway 250, 0.2 mi northwest of Milan and 2.0 mi downstream from confluence of East and West Branches.

DRAINAGE AREA: 371 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: April 1950 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 300 ft^3/s (28 years).
Minimum daily discharge: 3.0 ft^3/s September 1955.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	8.4	5.0	3.8	3.1	2.4
	7	10	6.0	4.6	3.7	2.9
	30	14	8.3	6.8	5.8	5.1
May- Nov.	1	8.4	5.0	3.8	3.1	2.4
	7	10	6.0	4.6	3.7	2.9
	30	14	8.4	6.7	5.7	4.9
June-Aug.	1	11	6.5	5.0	4.1	3.2
	7	14	8.5	6.8	5.7	4.7
	30	27	15	11	8.9	7.0

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Sept.-Nov.	1	9.1	5.1	3.8	3.0	2.3
	7	11	6.3	4.7	3.7	2.8
	30	17	9.1	7.0	5.9	5.0
Dec.-Feb.	1	33	17	12	8.5	5.8
	7	41	20	14	9.8	6.6
	30	94	35	21	14	8.3
Mar.- May	1	50	33	26	22	18
	7	66	42	33	27	21
	30	156	91	68	54	41

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	7.0	10	14	19	23	28	34	52	79	120	190	320	690
May - Nov.	6.0	8.3	11	14	16	19	23	30	40	57	83	140	270
June - Aug.	7.2	9.2	12	13	18	21	24	32	41	54	76	120	260
Sept.- Nov.	5.0	6.5	9.4	12	13	15	17	21	27	36	50	75	150
Dec. - Feb.	13	19	26	32	41	54	64	93	140	190	280	480	1100
Mar. - May	37	54	71	88	110	120	140	180	240	320	430	670	1300

VERMILION RIVER BASIN

04199300 Vermilion River at Clarksfield, Ohio

LOCATION: Lat 41°11'45", long 82°24'55", Huron County, Hydrologic Unit 04100012, at bridge on Zenobia Road at Clarksfield.

DRAINAGE AREA: 130 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: Low-flow measurements 1960, 1962-1967, 1970-1971 water years.

INDEX STATION: 04199500 Vermilion River near Vermilion, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: No flow October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	0.2	0
	30	0.5	0
May - Nov.	7	0.2	0
	30	0.5	0
June - Aug.	7	0.5	0.1
	30	1.8	0.4
Sept.- Nov.	7	0.3	0
	30	0.9	0.1

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.1	0.3	0.5	0.9	1.5
May - Nov.	0	0.2	0.3	0.5	0.7
June - Aug.	0.1	0.2	0.4	0.6	0.9
Sept.- Nov.	0	0	0.2	0.3	0.4

VERMILION RIVER BASIN

04199500 Vermilion River near Vermilion, Ohio

LOCATION: Lat 41°22'55", long 82°19'01", in T.6 N., R.19 W., Lorain County, Hydrologic Unit 04100012, on right bank 40 ft downstream from bridge on North Ridge Road, 3.5 mi southeast of Vermilion and 4.5 mi upstream from mouth.

DRAINAGE AREA: 262 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: April 1950 to September 1978.

REMARKS: None

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 262 ft^3/s (28 years).
Minimum daily discharge: No flow at times in many years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	1.1	0.2	0	0	0
	7	1.5	0.3	0.1	0	0
	30	3.3	0.9	0.3	0.1	0
May- Nov.	1	1.1	0.2	0	0	0
	7	1.5	0.3	0.1	0	0
	30	3.3	0.9	0.3	0.1	0
June-Aug.	1	1.9	0.5	0.2	0.1	0
	7	3.1	0.9	0.4	0.2	0.1
	30	11	3.9	2.2	1.4	0.8
Sept.-Nov.	1	1.2	0.2	0.1	0	0
	7	1.7	0.3	0.1	0	0
	30	5.3	1.1	0.4	0.1	0
Dec.-Feb.	1	25	8.8	4.7	2.6	1.3
	7	32	11	6.0	3.3	1.5
	30	81	22	11	3.4	2.4
Mar.- May	1	28	17	13	10	8.0
	7	38	22	16	13	9.9
	30	120	63	44	32	23

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.6	1.6	3.2	5.6	8.7	13	17	31	54	89	150	260	600
May - Nov.	0.2	1.0	1.9	2.9	4.2	5.7	7.5	13	21	33	52	95	220
June - Aug.	0.6	1.4	2.7	3.9	5.3	6.8	8.8	13	19	28	43	74	170
Sept.- Nov.	0	0.3	1.2	1.8	2.5	3.1	4.1	6.7	11	18	32	56	140
Dec. - Feb.	5.3	9.3	14	20	28	39	51	74	110	160	260	470	1000
Mar. - May	19	30	44	57	72	86	100	140	190	260	380	600	1200

BLACK RIVER BASIN

04200000 East Branch Black River at Elyria, Ohio

LOCATION: Lat 41°20'55", long 82°05'40", Lorain County, Hydrologic Unit 04110001, at Fuller Street Bridge, 1.3 mi southeast of center of Elyria, and 3.0 mi above junction with West Branch.

DRAINAGE AREA: 217 mi^2.

TRIBUTARY TO: Head of Black River.

DISCHARGE DATA USED: August 1922 to November 1935.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 178 ft^3/s (13 years).
Minimum daily discharge: No flow several days in August 1930 and in August and September 1933.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.2	0.1	0	0	0
	7	0.4	0.1	0	0	0
	30	1.5	0.3	0.1	0.1	0
May- Nov.	1	0.3	0.1	0	0	0
	7	0.5	0.1	0	0	0
	30	1.6	0.4	0.1	0.1	0
June-Aug.	1	0.4	0.1	0	0	0
	7	1.3	0.2	0	0	0
	30	3.9	1.0	0.4	0.2	0.1
Sept.-Nov.	1	0.3	0.1	0	0	0
	7	0.3	0.1	0.1	0	0
	30	1.8	0.4	0.3	0.2	0.1
Dec.-Feb.	1	8.6	3.6	2.3	1.6	1.0
	7	11	4.6	2.9	1.9	1.3
	30	47	14	7.2	4.0	2.0
Mar.- May	1	10	4.1	2.3	1.3	0.7
	7	15	8.8	6.7	5.4	4.2
	30	45	20	14	11	8.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.2	0.4	1.3	2.7	4.1	5.3	6.9	13	26	47	85	170	460
May - Nov.	0.1	0.3	0.6	1.1	1.9	2.8	3.7	5.4	7.7	13	23	51	150
June - Aug.	0.1	0.3	0.8	1.4	2.1	2.9	3.8	5.1	6.7	9.4	15	29	86
Sept.- Nov.	0.1	0.2	0.4	0.6	0.9	1.5	2.2	3.6	4.9	7.4	13	30	120
Dec. - Feb.	3.8	5.4	7.4	11	17	22	29	41	70	100	180	340	790
Mar. - May	8.2	12	17	22	27	34	42	58	82	120	190	310	710

BLACK RIVER BASIN

04200500 Black River at Elyria, Ohio

LOCATION: Lat 41°22'49", long 82°06'17", in T.6 N., R.17 W., Lorain County, Hydrologic Unit 04110001, on left bank in Cascade Park at Elyria, 0.8 mi downstream from confluence of East and West Branches.

DRAINAGE AREA: 396 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1944 to September 1978.

REMARKS: Some regulation at low flow for industrial use.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 322 ft^3/s (34 years).
Minimum daily discharge: 0.6 ft^3/s October 1945.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	5.0	3.0	2.3	1.6	1.3	Sept.-Nov.	1	5.1	3.0	2.2	1.8	1.4
	7	7.2	4.7	3.6	2.9	2.2		7	7.5	4.6	3.6	3.0	2.4
	30	9.7	6.1	4.5	4.0	3.3		30	12	6.4	5.0	4.3	3.7
May- Nov.	1	5.0	3.0	[illegible].2	1.6	1.2	Dec.-Feb.	1	26	12	7.8	5.5	3.6
	7	7.2	4.7	3.6	2.9	2.2		7	32	15	9.6	6.7	4.4
	30	9.8	6.1	4.8	4.0	3.3		30	83	27	15	9.1	5.1
June-Aug.	1	7.3	4.8	3.9	3.2	2.7	Mar.- May	1	35	22	17	14	11
	7	9.6	6.4	5.3	4.5	3.8		7	46	29	23	18	14
	30	19	11	8.2	6.6	5.1		30	176	90	60	41	26

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	5.2	7.3	9.8	13	17	21	25	40	65	110	190	340	800
May - Nov.	4.3	5.9	7.9	9.5	11	14	16	22	30	43	65	120	290
June - Aug.	5.3	7.3	8.9	11	13	15	17	23	29	39	55	88	210
Sept.- Nov.	3.3	4.8	6.3	7.5	8.7	9.9	11	15	19	26	39	67	180
Dec. - Feb.	6.9	11	18	25	33	43	54	82	120	190	300	540	1200
Mar. - May	25	37	55	73	91	110	130	180	250	340	500	830	1600

ROCKY RIVER BASIN

04201400 West Branch Rocky River at West View, Ohio

LOCATION: Lat 41°21'00", long 81°54'15", Cuyahoga County, Hydrologic Unit 04110001, at bridge on State Route 252 at West View.

DRAINAGE AREA: 147 mi^2.

TRIBUTARY TO: Head of Rocky River.

DISCHARGE DATA USED: Low-flow measurements 1951, 1961, 1962-1967, 1971-1974 water years.

INDEX STATION: 04201500 Rocky River near Berea, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 0.3 ft^3/s October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	1.7	0.3
	30	3.4	0.6
May - Nov.	7	1.7	0.3
	30	3.4	0.6
June - Aug.	7	2.3	0.4
	30	6.1	1.1
Sept.- Nov.	7	2.3	0.4
	30	4.8	0.8

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	0.7	1.5	2.6	3.9	5.7
May - Nov.	0.5	0.9	1.7	2.4	3.1
June - Aug.	0.4	0.9	1.7	2.3	2.9
Sept.- Nov.	0.4	0.8	1.4	1.9	2.5

ROCKY RIVER BASIN

04201500 Rocky River near Berea, Ohio

LOCATION: Lat 41°24'24", long 81°53'14", in T.6 N., R.15 W., Cuyahoga County Hydrologic Unit 04110001, on right bank at downstream side of Cedar Point Road Bridge in Rocky River Reservation, just downstream from confluence of East and West Branches, and 3.0 mi northwest of Berea.

DRAINAGE AREA: 267 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: November 1923 to September 1935, October 1943 to September 1978.

REMARKS: Some regulation at low flow by small reservoirs on East Branch.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 257 ft^3/s (46 years).
Minimum daily discharge: 0.2 ft^3/s September 1932, August 1933.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	4.3	1.6	0.9	0.5	0.2
	7	5.5	2.4	1.4	0.8	0.4
	30	9.8	4.1	2.4	1.4	0.7
May- Nov.	1	4.3	1.6	0.9	0.5	0.2
	7	5.5	2.4	1.4	0.8	0.4
	30	9.8	4.1	2.4	1.4	0.7
June-Aug.	1	5.2	2.1	1.2	0.6	0.3
	7	7.1	2.8	1.6	0.9	0.4
	30	16	6.6	3.9	2.5	1.4
Sept.-Nov.	1	5.6	2.1	1.2	0.6	0.3
	7	7.1	3.1	1.8	1.1	0.5
	30	13	4.8	3.0	2.1	1.5
Dec.-Feb.	1	31	16	11	8.1	5.7
	7	36	19	14	10	7.4
	30	92	38	23	16	9.6
Mar.- May	1	33	18	13	9.5	6.4
	7	44	25	19	14	11
	30	149	77	52	37	24

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	2.8	5.0	7.9	11	15	20	25	42	66	110	170	290	630
May - Nov.	2.0	3.5	5.6	7.3	9.2	11	14	20	29	43	65	110	260
June - Aug.	1.8	3.5	5.5	7.1	8.7	11	13	17	24	33	47	77	170
Sept.- Nov.	1.6	3.0	4.7	6.2	7.6	9.3	11	16	22	32	52	91	220
Dec. - Feb.	13	18	25	34	44	53	61	92	130	170	250	420	910
Mar. - May	23	33	49	62	77	92	110	150	210	280	390	600	1100

CUYAHOGA RIVER BASIN

04202000 Cuyahoga River at Hiram Rapids, Ohio

LOCATION: Lat 41°20'26", long 81°10'01", in T.5 N., R.7 W., Portage County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on Winchell Road at Hiram Rapids, 0.6 mi downstream from Black Brook.

DRAINAGE AREA: 151 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1961 to September 1978.

REMARKS: Flow regulated by East Branch Reservoir, usable capacity 4,140 acre-ft 14.6 mi upstream since 1939 and by LaDue Reservoir, usable capacity 18,110 acre-ft, 9.8 mi upstream since 1961.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 213 ft^3/s (17 years).
Minimum daily discharge: 12 ft^3/s September 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	20	15	13	12	11
	7	25	18	16	13	11
	30	45	35	31	27	23
May- Nov.	1	20	15	13	12	11
	7	25	18	15	13	11
	30	46	37	32	28	24
June-Aug.	1	24	19	17	15	13
	7	33	26	23	21	18
	30	58	50	46	43	39
Sept.-Nov.	1	23	15	13	11	9.6
	7	27	18	15	13	11
	30	56	38	31	26	22
Dec.-Feb.	1	75	45	34	27	20
	7	86	54	41	33	25
	30	128	79	62	52	42
Mar.- May	1	53	40	35	31	28
	7	73	53	45	40	35
	30	143	99	82	70	59

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	23	32	44	51	60	69	77	95	120	160	210	310	510
May - Nov.	20	26	36	43	48	53	59	71	82	97	120	150	240
June - Aug.	24	29	36	42	47	51	55	64	72	80	89	110	150
Sept.- Nov.	17	21	30	39	45	51	58	73	89	100	130	160	240
Dec. - Feb.	42	53	67	82	97	110	120	150	190	230	300	400	610
Mar. - May	49	65	87	110	120	140	160	200	250	310	410	530	720

CUYAHOGA RIVER BASIN

04204000 Little Cuyahoga River at Mogadore, Ohio

LOCATION: Lat 41°03'47", long 81°23'38", in T.1 N., R.10 W., Summit County, Hydrologic Unit 04110002, on left bank at upstream side of bridge on State Route 532, 500 ft downstream from Mogadore Reservoir, 0.8 mi upstream from Wingfoot Lake Outlet, and 0.8 mi north of Mogadore.

DRAINAGE AREA: 17.3 mi^2.

TRIBUTARY TO: Cuyahoga River.

DISCHARGE DATA USED: February 1946 to September 1978.

REMARKS: Records fair. Flow regulated by Mogadore Reservoir, usable capacity, 6,540 acre-ft.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 14.6 ft^3/s (32 years).
Minimum daily discharge: 0.1 ft^3/s October 1967.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	1.2	0.5	0.3	0.2	0.1	Sept.-Nov.	1	1.6	0.6	0.4	0.7	0.1
	7	1.7	0.8	0.5	0.4	0.2		7	2.0	0.9	0.6	0.4	0.2
	30	2.7	1.3	0.9	0.6	0.4		30	3.3	1.6	1.1	0.8	0.5
May- Nov.	1	1.2	0.5	0.3	0.2	0.1	Dec.-Feb.	1	5.3	2.2	1.3	0.8	0.4
	7	1.8	0.8	0.5	0.4	0.2		7	7.0	2.9	1.6	0.9	0.4
	30	2.7	1.4	1.0	0.7	0.5		30	10	4.1	2.2	1.3	0.6
June-Aug.	1	2.2	1.1	0.7	0.5	0.4	Mar.- May	1	5.7	2.7	1.7	1.1	0.7
	7	3.2	1.6	1.0	0.7	0.5		7	7.5	3.8	2.6	1.8	1.1
	30	4.6	2.3	1.5	1.0	0.7		30	13	7.3	5.1	3.7	2.4

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	1.0	1.4	2.0	2.7	3.8	4.8	5.8	8.3	10	13	18	23	33
May - Nov.	0.9	1.2	1.6	2.1	2.5	3.2	3.9	5.4	7.1	9.1	12	15	23
June - Aug.	1.1	1.4	1.9	2.4	2.9	3.6	4.2	5.5	7.0	8.9	11	15	22
Sept.- Nov.	0.7	1.0	1.3	1.6	1.9	22	2.6	3.8	5.4	7.2	9.3	12	16
Dec. - Feb.	1.2	1.7	3.9	5.4	7.4	8.6	9.2	11	14	17	22	27	38
Mar. - May	2.8	4.8	6.9	8.5	9.6	11	13	16	20	23	20	34	44

CUYAHOGA RIVER BASIN

04204500 Little Cuyahoga River at Massillon Road, Akron, Ohio

LOCATION: Lat 41°03'37', long 81°27'48", in T.1 N., R.10 W., Summit County, Hydrologic Unit 04110002, on left bank 50 ft downstream from bridge on Massillon Road in Akron and 250 ft upstream from Springfield Outlet.

DRAINAGE AREA: 31.6 mi^2.

TRIBUTARY TO: Cuyahoga River.

DISCHARGE DATA USED: February 1946 to September 1974.

REMARKS: Flow regulated by Mogadore Reservoir 4.5 mi upstream, usable capacity 6.540 acre-ft and Wingfoot Lake 7.2 mi upstream.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 27.6 ft^3/s (28 years).
Minimum daily discharge: 3.1 ft^3/s September 1962, September 1966.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	5.7	4.1	3.5	3.1	2.7	Sept.-Nov.	1	6.0	4.4	3.8	3.4	2.9
	7	6.3	4.6	3.9	3.4	3.0		7	6.8	5.0	4.3	3.7	3.3
	30	7.9	5.8	4.9	4.3	3.8		30	8.8	6.4	5.5	4.9	4.4
May- Nov.	1	5.7	4.1	3.5	3.1	2.7	Dec.-Feb.	1	11	7.3	5.8	4.7	3.7
	7	6.3	4.6	3.9	3.5	3.0		7	13	8.5	6.6	5.4	4.2
	30	7.9	5.8	5.0	4.4	3.8		30	17	11	8.5	6.9	5.4
June-Aug.	1	7.2	4.9	4.0	3.4	2.8	Mar.- May	1	14	10	8.8	7.9	7.0
	7	8.4	5.6	4.5	3.7	3.0		7	17	12	10	9.2	8.0
	30	11	7.5	6.0	5.1	4.1		30	25	18	15	13	11

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	4.6	5.8	7.0	8.5	10	12	13	16	19	24	30	41	57
May - Nov.	4.4	5.2	6.1	6.9	8.0	9.0	10	12	15	17	21	28	41
June - Aug.	4.3	5.2	6.3	7.2	8.3	9.5	11	13	15	18	22	27	38
Sept.- Nov.	4.2	4.9	5.8	6.3	6.8	7.6	8.4	10	12	14	16	20	28
Dec. - Feb.	5.4	7.4	10	12	13	15	16	20	23	28	35	45	64
Mar. - May	12	14	17	19	21	24	26	32	38	44	51	60	75

CUYAHOGA RIVER BASIN

04205000 Springfield Lake Outlet at Akron, Ohio

LOCATION: Lat 41°03'21", long 81°27'52", in T.1 N., R.10 W., Summit County Hydrologic Unit 04110002, on right bank 3.0 mi downstream from Springfield Lake in Akron, and 0.3 mi upstream from mouth.

DRAINAGE AREA: 9.72 mi^2.

TRIBUTARY TO: Little Cuyahoga River.

DISCHARGE DATA USED: June 1946 to September 1949, October 1960 to September 1974.

REMARKS: Flow regulated by Springfield Lake.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 4.85 ft^3/s (17 years).
Minimum daily discharge: No flow at times in 1961-1967, 1970.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.1	0	0	0	0
	7	0.2	0	0.	0	0
	30	0.5	0.1	0	0	0
May- Nov.	1	0.2	0	0	0	0
	7	0.3	0	0	0	0
	30	0.6	0.1	0	0	0
June-Aug.	1	0.6	0.1	0	0	0
	7	0.8	0.3	0.1	0	0
	30	1.8	0.6	0.3	0.1	0
Sept.-Nov.	1	0.3	0	0	0	0
	7	0.4	0	0	0	0
	30	0.8	0.2	0.1	0	0
Dec.-Feb.	1	0.5	0	0	0	0
	7	0.7	0.1	0	0	0
	30	1.2	0.3	0.1	0	0
Mar.- May	1	2.0	1.0	0.7	0.5	0.3
	7	2.6	1.4	1.1	0.9	0.7
	30	4.8	2.8	2.1	1.6	1.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0.1	0.3	0.5	0.8	1.0	1.4	2.0	2.7	3.6	5.1	7.5	12
May - Nov.	0	0.1	0.3	0.4	0.6	0.8	1.0	1.6	2.2	2.8	3.6	5.0	8.4
June - Aug.	0.1	0.2	0.5	0.7	0.9	1.2	1.5	2.0	2.6	3.2	3.9	5.1	7.7
Sept.- Nov.	0	0	0.1	0.2	0.4	0.5	0.7	1.0	1.4	1.9	2.3	3.1	4.7
Dec. - Feb.	0	0.1	0.2	0.3	0.5	0.7	1.0	1.7	2.5	3.4	4.6	6.7	10
Mar. - May	1.1	1.6	2.2	2.7	3.2	3.8	4.5	6.0	7.3	8.7	11	13	19

CUYAHOGA RIVER BASIN

04206000 Cuyahoga River at Old Portage, Ohio

LOCATION: Lat 41°08'08", long 81°32'50", Summit County, Hydrologic Unit 04110002, on right bank 230 ft upstream from North Portage Path bridge at Old Portage, 1.2 mi downstream from Little Cuyahoga River, and 4 mi northwest of Akron City Hall.

DRAINAGE AREA: 404 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1939 to September 1978.

REMARKS: Natural flow of stream affected by diversions, storage reservoirs and power plants. At Lake Rockwell, 17.7 mi upstream from gage, an average of 78 ft^3/s was diverted for municipal supply of city of Akron. Sewage from city enters river 2.9 mi downstream from station. Some diversion from the Tuscarawas drainage into this basin at Portage Lakes.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 415 ft^3/s (39 years).
Minimum daily discharge: 24 ft^3/s September 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	52	36	30	26	22
	7	65	50	44	40	36
	30	82	61	52	47	41
May- Nov.	1	53	37	30	26	22
	7	66	50	44	40	36
	30	83	61	53	47	42
June-Aug.	1	65	45	37	31	26
	7	80	58	50	44	38
	30	108	75	63	54	46
Sept.-Nov.	1	55	37	31	27	24
	7	69	51	45	42	38
	30	95	65	55	49	43
Dec.-Feb.	1	112	63	47	37	28
	7	135	81	63	51	41
	30	218	116	83	63	46
Mar.- May	1	139	91	72	59	47
	7	170	119	100	87	76
	30	350	235	184	149	114

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	48	57	71	85	99	120	130	180	240	340	460	650	970
May - Nov.	46	54	62	72	81	91	100	120	150	200	260	370	570
June - Aug.	47	54	62	74	83	92	100	120	150	180	220	310	470
Sept.- Nov.	44	52	58	64	71	78	86	100	130	160	210	290	460
Dec. - Feb.	53	65	93	120	140	160	190	260	350	450	590	790	1200
Mar. - May	100	140	190	240	290	340	380	470	570	690	830	1100	1400

CUYAHOGA RIVER BASIN

04207200 Tinkers Creek at Bedford, Ohio

LOCATION: Lat 41°23'04", long 81°31'39", in T.6 N., R.11 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on State Route 14 in Bedford, 5.5 mi upstream from mouth.

DRAINAGE AREA: 83.9 mi^2.

TRIBUTARY TO: Cuyahoga River.

DISCHARGE DATA USED: December 1962 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 125 ft^3/s (15 years).
Minimum daily discharge: 5.8 ft^3/s August 1964.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	12	8.3	6.8	5.7	4.7	Sept.-Nov.	1	12	8.3	6.8	5.8	4.9
	7	13	9.2	7.5	6.3	5.2		7	15	9.8	7.7	6.3	5.0
	30	20	13	9.9	7.8	6.0		30	29	15	11	7.7	5.2
May- Nov.	1	12	8.3	6.8	5.7	4.7	Dec.-Feb.	1	28	19	16	14	12
	7	13	9.2	7.5	6.3	5.2		7	32	23	19	16	14
	30	20	13	9.8	7.8	6.0		30	56	32	24	20	16
June-Aug.	1	12	8.7	7.1	5.9	4.7	Mar.- May	1	22	16	13	12	10
	7	14	10	8.5	7.3	6.2		7	27	21	18	16	14
	30	24	16	12	9.9	7.7		30	69	46	38	32	27

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	8.3	11	15	18	22	25	30	40	53	73	110	160	310
May - Nov.	7.6	9.0	11	14	16	18	20	26	32	42	58	90	180
June - Aug.	8.0	9.3	11	13	15	16	18	22	26	32	42	67	130
Sept.- Nov.	7.2	8.2	9.9	13	16	18	20	26	34	44	59	91	170
Dec. - Feb.	17	23	31	34	38	42	47	59	75	100	140	210	380
Mar. - May	19	27	35	41	47	54	62	80	110	140	190	280	440

CUYAHOGA RIVER BASIN

04208000 Cuyahoga River at Independence, Ohio

LOCATION: Lat 41°23'43", long 81°37'48", in T.6 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank 240 ft downstream from bridge on Old Rockside Road, 0.8 mi northeast of Independence, and 3.0 mi downstream from Tinkers Creek.

DRAINAGE AREA: 707 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1929 to December 1935, April 1940 to September 1978.

REMARKS: Natural flow of stream affected by diversion, storage reservoirs and power plants. Some diversion from the Tuscarawas drainage into this basin at Portage Lakes. Water diverted into Ohio Canal at Brecksville, 6 mi upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft^3/s when channels merge.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 787 ft^3/s (44 years).
Minimum daily discharge: 21 ft^3/s August 1933.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	91	57	42	32	23	Sept.-Nov.	1	91	59	47	36	27
	7	109	77	63	53	44		7	112	80	68	60	53
	30	133	91	75	64	54		30	151	99	81	71	61
May- Nov.	1	90	56	42	32	23	Dec.-Feb.	1	197	113	85	67	51
	7	109	76	62	53	43		7	233	141	109	89	72
	30	132	90	75	64	54		30	404	223	165	129	99
June-Aug.	1	102	62	46	35	25	Mar.- May	1	244	153	117	92	70
	7	126	84	67	55	44		7	304	199	158	131	106
	30	174	112	88	73	59		30	636	386	282	211	148

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	71	93	110	140	160	180	210	290	400	570	810	1200	1900
May - Nov.	62	79	100	110	130	140	150	190	240	310	420	620	1100
June - Aug.	59	79	100	120	130	140	160	190	230	290	370	520	850
Sept.- Nov.	60	75	90	100	110	120	130	160	190	240	320	460	820
Dec. - Feb.	110	140	180	220	260	300	350	460	610	800	1100	1500	2500
Mar. - May	170	220	300	390	480	550	640	800	1000	1200	1500	2000	2800

CUYAHOGA RIVER BASIN

04208900 Aurora Branch near Chagrin Falls, Ohio

LOCATION: Lat 41°24'40", long 81°24'44", Cuyahoga County, Hydrologic Unit 04110003, at Solon Road bridge 1.6 mi southwest of Chagrin Falls and 1.1 mi upstream from mouth.

DRAINAGE AREA: 57.4 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: Low-flow measurements 1954, 1972-1977 water years.

INDEX STATION: 03093000 Eagle Creek at Phalanx Station, Ohio.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Minimum discharge observed: 7.7 ft^3/s November 1953.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)	
		2	10
Apr. - Mar.	7	7.6	3.9
	30	11	5.6
May - Nov.	7	7.4	4.1
	30	11	5.6
June - Aug.	7	9.3	4.5
	30	15	7.3
Sept.- Nov.	7	7.9	4.6
	30	13	6.5

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time				
	98	95	90	85	80
Apr. - Mar.	5.1	8.0	12	15	18
May - Nov.	4.4	6.2	9.3	11	13
June - Aug.	4.2	6.1	8.1	11	12
Sept.- Nov.	3.7	5.3	7.6	9.3	11

CHAGRIN RIVER BASIN

04209000 Chagrin River at Willoughby, Ohio

LOCATION: Lat 41°37'51", long 81°24'13", in T.9 N., R.10 W., Lake County, Hydrologic Unit 04110003, on left bank, 150 ft downstream from city waterworks dam, 800 ft downstream from East Branch, 1.0 mi southeast of Willoughby, and 5.0 mi upstream from mouth.

DRAINAGE AREA: 246 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: August 1925 to September 1935, October 1939 to September 1978.

REMARKS: Water diverted 200 ft upstream from station for municipal supply of city of Willoughby.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 324 ft^3/s (49 years).
Minimum daily discharge: 3.0 ft^3/s July 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)					Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50			2	5	10	20	50
Apr.-Mar.	1	24	14	10	7.3	5.0	Sept.-Nov.	1	25	16	13	11	9.7
	7	26	17	13	10	8.2		7	28	19	16	14	13
	30	36	24	19	16	14		30	47	27	22	19	16
May- Nov.	1	24	14	10	7.3	5.0	Dec.-Feb.	1	79	54	44	37	30
	7	26	17	13	10	8.2		7	90	60	48	40	32
	30	36	24	19	16	14		30	176	105	80	64	50
June-Aug.	1	26	15	11	7.6	5.0	Mar.- May	1	82	59	49	41	33
	7	30	19	14	11	8.3		7	98	70	58	50	42
	30	46	29	23	19	16		30	217	139	108	88	68

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	20	26	33	41	50	60	73	100	140	190	260	410	740
May - Nov.	18	22	27	31	36	41	46	60	77	100	140	200	380
June - Aug.	15	21	25	29	33	38	42	52	64	79	99	140	250
Sept.- Nov.	18	22	26	30	34	37	42	54	70	96	130	200	370
Dec. - Feb.	49	61	80	95	110	130	140	180	210	270	370	550	1000
Mar. - May	65	83	110	130	140	160	180	230	300	390	510	710	1200

GRAND RIVER BASIN

04210000 Phelps Creek near Windsor, Ohio

LOCATION: Lat 41°30'55", long 80°56'05", in T.8 N., R.5 W., Ashtabula County, Hydrologic Unit 04110004, on left bank at upstream side of bridge on State Route 534, 1.4 mi south of Windsor and 1.5 mi upstream from station.

DRAINAGE AREA: 25.6 mi^2.

TRIBUTARY TO: Grand River.

DISCHARGE DATA USED: May 1942 to June 1959.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 35.6 ft^3/s (16 years).
Minimum daily discharge: No flow August 1943.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0.4	0.2	0.1	0	0
	7	0.5	0.3	0.2	0.2	0.1
	30	0.7	0.4	0.4	0.3	0.3
May- Nov.	1	0.4	0.2	0.1	0	0
	7	0.5	0.3	0.2	0.2	0.1
	30	0.7	0.5	0.4	0.3	0.3
June-Aug.	1	0.5	0.3	0.3	0	0
	7	0.6	0.3	0.2	0.2	0.1
	30	1.0	0.6	0.4	0.4	0.3
Sept.-Nov.	1	0.5	0.3	0.2	0.2	0.1
	7	0.5	0.3	0.3	0.3	0.2
	30	0.8	0.5	0.4	0.4	0.3
Dec.-Feb.	1	3.2	1.8	1.3	1.0	0.7
	7	4.2	2.2	1.6	1.2	0.8
	30	13	5.7	3.6	2.4	1.5
Mar.- May	1	2.7	1.7	1.3	0.9	0.6
	7	3.5	2.0	1.5	1.1	0.8
	30	17	9.4	6.5	4.7	3.2

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0.4	0.5	0.7	0.9	1.2	1.6	2.1	3.5	6.0	11	19	35	85
May - Nov.	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.6	2.3	3.4	5.4	11	28
June - Aug.	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.4	1.9	2.4	3.2	5.2	15
Sept.- Nov.	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.3	1.9	2.9	4.9	8.7	22
Dec. - Feb.	1.8	2.4	3.2	4.2	5.2	6.5	8.1	12	16	24	37	64	150
Mar. - May	1.8	3.2	4.0	5.5	7.5	10	13	18	24	33	49	78	160

GRAND RIVER BASIN

04212000 Grand River near Madison, Ohio

LOCATION: Lat 41°44"26", long 81°02'48", Lake County, Hydrologic Unit 04110004, on downstream end of center pier of abandoned highway bridge 800 ft upstream from State Route 528, 0.8 mi upstream from Griswold Creek and 2.1 mi south of Madison.

DRAINAGE AREA: 581 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: October 1922 to September 1955, April 1938 to September 1974.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 663 ft^3/s (49 years).
Minimum daily discharge: No flow July, August 1934, October 1963.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	3.8	1.1	0.4	0.1	0
	7	5.4	1.8	0.9	0.4	0
	30	9.5	4.4	2.8	1.9	1.1
May- Nov.	1	3.8	1.1	0.4	0.1	0
	7	5.4	1.8	0.9	0.4	0
	30	9.5	4.4	2.8	1.9	1.1
June-Aug.	1	6.6	2.1	0.9	0.4	0
	7	9.0	3.1	1.5	0.8	0.3
	30	19	8.4	5.8	4.2	3.2
Sept.-Nov.	1	5.2	1.7	0.7	0.3	0
	7	6.2	2.7	1.7	1.1	0
	30	13	5.0	3.4	2.7	2.1
Dec.-Feb.	1	86	41	27	19	12
	7	111	55	36	25	16
	30	333	158	103	71	46
Mar.- May	1	62	33	23	17	12
	7	85	45	32	24	17
	30	322	144	89	59	36

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.6	6.5	11	15	21	29	41	87	170	300	520	1000	2000
May - Nov.	2.2	4.6	7.3	9.9	12	15	18	27	42	72	130	270	810
June - Aug.	2.2	4.9	7.8	11	13	15	18	25	35	51	79	130	340
Sept.- Nov.	1.8	3.8	5.8	7.7	9.6	11	14	19	28	47	100	260	830
Dec. - Feb.	32	52	84	130	160	200	240	330	460	680	1000	1600	2900
Mar. - May	36	60	95	130	170	220	270	390	590	910	1300	1900	3000

ASHTABULA RIVER BASIN

04212500 Ashtabula River near Ashtabula, Ohio

LOCATION: Lat 41°51'20", long 80°45'44", Ashtabula County, Hydrologic Unit 04110003, on left bank at downstream side of State Road bridge, 1.1 mi upstream from Hubbard Run, 1.3 mi southeast of Ashtabula, and 5.5 mi upstream from mouth.

DRAINAGE AREA: 121 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: August 1924 to December 1935, March 1939 to October 1947, April 1950 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 154 ft^3/s (47 years).
Minimum daily discharge: No flow at times during most years.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.4	0	0	0	0
May- Nov.	1	0	0	0	0	0
	7	0	0	0	0	0
	30	0.4	0	0	0	0
June-Aug.	1	0	0	0	0	0
	7	0.1	0	0	0	0
	30	1.5	0.2	0	0	0
Sept.-Nov.	1	0.2	0	0	0	0
	7	0.3	0	0	0	0
	30	1.5	0.2	0	0	0
Dec.-Feb.	1	24	12	8.2	5.7	3.6
	7	31	17	12	9.2	6.4
	30	89	48	34	25	18
Mar.- May	1	8.8	4.0	2.6	1.7	1.1
	7	13	6.2	4.1	2.9	2.0
	30	62	26	16	10	6.0

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	0	0	0.5	1.3	2.6	4.7	8.3	21	41	66	110	190	410
May - Nov.	0	0	0.1	0.3	0.7	1.2	1.9	3.9	7.6	15	31	65	180
June - Aug.	0	0	0.1	0.2	0.4	0.7	1.1	2.2	3.7	6.3	12	24	64
Sept.- Nov.	0	0	0.1	0.3	0.6	1.0	1.6	3.7	7.5	17	41	90	240
Dec. - Feb.	12	21	29	35	42	48	55	73	96	140	200	320	610
Mar. - May	5.2	9.2	16	23	30	40	49	71	100	150	220	350	620

CONNEAUT CREEK BASIN

04213000 Conneaut Creek at Conneaut, Ohio

LOCATION: Lat 41°55'37", long 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 mi upstream from mouth.

DRAINAGE AREA: 175 mi^2.

TRIBUTARY TO: Lake Erie.

DISCHARGE DATA USED: July 1922 to December 1935, April 1950 to September 1978.

REMARKS: None.

SELECTED DISCHARGE CHARACTERISTICS: Average discharge: 261 ft^3/s.
Minimum daily discharge: 0.3 ft^3/s July, August 1933, August 1934.

Magnitude and frequency of low flow for indicated periods

Period	Number of consecutive days	Discharge (ft^3/s) for indicated recurrence interval (years)				
		2	5	10	20	50
Apr.-Mar.	1	5.0	2.1	1.2	0.7	0.3
	7	5.9	2.8	1.9	1.3	0.8
	30	9.7	5.1	3.6	2.8	2.0
May- Nov.	1	4.9	2.1	1.2	0.7	0.3
	7	5.9	2.9	1.9	1.3	0.8
	30	9.6	5.1	3.7	2.8	2.1
June-Aug.	1	5.8	2.4	1.3	0.8	0.4
	7	7.2	3.4	2.2	1.5	0.9
	30	12	5.9	4.1	3.1	2.3
Sept.-Nov.	1	5.9	2.6	1.7	1.2	0.8
	7	6.8	3.5	2.6	2.1	1.7
	30	14	6.3	4.5	3.6	2.9
Dec.-Feb.	1	53	34	26	21	16
	7	66	43	32	25	19
	30	160	90	66	50	37
Mar.- May	1	41	23	16	11	7.2
	7	48	30	23	18	14
	30	141	74	51	37	25

Duration of daily flow for indicated periods

Period	Discharge (ft^3/s) which was equaled or exceeded for indicated percent of time												
	98	95	90	85	80	75	70	60	50	40	30	20	10
Apr. - Mar.	3.7	5.8	9.2	13	18	24	33	59	93	140	210	340	690
May - Nov.	2.8	4.4	6.3	8.3	10	13	15	22	31	48	78	130	300
June - Aug.	2.3	3.9	5.7	7.3	9.1	11	13	17	22	30	41	65	120
Sept.- Nov.	3.1	4.3	5.9	7.4	9.1	11	14	19	28	46	89	170	400
Dec. - Feb.	36	49	64	76	89	100	120	150	190	260	360	550	1100
Mar. - May	25	38	54	68	81	96	110	150	200	270	370	550	970

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