Prepared in cooperation with the
KENTUCKY GEOLOGICAL SURVEY
Donald C. Haney, Director and State Geologist
UNIVERSITY OF KENTUCKY

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT 80-1225

DEPARTMENT OF INTERIOR

U.S. GEOLOGICAL SURVEY

LOW-FLOW CHARACTERISTICS OF KENTUCKY STREAMS, 1980

By

JOHN N. SULLAVAN

OPEN-FILE REPORT 80-1225

INTRODUCTION

The U.S. Geological Survey has been gathering low-flow data on streams throughout Kentucky for many years. This report presents low-flow characteristics at gaged and ungaged sites where the flow is not significantly regulated. Data on available stream flow during low-flow periods are used for the design of plants that dispose of waste using dilution procedures, to estimate available industrial and muncipal water supplies, to estimate irrigation supplies, and in the design of recreational facilities.

This preliminary report presents low-flow data at 77 continuous record sites and the 7-day 2-year and 7-day 10-year flow at 127 partial record sites. The station identifier, 7-day 10-year discharge in cubic feet per second (ft^3/s), and the drainage area in square miles (mi^2) are shown on the map. Other data are shown in tabular form. Data for partial-record sites designated by the symbol Δ were previously reported by Swisshelm, (1974).

LOW-FLOW CHARACTERISTICS

Continuous-record Gaging Stations

The data required for a low-flow frequency study are the minimum average flows for selected lengths of time. Annual low flows at continuous record stations (index stations) were analyzed for 1, 3 and 7 consecutive days. The climatic year (April 1 to March 31) was used as the basis for annual events to allow the low-water season to be considered as a unit. Analyses and computations in this report were compiled by digital processing of records in the U.S. Geological Survey Water Resources Division files in Reston, Va. The frequency data were fitted mathematically to curves corresponding to the Log-Pearson Type III distribution. Ordinarily, the fitted Log-Pearson Type III frequency curve was used to determine the values in the Index Station Table. A graphical relation was plotted and that curve was used when the computed data failed to fit the graphical data.

Partial-Record Gaging Stations

Stream sites at which periodical measurements are made are called partial-record sites. These measurements are made during periods of no storm runoff (base flow conditions). The relation between concurrent events can be used with a frequency curve from an index station to approximate the minimum flow at the partial-record site. Flow data observed at 127 low-flow partial-record gaging stations were examined and processed by flow correlation with continuous-record "index" gaging stations to produce the low-flow frequency tabulations included in this report.

UNGAGED SITES

Regionalization of Low-Flow Data

Comparison of the low-flow values and the drainage area presented on the map may indicate relations that might be used in limited regions to estimate values at ungaged sites, (Riggs, 1973). The drainage area and low-flow data are shown in the table and may be used to determine runoff in cubic feet per second per square mile. The runoff per square mile figures may be plotted on the map and used to develop possible regional trends to estimate flow at ungaged sites. However, the transfer of low-flow characteristics to sites without discharge measurements is unreliable in areas where Karst formations, (secondary permeability due to solution of the limestone) are highly developed near or at the land surface.

Physiographic and Karst areas in Kentucky are shown on figures 1 and 2. Karst areas are primarily confined to the Mississippian Plateau and to parts of the Inner Blue Grass Region. Within these areas low-flow characteristics cannot be transferred reliably even a mile or so upstream or downstream from a site.

This report is an interim report of a continuing low-flow investigations program in Kentucky. The final report will be published when data is available for the partial-record network of 126 stations that are currently being operated.

FACTORS FOR CONVERTING ENGLISH UNITS TO METRIC UNITS

Multiply English Units	By	To Obtain Metric Units
Square miles (mi^2)	2.590	Kilometers (km^2)
Cubic feet per second (ft^3/s)	.02832	Cubic meters per second (m^3/s)

REFERENCES

Swisshelm, R. V. Jr., 1974, Low-flow characteristics of Kentucky streams: U.S. Geological Survey Open-File Report, 1 p.

Riggs, H. C., 1973, Low-flow investigations: Techniques of water-resources investigations of the U.S. Geological Survey, Book 4, chap. B1, 18 p.

Additional copies of this report can be obtained from:

U.S. Geological Survey
Water Resources Division
Room 572 Federal Building
Louisville, Kentucky 40202

or

Kentucky Geological Survey
307 Mineral Industries Building
University of Kentucky
Lexington, Kentucky 40506

Index Stations

Station number	Station name	Latitude	Longitude	Drainage area (mi^2)	7 day-2 yr (ft^3/s)	7 day-10 yr (ft^3/s)	7 day-20 yr (ft^3/s)	1 day-2 yr (ft^3/s)	1 day-10 yr (ft^3/s)	1 day-20 yr (ft^3/s)	3 day-20 yr (ft^3/s)
03210000	Johns Cr. nr. Meta, Ky.	37°34'01"	82°27'29"	56.3	0.3	0	0	0.1	0	0	0
03212000	Paint Cr. at Staffordsville, Ky.	37°50'05"	82°52'15"	103	1.5	.2	0	1.1	0	0	0
03214000	Tug Fk. nr. Kermit, W. Va.	37°49'05"	82°23'20"	1,185	69	37	31	62	34	28	29
03215500	Blaine Cr. at Yatesville, Ky.	38°08'40"	82°41'05"	217	2.7	.5	.3	2.0	.4	.2	.2
03216800	Tygarts Cr. at Olive Hill, Ky.	38°17'57"	83°10'25"	59.6	.5	0	0	.3	0	0	0
03217000	Tygarts Cr. nr. Greenup, Ky.	38°33'51"	82°57'08"	242	2.1	.3	.1	1.6	0	0	0
03248500	Licking R. nr. Salyersville, Ky.	37°45'03"	83°05'04"	140	1.3	0	0	1.0	0	0	0
03250100	North Fk. Triplett Cr. nr. Morehead, Ky.	38°11'57"	83°28'50"	84.7	.4	0	0	.2	0	0	0
03251000	North Fk. Licking R. nr. Lewisburg, Ky.	38°32'57"	83°47'37"	119	0	0	0	0	0	0	0
03252000	Stoner Cr. at Paris, Ky.	38°13'45"	84°15'22"	239	1.2	.5	.4	.9	.3	.3	.3
03252500	South Fk. Licking R. at Cynthiana, Ky.	38°23'27"	84°18'11"	621	3.0	1.1	.9	2.8	1.0	.8	.9
03254400	North Fk. Grassy Cr. nr Piner, Ky.	38°47'31"	84°30'50"	13.6	0	0	0	0	0	0	0
03277500	North Fk. Kentucky R. at Hazard, Ky.	37°14'48"	83°10'55"	466	8.8	2.1	1.4	5.4	1.2	.7	1.1
03278000	Bear Branch nr. Noble, Ky.	37°27'02"	83°11'43"	2.21	0	0	0		0	0	0
03278500	Troublesome Cr. at Noble, Ky.	37°26'36"	83°13'06"	177	1.4	.1	0	.8	0	0	0
03280000	North Fk..Kentucky R. at Jackson, Ky.	37°33'05"	83°23'05"	1,101	24	3.1	1.5	17	2.9	1.3	1.1
03280600	Middle Fk. Kentucky R. nr. Hyden, Ky.	37°08'13"	83°22'17"	202	2.1	.4	.2	1.2	.2	.1	.2
03280700	Cutshin Cr. at Wooton, Ky.	37°09'54"	83°18'29"	61.3	.9	.1	0	.6	0	0	0
03281100	Goose Cr. at Manchester, Ky.	37°09'07"	83°45'37"	163	2.7	1.1	.8	2.0	.3	.1	.4
03281500	South Fk. Kentucky R. at Booneville, Ky.	37°28'45"	83°40'38"	722	9.0	.7	.2	6.7	.5	.2	.2
03282500	Red R. nr. Hazel Green, Ky.	37°48'44"	83°27'50"	65.8	.3	0	0	.1	0	0	0
03283000	Stillwater Cr. at Stillwater, Ky.	37°45'24"	83°29'12"	24	.1	0	0	.1	0	0	0
03283500	Red R. at Clay City, Ky.	37°51'53"	83°56'01"	362	11	3.4	2.5	9.3	2.6	1.8	2.0
03284300	Silver Cr. nr. Kingston, Ky.	37°37'51"	84°16'48"	28.6	.8	0	0	.5	0	0	0
03285000	Dix R. nr. Danville, Ky.	37°38'31"	84°39'39"	318	.3	0	0	.2	0	0	0
03288000	North Elkhorn Cr. nr. Georgetown, Ky.	38°12'20"	84°30'49"	119	1.0	0	0	.8	0	0	0
03289500	Elkhorn Cr. nr. Frankfort, Ky.	38°16'07"	84°48'53"	473	18.4	5.8	4.2	13.1	3.6	2.5	3.3
03290000	Flat Cr, nr. Frankfort, Ky.	38°17'53"	84°56'32"	5.63	0	0	0	0	0	0	0
03291500	Eagle Cr. at Glencoe, Ky.	38°42'18"	84°49'26"	437	.1	0	0	0	0	0	0
03292500	South Fk. Beargrass Cr. at Louisville, Ky.	38°12'39"	85°42'07"	17.2	.2	0	0	.1	0	0	0
03295000	Salt R. nr. Harrodsburg, Ky.	37°45'26"	84°52'23"	41.4	0	0	0	0	0	0	0
03295500	Salt R. nr. Van Buren, Ky.	37°58'06"	85°08'03"	196	.1	0	0	0	0	0	0
03298000	Floyds Fk. at Fisherville, Ky.	38°11'18"	85°27'37"	138	0	0	0	0	0	0	0
03298500	Salt R. at Shepherdsville, Ky.	37°59'06"	85°43'03"	1,197	1.5	0	0	1.1	0	0	0
03299000	Rolling Fk. nr. Lebanon, Ky.	37°29'50"	85°19'26"	239	.4	0	0	.3	0	0	0
03300000	Beech Fk. nr. Springfield, Ky.	37°42'15"	85°08'45"	85.9	0	0	0	0	0	0	0
03301000	Beech Fk. at Bardstown, Ky.	37°47'49"	85°28'51"	669	1.9	.2	.1	1.4	.1	0	0
03301500	Rolling Fk. nr. Boston, Ky.	37°46'02"	85°42'14"	1,299	10	2.0	1.2	8.3	1.4	.8	1.0
03304500	McGills Cr. nr. McKinney, Ky.	37°26'38"	84°41'52"	2.14	0	0	0	0	0	0	0
03305000	Green R. nr. McKinney, Ky.	37°25'19"	84°45'01"	22.4	0	0	0	0	0	0	0
03307000	Russell Cr. nr. Columbia, Ky.	37°07'09"	85°23'38"	188	6.5	1.8	1.2	5.0	1.1	.7	1.0
03307100	Russell Cr. nr. Gresham, Ky.	37°10'05"	85°28'11"	265	14	6.3	5.0	12	5.7	4.6	4.7
03307500	South Fk. Little Barren R. at Edmonton, Ky.	36°58'27"	85°36'11"	18.3	0	0	0	0	0	0	0
03309500	McDougal Cr. nr. Hodgenville, Ky.	37°32'37"	85°40'19"	5.34	.2	0	0	.1	0	0	0
03310000	North Fk. Nolin R. at Hodgenville, Ky.	37°34'35"	85°44'29"	36.4	.3	0	0	.2	0	0	0
03310300	Nolin R. at White Mills, Ky.	37°33'03"	86°02'43"	357	48	36	33	45	34	31	32
03310400	Bacon Cr. nr. Priceville, Ky.	37°21'31"	85°59'53"	85.4	9.0	5.7	5.0	8.5	5.4	4.8	4.8
03312000	Bear Cr. nr. Leitchfield, Ky.	37°25'36"	86°16'45"	30.8	.3	0	0	.2	0	0	0
03313500	West Bays Fk. at Scottsville, Ky.	36°44'53"	86°11'47"	7.47	.4	0	0	.3	0	0	0
03314000	Drakes Cr. nr. Alvaton, Ky.	36°53'43"	86°22'50"	478	32	17	14	30	16	13	13
03316000	Mud R. nr. Lewisburg, Ky.	37°00'15"	86°54'26"	90.5	1.0	0	0	.8	0	0	0
03317500	North Fk. Rough R. nr. Westview, Ky.	37°41'32"	86°23'29"	42.0	0.2	0	0	0.1	0	0	0
03318200	Rock Lick Cr. nr. Glen Dean, Ky.	37°39'24"	86°33'43"	20.1	0	0	0	0	0	0	0
03318800	Caney Cr. nr. Horse Branch, Ky.	37°27'50"	86°39'20"	124	0	0	0	0	0	0	0
03320500	Pond R. nr. Apex, Ky.	37°07'20"	87°19'10"	194	0	0	0	0	0	0	0
03383000	Tradewater R. at Olney, Ky.	37°13'26"	87°46'53"	255	.2	0	0	.1	0	0	0
03384000	Rose Cr. at Nebo, Ky.	37°22'58"	87°37'59"	2.1	0	0	0	0	0	0	0
03400500	Poor Fk. at Cumberland, Ky.	36°58'26"	82°59'38"	82.3	8.9	4.2	3.4	7.9	3.7	3.0	3.1
03401000	Cumberland R. nr. Harlan, Ky.	36°50'48"	83°21'21"	374	28	11	8.4	23	8.5	6.4	7.3
03402000	Yellow Cr. nr. Middlesboro, Ky.	36°40'05"	83°41'19"	60.6	4.6	2.3	1.8	4.0	2.0	1.6	1.7
03403500	Cumberland R. at Barbourville, Ky.	36°51'45"	83°53'13"	960	50	13	8.5	48	7.7	3.6	6.5
03404000	Cumberland R. at Williamsburg, Ky.	36°44'38"	84°09'30"	1,607	74	18	9	65	16	8	9
03404500	Cumberland R. at Cumberland Falls, Ky.	36°50'14"	84°20'36"	1,977	74	20	13	65	17	11	12
03406000	Wood Cr. nr. London, Ky.	37°09'40"	84°06'43"	3.89	.4	.3	.2	.3	.2	.2	.2
03406500	Rockcastle R. at Billows, Ky.	37°10'16"	84°17'46"	604	11	3.0	2.1	9.3	2.3	1.5	1.7
03407100	Cane Branch nr. Parkers Lake, Ky.	36°52'05"	84°26'57"	.67	0	0	0	0	0	0	0
03407300	Helton Branch at Greenwood, Ky.	36°53'07"	84°28'55"	.85	.1	.1	.1	.1	.1	.1	.1
03407500	Buck Cr. nr. Shopville, Ky.	37°12'38"	84°27'52"	165	.1	0	0	.1	0	0	0
03410500	South Fk. Cumberland R. nr. Stearns, Ky.	36°37'37"	84°32'00"	954	43	20	16	36	17	14	15
03412500	Pitman Cr. at Somerset, Ky.	37°07'01"	84°35'31"	31.3	.3	0	0	.2	0	0	0
03438000	Little R. nr. Cadiz, Ky.	36°46'40"	87°43'18"	244	20	11	9.2	19	7.8	5.0	8.0
03610000	Clarks R. at Murray, Ky.	36°35'34"	88°18'00"	89.7	0	0	0	0	0	0	0
03610500	Clarks R. nr. Benton, Ky.	36°52'24"	88°20'48"	227	4.1	2.3	2.0	3.7	2.1	1.9	1.9
07022500	Perry Cr. nr. Mayfield, Ky.	36°40'45"	88°37'57"	1.72	0	0	0	0	0	0	0
07023000	Mayfield Cr. at Lovelaceville, Ky.	36°57'09"	88°49'30"	212	13	7.9	7.0	12	7.2	6.2	6.5
07023500	Obion Cr. at Pryorsburg, Ky.	36°41'10"	88°43'35"	36.8	0	0	0	0	0	0	0
07024000	Bayou de Chien nr. Clinton, Ky.	36°37'43"	88°57'50"	68.7	9.4	6.7	6.0	9.1	5.7	4.9	5.6

Cr. Creek
Fk. Fork
R. River

Partial Record Stations

Station Number	Type	Station Name	Latitude	Longitude	Drainage area (mi^2)	7 day - 2 yr (ft^3/s)	7 day - 10 yr (ft^3/s)
03209400	2	Elkhorn Cr. nr. Elkhorn City, Ky.	37°16'30"	82°22'45"	48.8	2.2	1.3
03209600	1	Right Fk. Beaver Cr. at Wayland, Ky.	37°26'35"	82°48'28"	73.9	0	0
03209700	2	Beaver Cr. at Martin, Ky.	37°34'10"	82°45'28"	228	6.0	.7
03213600	2	Knox Cr. at Argo, Ky.	37°29'01"	82°03'06"	95.9	.2	0
03214700	2	Rockcastle Cr. at Inez, Ky.	37°52'05"	82°32'32"	63.1	.9	.1
03215410	1	Blaine Cr. nr. Blaine, Ky.	38°04'00"	82°49'38"	119	.9	.1
03216190	1	Little Sandy R. nr. Sandy Hook, Ky.	38°06'50"	83°07'02"	35.7	.3	0
03216570	1	East Fk. Little Sandy R. nr. Argillite, Ky.	38°28'44"	82°45'46"	138	2.2	.4
03216935	1	Tygarts Cr. nr. Kehoe, Ky.	38°26'06"	83°02'04"	125	1.2	.2
03237230	2	Kinniconnick Cr. nr. Rugless, Ky.	38°29'01"	83°16'55"	112	.2	0
03237285	1	Salt Lick Cr. nr. Vanceburg, Ky.	38°35'26"	83°20'56"	47.5	0	0
03248170	1	Licking R. at Fredville, Ky.	37°36'13"	82°58'17"	40.3	.1	0
03248250	1	Licking R. at Royalton, Ky.	37°40'21"	83°01'22"	76.7	.6	0
03248685	1	Elk Fk. nr. West Liberty, Ky.	37°56'52"	83°12'57"	59.4	.6	0
03248730	1	Caney Cr. nr. West Liberty, Ky.	37°56'00"	83°18'36"	41.4	.1	0
03250240	2	Slate Cr. nr. Owingsville, Ky.	38°08'29"	83°43'43"	185	0	0
03250330	2	Fox Cr. nr. Hillsboro, Ky.	38°15'17"	83°39'11"	110	.1	0
03250470	2	Fleming Cr. nr. Hill Top, Ky.	38°22'44"	83°49'42"	77.2	0	0
03250640	1	Johnson Cr. at Piqua, Ky.	38°28'22"	84°02'56"	72.4	0	0
03251400	2	North Fk. Licking R. at Milford, Ky.	38°35'00"	84°09'20"	286	0	0
03252188	1	Grassy Lick Cr. nr. Sharpsburg, Ky.	38°08'57"	83°59'01"	40.6	0	0
03252300	1	Hinkston Cr. nr. Carlisle, Ky.	38°14'33"	84°03'09"	154	2.0	0
03254460	2	Grassy Cr. at DeMossville, Ky.	38°48'12"	84°25'32"	119	0	0
03277300	2	North Fk. Kentucky R. at Whitesburg, Ky.	37°07'03"	82°49'29"	66.4	4.4	2.0
03277360	1	Rockhouse Cr. nr. Letcher, Ky.	37°09'10"	82°56'28"	51.5	.9	.3
03277370	1	Line Fk. at Defeated Cr., Ky.	37°03'13"	82°59'21"	40.8	.9	.3
03277411	2	North Fk. Kentucky R. at Cornettsville, Ky.	37°07'43"	83°05'11"	322	9.4	3.5
03277835	1	Troublesome Cr. at Dwarf, Ky.	37°20'30"	83°07'07"	59.9	.3	0
03277915	1	Balls Fk. at Ary, Ky.	37°22'45"	83°08'50"	45.4	.2	0
03279400	2	Quicksand Cr. at Lunah, Ky.	37°33'31"	83°11'04"	101	.3	0
03279700	1	Quicksand Cr. at Quicksand, Ky.	37°32'11"	83°20'55"	203	1.6	.1
03280551	1	Middle Fk. Kentucky R. at Asher, Ky.	37°03'10"	83°24'00"	70.6	0.4	0
03280590	1	Greasy Cr. at Hoskinston, Ky.	37°04'29"	83°23'09"	95.0	.7	.1
03281030	2	Red Bird R. at Big Creek, Ky.	37°09'24"	83°35'22"	125	.9	.1
03281080	1	Collins Fk. at Bluehole, Ky.	37°06'13"	83°45'19"	67.4	.1	0
03281200	2	South Fk. Kentucky R. at Oneida, Ky.	37°16'23"	83°38'50"	486	2.3	.1
03282045	2	Sturgeon Cr. nr. Heidelburg, Ky.	37°31'42"	83°47'36"	96.4	.3	0
03282135	1	South Fk. Station Camp Cr. nr. Drip Rock, Ky.	37°33'40"	83°58'01"	41.4	.2	0
03282170	2	Station Camp Cr. at Wagersville, Ky.	37°37'15"	83°57'34"	115	.4	0
03282190	1	Redlick Cr. nr. Station Camp, Ky.	37°38'01"	83°59'01"	69.5	.2	0
03284100	1	Boone Cr. at Grimes Mill Rd. nr. Locust Grove, Ky.	37°55'03"	84°20'28"	41.8	0	0
03284415	1	Paint Lick Cr. at Paint Lick, Ky.	37°37'53"	84°24'43"	54.4	0	0
03284450	1	Paint Lick Cr. nr. McCreary, Ky.	37°42'29"	84°28'52"	97.6	0	0
03284720	1	Dix R. above Copper Cr. nr. Crab Orchard, Ky.	37°26'39"	84°27'42"	43.5	.1	0
03284750	1	Dix R. below Copper Cr. nr. Crab Orchard, Ky.	37°27'27"	84°28'41"	70.6	.1	0
03284800	1	Dix R. nr. Stanford, Ky.	37°33'18"	84°36'10"	160	.1	0
03284935	1	Hanging Fk. Cr. nr. Stanford, Ky.	37°32'44"	84°43'42"	46.9	0	0
03284995	1	Hanging Fk. Cr. nr. Hubble, Ky.	37°37'24"	84°40'49"	91.1	0	0
03287130	1	Clear Cr. nr. Mortonsville, Ky.	37°56'37"	84°45'53"	61.6	0	0
03287550	1	Benson Cr. at Frankfort, Ky.	38°12'11"	84°52'56"	107	0	0
03288450	1	North Elkhorn Cr. at Switzer, Ky.	38°15'12"	84°45'09"	265	1.9	.6
03290420	1	Six Mile Cr. nr. Defoe, Ky.	38°22'39"	85°00'34"	42.6	0	0
03290490	1	Six Mile Cr. nr. Lockport, Ky.	38°25'50"	85°00'20"	76.5	0	0
03290675	1	Drennon Cr. at Drennon Springs, Ky.	38°30'47"	85°02'52"	82.5	0	0
03291110	1	Eagle Cr. nr. New Columbus, Ky.	38°26'46"	84°39'48"	124	0	0
03291490	1	Ten Mile Cr. at Folsom, Ky.	38°42'53"	84°44'58"	68.4	0	0
03291700	2	Little Kentucky R. nr. Bedford, Ky.	38°33'38"	85°16'34"	73.2	0	0
03292460	3	Harrods Cr. nr. La Grange, Ky.	38°26'50"	85°24'33"	24.1	.4	.1
03295290	1	Salt R. at Fox Cr., Ky.	37°59'52"	84°57'35"	131	0	0
03295580	1	Beech Cr. nr. Taylorsville, Ky.	38°01'08"	85°17'22"	53.2	0	0

Partial Record Stations--Continued

Station Number	Type	Station Name	Latitude	Longitude	Drainage area (mi^2)	7 day - 2 yr (ft^3/s)	7 day - 10 yr (ft^3/s)
03295610	1	Salt R. at Taylorsville, Ky.	38°01'41"	85°20'33"	359	0	0
03295800	2	Brashears Cr. nr. Finchville, Ky.	38°08'20"	85°17'46"	147	.4	0
03295900	1	Brashears Cr. at Taylorsville, Ky.	38°01'49"	85°21'05"	262	0	0
03295985	1	Simpson Cr. nr. Taylorsville, Ky.	37°59'34"	85°23'20"	57.3	0	0
03296500	2	Plum Cr. nr. Wilsonville, Ky.	38°06'20"	85°26'14"	19.1	0	0
03297000	2	Little Plum Cr. nr. Waterford, Ky.	38°03'44"	85°25'45"	5.15	0	0
03297700	2	Cox Cr. nr. Highgrove, Ky.	37°58'24"	85°32'33"	95.8	0	0
03298390	1	Floyds Fk. nr. Gap in Knob, Ky.	38°02'04"	85°39'33"	259	0	0
03298760	1	North Rolling Fk. at Bradsfordsville, Ky.	37°30'22"	85°08'34"	95.7	.1	0
03300300	2	Chaplin R. at Sharpsville, Ky.	37°51'28"	85°04'01"	140	0	0
03300390	1	Chaplin R. nr. Chaplin, Ky.	37°52'14"	85°13'51"	262	0	0
03300498	1	Cartwright Cr. at Fredericktown, Ky.	37°45'45"	85°19'29"	82.3	.2	0
03302100	2	Otter Cr. at Grahamton, Ky.	37°54'06"	86°01'32"	88.4	6.0	4.0
03302150	2	Doe Run nr. Brandenburg, Ky.	37°57'28"	86°07'18"	52.7	7.4	5.2
03303195	1	Sinking Cr. at Rosetta, Ky.	37°47'47"	86°16'25"	36.0	2.0	1.0
03303198	1	Sinking Cr. at Dents Bridge nr. Irvington, Ky.	37°49'18"	86°17'42"	66.1	5.0	2.5
03303200	2	Sinking Cr. nr. Irvington, Ky.	37°50'18"	86°19'26"	86.7	0	0
03303205	1	Sinking Cr. nr. Lodiburg, Ky.	37°52'06"	86°23'16"	125	8.4	4.0
03303450	1	Blackford Cr. nr. Maceo, Ky.	37°53'56"	86°59'11"	111	0	0
03305520	1	Green R. at Middleburg, Ky.	37°21'06"	84°49'09"	66.5	0	0
03305760	1	Goose Cr. at Dunnville, Ky.	37°11'59"	85°00'16"	51.6	4.3	3.0
03305865	1	Casey Cr. at Casey Cr., Ky.	37°15'57"	85°09'00"	74.7	.5	.1
03306850	1	Russell Cr. at Columbia, Ky.	37°06'32"	85°18'10"	126	5.5	1.7
03307295	2	Big Pitman Cr. nr. Summerville, Ky.	37°18'17"	85°31'39"	126	1.4	.3
03307800	1	Little Barren R. nr. Monroe, Ky.	37°13'35"	85°40'39"	244	8.2	2.1
03309100	2	Wet Prong Buffalo Cr. nr. Mammoth Cave, Ky.	37°13'47"	86°10'24"	2.26	1.0	.8
03310600	2	Dog Cr. nr. Mammoth Cave, Ky.	37°16'47"	86°07'05"	8.12	1.6	1.1
03311100	2	Bylew Cr. nr. Mammoth Cave, Ky.	37°15'40"	86°13'07"	5.16	.6	.4
03312100	2	Bear Cr. nr. Roundhill, Ky.	37°14'56"	86°21'40"	137	.9	.5
03313700	3	West Fk. Drakes Cr. nr. Franklin, Ky.	36°43'08"	86°32'44"	110	9.2	7.7
03313900	2	Trammel Cr. nr. Scottsville, Ky.	36°43'54"	86°16'23"	93.4	8.3	4.5
03315265	1	Gasper R. nr. Richelieu, Ky.	36°59'25"	86°37'53"	160	4.2	1.7
03315300	2	Gasper R. at Hadley, Ky.	37°03'12"	86°35'47"	190	3.0	1.0
03315810	1	Muddy Cr. at Dunbar, Ky.	37°11'01"	86°46'24"	94.3	0	0
03316200	2	Wolf Lick Cr. nr. Lewisburg, Ky.	37°01'08"	86°57'33"	116	.3	0
03321215	1	Cypress Cr. nr. Rumsey, Ky.	37°30'32"	87°19'00"	149	0	0
03321350	3	South Fk. Panther Cr. nr. Whitesville, Ky.	37°37'08"	86°53'15"	58.2	.1	0
03321370	2	South Fk. Panther Cr. nr. Masonville, Ky.	37°38'43"	87°00'39"	109	0	0
03321410	2	North Fk. Panther Cr. nr. Masonville, Ky.	37°42'05"	87°03'54"	88.3	0	0
03322350	1	Highland Cr. nr. Waverly, Ky.	37°41'22"	87°45'08"	62.3	0	0
03322400	1	Highland Cr. nr. Uniontown, Ky.	37°45'51"	87°49'57"	166	0	0
03400585	1	Poor Fk. at Rosspoint, Ky.	36°53'04"	83°17'19"	142	10.0	4.0
03400700	2	Clover Fk. at Evarts, Ky.	36°51'56"	83°11'37"	82.4	4.8	1.8
03400985	1	Martins Fk. at Harlan, Ky.	36°49'57"	83°19'36"	116	8.0	3.3
03401500	2	Yellow Cr. Bypass at Middlesboro, Ky.	36°37'52"	83°43'45"	35.3	.5	.1
03402850	1	Left Fk. Straight Cr. at Cary, Ky.	36°47'29"	83°39'57"	33.7	.5	.1
03402852	1	Straight Cr. at Straight Cr., Ky.	36°46'24"	83°40'12"	89.8	2.2	.6
03403180	1	Stinking Cr. at Dewitt, Ky.	36°52'35"	83°44'17"	49.1	.1	0
03403255	1	Road Fk. Cr. at Dewitt, Ky.	36°52'38"	83°44'17"	25.2	0	0
03403530	1	Richland Cr. nr. Barbourville, Ky.	36°55'11"	83°54'20"	27.7	0	0
03404200	2	Jellico Cr. nr. Williamsburg, Ky.	36°40'56"	84°15'20"	103	.1	0
03405700	2	South Fk. Rockcastle R. nr. Peoples, Ky.	37°16'05"	84°03'02"	95.1	.2	0
03405900	1	Roundstone Cr. at Livingston, Ky.	37°17'55"	84°12'50"	144	0	0
03407200	2	West Fk. Cane Br. nr. Parkers Lake, Ky.	36°51'50"	84°27'10"	0.26	0	0
03410900	2	Little South Fk. Cumberland R. nr. Oil Valley, Ky.	36°45'30"	84°40'20"	98.2	2.3	.8
03412700	1	Fishing Cr. at Hogue, Ky.	37°09'50"	84°42'32"	59.8	0	0
03413345	1	Otter Cr. nr. Susie, Ky.	36°46'19"	84°58'48"	67.1	4.4	2.6
03414080	1	Crocus Cr. nr. Bakerton, Ky.	36°52'32"	85°20'39"	108	1.2	.4
03435100	2	Red R. nr. Adairville, Ky.	36°42'04"	86°51'42"	229	13	5.8
03438070	3	Muddy Fk. Little R. nr. Cerulean, Ky.	36°58'40"	87°42'36"	30.5	0	0
03438167	2	Dry Cr. nr. Lamasco, Ky.	37°01'37"	87°55'48"	34.6	0	0
03438170	1	Eddy Cr. nr. Lamasco, Ky.	37°01'59"	87°56'26"	71.7	4.7	2.2
03438470	1	Livingston Cr. nr. Dycusburg, Ky.	37°08'35"	88°09'48"	112	6.1	3.4
03610545	3	West Fk. Clarks R. nr. Brewers, Ky.	36°46'48"	88°28'03"	68.7	3.6	2.0
03613000	2	Humphrey Cr. at La Center, Ky.	37°04'39"	88°57'21"	44.2	.2	0
07022600	2	Mayfield Cr. at Mayfield, Ky.	36°44'54"	88°37'06"	95.1	0	0
07023700	2	Obion Cr. nr. Arlington, Ky.	36°45'30"	89°00'13"	203	8.1	3.3

EXPLANATION

▲ Index station.
1 Partial record station, not previously published.
2 △ Partial record station, previously published.
3 Gaging station, less than ten years record.

03400985
3.3 (116)

Upper number is station number.
Lower left number is 7-day 10-year discharge, (in cubic feet per second).
Lower right number is drainage area, (in square miles).

Cr. Creek
Fk. Fork
R. River

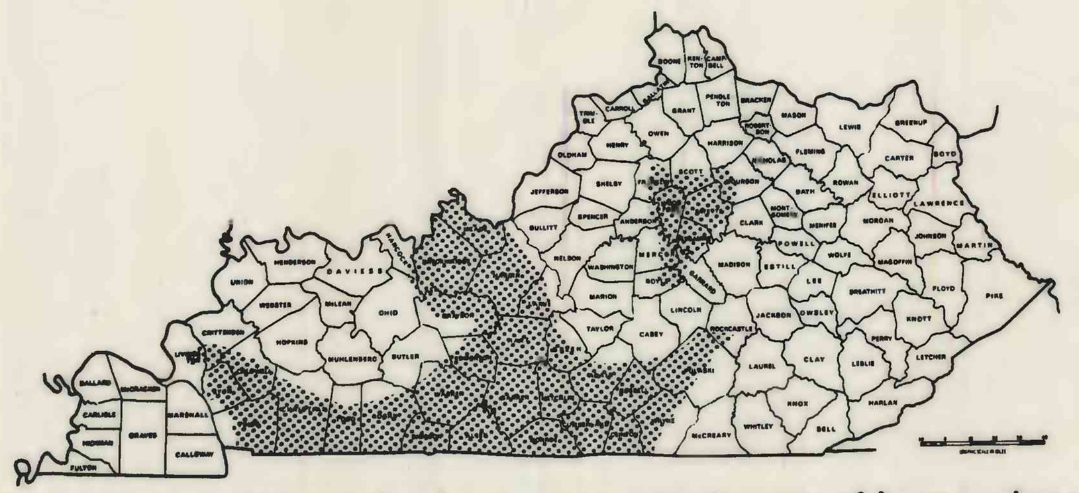
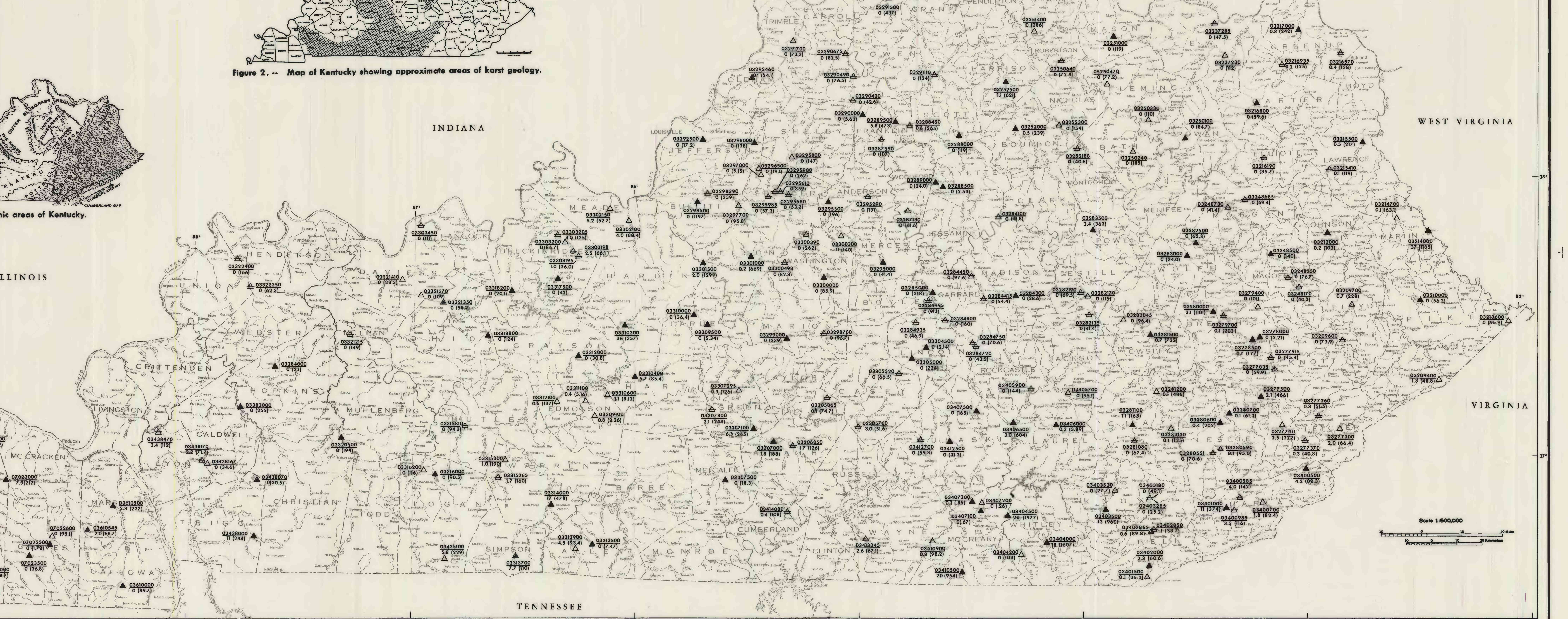


Figure 2. -- Map of Kentucky showing approximate areas of karst geology.

Figure 1. -- Physiographic areas of Kentucky.



LOW-FLOW CHARACTERISTICS OF KENTUCKY STREAMS, 1980
by
John N. Sullavan