Click here to return to USGS publications

LOW-FLOW CHARACTERISTICS OF KENTUCKY STREAMS

By Kevin J. Ruhl and Gary R. Martin

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 91-4097

Prepared in cooperation with the
KENTUCKY NATURAL RESOURCES AND
ENVIRONMENTAL PROTECTION CABINET

Louisville, Kentucky
1991

USGS
science for a changing world

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03208000	Levisa Fork Below Fishtrap Dam	Yes	1938-68	29	392	0.655	18	8.6	1.3	Fishtrap Lake, 10/68
03209500	Levisa Fork at Pikeville	Yes	1937-64	27	1,232	.634	19	25	5.2	Flannagan Lake, 03/65
03210000	Johns Creek near Meta	No	1941-87	46	56.3	.720	19	.68	0	
03212000	Paint Creek at Staffordsville	No	1950-75	25	103	.734	18	1.6	.20	
03212500	Levisa Fork at Paintsville	Yes	1915-16 1929-49	21	2,144	.647	22	50	16	Dewey Lake, 05/50
03215500	Blaine Creek at Yatesville	No	1915-18 1938-75	39	217	.750	20	2.7	.52	
03216500	Little Sandy River at Grayson	Yes	1938-67	29	400	.705	27	6.9	2.8	Grayson Lake, 03/68
03216540	East Fork Little Sandy River near Fallsburg	No	1973-87	14	12.2	1.063	18	0	0	
03216800	Tygarts Creek at Olive Hill	No	1957-87	30	59.6	.829	22	.34	.02	
03217000	Tygarts Creek near Greenup	LD	1940-87	46	242	.767	18	2.4	.34	Upstream power plant
03237900	Cabin Creek near Tollesboro	No	1972-87	15	22.4	.926	17	.02	0	
03248500	Licking River near Salyersville	No	1939-87	48	140	.711	28	2.1	0	
03249500	Licking River at Farmers	Yes	1939-73	33	827	.676	25	18	4.8	Cave Run Lake, 12/73
03250000	Triplett Creek at Morehead	No	1941-80	39	47.5	.878	19	.38	0	
03250100	North Fork Triplett Creek near Morehead	No	1967-87	19	84.7	.913	19	.28	0	
03250500	Licking River near Blue Lick Springs	No	1938-59	21	1785	.761	22	30	7.6	
03251000	North Fork Licking River near Lewisburg	No	1946-87	40	119	1.247	20	.04	0	
03251500	Licking River at McKinneysburg	Yes	1924-26 1938-73	35	2,326	.732	25	35	10	Cave Run Lake, 12/73
03252000	Stoner Creek at Paris	LD	1953-87	34	239	.828	22	1.5	.58	Waste disposal, Paris
03252500	South Fork Licking River at Cynthiana	LD	1938-87	49	621	.856	22	3.4	1.2	Municipal supply, Cynthiana

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03253500	Licking River at Catawba	Yes	1915-17	45	3,000	0.741	26	49	13	Cave Run Lake, 12/73
03254400	North Fork Grassy Creek near Piner	No	1968-83	15	13.6	.984	31	0	0	
03277450	Carr Fork near Sassafras	Yes	1964-75	10	60.6	.704	23	.92	0	Carr Fork Lake, 01/76
03277500	North Fork Kentucky River at Hazard	Yes	1940-76	34	466	.627	29	8.8	2.1	Carr Fork Lake, 01/76
03278000	Bear Branch near Noble	No	1955-73	18	2.21	.917	18	0	0	
03278500	Troublesome Creek near Noble	No	1950-81	31	177	.745	24	2.0	.06	
03280000	North Fork Kentucky River at Jackson	Yes	1928-31 1938-75	39	1,101	.645	24	24	3.1	Carr Fork Lake, 01/76
03280600	Middle Fork Kentucky River near Hyden	LD	1958-87	29	202	.701	22	2.3	0	Municipal supply, Hyden
03280700	Cutshin Creek at Wooton	No	1958-87	29	61.3	.698	21	.86	.10	
03281000	Middle Fork Kentucky River at Tallega	Yes	1931-32 1940-60	20	537	.724	20	6.9	.84	Buckhorn Lake, 12/60
03281040	Red Bird River near Big Creek	No	1972-87	14	155	.667	24	2.2	.67	
03281100	Goose Creek at Manchester	No	1965-87	22	163	.703	25	1.8	.26	
03281500	South Fork Kentucky River at Booneville	No	1925-31 1940-87	53	722	.705	21	11	1.0	
03282000	Kentucky River at Lock 14 at Heidelberg	Yes	1926-31 1938-60	25	2,657	.688	21	46	12	Buckhorn Lake, 12/60
03282500	Red River at Hazel Green	No	1954-87	33	65.8	.764	20	.45	0	
03283000	Stillwater Creek at Stillwater	No	1954-73	19	24	.889	20	.08	0	
03283500	Red River at Clay City	LD	1931-32 1938-87	50	362	.606	27	12	3.8	Waste disposal, Stanton, municipal supply, Clay City

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03284000	Kentucky River at Lock 10 near Winchester	Yes	1908-60	51	3,955	0.663	23	101	35	Buckhorn Lake, 12/60
03284300	Silver Creek near Kingston	LD	1968-83	15	28.6	.641	23	.78	.28	Waste disposal, Berea
03284500	Kentucky River at Lock 8 near Camp Nelson	Yes	1939-60	20	4,414	.672	23	141	44	Buckhorn Lake, 12/60
03285000	Dix River at Danville	No	1943-87	44	318	.939	23	.56	0	
03287000	Kentucky River at Lock 6 near Salvisa	Yes	1926-87 1/	61	5,102	.578	--	294	133	Herrington Lake, 11/25
03287500	Kentucky River at Lock 4 at Frankfort	Yes	1926-87 1/	58	5,411	.563	--	323	172	Herrington Lake, 11/25
03288000	North Elkhorn Creek near Georgetown	No	1950-83	34	119	.786	22	1.4	0	
03288500	Cave Creek near Fort Spring	No	1953-72 1977	20	2.53	.752	26	.05	0	
03289000	South Elkhorn Creek at Fort Spring	No	1950-87	37	24	.707	36	.90	0	
03289500	Elkhorn Creek near Frankfort	LD	1915-18 1940-83	46	473	.603	27	22	6.8	Intrabasin transfer, and waste disposal, Lexington
03290000	Flat Creek near Frankfort	No	1952-71	20	5.63	1.207	14	0	0	
03290500	Kentucky River at Lock 2 at Lockport	Yes	1926-87 1/	55	6,180	.560	--	393	202	Herrington Lake, 11/25
03291000	Eagle Creek at Sadieville	No	1941-75	33	42.9	1.488	18	0	0	
03291500	Eagle Creek at Glencoe	No	1915-18 1928-31 1938-77	42	437	1.341	16	.13	0	
03292460	Harrods Creek near LaGrange	No	1968-87	19	24.1	.973	17	.09	0	

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03292500	South Fork Beargrass Creek at Louisville	LD	1939-40 1944-53 1954-62 1970-83	27	17.2	0.665	28	0.43	0	Waste disposal, Louisville
03293000	Middle Fork Beargrass Creek at Louisville	LD	1944-87	42	18.9	.521	24	1.6	.31	Waste disposal, Louisville
03295000	Salt River near Harrodsburg	No	1953-73	20	41.4	1.173	20	0	0	
03295500	Salt River near Van Buren	No	1939-82	43	196	.944	21	.29	0	
03297500	Plum Creek at Waterford	No	1954-74	20	31.8	1.309	16	0	0	
03298000	Floyds Fork at Fisherville	No	1944-87	42	138	1.262	23	.07	0	
03298500	Salt River at Shepherdsville	Yes	1938-82	43	1,197	.876	19	2.6	.06	Taylorsville Lake, 01/83
03299000	Rolling Fork near Lebanon	No	1938-87	49	239	.947	23	.60	0	
03300000	Beech Fork near Springfield	No	1953-72	19	85.9	1.204	20	0	0	
03300400	Beech Fork at Maud	No	1972-87	14	436	.790	33	.89	.02	
03301000	Beech Fork at Bardstown	No	1939-74	34	669	.913	21	1.9	.20	
03301500	Rolling Fork near Boston	No	1938-87	48	1,299	.773	33	13	2.5	
03302000	Pond Creek near Louisville	LD	1944-87	42	64	.550	28	5.0	.88	Waste disposal, Louisville
03304500	McGills Creek near McKinney	No	1951-71	19	2.14	1.101	21	0	0	
03305000	Green River near McKinney	No	1951-73	21	22.4	1.135	25	0	0	
03306500	Green River at Greensburg	Yes	1939-68	29	736	.716	28	9.4	2.0	Green River Lake, 02/69
03307000	Russell Creek near Columbia	No	1940-87	47	188	.575	30	8.6	2.2	
03307100	Russell Creek near Gresham	No	1965-75	10	265	.571	32	10	3.0	
03307500	South Fork Little Barren River at Edmonton	No	1941-72	30	18.3	1.270	24	0	0	
03308500	Green River at Munfordville	Yes	1915-23 1928-31 1938-68	40	1,673	.568	32	112	71	Green River Lake, 02/69
03309000	Green River at Mammoth Cave	Yes	1938-50	11	1,983	--	--	148	100	Green River Lake, 02/69

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03309500	McDougal Creek near Hodgenville	No	1953-71	17	5.34	0.610	26	0.17	0	
03310000	North Fork Nolin River at Hodgenville	No	1941-73	31	36.4	.824	24	.33	0	
03310300	Nolin River at White Mills	No	1960-87	27	357	.438	53	52	38	
03310400	Bacon Creek near Priceville	No	1960-87	27	85.4	.368	62	9.0	5.9	
03310500	Nolin River at Wax	No	1937-62	25	600	.474	64	72	47	
03311000	Nolin River at Kyrock	Yes	1931-32 1939-50 1961-62	12	703	.478	48	78	53	Nolin Lake, 03/63
03311500	Green River at Lock 6 at Brownsville	Yes	1925-31 1938-62	29	2,762	.527	34	250	158	Nolin Lake, 03/63
03311600	Beaverdam Creek at Rhoda	No	1973-87	14	10.9	.553	45	.79	.34	
03312000	Bear Branch near Leitchfield	No	1950-71	21	30.8	.886	19	.32	0	
03312500	Barren River near Pageville	No	1939-63	24	531	.493	42	55	31	
03313000	Barren River near Finney	Yes	1942-50 1961-63	10	942	.511	38	69	42	Barren River Lake, 03/64
03313500	West Bays Fork at Scottsville	No	1951-72	21	7.47	.572	29	.33	.08	
03314000	Drakes Creek near Alvaton	No	1940-71	31	478	.528	49	32	17	
03314500	Barren River at Bowling Green	Yes	1938-63	25	1,849	.547	34	105	62	Barren River Lake, 03/64
03315500	Green River at Lock 4 at Woodbury	Yes	1938-62	24	5,404	.543	32	403	260	Nolin Lake, 03/63
03316000	Mud River near Lewisburg	No	1940-72	32	90.5	.860	25	1.1	0	
03316500	Green River at Paradise	Yes	1940-50 1961-63	13	6,183	.553	37	443	326	Nolin Lake, 03/63
03317000	Rough River near Madrid	No	1938-59	20	225	--	--	14	9.5	
03317500	North Fork Rough River near Westview	No	1954-73	19	42	.834	21	.18	0	
03318000	Rough River near Falls of Rough	LD	1940-56	11	454	--	22	15	10	Mill, Falls of Rough
03318200	Rock Lick Creek near Glenn Dean	No	1957-71	14	20.1	.852	18	0	0	

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03318500	Rough River at Falls of Rough	Yes	1950-59	10	504	0.669	22	16	10	Rough River Lake, 10/59 and mill
03318800	Caney Creek near Horse Branch	No	1957-87	30	124	1.311	19	0	0	
03319000	Rough River near Dundee	Yes	1940-59	18	757	.701	22	20	14	Rough River Lake, 10/59
03320000	Green River at Lock 2 at Calhoun	Yes	1930-59	28	7,566	.590	32	505	338	Rough River Lake, 10/59
03320500	Pond River near Apex	No	1940-87	46	194	1.287	23	.04	0	
03321350	South Fork Panther Creek near Whitesville	No	1968-83	15	58.2	.973	25	0	0	
03322360	Beaverdam Creek near Corydon	No	1972-87	15	14.3	1.357	25	0	0	
03383000	Tradewater River at Olney	No	1940-87	45	255	--	20	.33	0	
03384000	Rose Creek at Nebo	No	1952-70	18	2.10	1.209	11	0	0	
03400500	Poor Fork at Cumberland	No	1940-87	47	82.3	.488	33	9.4	4.6	
03401000	Cumberland River near Harlan	Yes	1940-87 2/	47	374	.523	33	32	13	Martins Fork Lake, 01/79
03402000	Yellow Creek near Middlesboro	LD	1940-87	47	60.6	.554	31	5.2	2.5	Waste disposal, Middlesboro
03403000	Cumberland River near Pineville	Yes	1938-75 1980-87 2/	43	809	.566	32	50	16	Martins Fork Lake, 01/79 and upstream power plant
03403500	Cumberland River at Barbourville	Yes	1923-31 1948-87 2/	47	960	.578	30	55	17	Martins Fork Lake, 01/79 and municipal supply, Barbourville
03403910	Clear Fork at Saxton	No	1968-87	18	331	.514	28	12	2.5	
03404000	Cumberland River at Williamsburg	Yes	1951-87 2/	36	1,607	.575	24	73	22	Martins Fork Lake, 01/79
03404500	Cumberland River at Cumberland Falls	Yes	1907-11 1915-87 2/	73	1,977	.605	22	87	23	Martins Fork Lake, 01/79
03404820	Laurel River at Municipal Dam at Corbin	LD	1974-87	13	140	1.011	--	0	0	Municipal supply, Corbin
03404900	Lynn Camp Creek at Corbin	No	1974-87	13	53.8	.624	24	1.2	.73	
03405000	Laurel River at Corbin	LD	1922-24 1942-73	31	201	.871	18	1.8	.61	Municipal supply, Corbin
03406000	Wood Creek near London	No	1954-71	17	3.89	.535	25	.37	.27	
03406500	Rockcastle at Billows	No	1936-87	50	604	.687	25	12	3.5	

Table 1.--Streamflow characteristics for selected continuous-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second; LD, local diversion; --, value not determined]

Station number	Station name	Regulated	Period of unregulated record (water year)	Years of record in analysis	Drainage area (mi^2)	Station streamflow-variability index	Station streamflow-recession index (days/log cycle)	7-day 2-year low flow (ft^3/s)	7-day 10-year low flow (ft^3/s)	Source of regulation and start date, or type of diversion and location
03407100	Cane Branch near Parkers Lake	No	1956-66 1974	10	0.67	0.574	19	0.03	0	
03407300	Helton Branch near Greenwood	No	1956-74	18	.85	.461	18	.12	.09	
03407500	Buck Creek near Shopville	No	1953-87	34	165	.958	26	.23	0	
03410500	South Fork Cumberland River near Sterns	No	1943-87	44	954	.598	23	49	22	
03411000	South Fork Cumberland River near Nevelsville	No	1915-50	33	1,271	--	--	56	23	
03411500	Cumberland River at Burnside	Yes	1914-50	35	4,865	--	--	184	84	Martins Fork Lake, 01/79
03412500	Pitman Creek at Somerset	No	1953-72	18	31.3	.771	24	.31	.04	
03413200	Beaver Creek near Monticello	No	1969-83	14	43.4	.617	25	2.3	1.3	
03435140	Whippoorwill Creek near Claymour	No	1973-87	13	20.8	1.033	22	.06	0	
03437500	South Fork Little River at Hopkinsville	No	1950-73	23	46.5	.753	31	.94	.34	
03438000	Little River near Cadiz	No	1940-87	47	244	.535	33	23	12	
03438070	Muddy Fork Little River near Cerulean	No	1968-83	14	30.5	1.158	20	.01	0	
03610000	Clarks River at Murray	No	1952-71	19	89.7	1.343	15	0	0	
03610500	Clarks River near Benton	No	1938-73	34	227	.711	29	4.1	2.3	
03610545	West Fork Clarks River near Brewers	No	1969-83	14	68.7	.531	25	2.5	1.0	
03611260	Massac Creek near Paducah	No	1972-87	15	14.6	.724	17	.20	.10	
07022500	Perry Creek near Mayfield	No	1953-65 1968-72	15	1.72	1.085	--	0	0	
07023000	Mayfield Creek at Lovelaceville	No	1938-72	33	212	.516	17	13	7.9	
07023500	Obion Creek at Pryorsburg	No	1951-73	21	36.8	1.502	18	0	0	
07024000	Bayon De Chien near Clinton	No	1940-78 1984-87	41	68.7	.472	34	9.8	6.9	

1/ Includes effect of regulation by Herrington Lake

2/ Includes effect of regulation by Martins Fork Lake

Table 2.--Drainage area, streamflow-variability index, and low-flow characteristics estimated from graphical correlation and from regression equations for selected low-flow partial-record gaging stations in Kentucky

[mi^2, square miles; ft^3/s, cubic feet per second]

Station number	Station name	Drainage area (mi^2)	Streamflow-variability index	7-day 2-year low flow (ft^3/s) From graphical correlation	7-day 2-year low flow (ft^3/s) From regression equation[1/]	7-day 10-year low flow (ft^3/s) From graphical correlation	7-day 10-year low flow (ft^3/s) From regression equation[2/]
03207965	Dicks Fork at Phyllis	6.2	0.70	0	0.1	0	0
03209400	Elkhorn Creek near Elkhorn City	48.8	.69	1.7	1.2	.1	.4
03209460	Shelby Creek at Shelbiana *	112	.70	2.7	2.4	.4	.8
03209600	Right Fork Beaver Creek at Wayland	73.9	.70	1.5	1.6	0	.5
03209700	Beaver Creek at Martin	228	.70	6.0	5.1	.9	1.6
03209890	Middle Creek near Prestonsburg	62.1	.70	.5	1.3	0	.4
03211500	Johns Creek near Van Lear	206	.80	1.6	2.2	.4	.5
03211945	Open Fork Paint Creek near Relief	25.5	.80	.4	.2	.1	.1
03213600	Knox Creek at Argo	95.9	.70	.4	2.1	.1	.7
03213790	Big Creek near Hatfield	59.1	.80	1.1	.6	0	.1
03214400	Wolf Creek ar Pilgrim	62.8	.80	.6	.6	0	.2
03214700	Rockcastle Creek at Inez	63.1	.80	.8	.6	0	.2
03214730	Rockcastle Creek at Clifford	121	.80	1.7	1.2	0	.3
03215362	Blaine Creek above Cains Creek near Blaine	64.7	.80	.4	.6	0	.2
03215410	Blaine Creek near Blaine	119	.80	.9	1.2	.1	.3
03216190	Little Sandy River near Sandy Hook	35.7	.70	.2	.7	0	.3
03216438	Little Fork Little Sandy River near Willard	58.1	.80	.3	.6	0	.1
03216480	Little Fork Little Sandy River near Grayson	132	.79	1.6	1.5	.2	.4
03216570	East Fork Little Sandy River near Argillite	138	.80	2.2	1.4	.4	.3
03216935	Tygarts Creek near Kehoe	124	.85	1.2	.9	.2	.2
03216965	Buffalo Creek below Grassey Creek at Kehoe	54.6	.85	.1	.4	0	.1
03237225	Kinniconick Creek near Kinniconick	60.1	1.01	.3	.2	0	0
03237230	Kinniconick Creek near Rugless	112	.93	.3	.6	0	.1
03237246	Laurel Fork near Camp Dix	57.0	.85	.2	.4	0	.1
03237285	Salt Lick Creek near Vanceburg	47.5	1.15	0	.1	0	0
03237985	Cabin Creek near Plumville	57.6	1.15	0	.1	0	0
03238620	Bracken Creek near Augusta	28.8	1.25	0	0	0	0
03238660	Locust Creek near Augusta	41.7	1.35	0	0	0	0
03248170	Licking River at Fredville	40.3	.80	.2	.4	0	.1
03248250	Licking River at Royalton	76.7	.80	.6	.8	0	.2
03248540	Middle Fork near Salyersville	45.7	.80	.3	.4	0	.1
03248685	Elk Fork near West Liberty	59.4	.80	.9	.6	0	.1
03248730	Caney Creek near West Liberty	41.4	.80	.2	.4	0	.1
03248815	Blackwater Creek near Ezel	38.3	.70	.1	.8	0	.3
03248855	North Fork Licking River near Wrigley	33.7	.70	.4	.7	.3	.2
03250240	Slate Creek near Owingsville	185	1.15	.2	.3	0	0
03250320	Rock Lick Creek near Sharkey	4.01	1.15	0	0	0	0
03250330	Fox Creek near Hillsboro	110	1.15	0	.1	0	0
03250470	Fleming Creek near Hilltop	77.2	1.25	0	.1	0	0
03250640	Johnson Creek at Piqua	72.4	1.35	0	0	0	0

Table 2.--Drainage area, streamflow-variability index, and low-flow characteristics estimated from graphical correlation and from regression equations for selected low-flow partial-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second]

Station number	Station name	Drainage area (mi^2)	Streamflow-variability index	7-day 2-year low flow (ft^3/s) From graphical correlation	7-day 2-year low flow (ft^3/s) From regression equation[1/]	7-day 10-year low flow (ft^3/s) From graphical correlation	7-day 10-year low flow (ft^3/s) From regression equation[2/]
03251400	North Fork Licking River at Milford	286	1.35	0.1	0.2	0	0
03252188	Grassy Lick Creek near Sharpsburg	40.6	1.35	0	0	0	0
03252300	Hinkston Creek near Carlisle	154	1.35	.4	.1	0	0
03252940	Fork Lick Creek at Morgan	50.2	1.35	0	0	0	0
03254460	Grassy Creek at Demossville	119	1.35	0	.1	0	0
03277100	Gunpowder Creek near Union	50.2	.90	.3	.3	.1	0
03277300	North Fork Kentucky River at Whitesburg *	66.4	.67	4.7	1.8	2.0	.7
03277340	North Fork Kentucky River at Blackey	131	.68	6.1	3.7	2.0	1.4
03277360	Rockhouse Creek near Letcher	51.5	.70	.9	1.1	.3	.4
03277370	Line Fork at Defeated Creek	40.8	.70	.9	.8	.4	.3
03277411	North Fork Kentucky River at Cornettsville	322	.80	6.6	3.5	2.1	.8
03277835	Troublesome Creek at Dwarf	59.9	.80	.5	.6	0	.2
03277915	Balls Fork at Ary	45.4	.80	.2	.4	0	.1
03279400	Quicksand Creek at Lunah	101	.80	.6	1.0	0	.2
03279700	Quicksand Creed at Quicksand	203	.80	2.3	2.1	.1	.5
03280551	Middle Fork Kentucky River at Asher	70.6	.80	.4	.7	0	.2
03280570	Greasy Creek at Napier	37.7	.80	.2	.4	0	.1
03280590	Greasy Creek at Haskinton	95.0	.80	.8	1.0	0	.2
03281016	Red Bird River near Spring Creek	52.7	.80	.8	.5	.2	.1
03281030	Red Bird River at Big Creek	125	.80	1.8	1.3	.5	.3
03281065	Goose Creek at Gooserock	49.6	.80	.3	.5	0	.1
03281080	Collins Fork near Bluehole	51.9	.80	.1	.5	0	.1
03281200	South Fork Kentucky River at Oneida	486	.80	4.4	5.4	.3	1.2
03281350	Sexton Creek at Taft (Below Bungeon Branch)	71.0	.72	.8	1.4	.1	.4
03282045	Sturgeon Creek near Heidelberg	96.4	.70	.4	2.1	0	.7
03282135	South Fork Station Camp Creek near Drip Rock Post Office	41.4	.85	.4	.3	0	.1
03282170	Station Camp Creek at Wagersville	115	.84	.7	1.0	0	.2
03282190	Red Lick Creek near Station Camp	69.5	1.05	.2	.2	0	0
03283100	Red River near Pine Ridge	142	.79	1.4	1.8	0	.5
03283830	Muddy Creek at Doylesville	63.8	1.15	.2	.1	0	0
03283995	Otter Creek near Ford	63.5	1.15	.4	.1	0	0
03284100	Boone Creek at Grimes Mill Road near Locust Grove	41.8	.85	.1	.3	0	.1
03284415	Paint Lick Creek at Paint Lick	54.4	1.15	0	.1	0	0
03284450	Paint Lick Creek near McCreary	97.6	1.21	0	.1	0	0
03284495	Sugar Creek near Buckeye	41.5	1.35	0	0	0	0
03284720	Dix River above Copper Creek near Crab Orchard	43.5	1.15	.1	.1	0	0
03284750	Dix River below Copper Creek near Crab Orchard	70.6	1.15	.1	.1	0	0
03284800	Dix River near Stanford	160	1.15	.2	.2	0	0
03284935	Hanging Fork Creek near Stanford	46.9	1.15	0	.1	0	0
03284995	Hanging Fork Creek near Hubble	91.1	1.15	0	.1	0	0

Table 2.--Drainage area, streamflow-variability index, and low-flow characteristics estimated from graphical correlation and from regression equations for selected low-flow partial-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second]

Station number	Station name	Drainage area (mi^2)	Streamflow-variability index	7-day 2-year low flow (ft^3/s) From graphical correlation	7-day 2-year low flow (ft^3/s) From regression equation[1/]	7-day 10-year low flow (ft^3/s) From graphical correlation	7-day 10-year low flow (ft^3/s) From regression equation[2/]
03322350	Highland Creek near Waverly	62.3	1.35	0	0	0	0
03322400	Highland Creek near Uniontown	166	1.35	.1	.1	0	0
03382600	Tradewater River at Pooles Mill Branch near Dawson Springs	60.4	1.35	0	0	0	0
03382685	Tradewater River at Murphy Ford near Dawson Springs	94.3	1.35	0	.1	0	0
03383755	Clear Creek at Highway 70 near Richland	17.0	1.35	0	0	0	0
03383900	Clear Creek at Watson Branch near Coiltown	78.8	1.35	0	0	0	0
03384050	Clear Creek at Highway 293 near Providence	197	1.35	.1	.1	0	0
03384100	Tradewater River at Montezuma Branch near Providence	605	1.35	.8	.4	0	0
03384110	Piney Creek near Blackford	60.8	1.35	0	0	0	0
03384154	Craborchard Creek at Clay	86.6	1.35	.1	0	0	0
03384360	Crooked Creek near Marion	47.4	1.35	.1	0	0	0
03400585	Poor Fork at Ross Point	142	.55	12	12	4.7	6.6
03400700	Clover Fork at Evarts *	82.4	.55	5.7	6.9	2.4	3.9
03400985	Martins Fork at Harlan	116	.55	9.4	9.8	3.9	5.4
03401500	Yellow Creek Bypass at Middlesboro	35.3	.65	.7	1.1	.2	.4
03402230	Yellow Creek near Ferndale	99.5	.58	7.6	6.6	3.8	3.2
03402480	Clear Creek at Clear Creek Springs *	38.5	.55	2.0	3.1	.9	1.9
03402850	Left Fork Straight Creek at Cary	33.7	.80	.8	.3	.4	.1
03402852	Straight Creek at Straight Creek	89.8	.73	2.2	1.0	.7	.3
03403180	Stinking Creek at Dewitt	49.1	.80	.1	.5	0	.1
03403255	Road Fork Creek at Dewitt	25.2	.80	0	.2	0	.1
03403530	Richland Creek near Barbourville	27.7	.70	0	.6	0	.2
03404200	Jellico Creek Near Williamsburg	103	.70	.2	2.2	0	.7
03404390	Marsh Creek near Whitley	72.0	.68	2.4	1.8	.8	.7
03404688	Laurel River near Lily	52.3	.70	0	1.1	0	.4
03404810	Little Laurel River near Lily	42.4	.68	.7	1.1	.1	.4
03405700	South fork Rockcastle River near Peoples *	95.1	.70	.4	2.1	.1	.7
03405818	Middle fork Rockcastle River near Parrot	79.0	.68	1.4	2.1	.4	.8
03405842	Horse Lick Creek near Lamero	61.7	.65	1.3	2.0	.7	.8
03405868	Roundstone Creek at Hummel	52.9	.62	2.8	2.3	2.1	1.0
03406330	Skegg Creek near Billows	55.9	.62	1.5	2.5	.5	1.2
03407000	Rockcastle River at Rockcastle Springs	745	.71	21	21	3.9	6.8
03407200	West Fork Cane Branch at Parkers Lake	.26	.65	0	0	0	0
03407425	Buck Creek near Woodstock	73.0	.97	.1	.7	0	.2
03410900	Little South Fork Cumberland River near Oil Valley	98.2	.64	2.3	3.4	.9	1.3
03412700	Fishing Creek near Hogue	59.8	.70	1.6	1.3	1.1	.4
03413345	Otter Creek near Susie	67.1	.60	5.1	3.4	3.0	1.6
03414080	Crocus Creek near Bakerton	108	.70	1.2	2.4	.5	.8
03414175	Marrowbone Creek near Grider	80.9	0.70	2.5	1.7	1.3	.6
03435063	Red River near Schochoh	127	.55	12	11	6.3	5.9

Table 2.--Drainage area, streamflow-variability index, and low-flow characteristics estimated from graphical correlation and from regression equations for selected low-flow partial-record gaging stations in Kentucky--Continued

[mi^2, square miles; ft^3/s, cubic feet per second]

Station number	Station name	Drainage area (mi^2)	Streamflow-variability index	7-day 2-year low flow (ft^3/s) From graphical correlation	7-day 2-year low flow (ft^3/s) From regression equation[1/]	7-day 10-year low flow (ft^3/s) From graphical correlation	7-day 10-year low flow (ft^3/s) From regression equation[2/]
03435100	Red River near Adairville	229	0.55	20	20	10	10
03435265	Whipoorwill Creek at Dot *	115	.55	6.7	9.7	3.1	5.4
03435380	Elk Fork Near Hadensville	88.5	.55	10	7.4	4.5	4.2
03436190	West Fork Red River near St. Elmo	162	.55	16	14	7.5	7.5
03438167	Dry Creek near Lamasco	34.6	.55	0	2.8	0	1.7
03438170	Eddy Creek near Lamasco	71.7	.55	5.4	5.9	2.7	3.4
03438470	Livingston Creek near Dycusburg	112	.55	6.9	9.5	3.9	5.2
03609710	Cypress Creek near Possum Trot	40.1	.70	0	.8	0	.3
03610585	West Fork Clarks River at Kaler	150	.60	5.0	7.9	2.5	3.5
03613000	Humphrey Creek at Lanceter	44.2	.70	.3	.9	.1	.3
07022600	Mayfield Creek at Mayfield	95.1	.60	0	4.9	0	2.3
07023700	Obion Creek near Arlington	203	.60	8.0	11	3.5	4.7

1/ $7Q_2 = 0.00235\ A^{1.05}\ V^{-5.62}$

2/ $7Q_{10} = 0.000498\ A^{0.967}\ V^{-7.86}$

* Station used in regression analysis to develop estimating equations

Low-flow characteristics of Kentucky streams

U.S. Geological Survey
Water-Resources Investigations Report 91-4097

ERRATA

Page	Line	Correction Needed		
31	4	A	to	ΔA
32	32	0.90	to	0.70
32	33	0.70	to	0.90