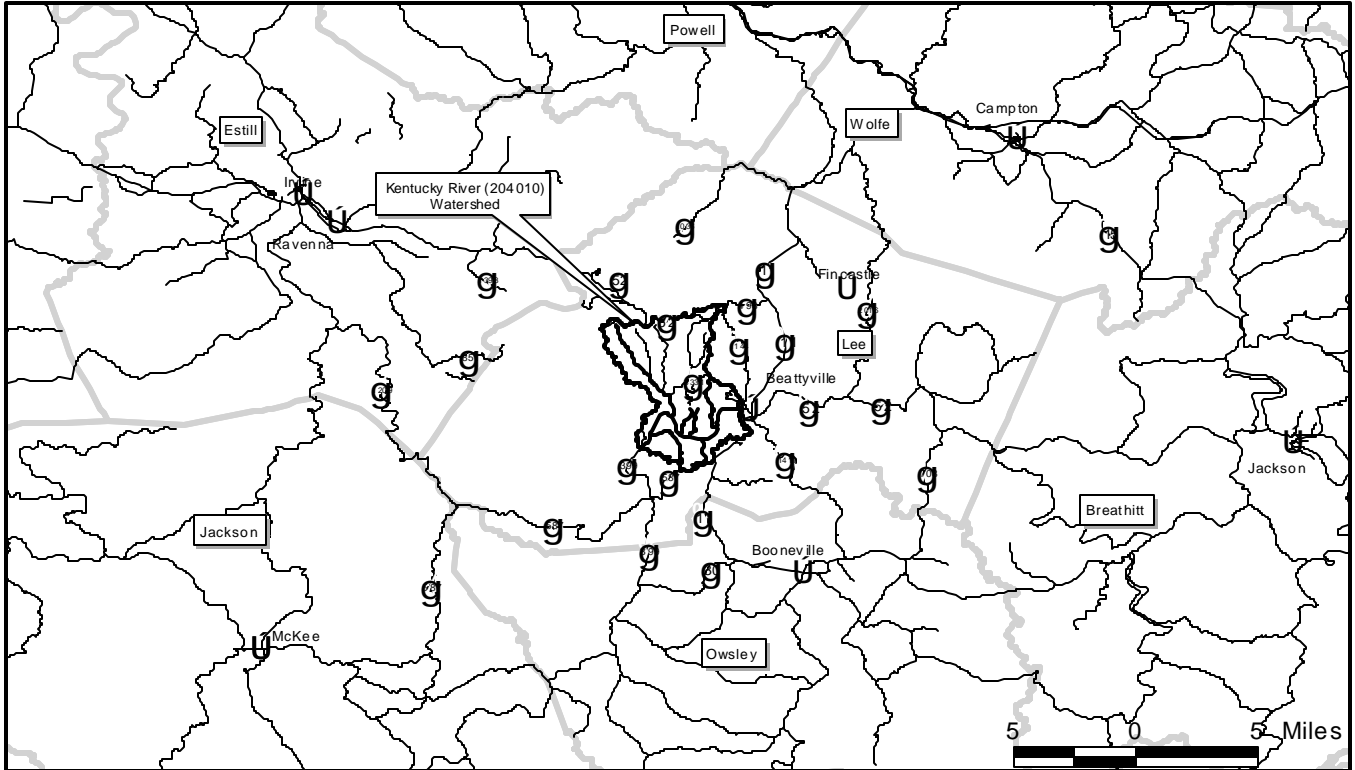


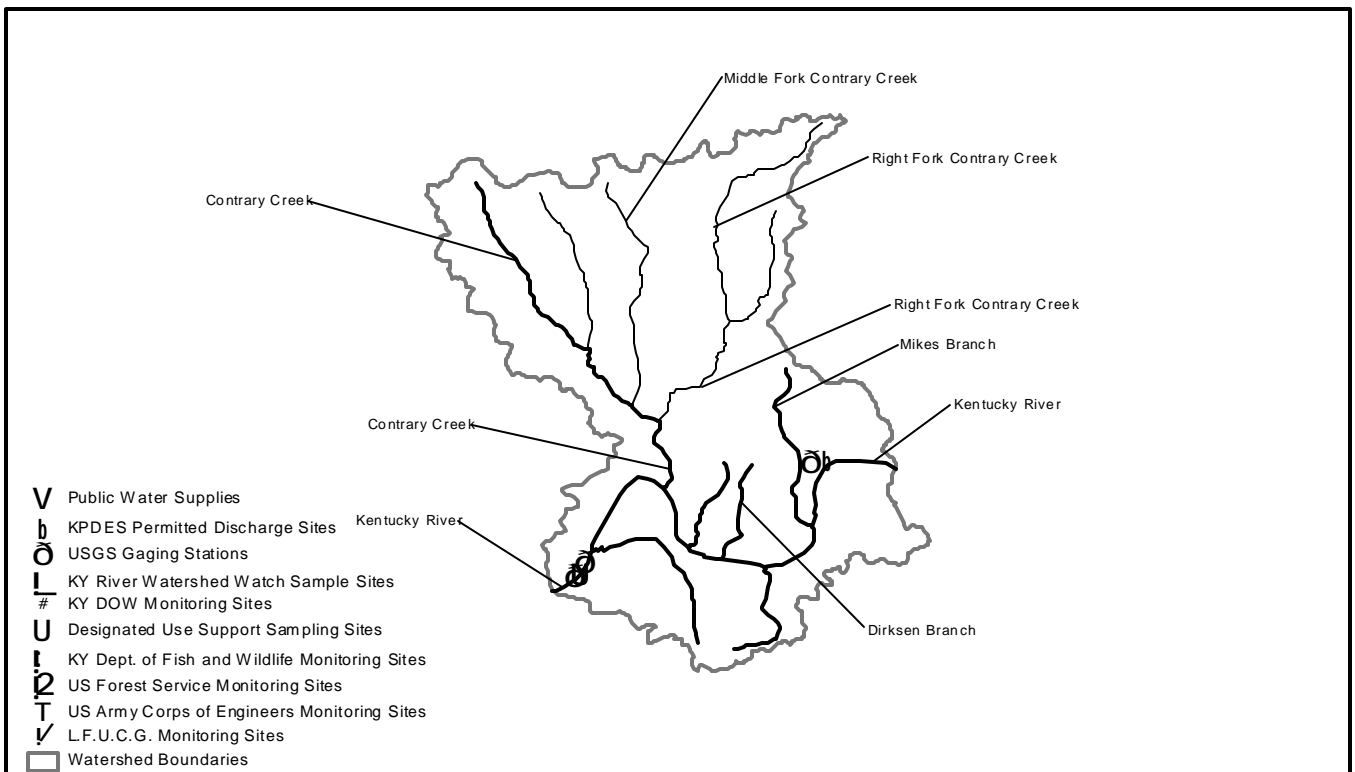
Kentucky River (204 010) Watershed

Watershed Number: 05100204010

Location Map



Watershed Features



Geography. The Kentucky River 204 010 watershed occupies central Lee County. The land is in the escarpment area of the Eastern Kentucky Coal Field physiographic region, characterized by hilly terrain, very rapid surface runoff, and moderate rates of groundwater drainage. The watershed is underlain by coals, sandstones, and shales: this geology is generally conducive to productive wells, although water quality may be low for wells that draw from coal layers.

Waterways. This watershed includes the Kentucky River from Beattyville west to the mouth of Sturgeon Creek at Heidelberg. Among the creeks that feed it are Contrary Creek and Mikes Branch. Water from the North Fork Kentucky River (lower) and South Fork Kentucky River (lower) watersheds also flows into this watershed.

Land and water use. Land in the watershed is mainly rural and wooded; about 10% is agricultural. The Beattyville sewage treatment plant holds a permit for discharges into the creek. See tables for details.

Agency data assessment. The assessed creek segments in this watershed fully support all of their designated uses, based on biological and/or water-quality data. See tables for details.

Watershed rankings. The ranking formula provides a preliminary ranking by synthesizing a broad spectrum of watershed characteristics, current conditions, and threats. This watershed ranks in the group with a moderate need for protection and/or restoration. This rating is for the watershed on average: particular sites and particular waters within the watershed may vary widely. See tables for details.

Volunteer data. No volunteer data were collected in this watershed in 1999.

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100204010

This report was prepared by the Kentucky Water Research Institute as a product of the statewide Kentucky Watershed Management process. Information presented in this report was collected from many sources. Reasonable attempts were made to ensure that information and figures are as accurate as possible, but no representation or guarantee is made as to either the correctness or suitability of information for particular purposes. All critical information should be independently verified. Please address questions or corrections to Basin Coordinator, KWRI, Rm. 233 Mining and Minerals Resources Building, University of Kentucky, Lexington, Kentucky 40506-0107.

Summary of Basin Characteristics and Facilities

General Land-use Characteristics:

Total Land Area (Acres):	11,499	Acres	% of Total		
Residential Area:	15		0.1	Number of Mine Permits:	2
Commercial Area:	69		0.6	Total Permitted Mining Area (Acres):	13
Industrial Area:	0		0.0	Number of Identified Wetland Areas:	4
Agricultural Area:	1,214		10.6	Total Wetland Area (Acres):	7
Rural and Wooded Area:	10,185		88.7		
Other Land-use Area:	0		0.0		

Withdrawal and Discharge Sites:

Number of Public Water Supplies and Water Withdrawal Sites:	0	Number of KPDES Discharge Permits:	1
Surface Water Withdrawals:	0		
Groundwater Withdrawals:	0		
No. of Potable Water Treatment Facilities:	0		

Sampling Site Statistics:

Number of USGS Gaging Stations:	1
Number of Kentucky Division of Water Sampling Sites:	0
Number of Kentucky Dept. of Fish and Wildlife Sampling Sites:	0
Number of US Forest Service Sampling Sites:	0
Number of US Army Corps of Engineers Sampling Sites:	0
Number of Kentucky River Watershed Watch Sampling Sites:	0
Number of Lexington-Fayette Urban Co. Gov. Sampling Sites:	0

Watershed Indicators and Ranking Categories: **Overall Watershed Ranking:**

Protection Ranking	Observed Impacts	Potential Impacts	Restoration Ranking	Medium
High	Medium	Low	Medium	

Protection Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Wetland Areas	7	Acres	0 - 106	12
Surface Drinking Water Sources	0	No. of sources	0 - 14	2
Ground Drinking Water Sources	0	No. of sources	0 - 17	1
Groundwater Sensitivity	3.36	Score	2 - 5	3.21
KY Dept. of Fish and Wildlife Management Areas	0	Acres	0 - 2951	93
U.S. Forest Service Management Areas	11,123	Acres	0 - 155253	12,600
Kentucky State Park Areas	0	Acres	0 - 1928	42
Nature Preserves Commission Areas	0	Acres	0 - 1430	32
Nature Conservancy Areas	0	Acres	0 - 2473	28
Reference Reach Watersheds	0.00	Score	0 - 100	3.08
Outstanding Resource Watersheds	0.00	Score	0 - 0	0.00
Recognized Stream Resources	0	No. of resources	0 - 8	1
Kentucky Rivers Assessment Scores	1.80	Score	0 - 11	1.80

Observed Impact Categories:

Human Health Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Flood Declarations	5	Number since 1970	0 - 10	4
Water Supply Inadequacy	0.00	Score	0 - 2	0.22
Observed Impacts to Surface Drinking Water	1.00	Score	1 - 1	1.00
Observed Impacts to Fish Consumption	1.00	Score	1 - 1	1.00
Observed Impacts to Primary Water Contact	1.00	Score	1 - 3	1.33
Contamination Sites Impacting Human Health	0	Number of sites	0 - 71	4

Ecological Health Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Observed Impacts to Aquatic Life	1.00	Score	1 - 3	1.31
Contamination Sites Impacting Ecological Health	0	Number of sites	0 - 71	4

Potential Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Potential Contamination Sites	2	Number of sites	1 - 121	12
Potential Pesticide Loading	1	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	18	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	7.04	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	194	Animal units	55 - 43826	7,021
KPDES Discharge Violations	74	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	2	Number of complaints	0 - 53	9
Toxic Release Inventory	0	Score	0 - 11547626	231,638
Population Change Projection	47	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	215	Number of persons	12 - 4511	1,114
Mining Area	13	Acres	0 - 6305	355
Surface Water Runoff Potential	60.78	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	1	Number of sites	0 - 56	6

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100204010

Stream and Waterbody Use Support Summary

<i>Total Stream Miles:</i>						
<input type="text" value="24.35"/>	<i>Number of Segments</i>	<i>Stream Miles Assessed</i>	<i>Miles * Fully Supportina</i>	<i>Miles * Partially Supportina</i>	<i>Miles * Not Supportina</i>	<i>Miles * Threatened</i>
<i>Segments Assessed:</i>	1	29.0	29.0	0.0	0.0	0.0
<i>Designated Uses</i>						
<i>Aquatic Life:</i>	1	29.0	29.0	0.0	0.0	0.0
<i>Primary Contact:</i>						
<i>Fish Consumption:</i>						
<i>Drinking Water:</i>						

* Blank values indicate no assessed segments for this category.

<i>Assessed Stream Segments and Waterbodies</i>					
<i>Stream or Waterbody Name *</i>	<i>Starting Milepoint</i>	<i>Ending Milepoint</i>	<i>Segment Length (miles)</i>	<i>Designated Uses *</i>	<i>Overall Level of Support</i>
Kentucky River	225.8	254.8	29	AL	Fully Supporting

**Abbreviations: AL - Aquatic Life Support, PC - Primary Contact Recreation, SC - Secondary Contact Recreation, FC - Fish Consumption, DW - Drinking Water Supply, UT - Unnamed Tributary*

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100204010

Withdrawal Sites and Discharge Facilities:

<i>KPDES Permitted Discharge Facilities</i>		
<i>Facility</i>	<i>Type of Facility</i>	<i>KPDES Site ID Number</i>
BEATTYVILLE STP	SEWERAGE SYSTEMS	KY0021121

Gaging Stations and Sampling Sites:

<i>US Geological Survey and US Army Corps of Engineers Stream Gaging Stations</i>			
<i>Stream Location</i>	<i>Agency</i>	<i>Station ID Number</i>	<i>Sampling Parameter</i>
Mikes Branch	US COE	USNWS373424083434101	Flow
Kentucky River	USGS	USGS03282000	Flow
Kentucky River	US COE	USCE373310083461201	Flow