

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):	<input type="text" value="74,462"/>	Acres	% of Total		
Residential Area:	<input type="text" value="3,837"/>	<input type="text" value="3,837"/>	<input type="text" value="5.2"/>	Number of Mine Permits:	<input type="text" value="0"/>
Commercial Area:	<input type="text" value="1,093"/>	<input type="text" value="1,093"/>	<input type="text" value="1.5"/>	Total Permitted Mining Area (Acres):	<input type="text" value="0"/>
Industrial Area:	<input type="text" value="303"/>	<input type="text" value="303"/>	<input type="text" value="0.4"/>	Number of Identified Wetland Areas:	<input type="text" value="70"/>
Agricultural Area:	<input type="text" value="34,642"/>	<input type="text" value="34,642"/>	<input type="text" value="46.5"/>	Total Wetland Area (Acres):	<input type="text" value="106"/>
Rural and Wooded Area:	<input type="text" value="34,032"/>	<input type="text" value="34,032"/>	<input type="text" value="45.7"/>		
Other Land-use Area:	<input type="text" value="571"/>	<input type="text" value="571"/>	<input type="text" value="0.8"/>		

Withdrawal and Discharge Sites:

Number of Public Water Supplies and Water Withdrawal Sites:	<input type="text" value="5"/>	Number of KPDES Discharge Permits:	<input type="text" value="18"/>
Surface Water Withdrawals:	<input type="text" value="4"/>		
Groundwater Withdrawals:	<input type="text" value="1"/>		
No. of Potable Water Treatment Facilities:	<input type="text" value="1"/>		

Sampling Site Statistics:

Number of USGS Gaging Stations:	<input type="text" value="7"/>
Number of Kentucky Division of Water Sampling Sites:	<input type="text" value="0"/>
Number of Kentucky Dept. of Fish and Wildlife Sampling Sites:	<input type="text" value="0"/>
Number of US Forest Service Sampling Sites:	<input type="text" value="0"/>
Number of US Army Corps of Engineers Sampling Sites:	<input type="text" value="0"/>
Number of Kentucky River Watershed Watch Sampling Sites:	<input type="text" value="0"/>
Number of Lexington-Fayette Urban Co. Gov. Sampling Sites:	<input type="text" value="0"/>

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

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

Protection Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Wetland Areas	106	Acres	0 - 106	12
Surface Drinking Water Sources	4	No. of sources	0 - 14	2
Ground Drinking Water Sources	1	No. of sources	0 - 17	1
Groundwater Sensitivity	3.07	Score	2 - 5	3.21
KY Dept. of Fish and Wildlife Management Areas	514	Acres	0 - 2951	93
U.S. Forest Service Management Areas	0	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	10.38	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	2	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	1.38	Score	1 - 3	1.33
Contamination Sites Impacting Human Health	10	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	10	Number of sites	0 - 71	4

Potential Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Potential Contamination Sites	16	Number of sites	1 - 121	12
Potential Pesticide Loading	14	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	1,148	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	3.48	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	16,730	Animal units	55 - 43826	7,021
KPDES Discharge Violations	69	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	26	Number of complaints	0 - 53	9
Toxic Release Inventory	11,547,626	Score	0 - 11547626	231,638
Population Change Projection	756	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	1,561	Number of persons	12 - 4511	1,114
Mining Area	0	Acres	0 - 6305	355
Surface Water Runoff Potential	70.95	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	18	Number of sites	0 - 56	6

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100205250

Stream and Waterbody Use Support Summary

<i>Total Stream Miles:</i>						
<input type="text" value="94.77"/>	<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>	4	112.9	71.9	41.0	0.0	0.0
<i>Designated Uses</i>						
<i>Aquatic Life:</i>	4	112.9	112.9	0.0	0.0	0.0
<i>Primary Contact:</i>	3	107.4	66.4	41.0	0.0	0.0
<i>Fish Consumption:</i>	3	107.4	107.4	0.0	0.0	0.0
<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>
Claylick Creek	0	5.5	5.5	AL	Fully Supporting
Kentucky River	65.4	118.2	52.8	AL, FC, PC	Fully Supporting
Kentucky River	51.8	65.4	13.6	AL, FC, PC	Fully Supporting
Kentucky River	10.8	51.8	41	AL, FC, PC	Partially Supporting

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

<i>Causes for Nonsupport or Impairment of Designated Uses</i>					
<i>Stream or Waterbody Name *</i>	<i>Starting Milepoint</i>	<i>Ending Milepoint</i>	<i>Segment Length (miles)</i>	<i>Impaired or Threatened Designated Use</i>	<i>Level of Support</i>
Kentucky River	10.8	51.8	41	Primary Contact (Recr)	Partially Supporting
<i>Possible Causes of Impairment:</i>			<i>Possible Sources For Impairment:</i>		
Pathogens			Source Unknown		

**Abbreviations: UT - Unnamed Tributary*

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100205250

Withdrawal Sites and Discharge Facilities:

<i>Public Water Supplies and Water Withdrawal</i>			
<i>Facility</i>	<i>Origin of Source</i>	<i>Type of Facility</i>	<i>Permit ID Number</i>
GLENWOOD HALL COUNTRY CLUB	Surface Water	Water Withdrawal Site	WW1179
GLENWOOD HALL RESORT	Surface Water	Water Treatment Plant	0940651
JERRY HURST FISH FARM ***	Groundwater	Water Withdrawal Site	WW1127
KY FISH/WLIFE-HENRY COUNTY	Surface Water	Water Withdrawal Site	WW1340
LEESTOWN COMPANY, INC.	Surface Water	Water Withdrawal Site	WW0214

<i>KPDES Permitted Discharge Facilities</i>		
<i>Facility</i>	<i>Type of Facility</i>	<i>KPDES Site ID Number</i>
BALD KNOB ELEM SCHOOL	ELEMENTARY & SECONDARY SCHOOLS	KY0075019
EMINENCE STP	SEWERAGE SYSTEMS	KY0026883
FRANKFORT STP	SEWERAGE SYSTEMS	KY0022861
GLENWOOD HALL RESORT	LAND SUBDIVIDERS & DEV, EX CEM	KY0087661
LEESTOWN CO INC	DIST, RECTIFIED & BLENDED LIQ	KY0001023

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>
Kentucky River	USGS	USGS03250620	Flow
Kentucky River	US COE	USCE382620084574501	Flow
Kentucky River	USGS	USGS03290500	Flow
Kentucky River	US COE	USCE03290080	Flow
Kentucky River	US COE	USCE382500084525101	Flow
Kentucky River	USGS	USGS03290080	Flow
Kentucky River	US COE	USCE381241084522101	Flow