

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:

<i>Total Land Area (Acres):</i>	<input type="text" value="22,536"/>	<i>Acres</i>	<i>% of Total</i>		
<i>Residential Area:</i>	<input type="text" value="235"/>		<input type="text" value="1.0"/>	<i>Number of Mine Permits:</i>	<input type="text" value="0"/>
<i>Commercial Area:</i>	<input type="text" value="0"/>		<input type="text" value="0.0"/>	<i>Total Permitted Mining Area (Acres):</i>	<input type="text" value="0"/>
<i>Industrial Area:</i>	<input type="text" value="75"/>		<input type="text" value="0.3"/>	<i>Number of Identified Wetland Areas:</i>	<input type="text" value="5"/>
<i>Agricultural Area:</i>	<input type="text" value="15,530"/>		<input type="text" value="69.0"/>	<i>Total Wetland Area (Acres):</i>	<input type="text" value="4"/>
<i>Rural and Wooded Area:</i>	<input type="text" value="6,643"/>		<input type="text" value="29.5"/>		
<i>Other Land-use Area:</i>	<input type="text" value="35"/>		<input type="text" value="0.2"/>		

Withdrawal and Discharge Sites:

<i>Number of Public Water Supplies and Water Withdrawal Sites:</i>	<input type="text" value="3"/>	<i>Number of KPDES Discharge Permits:</i>	<input type="text" value="11"/>
<i>Surface Water Withdrawals:</i>	<input type="text" value="3"/>		
<i>Groundwater Withdrawals:</i>	<input type="text" value="0"/>		
<i>No. of Potable Water Treatment Facilities:</i>	<input type="text" value="1"/>		

Sampling Site Statistics:

<i>Number of USGS Gaging Stations:</i>	<input type="text" value="1"/>
<i>Number of Kentucky Division of Water Sampling Sites:</i>	<input type="text" value="0"/>
<i>Number of Kentucky Dept. of Fish and Wildlife Sampling Sites:</i>	<input type="text" value="0"/>
<i>Number of US Forest Service Sampling Sites:</i>	<input type="text" value="0"/>
<i>Number of US Army Corps of Engineers Sampling Sites:</i>	<input type="text" value="0"/>
<i>Number of Kentucky River Watershed Watch Sampling Sites:</i>	<input type="text" value="1"/>
<i>Number of Lexington-Fayette Urban Co. Gov. Sampling Sites:</i>	<input type="text" value="0"/>

Watershed Name: Kentucky River

11-Digit Watershed Identity Number: 05100205005

Stream and Waterbody Use Support Summary

<i>Total Stream Miles:</i> <div style="border: 1px solid black; padding: 2px; display: inline-block;">30.55</div>	<i>Number of Seaments</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	40.6	0.0	0.0	40.6	0.0
<i>Designated Uses</i>						
<i>Aquatic Life:</i>	1	40.6	40.6	0.0	0.0	0.0
<i>Primary Contact:</i>	1	40.6	0.0	0.0	40.6	0.0
<i>Fish Consumption:</i>	1	40.6	40.6	0.0	0.0	0.0
<i>Drinking Water:</i>	1	40.6	40.6	0	0	0

* 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	150.2	190.8	40.6	AL, FC, DW, PC	Not Supporting
<i>*Abbreviations: AL - Aquatic Life Support, PC - Primary Contact Recreation, SC - Secondary Contact Recreation, FC - Fish Consumption, DW - Drinking Water Supply, UT - Unnamed Tributary</i>					

<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	150.2	190.8	40.6	Primary Contact (Recr)	Not Supporting
<i>Possible Causes of Impairment:</i>			<i>Possible Sources For Impairment:</i>		
Pathogens			Source Unknown		
<i>*Abbreviations: UT - Unnamed Tributary</i>					

Watershed Name: Kentucky River

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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>
EAST KY POWER/JK SMITH STATION	Surface Water	Water Withdrawal Site	0252102
WINCHESTER MUNICIPAL UTILITIES	Surface Water	Water Treatment Plant	0250473
WINCHESTER MUNICIPAL UTILITIES	Surface Water	Water Withdrawal Site	0250473

<i>KPDES Permitted Discharge Facilities</i>			<i>KPDES Site ID Number</i>
<i>Facility</i>	<i>Type of Facility</i>		
BANANAS ON THE RIVER	EATING PLACES	KY0099741	
BOONESBORO QUARRY	PAVING MIXTURES AND BLOCKS	KY0001058	
EAST KY POWER COOP DALE STEAM	ELECTRICAL SERVICES	KY0002194	
KY DOP FT BOONESBORO ST PK	AMUSEMENT AND RECREATION, NEC	KY0024406	

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	US COE	USCE375341084154301	Flow
Kentucky River	USGS	USGS03284000	Flow

<i>KY River Watershed Watch Sampling Sites</i>		
<i>Stream Name</i>	<i>KRWW Sample ID No.</i>	<i>Site Description</i>
Two Mile Creek	K27	0.5mi south of Elkin Station Rd. Bridge

Results from 1999 KY River Watershed Watch Sampling:

Conventional Parameters:

Sample ID Number: K27 Stream: Two Mile Creek

Physical Data (May):

pH	<input type="text" value="8"/>	Alkalinity	<input type="text"/>
Temperature	<input type="text" value="22"/>	Total Hardness	<input type="text"/>
Dissolved Oxygen	<input type="text" value="9"/>	Chlorides	<input type="text"/>
		Conductivity	<input type="text"/>
		Total Organic Carbon	<input type="text"/>
		Total Suspended Solids	<input type="text"/>

Fecal Data (July / August):

	Coliform Count	Strep Count	Coliform/Strep Ratio
July	<input type="text" value="170"/>	<input type="text" value="210"/>	<input type="text" value="0.81"/>
August	<input type="text"/>	<input type="text"/>	<input type="text"/>

Note: Most indicators are in milligrams per liter (mg/L) which is equivalent to parts per million (ppm). Temperature is in Celsius degrees. Alkalinity and hardness are as mg/L of calcium carbonate. Bacterial counts are in colonies per 100 milliliters. Conductivity units are micro-mhos per centimeter.

Nutrient Parameters:

Sample ID Number: K27 Stream: Two Mile Creek

Ammonia	<input type="text"/>	Orthophosphate as Phosphate	<input type="text"/>	Sulfate	<input type="text"/>
Ammonia Nitrogen	<input type="text"/>	Orthophosphate as Phosphorus	<input type="text"/>		
Total Kjeldahl Nitrogen as NH3	<input type="text"/>	Total Recoverable Phosphorus	<input type="text"/>		
Total Kjeldahl Nitrogen as N	<input type="text"/>				
Nitrate	<input type="text"/>				
Nitrate Nitrogen	<input type="text"/>				

Note: All indicators are in milligrams per liter (mg/L) which is equivalent to parts per million (ppm).

Metals and Mineral Parameters:

Sample ID Number: K27 Stream: Two Mile Creek

Aluminum	<input type="text"/>	Calcium	<input type="text"/>	Lead	<input type="text"/>	Selenium	<input type="text"/>	Thallium	<input type="text"/>
Antimony	<input type="text"/>	Chromium	<input type="text"/>	Lithium	<input type="text"/>	Silicon	<input type="text"/>	Vanadium	<input type="text"/>
Barium	<input type="text"/>	Cobalt	<input type="text"/>	Magnesium	<input type="text"/>	Sodium	<input type="text"/>	Zinc	<input type="text"/>
Beryllium	<input type="text"/>	Copper	<input type="text"/>	Manganese	<input type="text"/>	Strontium	<input type="text"/>		
Boron	<input type="text"/>	Iron	<input type="text"/>	Potassium	<input type="text"/>	Sulfur	<input type="text"/>		

Note: All indicators are in milligrams per liter (mg/L) which is equivalent to parts per million (ppm).

Pesticide/Herbicide Parameters:

Sample ID No. Stream 2,4-D Chlorpyrifos Triazines

K27	Two Mile Creek	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Note: All indicators are in micrograms per liter which is equivalent to parts per billion (ppb).