

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):	8,879	Acres	% of Total		
Residential Area:	0	0.0		Number of Mine Permits:	0
Commercial Area:	28	0.3		Total Permitted Mining Area (Acres):	0
Industrial Area:	0	0.0		Number of Identified Wetland Areas:	2
Agricultural Area:	854	9.6		Total Wetland Area (Acres):	1
Rural and Wooded Area:	7,985	90.0			
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:	0
Surface Water Withdrawals:	0		
Groundwater Withdrawals:	0		
No. of Potable Water Treatment Facilities:	0		

Sampling Site Statistics:

Number of USGS Gaging Stations:	0
Number of Kentucky Division of Water Sampling Sites:	1
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:	1
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

High

Medium

High

Low

High

Protection Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Wetland Areas	1	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	3.20	Score	2 - 5	3.21
KY Dept. of Fish and Wildlife Management Areas	0	Acres	0 - 2951	93
U.S. Forest Service Management Areas	2,001	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	0.13	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	1	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	3.00	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	3	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	21	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	0.69	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	446	Animal units	55 - 43826	7,021
KPDES Discharge Violations	0	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	3	Number of complaints	0 - 53	9
Toxic Release Inventory	0	Score	0 - 11547626	231,638
Population Change Projection	27	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	157	Number of persons	12 - 4511	1,114
Mining Area	0	Acres	0 - 6305	355
Surface Water Runoff Potential	61.79	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	0	Number of sites	0 - 56	6

Watershed Name: Cane Creek

11-Digit Watershed Identity Number: 05100204150

Stream and Waterbody Use Support Summary

Total Stream Miles: <input type="text" value="23.23"/>	Number of Seaments	Stream Miles Assessed	Miles * Fully Supportina	Miles * Partially Supportina	Miles * Not Supportina	Miles * Threatened
Segments Assessed:	1	3.1	0.0	0.0	3.1	0.0
Designated Uses						
Aquatic Life:	1	3.1	3.1	0.0	0.0	0.0
Primary Contact:	1	3.1	0.0	0.0	3.1	0.0
Fish Consumption:	1	3.1	3.1	0.0	0.0	0.0
Drinking Water:						

* Blank values indicate no assessed segments for this category.

Assessed Stream Segments and Waterbodies					
Stream or Waterbody Name *	Starting Milepoint	Ending Milepoint	Segment Length (miles)	Designated Uses *	Overall Level of Support
Cane Creek	0	3.1	3.1	AL, FC, PC	Not Supporting

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

Causes for Nonsupport or Impairment of Designated Uses					
Stream or Waterbody Name *	Starting Milepoint	Ending Milepoint	Segment Length (miles)	Impaired or Threatened Designated Use	Level of Support
Cane Creek	0	3.1	3.1	Primary Contact (Recr)	Not Supporting
Possible Causes of Impairment:			Possible Sources For Impairment:		
Pathogens			Agriculture, Grazing related Sources		

*Abbreviations: UT - Unnamed Tributary

Watershed Name: Cane Creek

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Withdrawal Sites and Discharge Facilities:

Gaging Stations and Sampling Sites:

<i>KY Division of Water Sampling Sites</i>	
<i>Stream Name</i>	<i>Type of Sampling</i>
Cane Creek	Biological Monitoring

<i>KY River Watershed Watch Sampling Sites</i>		
<i>Stream Name</i>	<i>KRWW Sample ID No.</i>	<i>Site Description</i>
Cane Creek	K77	Gordon Property at Meniffee Co Line

Results from 1999 KY River Watershed Watch Sampling:

Conventional Parameters:

Sample ID Number: K77 Stream: Cane Creek

Physical Data (May):	
pH	7.7
Temperature	17.7
Dissolved Oxygen	9
Alkalinity	127
Total Hardness	144
Chlorides	2.4
Conductivity	261
Total Organic Carbon	7.8
Total Suspended Solids	15

Fecal Data (July / August):		
Coliform Count	Strep Count	Coliform/Strep Ratio
July	10	4800
August		0.002

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: K77 Stream: Cane Creek

Ammonia		Orthophosphate as Phosphate	0.011	Sulfate	11.8
Ammonia Nitrogen		Orthophosphate as Phosphorus	0.004		
Total Kjeldahl Nitrogen as NH3	0.41	Total Recoverable Phosphorus	0.06		
Total Kjeldahl Nitrogen as N	0.34				
Nitrate					
Nitrate Nitrogen					

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: K77 Stream: Cane Creek

Aluminum	0.65	Calcium	36.14	Lead		Selenium		Thallium	
Antimony		Chromium		Lithium		Silicon	0.88	Vanadium	
Barium	0.01	Cobalt		Magnesium	9.65	Sodium	2.39	Zinc	
Beryllium		Copper		Manganese	0.08	Strontium	0.07		
Boron	0.09	Iron	0.30	Potassium	3.50	Sulfur	3.41		

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

K77	Cane Creek			
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Note: All indicators are in micrograms per liter which is equivalent to parts per billion (ppb).