

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):	18,886	Acres	% of Total		
Residential Area:	0	0.0		Number of Mine Permits:	3
Commercial Area:	0	0.0		Total Permitted Mining Area (Acres):	59
Industrial Area:	0	0.0		Number of Identified Wetland Areas:	2
Agricultural Area:	156	0.8		Total Wetland Area (Acres):	1
Rural and Wooded Area:	18,700	99.2			
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:	0
Number of Kentucky Dept. of Fish and Wildlife Sampling Sites:	1
Number of US Forest Service Sampling Sites:	3
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

Medium

Medium

Medium

Low

Medium

**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	3.00	Score	2 - 5	3.21
KY Dept. of Fish and Wildlife Management Areas	0	Acres	0 - 2951	93
U.S. Forest Service Management Areas	18,886	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	0.64	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	6	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	2	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	48	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	4.04	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	285	Animal units	55 - 43826	7,021
KPDES Discharge Violations	0	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	1	Number of complaints	0 - 53	9
Toxic Release Inventory	0	Score	0 - 11547626	231,638
Population Change Projection	67	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	359	Number of persons	12 - 4511	1,114
Mining Area	59	Acres	0 - 6305	355
Surface Water Runoff Potential	60.06	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	0	Number of sites	0 - 56	6

Watershed Name: Bullskin Creek

11-Digit Watershed Identity Number: 05100203030

### Stream and Waterbody Use Support Summary

<i>Total Stream Miles:</i>						
<input type="text" value="45.52"/>	<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>	2	15.1	15.1	0.0	0.0	0.0
<i>Designated Uses</i>						
<i>Aquatic Life:</i>	2	15.1	15.1	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>
Big Dan Branch	0	1.2	1.2	AL	Fully Supporting
Bullskin Creek	0	13.9	13.9	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: Bullskin Creek

11-Digit Watershed Identity Number: 05100203030

*Withdrawal Sites and Discharge Facilities:*

*Gaging Stations and Sampling Sites:*

<i>KY Dept of Fish and Wildlife Sampling / Assessment Sites</i>					
<i>Stream Segment</i>	<i>Upstream Description</i>	<i>Downstream Description</i>	<i>Total Length of Segment</i>	<i>Upstream Mile Point</i>	<i>Downstream Mile Point</i>
Bullskin Creek	Neds Fork	Little Bullskin Creek	13.9	12.2	1.3

<i>US Forest Service Sampling Sites</i>		
<i>11-Digit HUC</i>	<i>HUC Name</i>	<i>US Forest Service Site ID</i>
05100203030	Bullskin Creek	0510020329002
05100203030	Bullskin Creek	0510020329003
05100203030	Bullskin Creek	0510020329001

<i>KY River Watershed Watch Sampling Sites</i>		
<i>Stream Name</i>	<i>KRWW Sample ID No.</i>	<i>Site Description</i>
Bullskin Creek	K67	At mouth of Little Bullskin Creek

Watershed Name:

Bullskin Creek

11-Digit Watershed Identity Number:

05100203030

### Results from 1999 KY River Watershed Watch Sampling:

#### Conventional Parameters:

Sample ID Number: K67 Stream: Bullskin Creek

##### Physical Data (May):

pH	7.5	Alkalinity	215
Temperature	0	Total Hardness	302
Dissolved Oxygen	9.2	Chlorides	7.9
		Conductivity	630
		Total Organic Carbon	1.6
		Total Suspended Solids	

##### Fecal Data (July / August):

	Coliform Count	Strep Count	Coliform/Strep Ratio
July	150	1000	0.15
August			

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: K67 Stream: Bullskin Creek

Ammonia		Orthophosphate as Phosphate	0.032	Sulfate	133
Ammonia Nitrogen		Orthophosphate as Phosphorus	0.010		
Total Kjeldahl Nitrogen as NH3		Total Recoverable Phosphorus	0.08		
Total Kjeldahl Nitrogen as N					
Nitrate	0.1				
Nitrate Nitrogen	0.02				

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: K67 Stream: Bullskin Creek

Aluminum		Calcium	72.019	Lead		Selenium		Thallium	
Antimony		Chromium	0.04	Lithium	0.01	Silicon	3.11	Vanadium	0.07
Barium	0.06	Cobalt		Magnesium	26.86	Sodium	15.93	Zinc	0.01
Beryllium		Copper	0.01	Manganese	0.12	Strontium	0.97		
Boron	0.13	Iron	0.38	Potassium	4.37	Sulfur	57.85		

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

K67	Bullskin Creek			
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Note: All indicators are in micrograms per liter which is equivalent to parts per billion (ppb).