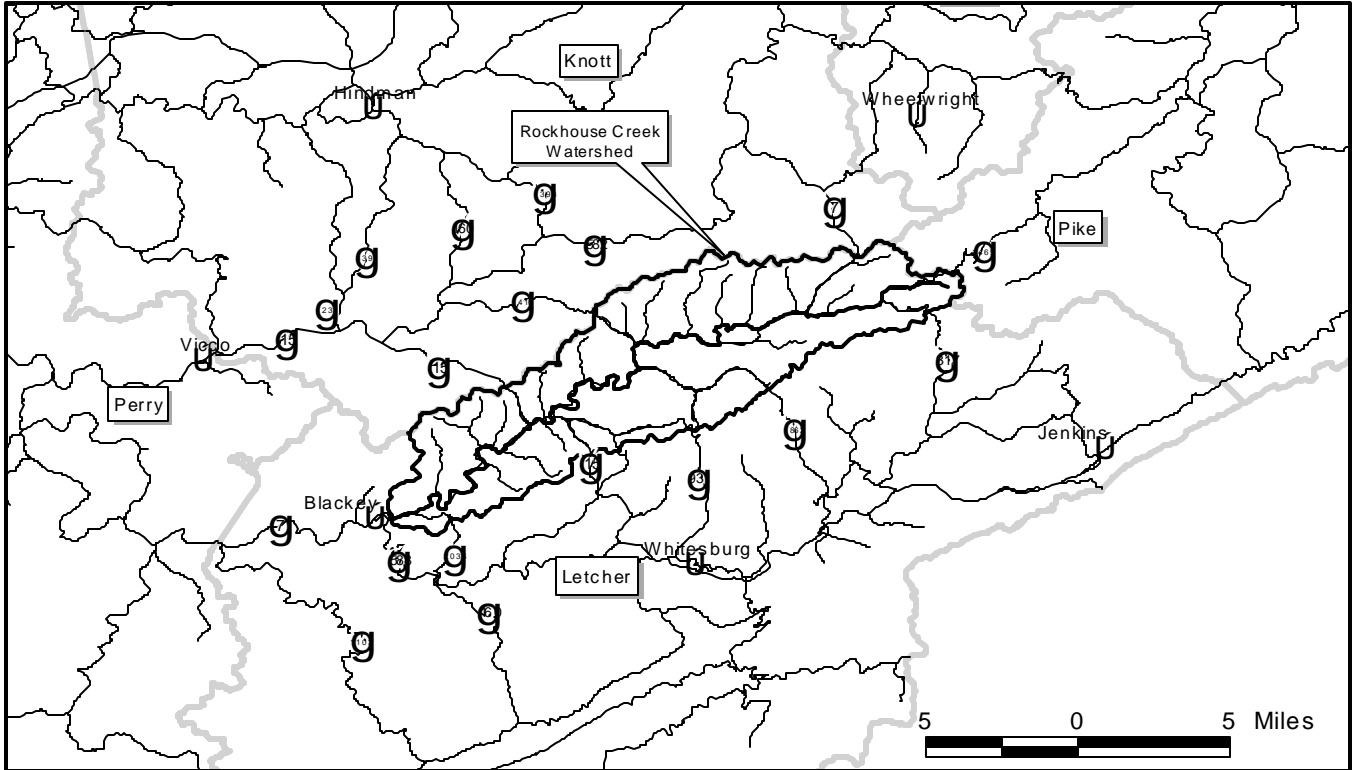


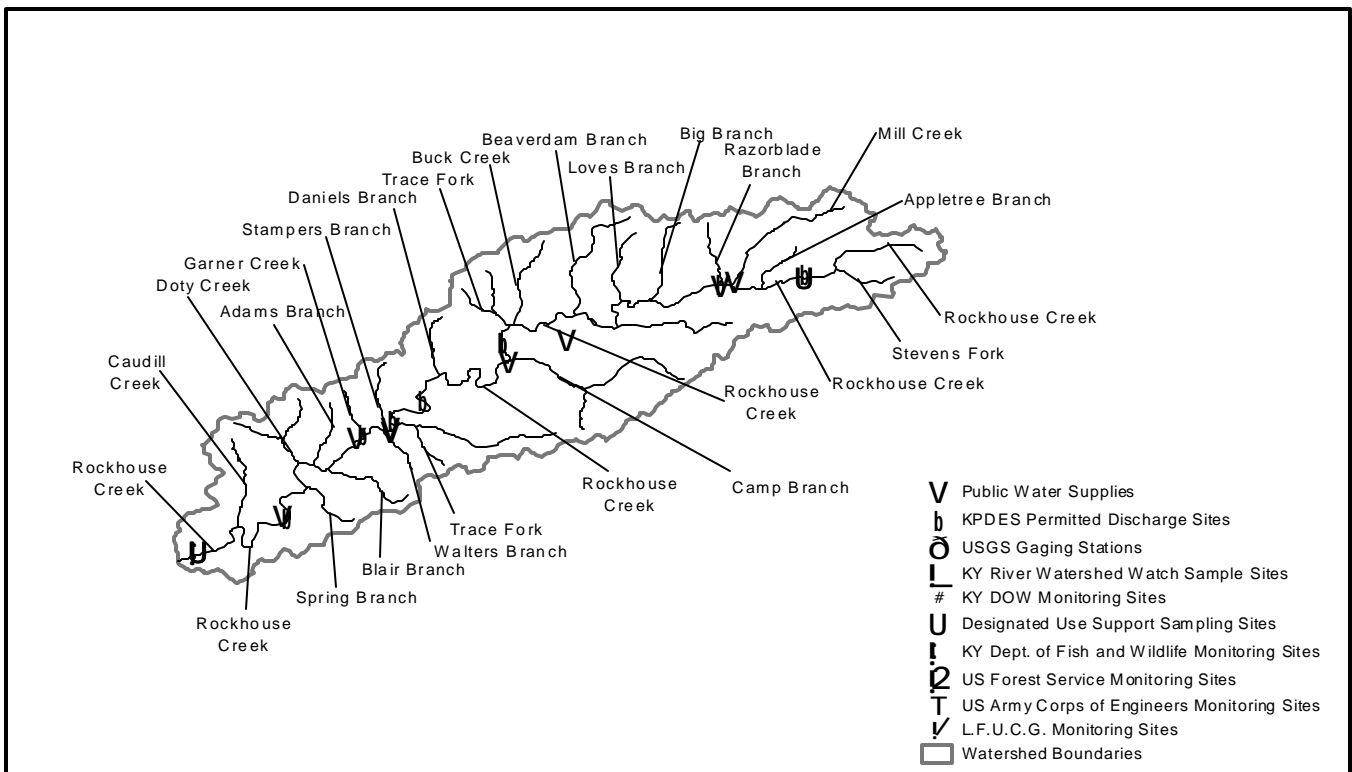
Rockhouse Creek Watershed

Watershed Number: 05100201020

Location Map



Watershed Features



Geography. The Rockhouse Creek watershed covers northeastern Letcher County. The land is in the Eastern Kentucky Coal Field physiographic region, characterized by mountainous terrain, 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. Rockhouse Creek empties into the North Fork Kentucky River near Blackey. Among the many creeks that feed it are Razorblade Branch, Camp Branch, Stampers Branch, Doty Creek, and Blair Branch.

Land and water use. Land in the watershed is nearly all rural and wooded. Eight businesses and organizations hold permits for discharges into the creeks. See tables for details.

Agency data assessment. Of two assessed creek segments in this watershed, one does not support some or all of its designated uses, based on biological and/or water-quality data. The other is threatened. A wide variety of activities contribute to the impairment of the creek by pathogens, siltation, and turbidity. 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 the highest 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.

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):	36,046	Acres	% of Total		
Residential Area:	62		0.2	Number of Mine Permits:	91
Commercial Area:	172		0.5	Total Permitted Mining Area (Acres):	1,878
Industrial Area:	24		0.1	Number of Identified Wetland Areas:	3
Agricultural Area:	55		0.2	Total Wetland Area (Acres):	0
Rural and Wooded Area:	35,142		97.8		
Other Land-use Area:	492		1.4		

Withdrawal and Discharge Sites:

Number of Public Water Supplies and Water Withdrawal Sites:	8	Number of KPDES Discharge Permits:	8
Surface Water Withdrawals:	1		
Groundwater Withdrawals:	7		
No. of Potable Water Treatment Facilities:	6		

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:	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	High
Medium	High	Medium	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	1	No. of sources	0 - 14	2
Ground Drinking Water Sources	7	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	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	0.51	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	10	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	1	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	1	Number of sites	0 - 71	4

Potential Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Potential Contamination Sites	9	Number of sites	1 - 121	12
Potential Pesticide Loading	0	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	0	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	1.43	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	188	Animal units	55 - 43826	7,021
KPDES Discharge Violations	19	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	12	Number of complaints	0 - 53	9
Toxic Release Inventory	0	Score	0 - 11547626	231,638
Population Change Projection	-5	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	1,242	Number of persons	12 - 4511	1,114
Mining Area	1,878	Acres	0 - 6305	355
Surface Water Runoff Potential	61.26	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	8	Number of sites	0 - 56	6

Stream and Waterbody Use Support Summary

Total Stream Miles: <input type="text" value="74.41"/>	<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>
Segments Assessed:	2	4.6	0.0	0.0	3.6	1.0
Designated Uses						
Aquatic Life:	2	4.6	3.6	0.0	0.0	1.0
Primary Contact:	1	3.6	0.0	0.0	3.6	0.0
Fish Consumption:						
Drinking Water:						

* Blank values indicate no assessed segments for this category.

Assessed Stream Segments and Waterbodies					
<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>
Rockhouse Creek	20.5	21.5	1	AL	Threatened
Rockhouse Creek	0	3.6	3.6	AL, 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					
<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>
Rockhouse Creek	0	3.6	3.6	Primary Contact (Recr)	Not Supporting
Possible Causes of Impairment:			Possible Sources For Impairment:		
Turbidity, Siltation, Pathogens, Flow alteration, Other habitat alterations			Abandoned/Inactive mining, Stream Bank Modification/Destabilization, Habitat Modification, Restoration, Residue Management, Land Disposal, Onsite Wastewater Systems (Septic Tanks), Riparian Vegetation Removal, Resource Extraction, Silviculture, Mining		

**Abbreviations: UT - Unnamed Tributary*

Watershed Name: Rockhouse Creek

11-Digit Watershed Identity Number: 05100201020

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>
BECKHAM BATES ELEM	Groundwater	Water Treatment Plant	0672290
CONSOL OF KENTUCKY, INC.	Groundwater	Water Withdrawal Site	WW1272
GOLDEN OAK MINING COMPANY	Surface Water	Water Withdrawal Site	WW0907
HOLCOMB CUSTARD STAND	Groundwater	Water Treatment Plant	0672475
JOE'S DRIVE IN	Groundwater	Water Treatment Plant	0672428
LETCHER ELEM/HIGH SCHOOL	Groundwater	Water Treatment Plant	0672185
SLOANES PICPAC SUPERMARKET	Groundwater	Water Treatment Plant	0673395
TED'S STOP & SHOP	Groundwater	Water Treatment Plant	0673116

<i>KPDES Permitted Discharge Facilities</i>			<i>KPDES Site ID Number</i>
<i>Facility</i>	<i>Type of Facility</i>		
BANKS ENTERPRISE	EATING PLACES		KY0094323
BECKHAM BATES ELEM SCHOOL	ELEMENTARY & SECONDARY SCHOOLS		KY0079162
BREEDINGS APTS	OPERATORS OF APART BUILDINGS		KY0096318
CONSOL OF KENTUCKY INC	COAL MINING SERVICE		KY0096806
GOLDEN OAK MINING CO OFFICE	OPER OF NONRESIDENTIAL BLDGS		KY0095044
LETCHER CO BD OF ED	ELEMENTARY & SECONDARY SCHOOLS		KY0100731
LINDSEY & ELLIOTT OIL & GAS CO	CRUDE PETROLEUM & NATURAL GAS		KY0084611

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>
Rockhouse Creek	Letcher County High School	Mouth	24.2	3.6	0