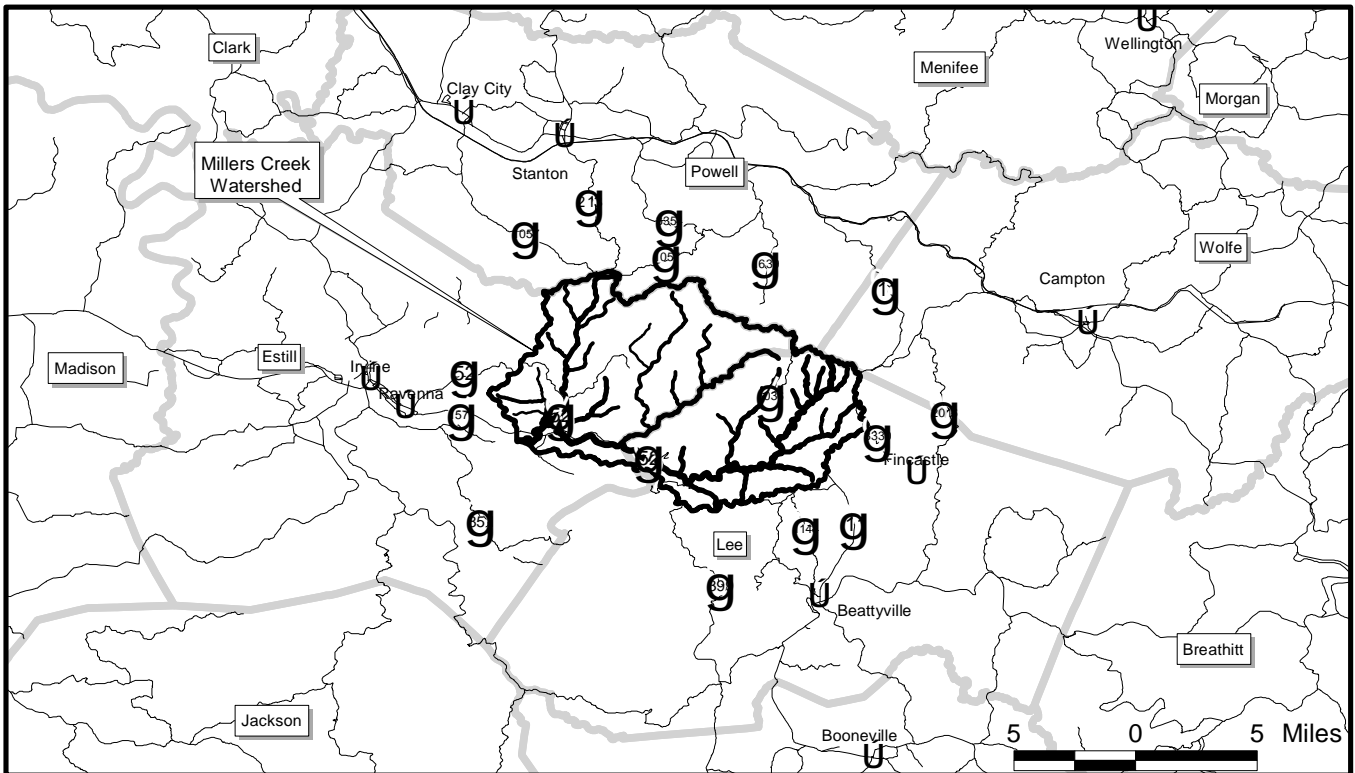


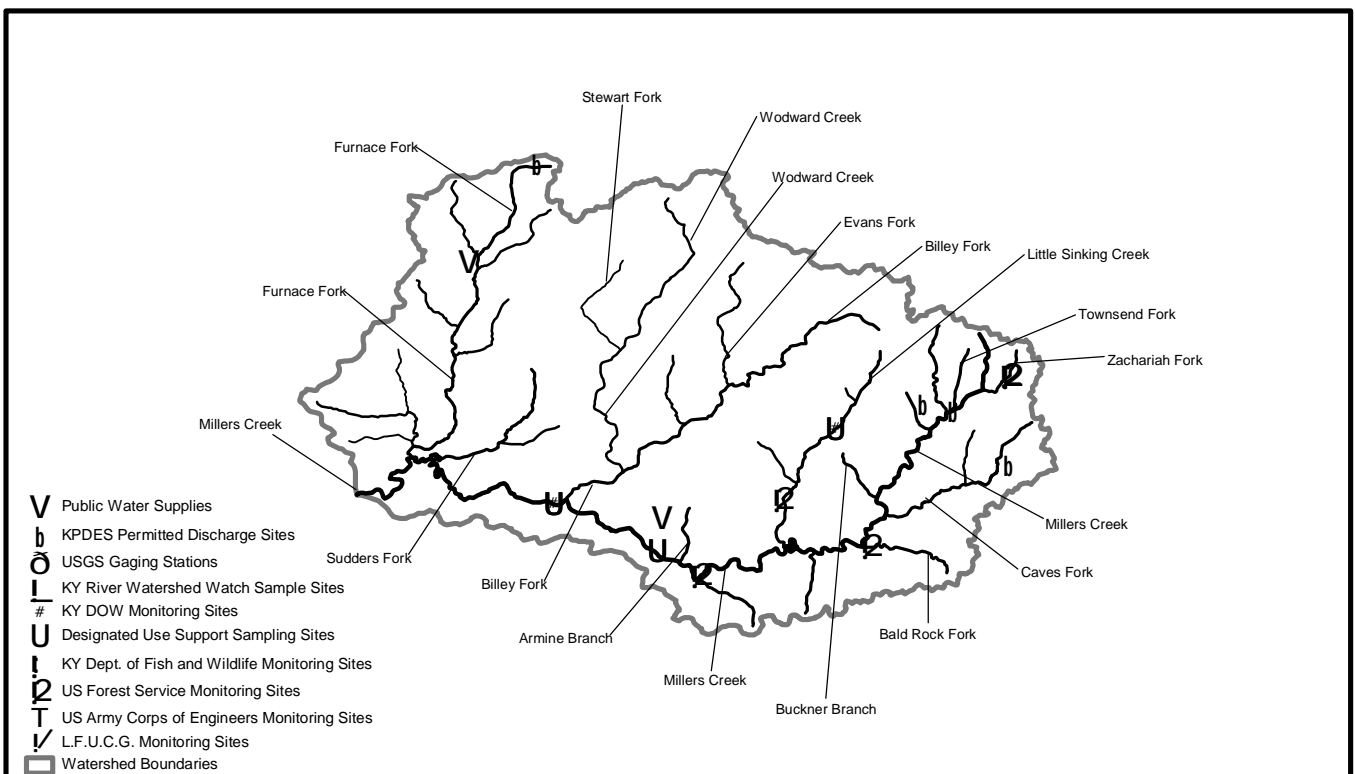
Millers Creek Watershed

Watershed Number: 05100204040

Location Map



Watershed Features



Geography. The Millers Creek watershed occupies the eastern tip of Estill County and northern Lee County. The land is in the escarpment area of the Eastern Kentucky Coal Field physiographic region, characterized by hilly terrain, very 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. Some of the watershed lies over sandstone aquifers and some over easily weathered clay shales that store water but allow little groundwater flow. Other parts of the watershed lie above interbedded clay shales and siltstones.

Waterways. Millers Creek empties into the Kentucky River between Pryse and the town of Millers Creek. Among the creeks that feed it are Cave Fork, Zachariah Fork, Little Sinking Creek, Billey Fork, Woodward Creek, Furnace Fork, and Sudders Fork.

Land and water use. Land in the watershed is more than 80% rural and wooded, about 15% industrial, and about 3% agricultural. Three businesses and organizations hold permits for discharges into the creeks. See tables for details.

Agency data assessment. The assessed creek segments in this watershed fully support their designated uses, based on biological and/or water-quality data. 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 a moderate 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.

Watershed Name:

Millers Creek

11-Digit Watershed Identity Number:

05100204040

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):	47,911	Acres	% of Total		
Residential Area:	13		0.0	Number of Mine Permits:	1
Commercial Area:	0		0.0	Total Permitted Mining Area (Acres):	1
Industrial Area:	6,786		14.2	Number of Identified Wetland Areas:	11
Agricultural Area:	1,559		3.3	Total Wetland Area (Acres):	17
Rural and Wooded Area:	39,492		82.5		
Other Land-use Area:	0		0.0		

Withdrawal and Discharge Sites:

Number of Public Water Supplies and Water Withdrawal Sites:	2	Number of KPDES Discharge Permits:	4
Surface Water Withdrawals:	2		
Groundwater Withdrawals:	0		
No. of Potable Water Treatment Facilities:	2		

Sampling Site Statistics:

Number of USGS Gaging Stations:	0
Number of Kentucky Division of Water Sampling Sites:	2
Number of Kentucky Dept. of Fish and Wildlife Sampling Sites:	0
Number of US Forest Service Sampling Sites:	5
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

Medium

High

Medium

Medium

Medium

Protection Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Wetland Areas	17	Acres	0 - 106	12
Surface Drinking Water Sources	2	No. of sources	0 - 14	2
Ground Drinking Water Sources	0	No. of sources	0 - 17	1
Groundwater Sensitivity	3.51	Score	2 - 5	3.21
KY Dept. of Fish and Wildlife Management Areas	0	Acres	0 - 2951	93
U.S. Forest Service Management Areas	47,403	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	1	No. of resources	0 - 8	1
Kentucky Rivers Assessment Scores	0.73	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	4	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	2	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	2	Number of sites	0 - 71	4

Potential Impact Categories:

Indicator	Value	Units	Range of All Watersheds	Mean of All Watersheds
Potential Contamination Sites	11	Number of sites	1 - 121	12
Potential Pesticide Loading	1	Est. sales in tons	0 - 45	10
Potential Fertilizer Loading	179	Est. tons applied	0 - 2747	394
Agricultural Erosion Potential	3.97	Est. tons erosion / acre	0 - 9	3.20
Livestock Operations Potential Impact	2,572	Animal units	55 - 43826	7,021
KPDES Discharge Violations	253	Number of violations	0 - 541	39
KY Division of Water Citizen Complaints	5	Number of complaints	0 - 53	9
Toxic Release Inventory	0	Score	0 - 11547626	231,638
Population Change Projection	153	Number of persons	-149 - 11030	448
Population Not on Public Sewer Systems	703	Number of persons	12 - 4511	1,114
Mining Area	0	Acres	0 - 6305	355
Surface Water Runoff Potential	64.24	SCS Curve Number	60 - 79	68
KPDES Permitted Discharges	4	Number of sites	0 - 56	6

Watershed Name: Millers Creek

11-Digit Watershed Identity Number: 05100204040

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>
CATHEDRAL DOMAINE CAMP	Surface Water	Water Treatment Plant	0652352
UNITED METHODIST/ALDERGATE CMP	Surface Water	Water Treatment Plant	0332189

<i>KPDES Permitted Discharge Facilities</i>			<i>KPDES Site ID Number</i>
<i>Facility</i>	<i>Type of Facility</i>		
ALDERSGATE METHODIST CAMP	RELIGIOUS ORGANIZATIONS		KY0093696
BRETAGNE GP	CRUDE PETROLEUM & NATURAL GAS		KY0085774
WOLFE CO BD OF ED	ELEMENTARY & SECONDARY SCHOOLS		KY0101320

Gaging Stations and Sampling Sites:

<i>KY Division of Water Sampling Sites</i>	
<i>Stream Name</i>	<i>Type of Sampling</i>
Little Sinking Creek	Physical/Chemical Monitoring

<i>US Forest Service Sampling Sites</i>		
<i>11-Digit HUC</i>	<i>HUC Name</i>	<i>US Forest Service Site ID</i>
05100204040	Millers Creek	0510020407002
05100204040	Millers Creek	0510020407001
05100204040	Millers Creek	0510020407005
05100204040	Millers Creek	0510020407004
05100204040	Millers Creek	0510020407003