



Water - Essential for Life

Cumberland Falls HWY Water District Water Quality Report for year 2013

KY1180093

6926 Cumberland Falls Highway
Corbin, KY 40701
Meetings: Water District Office
Meeting Dates and Time: 3rd Monday each month 3:30 PM

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This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

We purchase water from Corbin Utilities, West Laurel Water District and Williamsburg Water Department. The source of water for all three utilities is surface water from Laurel River Lake, Wood Creek Lake and the Cumberland River, respectively. An analysis of the susceptibility to contamination of these water supplies is considered to be moderate. The predominant land cover is forest; this land cover could be subject to logging which may result in soil erosion if Best Management Practices (BMPs) are not carefully applied. There are water quality impairments common to all three water supplies. These impairments are created by excess nutrients. A majority of the nutrients that enter area waterways are created by human and animal sources such as commercial fertilizers, livestock manure, industrial discharges, and human sewage. Other potential contaminants and activities of concern are highway maintenance and runoff, railroads, permitted wastewater dischargers, landfills, dumps, land farms, underground storage tanks, agriculture, onsite wastewater treatment, and straight pipes. Activities and land uses upstream of the source of water can pose potential risks to your drinking water. The complete Source Water Assessments are available at the Cumberland Valley Area Development District office in London, KY.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Some or all of these definitions may be found in this report:

Information About Lead:

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

A= Corbin Utilities, B= West Laurel Water Association, C= Williamsburg Water Dept., D= Cumberland Falls HWY Water District						
	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	A=	0.26	100	No	Soil runoff
* Representative samples of filtered water	Less than 0.3 NTU in 95% monthly samples	B=	0.09	100	No	
		C=	0.09	100	No	

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
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Microbiological Contaminants

Total Coliform Bacteria # or % positive samples	1	0	D=	1	N/A	Sep-13	No	Naturally present in the environment
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Radioactive Contaminants

Alpha emitters [4000] (pCi/L)	15	0	A=	0.7	0.7 to 0.7	Jul-08	No	Erosion of natural deposits
			B=	0.5	0.5 to 0.5	May-08	No	
			C=	0.4	0.4 to 0.4	Apr-08	No	
Combined radium (pCi/L)	5	0	B=	0.3	0.3 to 0.3	May-08	No	Erosion of natural deposits

Inorganic Contaminants

Barium [1010] (ppm)	2	2	A=	0.022	0.022 to 0.022	2013	No	Drilling wastes; metal refineries; erosion of natural deposits
			B=	0.013	0.013 to 0.013	Jul-05	No	
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	D=	0.254 (90th percentile)	0 to 0.321	Sep-11	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	A=	0.8	0.8 to 0.8	2013	No	Water additive which promotes strong teeth
			B=	0.7	0.7 to 0.7	2013	No	
			C=	0.92	0.92 to 0.92	2013	No	
Mercury [1035] (ppb)	2	2	A=	0.6	0.6 to 0.6	2013	No	Erosion of natural deposits; refineries and factories; landfills; runoff from cropland
Nitrate [1040] (ppm)	10	10	A=	0.2	0.2 to 0.2	2013	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
			B=	0.4	0.4 to 0.4	2013	No	
			C=	0.34	0.34 to 0.34	2013	No	

Disinfectants/Disinfection Byproducts and Precursors

Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	A=	1.33	1.08 to 1.78	N/A	No	Naturally present in environment.
			B=	2.31	1.14 to 3.49		No	
			C=	1.27	1 to 2.24		No	

*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Chlorine (ppm)	MRDL = 4	MRDLG = 4	D=	1.27 (highest average)	0.63 to 2.03	N/A	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	A=	33	10 to 79	N/A	No	Byproduct of drinking water disinfection
			B=	35	13 to 48		No	
			C=	38 (system average)	4 to 64 (range of system sites)		No	
HAA (ppb) [Haloacetic acids] (Individual Sites)	60	N/A	D=	N/A (high site average)	34 to 36 (range of individual sites)	N/A	No	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	A=	60	17 to 101	N/A	No	Byproduct of drinking water disinfection
			B=	48	16 to 95		No	
			C=	43 (system average)	8 to 89 (range of system sites)		No	
TTHM (ppb) [total trihalomethanes] (Individual Sites)	80	N/A	D=	N/A (high site average)	57 to 57 (range of individual sites)	N/A	No	Byproduct of drinking water disinfection.

Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Violation: Consumer Confidence Report (CCR)

We were issued a violation on 9/25/2013 for failing to report our data for Chlorine, Copper, and Total Coliform on the 2012 CCR. We have corrected that problem by reporting all detected contaminants in the 2013 CCR.

Health Effects: There are no health effects associated with this violation

Violation: Public Notification Rule (PN)

We were issued a violation on 10/17/2013 for failing to perform adequate public notification in the 2012 CCR. We reported two violations but failed to include the required mandatory language. The violations are reprinted in this CCR in the proper format.

Health Effects: There are no health effects associated with this violation

Violation: Total Coliform Rule (TCR)

We received a violation for failure to submit an adequate number of total coliform samples for the 6/1/2012-6/30/2012 compliance period. Nine of ten sample results were received by the Division of Water due to a problem with the electronic laboratory system. The sample has since been submitted.

Health Effects: There are no health effects associated with this violation

Violation: Monitoring (Corbin Utilities)

Corbin Utilities was issued a violation for failure to monitor for 2,4-D in the third quarter 2012. Corbin has been monitoring annually in the third quarter for 2,4-D ever since having a positive detection in August 2008. The follow-up sample was collected in 2013. The result was below the detection limit just as every subsequent has been since 2008. Because we purchase water from Corbin we are required to pass the public notice on to our customers.

Health Effects: There are no health effects associated with this violation