

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

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.

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



Garrard County Water Association Water Quality Report 2018

To request a paper copy call 859-792-4501.



Water System ID: KY0400151
Manager: Sean Smith
859-792-4501
CCR Contact: Sean Smith
859-792-4501

Mailing address:
P.O. Box 670
Lancaster, KY 40444

Meeting location and time:
315 Lexington Street, Lancaster, KY
First Tuesday each month at 7:30 PM

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 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.

Garrard County Water Association provides purchased water from several suppliers, all of which treat surface water. The suppliers and their sources include: Berea Municipal Utilities withdraws from Upper Silver Creek, Lower Silver Creek, Cowbell and Owsley Fork Lakes; Lancaster Water System withdraws from Lancaster's East Reservoir which is filled by water pumped from the Kentucky River; Danville Water System withdraws from Lake Herrington. Each of these suppliers has conducted an analysis of susceptibility to contamination and the overall susceptibility is generally moderate. Areas of high concern include transportation corridors, underground storage tanks, agricultural land use, and waste generators. The respective Source Water Assessment Plans are available for review at each of the water producers. Contact information for our suppliers can be obtained by calling our office at 859-792-4501.

For specific service areas contact the Garrard County Water Association. General service areas for each supplier:

Berea - serves south of Highway 52 and east and south of Highway 954 beginning at Narrow Gap Road.

Danville - serves the Bryants Camp area, Fork Church Road, the Fisher Ford Road area, and a portion of Highway 34.

Lancaster and Danville – (combined water) serves customers north of the intersection of US 27 and Highway 34.

Lancaster – serves all other customers not mentioned in service areas above.

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).

Information About Lead:

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>.

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. Copies of this report are available upon request by contacting our office during business hours.								
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.								
	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity		
Turbidity (NTU) TT	No more than 1 NTU*	L=	0.29					
* Representative samples of filtered water	Less than 0.3 NTU in 95% monthly samples	B=	0.073	100	No	Soil runoff		
D=			0.1					
Regulated Contaminant Test Results Lancaster (L) Berea (B) Danville (D)								
Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Barium [1010] (ppm)	2	2	L=	0.02	0.02 to 0.02	2018	No	Drilling wastes; metal refineries; erosion of natural deposits
			B=	0.01	0.01 to 0.01			
			D=	0.02	0.02 to 0.02			
Fluoride [1025] (ppm)	4	4	L=	1	1 to 1	2018	No	Water additive which promotes strong teeth
			B=	0.81	0.81 to 0.81			
			D=	0.7	0.7 to 0.7			
Nitrate [1040] (ppm)	10	10	L=	0.2	0.2 to 0.2	2018	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
			B=	0.19	0.19 to 0.19			
			D=	1	1 to 1			
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	L=	2.37	0 to 3.67	2018	No	Naturally present in environment.
			B=	1.54	1.24 to 1.94			
			D=	2.42	1.5 to 4.13			
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.								

Source Water Contaminants (untreated water)								
Cryptosporidium [ooocysts/L]	0	TT	L=	2	3	2018	See Note Below	Human and animal fecal waste
			D=	2	3			
				(99% removal)	(positive samples)	(no. of samples)		

Cryptosporidium is a microbial pathogen found in surface water. Cryptosporidium was detected in 2 samples of 3 collected from the raw water sources for Lancaster and Danville water systems. It was not detected in the finished water. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Regulated Contaminant Test Results			Garrard County Water Association				
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Copper [1022] (ppm) sites exceeding action level	AL = 1.3	1.3	0.21 (90 th percentile)	0 to 1.06	Aug-18	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level	AL = 15	0	0 (90 th percentile)	0 to 3	Aug-18	No	Corrosion of household plumbing systems
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.21 (highest average)	1 to 1.5	2018	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	48 (high site average)	2 to 64 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	52 (high site average)	24.5 to 80.5 (range of individual sites)	2018	No	Byproduct of drinking water disinfection.

Unregulated Contaminants (UCMR 4)	average	range (ppb)	date
Manganese	0.637	0.4 to 0.95	May-18
HAA5	43.750	37 to 57	May-18
HAA6Br	5.875	4 to 7.2	May-18
HAA9	49.500	44 to 61	May-18
1-butanol	4,500	4.5 to 4.5	May-18

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

TTHM Monitoring Violation – 2019-9913219

Our water system failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 10/1/2018 – 12/31/2018, we did not complete all monitoring or testing for trihalomethanes (TTHM), and therefore cannot be sure of the quality of your drinking water during that time.

Any sample we collect must be sent to and analyzed by a certified laboratory within a specified amount of time. We collected the sample on 11/14/2018 and it was received by our contract lab. The lab performed the analysis and the test results were good, however, the laboratory did not do the analysis within the allowed holding time. The test results were rejected by the Division of Water. Since that sample is required to be collected during a specific week we were not allowed to collect a replacement sample and therefore received a monitoring violation.

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

For more information, please contact Sean Smith at 859-792-4501 or P.O. Box 670, Lancaster, KY 40444.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.