

# Sharpsburg Water District Water Quality Report 2019

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The source of drinking water for the Sharpsburg Water District is surface water from the Licking River. Our drinking water is treated by the Carlisle Water Department and the Morehead Utility Plant Board. Water for our customers in Bath County is treated by Morehead and sold to Bath County Water District, which in turn sells to Sharpsburg Water District. The remainder of our customers are supplied by water from Carlisle Water Department. Contact the Sharpsburg Water District office if you have questions about the water source for your specific address.

The susceptibility of the Licking River to contamination is considered to be moderate. Contaminant sources of concern include; transportation corridors; chemical and fuel storage; and agricultural pesticide and fertilizer application. Activities and land use within the watershed can pose potential risks to your drinking water. Under certain circumstances contaminants could be released that would pose challenges to water treatment or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. The complete source water assessment is available for review at the Carlisle Water Department and the Morehead Utility Plant Board.

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).

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>.

## 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, ( $\mu\text{g/L}$ ). 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.

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.

**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.**

### Regulated Contaminant Testing Results for Carlisle Water Department

Regulated Contaminant Test Results								Carlisle Water Department	
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination		
<b>Inorganic Contaminants</b>									
Barium [1010] (ppm)	2	2	0.012	0.012 to 0.012	Feb-19	No	Drilling wastes; metal refineries; erosion of natural deposits		
Fluoride [1025] (ppm)	4	4	0.50	0.5 to 0.5	Feb-19	No	Water additive which promotes strong teeth		
Nitrate [1040] (ppm)	10	10	0.913	0.913 to 0.913	Feb-19	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits		
<b>Disinfectants/Disinfection Byproducts and Precursors</b>									
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.53 (lowest average)	1.12 to 2.15 (monthly ratios)	2019	No	Naturally present in environment.		
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.									
<b>Other Contaminants</b>									
<b>Source Water Contaminants (untreated water)</b>									
Cryptosporidium [oocysts/L]	0	TT (99% removal)	2 (positive samples)	9 (no. of samples)	2019	See note below	Human and animal fecal waste		
<b>Other Constituents</b>									
Turbidity (NTU) TT * Representative samples	<b>Allowable Levels</b>		<b>Highest Single Measurement</b>	<b>Lowest Monthly %</b>	<b>Violation</b>	<b>Likely Source of Turbidity</b>			
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples		1.27	70	Yes	Soil runoff			

Cryptosporidium. We are required to monitor the source of your drinking water for Cryptosporidium in order to determine whether treatment at the water treatment plant is sufficient to adequately remove Cryptosporidium from your drinking water.

Cryptosporidium is a microbial pathogen found in surface water. Cryptosporidium was detected in 2 samples of 9 collected from the raw water source for Carlisle Water Department. 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 Testing Results for Morehead Utility Plant Board

Regulated Contaminant Test Results								Morehead Utility Plant Board	
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination		
<b>Inorganic Contaminants</b>									
Barium [1010] (ppm)	2	2	0.017	0.017 to 0.017	Mar-19	No	Drilling wastes; metal refineries; erosion of natural deposits		
Nitrate [1040] (ppm)	10	10	0.212	0 to 0.212	May-19	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits		
<b>Disinfectants/Disinfection Byproducts and Precursors</b>									
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.1 (lowest average)	1.00 to 1.48 (monthly ratios)	2019	No	Naturally present in environment.		
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.									
<b>Other Constituents</b>									
Turbidity (NTU) TT * Representative samples	<b>Allowable Levels</b>		<b>Highest Single Measurement</b>	<b>Lowest Monthly %</b>	<b>Violation</b>	<b>Likely Source of Turbidity</b>			
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples		4.6	98	Yes	Soil runoff			

## Regulated Contaminant Testing Results for Sharpsburg Water District

Regulated Contaminant Test Results Sharpsburg Water District							
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.95 (highest average)	0.9 to 1	2019	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	47 (high site average)	21 to 82 (range of individual sites)	2019	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	64 (high site average)	28 to 105 (range of individual sites)	2019	No	Byproduct of drinking water disinfection.
Household Plumbing Contaminants							
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.379 (90th percentile)	0.0218 to 0.675	Jul-17	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	3 (90th percentile)	0 to 4	Jul-17	No	Corrosion of household plumbing systems

### Violations

**Sharpsburg Water District was in full compliance with all state and federal regulations for the year 2019; however, Carlisle Water Department and Morehead Utility Plant Board (our suppliers) were not.**

Violation 2019-9917645: Carlisle Water received a violation for having a single maximum turbidity reading exceeding 1.0NTU in May 2019. Their maximum reading was a 1.27NTU. This was due to an intake pump failure on their main water source so they had to use a secondary source, which has higher levels of turbidity. They adjusted the treatment process to reduce turbidity and came back into compliance. A full notification and explanation was sent to our customers at the time this occurred.

Violation 2019-9917646: Carlisle Water also received a violation because more than 5% of their samples in May 2019 had a turbidity reading greater than 0.3NTU. This was also due to the switch from their primary treatment source to a secondary source. They came back into compliance the following month. A full notification and explanation was sent to our customers.

Violation 2020-9950747: Morehead Utility Plant Board received a violation for having a high turbidity level of 4.6NTU in December 2019 that exceeded the allowed limit of 1.0NTU. A Public Notice for this violation was distributed at the time the violation occurred. They returned to compliance with normal turbidity levels after this isolated flood event.

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

**This report will not be mailed. If you would like a copy mailed to you, please contact our office.**