Columbia/Adair Utilities

KY0011016

Water Quality Report for January 1-December 31, 2018

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Water - Essential for Life

Meeting Dates and Time: Second Thursday each month 6:00 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.

The report is to inform you about the excellent water and services that we deliver each day. Our constant goal is to provide you with safe and dependable supply of drinking water. We are committed to ensuring the highest quality water at the lowest prices as we meet the needs of our community. The source for your drinking water are the Green River Lake Adair County, which is a surface water source. The intake for the Green River lake source is located south of Ramp 1 . The area around the water shed is mostly argicultural with very little residential density. The final source water assesment plans are complete. Copies of the plan are available at our office. The plan indicates that the source water has a low susceptibility rating to some contiminants caused by agricultural activities in the area. Public meetings and literature are being developed to address this issue. In an effort to keep your water costs at a minimum, report any water leaks immediately. We also purchase water from Campbellsville Water and Sewer System and Jamestown Municipal Water Works. Campbellsville's source water comes from the Green River Reservoir located in Southern Taylor County. Intake is located on Smith Ridge at the end of West Martin Road. When necessary able to use water on a short term emergency basis from the City Lake located on Lebanon Avenue across from the water treatment plant.Both Green River Reservoir and City Lake are surface water sources. Jamestown Municipal Water Works treats surface water withdrawn from Greasy Creek Cove of nearby Lake Cumberland.

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:

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.

Variances & 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.

Level 1 Assessment - A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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.

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.

C/A = Columbia/Adair Utilities **C = Campbellsville Water and Sewer System** **J = Jamestown Municipal Water Works**

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	C/A =	0.11	100%	No	Soil runoff
*Representative samples of filtered water	Less than 0.3 NTU in 95% monthly samples	C =	0.28	100%	No	
		J =	0.03	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
Microbiological Contaminants								
Total Coliform Bacteria # or % positive samples	TT	N/A	C =	2	N/A	2018	No	Naturally present in the environment
Inorganic Contaminants								
Barium [1010] (ppm)	2	2	C/A =	0.01	0.01 to 0.01	Mar-18	No	Drilling wastes; metal refineries; erosion of natural deposits
			C =	0.02	0.02 to 0.02	Mar-18	No	
			J =	0.026	0.026 to 0.026	Jan-18	No	
Copper [1022] (ppm) sites exceeding action level = 0	AL = 1.3	1.3	C/A =	0.05 (90^{th} percentile)	0 to 0.23	Jun-17	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	C/A =	0.80	0.8 to 0.8	Mar-18	No	Water additive which promotes strong teeth
			C =	0.8	0.8 to 0.8	Mar-18	No	
			J =	0.82	0.82 to 0.82	Jan-18	No	
Lead [1030] (ppb) sites exceeding action level = 0	AL = 15	0	C/A =	2 (90^{th} percentile)	0 to 3	Jun-17	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	C/A =	0.6	0.6 to 0.6	Apr-18	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
			C =	0.6	0.6 to 0.6	Apr-18	No	
			J =	0.25	0.25 to 0.25	Feb-18	No	
Synthetic Organic Contaminants including Pesticides and Herbicides								
Atrazine [2050] (ppb)	3	3	C/A =	0.076	0.076 to 0.076	2018	No	Runoff from herbicide used on row crops
Disinfectants/Disinfection Byproducts and Precursors								
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	C/A =	1.41 (lowest average)	1.07 to 1.96 (monthly ratios)	2018	No	Naturally present in environment.
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.								
Chlorine (ppm)	MRDL = 4	MRDLG = 4	C/A =	1.66 (highest average)	0.80 to 2.6	2018	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	C/A =	26 (system average)	9 to 40 (range of system sites)	2018	No	Byproduct of drinking water disinfection
HAA (ppb) [Haloacetic acids] (Individual Sites)	60	N/A	C/A =	31 (high site average)	9 to 40 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	C/A =	29 (system average)	9 to 49 (range of system sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) [total trihalomethanes] (Individual Sites)	80	N/A	C/A =	38 (high site average)	9 to 49 (range of individual sites)	2018	No	Byproduct of drinking water disinfection.
Other Contaminants								
Cryptosporidium [oocysts/L]	0	TT (99% removal)	C/A =	0 (positive samples)	10 (no. of samples)	2018	No	Human and animal fecal waste

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.

Maximum Contaminant Level (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.

Violations Received in 2018:

Campbellsville Water and Sewer System:

Information on Total Coliform

Level 1 Assessment:A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water disribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems tha were found during these assessments.

During the past year we were required to conduct ONE Level 1 assessment. ONE Level 1 assessment was completed. In addition, we were required to take ONE corrective action and we completed ONE of these actions.

During the past year ONE Level 2 assessment was required to be completed for our water system. ONE Level 2 assessment was completed. In addition, we were required to take ONE corrective action and we completed ONE of these actions.

Violations

Our water system violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we are did to correct these situations.

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 the fourth quarter (Oct.-Dec.) 2018 we did not complete all monitoring or testing for Total Trihalomethanes (TTHM) in our distribution system and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time.

We are required to collect four distribution TTHM samples per quarter. During the fourth quarter 2018, those samples were taken and processed by out laboratory however, the test results were not forwarded to the Division of Water by the January 10, 2019 deadline for reporting. We have contacted out laboratory and discussed this oversight and how it may be prevented from happening again.

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.