2024

Annual Drinking Water Quality Report

The City Utilities Commission (CUC) of Corbin (PWS ID # KY-1180085) is pleased to present to you our Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and provide a safe supply of water to more than 19,000 people. We would like the public to be assured that we will continue to monitor, improve, and protect the water system and deliver high quality water direct from the tap. We know that 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. Please report any activity that might jeopardize the water supply.

We believe the water supply for this community is safe. This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Kemmy Lawson at the Water Treatment Plant- (606)528-5975. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings. Please contact the City Utilities Commission main office at (606)528-4026 for meeting dates and times.

City Utilities Commission, Water Treatment Plant, routinely monitors for constituents in your drinking water according to Federal and State laws. The table in this report shows the results of our monitoring for the period of January 1, 2024 to December 31, 2024. The Water Treatment Plant has 10 million gallons per day capacity. It uses conventional treatment processes consisting of aeration, coagulation, sedimentation, filtration and disinfection (Chlorine) to remove potentially harmful chemical and microbiological agents. The treatment processes also includes corrosion control and fluoridation. Our system has 6.2 million gallons of storage capacity. The source of your drinking water is Corbin City Lake, a surface water intake above Laurel River Lake within the impoundment of the city's dam, in Laurel County on Laurel River.

a. 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 can pick up substances resulting from the presence of animals or from human activity.
b. Contaminants that may be present in source water include:
    (i) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
    (ii) Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
    (iii) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
    (iv) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems.
    (v) Radioactive contaminants, which may be naturally-occurring or be the results of oil and gas production and mining activities.
c. (i)To ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.
(ii) U.S. FDA regulations establish limits for contaminants in bottle water that shall provide the same protection for public health.

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 the 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).

NOTICE: Important Information - Special Precautions
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 microbiological contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.
Another source for information on water quality is the KY Division of Water's website: http://water.ky.gov/DrinkingWater/

Contaminants in the Water Supply
Following is a summary of the system's susceptibility to contamination, which is a part of the completed Source Water Plan (SWAP). The completed plan is available for inspection at (Cumberland Valley Area District Development office in London, Kentucky (606) 864-7391). Activities and land uses upstream of City Utilities Commission's source of water can pose potential risks to your drinking water. An analysis of the susceptibility of the Corbin water supply to contamination indicates that this susceptibility is generally 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 in all three zones around City Utilities Commission's intake. 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 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.

City Utilities Commission is always at work seeking the best way to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. The City Utilities Commission treats water at its plant in a way that reduces the potential of contamination. We believe the water supply for this community is safe. Should any water quality standard be added or changed, the City Utilities Commission will respond appropriately. We continue to be committed to providing a quality, dependable safe water supply to our customers.

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 contaminates 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.

Only those contaminants that were detected are included in the test results tables. Additional tests of more than 100 are conducted daily during the treatment process to ensure the water quality remains high. Water systems in Kentucky must test for more than 100 other contaminants not listed here, for a complete list please contact the Water Treatment Plant.

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

Definitions

In the tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

- *Parts per million (ppm) –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)* - 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 10 drops added to the Rose Bowl.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. T*urbidity has no health effects. However, turbidity can provide a medium for microbial growth.*
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *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. 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 daily at the **MCL level** for a lifetime to have a one-in-a-million chance of having the described health effect.
- *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 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 health risk. A MRDLG does not reflect the benefits of disinfectants to control microbial contaminants.
- *Action Level* (AL): the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.
- ***Below Detection Levels (BDL)*** - laboratory analysis indicates that the contaminant is not present. **<:** Less than.

Substance	EPA's Allowable Level's MCL	Ideal Goal (MCLG)	Highest Single Level Detected	Lowest Monthly Average %	Violation Yes/No	Sources of Contaminant
Turbidity (NTU) (1766) samples taken) 2024	Less than 0.30 NTU in 95% of samples each month (TT)	N/A	0.24 (NTU)	100.0%	NO	Soil runoff. Natural river sediment. Turbidity is a measurement of water clarity, which aids in determining the effectiveness of our filters.

Contaminant	**EPA's Allowable Level's MCL**	**Ideal Goal (MCLG)**	**Report Level**	**Range of Detection**	**Violation Yes/ NO**	**Sources of Contaminant**
Inorganic Contaminants						
Barium [1010] (ppm) 02/19/2024	2	0	0.020	Range -one sample	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate [1040] (ppm) (5/10/24	10	0	0.432	Range -one sample	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride [1025] (ppm) (02/19/2024	4	4	0.86	Range -one sample	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Copper (ppm) (09/2024) +	AL=1.30	0	0.656 = (90^{th} percentile)	0.014 to 1.69	NO	Corrosion of household plumbing
Lead (ppb) (10/4/2024)	AL=15	0	3 = (90^{th} percentile)	2 to 14	NO	Corrosion of household plumbing

Service Line Inventory Information: To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. We have completed a preliminary service line inventory (SLI) and it is available for review at our office.

- *Turbidity* is a measure of the cloudiness of the water. It is a good indicator of the effectiveness of the treatment and filtration system. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Lead* and *Copper* testing- 30 samples were taken at the customer's water tap during the year of 2024, CUC is required to retest in year 2027.
- *Information about Lead* Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. City Utilities Commission is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact City Utilities Commission at Kemmy.Lawson@corbinutilities.com. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *https://www.epa.gov/safewater/lead*.
- *Fluoride* has been added to the drinking water for dental health purposes. CUC monitors the fluoride levels on a daily basis and sends samples twice monthly to an independent lab for analysis
- CUC has sampled for a series of unregulated contaminants. Unregulated Contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have the right to know that these data are available. If you are interest in examining the results, please contact our office during normal business hours - Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances .EPA has not established drinking water standards for unregulated contaminants. There are no MCL's and therefore no violations if found.

Each month 20 samples are collected from various sampling points throughout City Utilities Commission's water distribution system and analyzed for *Total Coliforms* and *Escherichia coli* without any positive samples results. These bacteria- whose presence indicates that the water may be contaminated with human or animal wastes.

Disinfectants/Disinfection By Products and Precursors						
Total Organic carbon, (ppm) Removal ratio* 2024	Equal to or more than 1.00 annual average(TT)	Ideal Goal (MCLG) N/A	Lowest Running Annual Average 1.17	Monthly Range 1.0 to 1.65	Violation - NO	Runoff from herbicide used on row crops
Chlorine (ppm) 2024	MRDL=4	MRDL=4	Highest Average 1 . 6 6	Monthly Range 0.35 to 2.60	Violation - NO	Water additive to control microbes
Haloacetic acids, or HAA (ppb) 2024	60 Annual average	0	High Site average 50	22 to 72 for single sites	Violation - NO	By-product of drinking water chlorination
TTHM [total trihalomethanes] (ppb) 2024	80 Annual average	0	High Site average 64	30 to 100 for single sites	Violation - NO	By-product of drinking water chlorination

Unregulated Contaminates (UCMR5)	Average (ppt)	Range (ppt)	Date
PFBA	2.60	0 to 5.40	Nov 23, Mar 24, May 24, Aug 24
PFPeA	6.80	0 to 1.80	Nov 23, Mar 24, May 24, Aug 24
PFBS	0.90	0 to 3.70	Nov 23, Mar 24, May 24, Aug 24
PFHxA	5.80	0 to 11.00	Nov 23, Mar 24, May 24, Aug 24
PFOA	4.13	0 to 6.70	Nov 23, Mar 24, May 24, Aug 24

WHAT IS THE FIFTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR 5)?

The Safe Drinking Water Act requires that once every five years EPA issue a list of unregulated contaminants to be monitored by public water systems. The Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by EPA and consensus organizations. This action provides EPA and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. Consistent with EPA's PFAS Strategic Roadmap, UCMR 5 will provide new data that is critically needed to improve EPA's understanding of the frequency that 29 PFAS (and lithium) are found in the nation's drinking water systems and at what levels. This data will ensure science-based decision-making and help prioritize protection of disadvantaged communities.

More information on the UCMR 5 can be found at https://www.epa.gov/system/files/documents/2022-02/ucmr5-factsheet.pdf.

- To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water daily at the **MCL level** for a lifetime to have a one-in-a-million chance of having the described health effect.
- Other-Secondary contaminants do not have a direct impact on the health of consumers and are not required in the Consumer Confidence Report. They are being included to provide addition information about the quality of the water. Sampled in 2024

Sodium 12.2mg/L (EPA guidance level = 20 mg/L	pH = 7.36	Total Dissolved Solids = 95 mg/L	Nitrate = 0.432 mg/L

Dental Health Fluoride

- *Fluoride* has been added to the drinking water for dental health purposes. CUC monitors the fluoride levels on a daily basis and sends samples twice monthly to an independent lab for analysis.

Fluoride [1025] (ppm) 2024	4	0.74-.95	.95 Average	0.74– .95 Range	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

This notice is being sent to you by: City Utilities Commission	Public Water System ID #: KY1180085
http://corbinutilities.com/	

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