Annual Drinking Water Quality Report
City of Covington

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2024 is designed to provide you with valuable information about your drinking water quality. We are committed to providing you with a safe and dependable supply of drinking water and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water meets all state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, want additional information about any aspect of your drinking water, or want to know how to participate in decisions that may affect the quality of your drinking water, please contact:

Anthony Lowry, Director of Public Works - (540) 965-6321
John Riley, Class I Waterworks Operator/WTP Supt.
https://covington.va.us/city-government/city-departments/public-works/

GENERAL INFORMATION

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban storm water runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

All drinking water, including bottled drinking 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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).

SOURCES AND TREATMENT OF YOUR DRINKING WATER

Your drinking water is surface water obtained from the Jackson River. Complete treatment of the water is provided at the Jackson River Water Treatment Plant. Treatment includes coagulation, sedimentation, filtration, chlorination and fluoridation. Water is distributed throughout the system by booster pumping stations, storage tanks and distribution piping.

SOURCE WATER ASSESSMENTS

A source water assessment for the Jackson River Water Treatment Plant was completed by the VDH and last updated in 2024. This assessment determined that the water source (Jackson River) may be susceptible to contamination. All surface water sources (rivers, reservoirs) are exposed to a wide array of contaminants of varying concentrations and changing

hydrologic, hydraulic, and atmospheric conditions that promote migration of contaminants from land use activities of concern within the assessment area. More specific information may be obtained by contacting the water system representative listed above.

QUALITY OF YOUR DRINKING WATER

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The tables that follow show the results of our monitoring for the period of January 1, 2024 through December 31, 2024. The results in the table are from testing done in 2023 and 2024. However, the state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

DEFINITIONS

In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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 contamination.

Nephelometric Turbidity Unit (NTU) - A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-detects (ND): The substance was not found by laboratory analysis.

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 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.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

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

Variances and exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

WATER QUALITY RESULTS

INORGANIC CONTAMINANTS						
Contaminant (Unit)	MCLG	MCL	Level Found (Range)	Violation	Date	Typical Source of Contamination
Barium (ppm)	2	2	0.037	No	2024	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppm)	0.1	0.1	0.0012	No	2024	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate ppm	10	10	0.49	No	2024	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4.0	4.0	0.10	No	2024	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
RADIOLOGICAL CONTAMINANTS						
Contaminant (Unit)	MCLG	MCL	Level Found (Range)	Violation	Date	Typical Source of Contamination
Beta emitters (pCi/L)	0	50*	2.0	No	2024	Decay of natural and man-made deposits
Combined Radium (pCi/L)	0	5	0.7	No	2024	Erosion of natural deposits
DISINFECTION BYPRODUCTS						
Contaminant (Unit)	MCLG	MCL	Level Found (Range)	Violation	Date	Typical Source of Contamination
Total Trihalomethanes (ppb)	NA	80	43 (18 – 66)	No	2024	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NA	60	51 (23 – 85)	No	2024	By-product of drinking water chlorination
DISINFECTION RESIDUAL						
Contaminant (Unit)	MRDLG	MRDL	Level Found (Range)	Violation	Date	Typical Source of Contamination
Chlorine (ppm)	4	4.0	0.85 (0.25 – 1.32)	No	Daily & Monthly	Water additive used to control microbes

TURBIDITY[1]							
Contaminant (Unit)	MCLG	MCL	Highest Level Found	Lowest Monthly % < 0.3 NTU	Violation	Date	Typical Source of Contamination
Turbidity (NTU)	NA	TT	0.57	99.9%	No	Daily	Soil Runoff

TOTAL ORGANIC CARBON[2]						
Contaminant	MCLG	MCL	Level (Range)	Violation	Date	Typical Source of Contamination
Total Organic Carbon	NA	TT	Removal Ratio = 1.00	No	Quarterly	Naturally present in the environment

1 Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of our water quality and the effectiveness of the filtration process.

2 Total Organic Carbon (TOC) has no health effects, but provide a medium for the formation of disinfection byproducts. If TOC in our source water exceeds a certain amount we are required to remove at least a certain percentage. Our raw water TOC was very low in 2024 and typically below the amount where specific removal is required. We were required to remove 25% in May 2024 and achieved a 58% removal.

* The MCL for beta particles is 4 mrem/yr. EPA considers 50 pCi/L to be the level of concern for beta particles.

LEAD AND COPPER						
Contaminant (Unit)	MCLG	MCL	Level Found (Range)	Exceedance	Date	Typical Source of Contamination
Lead (ppb)	0	AL=15	0.5 (0.075 – 4.1) 0 of 20 exceeded AL	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.335 (0.001 – 0.398) 0 of 20 exceeded AL	No	2024	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED CONTAMINANT						
Contaminant (Unit)	MCLG	MCL	Level Found	Exceedance	Date	Typical Source of Contamination
Sodium (ppm)	NA	NA	2.6	NA	2024	Erosion of natural deposits; De-icing salt runoff; Water softeners

RESULTS INFORMATION

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Maximum Contaminant Levels (MCLs) are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards, EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

Sodium - There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons whose physician has placed them on severely restricted sodium diets.

LEAD INFORMATION

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. The City of Covington is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the City of Covington, John Riley (540) 965-6329. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead .

SERVICE LINE INVENTORY

A service line inventory has been prepared as required by the US EPA Lead & Copper Rule Revisions. To access the inventory, please contact the Public Works Department at (540) 965-6321.

VIOLATION INFORMATION

Water Quality Violations – None

Monitoring and Reporting Violations:

In the month of July 2024, we did not complete all monitoring or testing for total trihalomethanes (TTHM) and haloacetic acids (HAA5) and therefore cannot be sure of the quality of your drinking water during that time. We collected samples in September 2024 but are required to collect them in the first month of each calendar quarter. We collected samples in October 2024 which returned this situation to compliance.

Treatment Technique Violations:

Lacks Properly Licensed Operator(s) & Failure to Address a Significant Deficiency

Our water system recently violated a drinking water regulation and requirement. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation. The water treatment plant operates up to 16 hours a day, 7 days a week and we are required to staff the plant with a Class 1 licensed operator whenever the plant is in operation. We currently have one full-time Class 1 Operator, and recently added a second Class I Operator that works on a part-time basis; however, we do not have a Class I operator at the waterworks during all plant shifts. We now have nine experienced waterworks operators licensed by the Virginia Department of Professional and Occupational Regulations with a combined 120+ years of water plant operations experience, including more than 86 years of combined experience at our treatment plant. We are continuing our recruiting efforts to add an additional Class 1 operator and to support the advancement of the current licensed operators to meet the Class 1 operator staffing requirements.

A routine inspection conducted on March 8, 2024, by the Virginia Department of Health (VDH), Lexington Field Office found significant deficiencies with the Pocahontas Storage Tank. We were required to take action to correct these deficiencies. However, we failed to take all actions by the deadline established by this Office. A professional interior and exterior inspection of the tank with a report of findings was due by July 31, 2024. As a result of a delay in establishing the inspection contract, the inspection was conducted and the report was provided to VDH after the deadline. Other required actions to seal small holes in the tank roof and correct improper vent screens have been completed.

What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. The drinking water produced by the plant is currently meeting all state and federal health and quality standards.

What does this mean?

This is not an emergency., If it had been, you would have been notified within 24 hours.

What is being done?

We are taking the necessary steps to ensure that we have enough Class 1 licensed operators, in order to bring our waterworks into compliance and proper permit status. We anticipate resolving the problem within 4 months. A professional inspection of the Pocahontas Tank was completed on October 14, 2024. A report of findings was submitted to the Virginia Department of Health on January 30, 2025.

The City of Covington Water Treatment Plant (WTP) is 100% staffed (Class I – IV) as Waterworks Operators licensed by the Virginia Department of Professional and Occupational Regulations. Collectively, these skilled operators have **155 years of water treatment experience**, including **94 years' experience at the City of Covington Water Treatment Plant.** A summary of the Water Treatment Operators license classifications and experience is provided. Waterworks Operators Licenses are on file within DPOR, posted onsite at the WTP and on file at City Hall.

WTP Operator Certification	Total Years WTP Experience	Total Years at Covington WTP
Class I	36	8
I	28	1
Class II	3	2
Class III	37	37
III	28	26
III	15	12
III	2	2
III	3	3
Class IV	3	3
9 Total Operators	**155 Combined Years WTP Experience**	**94 Combined Years Service at Covington WTP**

This Drinking Water Quality Report was prepared by the City of Covington with the assistance and approval of the Virginia Department of Health. Please call at the number at the top of the report if you have questions.

Signature: _____ Date: 3/25/25
Anthony Lowry, Director of Public Works

Signature: _____ Date: Water Plant MAR 25 2025
John Riley, Class I Operator/WTP Supt.