# 2024 Water Quality Report

## January 1 – December 31, 2024

**Owensboro Municipal Utilities**

Public Water System ID# KY0300336
Agency Interest Number 943

# OMU's Commitment

OMU's mission is to deliver reliable, quality water at the most economical cost. The 2024 Water Quality Report demonstrates the hard work and dedication of our employees and our commitment to safe and reliable water. Our water professionals monitor and test your water at multiple points throughout the process of drawing water from its source, ensuring it meets state and federal drinking water standards and delivering it to your home or business. In fact, over 15,000 water quality tests are conducted annually.

**We are proud to report that Owensboro Municipal Utilities had zero water quality violations for Calendar Year 2024.**

# The Source of Your Water

The source of water supply for Owensboro Municipal Utilities is groundwater that comes from the Ohio River Alluvium, a deep underground aquifer on the northeast side of Owensboro, Kentucky. This aquifer contains water that has been naturally filtered as it works its way through layers of the earth. It is a vital resource that must be protected from contamination.

OMU takes its responsibility to protect our source of water seriously. A wellhead protection plan is in place to ensure the protection of our wellfield. The wellfield is made up of 41 wells that tap into the aquifer and pumps water to the William R. Cavin Water Treatment Plant for treatment before it is sent to the distribution system. A source water assessment has been completed and an analysis of the overall susceptibility to contamination of the OMU's water supply indicated that this susceptibility is moderate. Sources of high potential impact include: above ground storage tanks, underground storage tanks, automotive related facilities, laundry facilities, petroleum suppliers and industrial land use. Sources of moderate potential impact include: professional offices, food service facilities, hair care facilities, medical or veterinary facilities, a printer, and a cemetery. A copy of the OMU Wellhead Protection Plan and the complete source water assessment is available by calling Owensboro Municipal Utilities 270-926-3200.

# A message from the EPA

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 can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap 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 human activity.

### Contaminants that may be present in source water used for public supplies or bottled water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and 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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## Special Health Information

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 the advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Crytosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

# Definitions & Abbreviations that may appear 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.

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

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

**Locational Running Annual Average (LRAA):** The annual average of one monitoring location.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**Not Applicable (N/A):** Does not apply.

**Parts per billion (ppb):** Micrograms per liter.

**Parts per million (ppm):** Milligrams per liter.

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

**>** Greater than **<** Less than

## Maximum Contaminant Levels (MCL's)

Maximum contaminant levels are set at a very stringent levels. To understand the possibility of health effects 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 any health effects.

# Owensboro Municipal Utilities

## Water Quality Data

### Jan. 1 – Dec. 31, 2024

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 a 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.

We are pleased to report that during Calendar Year 2024, the results of testing of your drinking water complied with all state and federal drinking water requirements.

**Regulated Substances – Collected at the Treatment Plant**

| Substances (units) | MCL | MCLG | Highest Level Detected | Range of Detection | Date of Sample (month/year) | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **RADIOACTIVE** | | | | | | | |
| Beta photon emitters (pCi/L) | 50 | 0 | 4.82 | 4.82 to 4.82 | May-21 | No | Decay of natural and man-made deposits |
| **INORGANIC** | | | | | | | |
| Arsenic (ppb) | 10 | N/A | 1.06 | 1.06 to 1.06 | Jun-23 | No | Natural erosion; runoff from orchards or glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | 0.0201 | 0.0201 to 0.0201 | Jun-23 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.67 | 0.674 to 0.674 | Jun-23 | No | Water additive which promotes strong teeth; erosion of natural deposits |

**Regulated Contaminants:** Substances subjected to a Maximum Contaminant Level (MCL), Action Level (AL), or Treatment Technique (TT). These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health.

## Turbidity – Monitored at the Treatment Plant

| Substances (units) | MCL | MCLG | Highest Level Detected | Lowest Monthly % of Samples ≤ 0.3 NTU | Date of Sample (month/year) | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Turbidity (NTU) | TT | N/A | 0.034 | 100% | 2024 | No | Soil runoff; lime addition in water treatment process |

**Turbidity:** Turbidity is a measure of the clarity of the water and not a contaminant. It is measured as an indicator of water quality and the effectiveness of our filtration system. Compliance with the turbidity Treatment Technique (TT) is achieved when 95% of four-hour filtered water readings are 0.3 NTU or lower and no readings are greater than 1 NTU.

## Regulated Substances – Collected in the Distribution System

| Substances (units) | MCL | MCLG | Highest Level Detected | Range of Detection | Date of Sample (month/year) | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **DISINFECTANTS/DISINFECTION BYPRODUCTS AND PRECURSORS** | | | | | | | |
| Chlorine (ppm) | MRDL =4 | MRDLG =4 | 1.42 (highest average) | 0.9 to 1.71 | 2024 | No | Water additive used to control microbes |
| Haloacetic Acids (ppb) | 60 | N/A | 7 (Highest LRAA) | 2.26 to 9.91 (range of system individual sites) | 2024 | No | Byproduct of drinking water disinfection |
| Total Trihalo-methanes (ppb) | 80 | N/A | 40 (Highest LRAA) | 23.3 to 48.7 (range of system individual sites) | 2024 | No | Byproduct of drinking water disinfection |

## Regulated Substances – At Customer's Tap

| Substances (units) | Action Level (AL) | MCLG | Report Level | Range of Detection | Date of Sample (month/year) | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **HOUSEHOLD PLUMBING CONTAMINANTS** | | | | | | | |
| Copper (ppm) | AL =1.3 | 1.3 | 0.0189 (90th percentile) | 0.00112 to 0.0263 | July-23 | No | Corrosion of household plumbing systems; erosion of natural deposits |

**Lead & Copper:** Compliance is achieved when at least 90% of samples collected from water standing in contact with plumbing for at least 6 hours are below the Action Level. There were 30 sites tested, zero (0) samples exceeded the Action Level for lead of 15 ppb; zero (0) samples exceeded the Action Level for copper of 1.3 ppm. The individual results for each location sampled can be reviewed at our office.

# Lead & Your Health

## A Message from the EPA

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. Owensboro Municipal Utilities 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 Owensboro Municipal Utilities at 270-926-3200 or at P.O. Box 806, Owensboro, KY, 42302. 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.

To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. OMU has completed a service line inventory (SLI) and it is available for review at our office or on line at omu.org/water-systemassessment-map.

# More About Your Water

## Board of Commission Public Meetings

The City Utility Commission normally meets on the third Thursday of each month at 11:30 AM. These public meetings are held in the third floor boardroom at the OMU Customer Service Center located at 2070 Tamarack Road, Owensboro, KY 42301.

## Owensboro Municipal Utilities Water Staff

### Tim Lyons
General Manager

### Russ Evans
Director of Production

### Paul Montgomery
Water Operations Manager

### Elmo Thompson
Water Production Maintenance Manager

### Alex Conn
Production Technical Services Manager

### Heather King
Water Quality Lab Supervisor

## Contact Us

### Owensboro Municipal Utilities

P.O. Box 806
Owensboro, Kentucky 42302-0806
270-926-3200

www.omu.org

## Educational Opportunities

OMU offers guided tours of the water treatment plant to schools, businesses, and organizations. We can tailor tours to the interests of your group.

For more information, please visit omu.org/education.

## Water Quality Questions & Reports

Water quality questions or concerns, questions about this report, or to request a copy of this Water Quality Report, please contact, Heather King, Water Quality Lab Supervisor, at 270-926-3200.

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).

## Additional Resources

### Kentucky Division of Water

502-564-3410
www.water.ky.gov

### Kentucky Rural Water Association

270-843-2291
www.krwa.org

### U.S. EPA Safe Drinking Water Hotline

800-426-4791
www.epa.gov/safewater

## Atención

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