

# Le-Ax Regional Water District

## 2024 Consumer Confidence Report

### **Introduction**

The Le-Ax Regional Water District has prepared the following report to provide information to the consumer on the quality of its drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

### **Source Water Information**

The Le-Ax Regional Water District receives its drinking water from two horizontal collector wells located near the Hocking River in Dover Township, Athens County, Ohio.

A susceptibility analysis was completed by Ohio EPA, which identifies potential contaminant sources in and around this area. According to this study, the aquifer (water-rich zone) that supplies water to Le-Ax Regional Water District has a HIGH susceptibility to contamination. This does not mean that the well field will become contaminated, only that the likelihood of contamination is relatively high.

This determination is based on the following:


- Lack of protective layer of clay overlaying the aquifer,
- Shallow depth (less than 15 feet below ground surface) of the aquifer; and
- The presence of significant potential contamination sources in the protection area

This susceptibility rating means that under current existing conditions, the likelihood of the aquifer becoming contaminated is high. This likelihood can be minimized by implementing appropriate protective measures. Le-Ax Regional Water District has developed a Source Water Protection Plan to protect the aquifer that supplies our drinking water from land-based contamination. Components of the Protection Plan include contaminant source control strategies, education and outreach strategies, and contingency plan updates. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling Robert Peck or Mike Riley at (740) 593-7502.

### **What are sources of contamination to drinking water?**

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.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally- occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of



industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

### **Cross-connection and Backflow**

Cross-connection is any physical connection created between a possible source of contamination and any drinking water system piping. An example of a cross-connection would be a well pump that is also connected to the interior plumbing of a home that the public water system serves. Another example of cross-connection would be a hose with one end submerged in a pool, hot tub, or watering trough, and the other end secured to a yard hydrant, spigot or hose bib.

Backflow is the flow of a contaminant through a cross-connection into the drinking water system. This occurs when a cross-connection is created and a pressure reversal, either as backsiphonage or backpressure, occurs in the water supply piping. This can happen when there is a water main break. If the pressure of the source of contamination is greater than the water system pressure, contaminated water may backflow into the drinking water system. Pressure drops in the public water system caused by water line breaks, pump failures, and fire-fighting can also cause a backflow situation.

For more information on cross-connection hazards and backflow prevention, please click the link ***Backflow Prevention Program*** on our website at <https://le-ax.com>.

### **Who needs to take 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 infection. 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 (1-800-426-4791).

## About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Le-Ax Regional Water District conducted sampling for bacteria, nitrate, lead, copper, disinfection products and disinfection by-products during 2024. The Ohio EPA requires Le-Ax to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change readily over time. This is the reason that some data may have been sampled more than one year ago. Listed below is information on those contaminants that were found in the Le-Ax Regional Water District's drinking water.

**Table of Detected Contaminants**

Contaminant (units)	MCLG or MRDLG	MCL or MRDL	Level Found	Range of Detections	Violation?	Year Sampled	Typical Source of Contaminants
<b>Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.039	0.033	No	2023	Discharge of drilling waste; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.03	0.82-1.25	No	2024	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.14	0.14	No	2024	Runoff from fertilizer use; Leaching from septic tanks, sewers; Erosion of natural deposits
<b>Residual Disinfectants and Disinfection Byproducts</b>							
Chlorine (ppm)	4	4	1.14	1.05-1.5	No	2024	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	n/a	80	41.61	20.1-76.4	No	2024	By-product of water chlorination
Haloacetic Acids (HAA5) (ppb)	n/a	60	7.87	0-17.0	No	2024	By-Product of drinking water chlorination
<b>Lead and Copper</b>							
Contaminant (units)	Action Level (AL)	MCLG	Individual Results over the AL	90 <sup>TH</sup> Percentile Value	Violation?	Year Sampled	Typical Source of Contaminants
Lead (ppb)	15	0	0	1.61	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
	0 out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3	1.3	0	0.425	No	2024	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
	0 out of 30 samples were found to have copper levels in excess of the lead action level of 1.3 ppm.						

The table below lists typical results for drinking water that is delivered to the consumer.

Typical Finished Water Test Results		Maximum Allowable
Hardness	130-160 ppm (7.6-8.8 grains/gal)	NA
pH	7.2-8.0	NA
Free Chlorine (distribution)	0.2-1.2 ppm	0.2 ppm min, 4.0 ppm max
Iron	<0.010 ppm	0.30 ppm
Manganese	<0.010 ppm	0.05 ppm
Alkalinity Stability	neutral, slightly depositing	NA
Fluoride	0.85-1.15 ppm	2.0 ppm
Sodium	100-125 ppm	NA

**Unregulated Contaminant Monitoring Rule (UCMR) Sampling**


Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2024, Le-Ax Regional Water District participated in a round of the Unregulated Contaminant Monitoring Rule (UCMR 5). For a copy of the results please call Robert Peck or Mike Riley at (740) 593-7502.

**Table of Unregulated Contaminants (UCMR 5)**

Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location
Lithium (ug/L)	2024	4.54	4.54	Entry Point
PFOA (ppb)	2024	<0.0010	<0.0010	Entry Point
PFOS (ppb)	2024	<0.0010	<0.0010	Entry Point
PFNA (ppb)	2024	<0.0010	<0.0010	Entry Point

**Lead Educational Information**

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. Le-Ax Regional Water District 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.



The 2021 EPA Lead and Copper Rule Revisions required public water systems to develop a complete inventory of all service lines. Initially, Le-Ax identified the materials of both public and private portions of the service lines by using historical records and customer surveys. A “known service line” is defined as a service line where the pipe material is categorized using records or other means. An “unknown service line” is defined as a service line of unknown material with no documented material history. Additionally, Le-Ax performed a statistical analysis, which provides a method to complete a service line inventory while eliminating or prioritizing the need to inspect every “unknown service line”. Statistical Modeling is an identification method that uses the composition of known service lines to predict the material of unknown service lines in a service area. To do this with a statistically significant result, a large enough sample of randomly selected service lines were identified to ensure that a 95% confidence interval is delivered. In Le-Ax’s group of randomly selected samples, no service lines were identified as lead. Based on this analysis, Le-Ax can make the determination that its distribution system contains no lead, galvanized requiring replacement, or “lead status unknown” service lines.

### **License to Operate (LTO) Status Information**

In 2024 Le-Ax Regional Water District had an unconditioned license to operate its water system.

### **Public Participation and Contact Information**

Public participation and comments are encouraged at regular meetings of Le-Ax Regional Water District, which meet on the 2<sup>nd</sup> Monday of every month at 4:30 pm. Le-Ax Offices are located at 6000 Industrial Drive, Athens, Ohio. For more information on your drinking water contact Robert Peck or Mike Riley at (740) 593-7502.

### **Definitions of some terms contained within this report**

- **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 Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **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 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.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

- **Contact Time (CT)** means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).
- **Microcystins:** Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- **Cyanobacteria:** Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- **Cyanotoxin:** Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as “algal toxin”.
- **Level 1 Assessment** is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **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.
- **PFAS:** Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.
- **Master Meter (MM):** A master meter is one that connects a wholesale public water system to consecutive public water system(s). This type of meter monitors the amount of water being sent to the consecutive system(s) and can also be used to determine the quality of water being delivered to the consecutive system(s).
- **Parts per Million (ppm) or Milligrams per Liter (mg/L)** are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- **Parts per Billion (ppb) or Micrograms per Liter (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- **The “<” symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.
- **Picocuries per liter (pCi/L):** A common measure of radioactivity.

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