WATER QUALITY REPORT

The Lake County Department of Utilities
East and West Sub-District

WATER THAT IS CLEAN & SAFE

- Our Mission
- Source Water Information
- Contaminants Report
- Lead Pipes
- Freezing Pipes
- Tap vs. Bottle

Lake County
Lake
Department of Utilities

OUR MISSION

Keep Lake County Clean & Safe

DIVISION OF WATER

East and West Sub-Districts

This brochure is a summary of the water quality provided to our customers in 2025. It includes details about where your water comes from, how it is processed, what it contains, and how it meets the standards set by the Federal and the Ohio EPA. We are pleased to provide this information to you.

The Lake County Department of Utilities' three divisions – Water, Wastewater, and Solid Waste – work together to keep Lake County clean and safe by providing exceptional water, sanitary sewer treatment, and landfill administration.

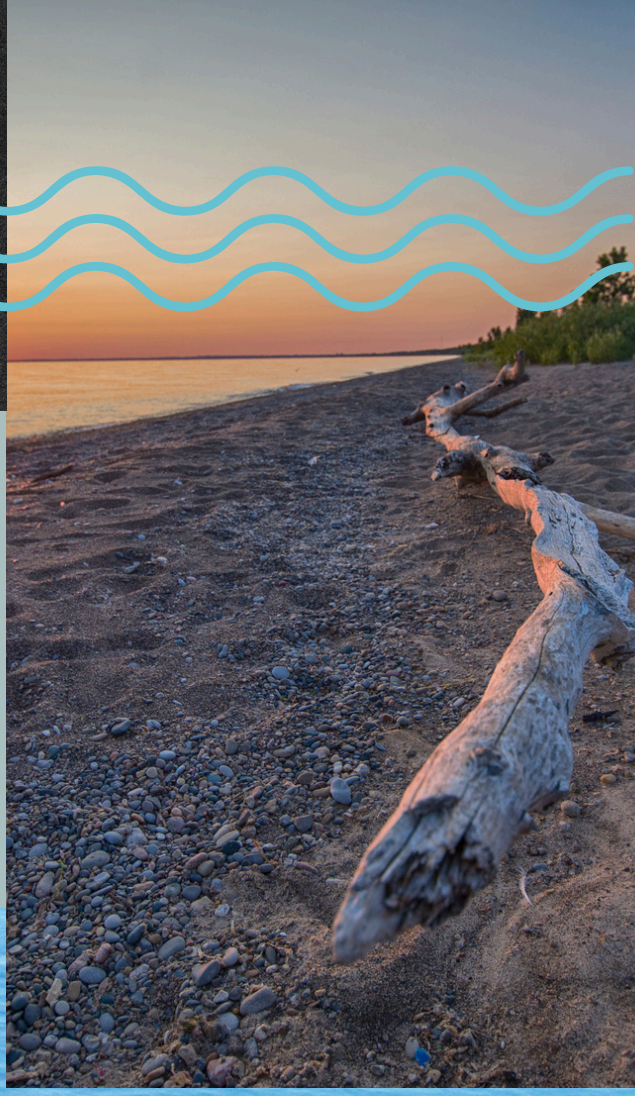
Water + Sewer + Solid Waste

We all want a thriving community that is clean and safe for all to enjoy. The pleasures and the cost of safe drinking water belong to all of us; and paying your utility bill is an investment in our water future. The Lake County Department of Utilities is committed to bringing exceptional water service to your community, which keeps Lake County healthy!

Wash | Drink | Fire | Cook | Lawn

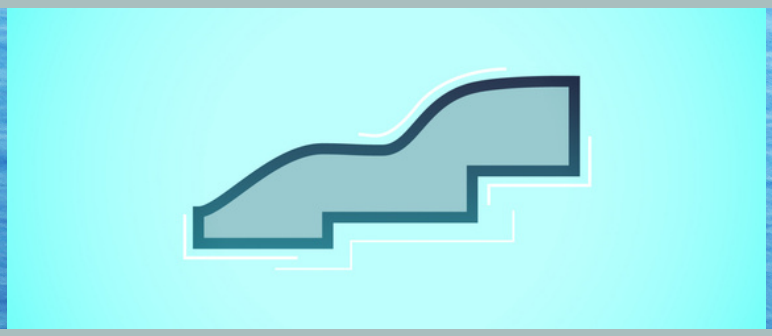
PUBLIC WATER

Where Does It Come From?



From the moment you turn on your faucet to the time your water bill arrives, it is interesting to know where your public water comes from. Your drinking water originates from beautiful Lake Erie, where two large intake pipes located below the lake's surface transport the water back to shore.

From there your water is cleaned, filtered, disinfected and constantly tested by professionals until it is safe for you to drink. Your future tap water is then pumped into a distribution system, which sends water into hundreds of miles of underground pipe and into nine Lake County water storage facilities.

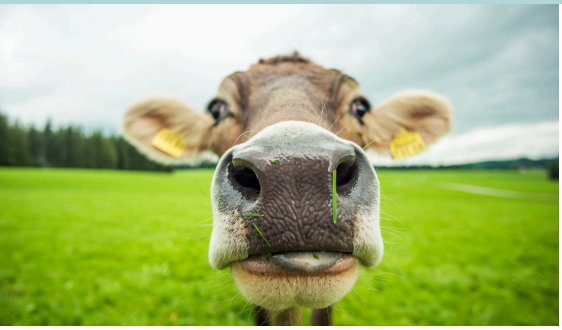


Our water system is constantly monitored, tested, maintained and repaired. This is how water arrives where you need it, making it available for use.

The Lake County Department of Utilities operates and maintains two drinking water systems—the East Sub-District and the West Sub-District. The East Sub-District provides water to Perry Village, North Perry Village, Madison Village, Perry Township, Madison Township, Unionville, and portions of Geneva and Painesville. The West Sub-District provides water to Eastlake, Willoughby, Willowick, Wickliffe, Willoughby Hills, Lakeline, Timberlake, and portions of Kirtland. The department also has interconnections with other area water systems, but these are for emergency use only.

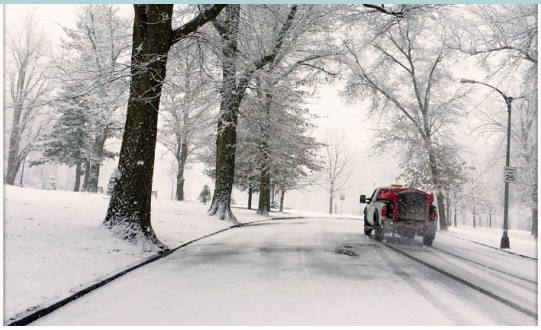
PUBLIC PARTICIPATION IN YOUR WATER SYSTEM: See LakeCountyOhio.gov for scheduled public meetings. If you are interested in more information about water quality, please call our lab at 440-918-3420.

WHAT ARE THE SOURCES OF CONTAMINANTS TO DRINKING WATER?



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 storm 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 storm water runoff, and residential uses.

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.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

CONTAMINANTS

WHAT MAY BE PRESENT IN YOUR SOURCE WATER

The Lake County Department of Utilities operates and maintains two drinking water systems. By maintaining an unconditional license to operate our water system, we treat your water according to the highest standards to ensure that you and your family receive the best possible product.

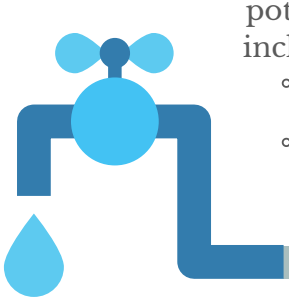
We are fortunate to have Lake Erie as our source of water. This body of water is classified as a *surface supply source,* and serves as a valuable resource for drinking water to millions of Ohio's residents. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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.

The Lake County East and West Sub-District Public Water Systems use surface water drawn from Lake Erie. Ohio EPA performed an assessment of our source water in 2002. For the purposes of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens with a relatively short travel time from source to intake.

Although the Lake County East and West Sub-District intakes are located offshore in Lake Erie, the proximity of the Grand River to the East Sub-District's intake and the Chagrin River to the West Sub-District's intake increases the susceptibility of the source water to contamination. The Lake County East and West Sub-District drinking water source protection areas contain a moderate number of potential contaminant sources, which include:

- Accidental spills and releases associated with commercial shipping and recreational boating
- Air contaminant deposition

(continued on page 6)



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).

CONTAMINANTS

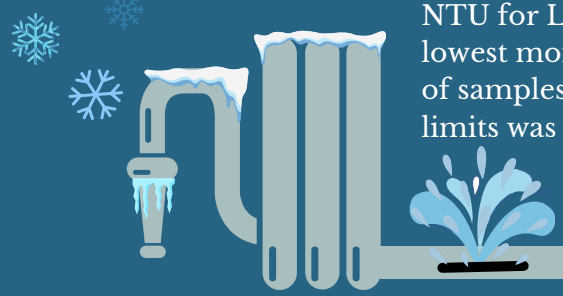
CONTINUED FROM PAGE 5

- Contaminants from industries and agricultural runoff along the shore and along streams (Grand and Chagrin Rivers) that empty into the lake
- Contaminants associated with oil and gas production and transportation
- Sediments from river dredging, disposal operations, and natural erosional processes
- Contaminated stormwater runoff, municipal and home sewage treatment system discharges, and combined sewer overflows

Although the Lake County East and West Sub-District Public Water Systems treat water to meet drinking water quality standards, no single treatment technique can address all potential contaminants. The likelihood for water quality impacts can be further decreased by implementing measures to protect Lake Erie and both the Grand and Chagrin Rivers. More detailed information is provided in the Lake County East and West Sub-District Drinking Water Source Assessment reports. Please contact the East Sub-District Superintendent at 440-350-2155 and the West Sub-District Superintendent at 440-918-3420 for more information pertaining to the reports.

Soil erosion is the major factor impacting Lake Erie waters. The wearing away of the shoreline results in overall cloudiness – known as *turbidity*. We measure samples of water with sensitive instruments that can detect slight changes in cloudiness that are imperceptible to the human eye. We continually assess these changes in turbidity so that treatment can be optimized by adjusting pretreatment and filtration processes to achieve maximum effectiveness.

The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the table, the highest recorded turbidity result for 2025 was 0.12 NTU for Lake County East and 0.13 NTU for Lake County West. The lowest monthly percentage of samples meeting the turbidity limits was 100% for both.



FREEZING PIPES

When leaves fall,
don't stall. Water off.

When temperatures drop, water inside pipes can freeze and expand. This can cause the pipes to burst, leading to flooding and major damage to your home and property. Pipes in garages, crawl spaces, attics and outside walls are all vulnerable to freezing, especially if there are cracks or openings that allow cold outside air to flow across the pipes. You may not notice a water break right away while it is frozen, but as temperatures rise, it will usually appear and cause damage.

If a pipe bursts due to freezing temperatures, immediately close the main shut-off valve. Knowing the location of the shut-off valve, and making sure it is operable, is critical. Once the water is shut off, use an electric hair dryer or portable space heater to help thaw the pipe. Never use a blowtorch or other devices that could start a fire. For snowbirds, The Lake County Department of Utilities can shut the water off at the street. This service is FREE and can provide you peace of mind all season.

*Requires, at minimum, a 24-hour notice for turning on and off.

LEAD PIPES

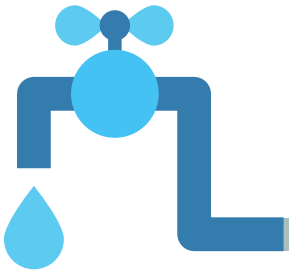
How it effects water

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.

The Lake County Utilities Water Division 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 thirty seconds to two 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 www.epa.gov/safewater/lead.

Per the Lead and Copper Rules, Public Water Systems were required to develop and maintain a Service Line Inventory. A service line is the underground pipe that supplies your home or building with water. To view the Service Line Inventory, which lists the material type for your location, you can visit https://lead-service-line-inventory-lcdugis.hub.arcgis.com/



Lake County Ensures Excellent Drinking Water

The tables within are a summary of the water quality characteristics for each of the Lake County Department of Utilities - East and West Sub-Districts.

Definitions of some terms contained within this report:

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

Maximum Contaminant Level (MCL) is 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 technology.

Maximum Contaminant Level Goal (MCLG) is 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) is the highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG) is the level of drinking water disinfectant below which there is no known or expected risk to health.

N/A is Not Applicable (N/A) an abbreviation meaning that this does not apply to our report.

ND is Not Detected (ND) an abbreviation meaning a contaminant was not detected in drinking water sample(s).

NTU is Nephelometric Turbidity Unit (NTU) a measurement of the clarity of water. It is used to assess water quality by indicating the cloudiness of the water, which can be an indicator of the presence of contaminations.

PPM is Parts Per Million.

PPB is Parts Per Billion. When reviewing results, the concentration of contaminants are expressed in parts per million or parts per billion. See illustrations to help visualize.

Total Organic Carbon (TOC) is the value reported is the lowest ratio between the percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

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

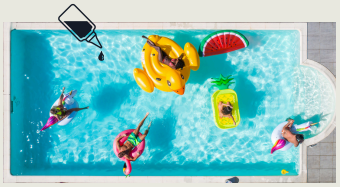
Variance and exemption is state or EPA permission not to meet an MCL or a treatment technique under certain conditions.

µg/L is Micrograms per Liter or 1 part in a billion parts (PPB).

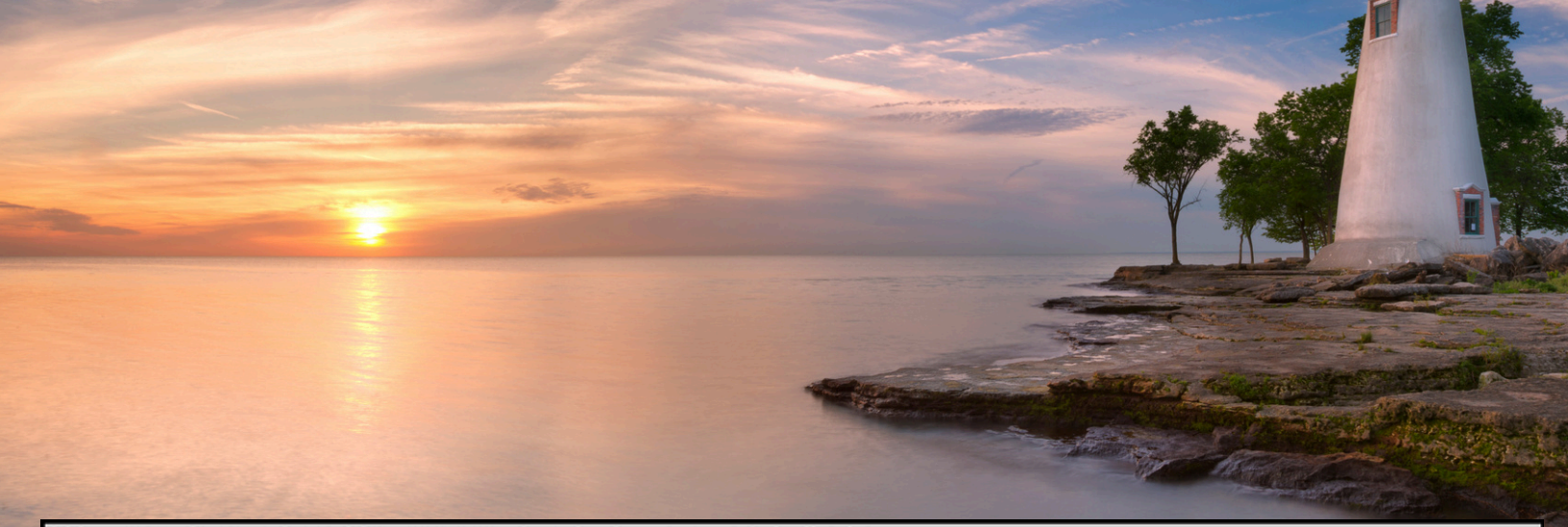
"<" Symbol is a symbol that means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminants in that sample were not detected.

TTHMs and HAA5 are created by the disinfection process.

PPM equals 1 drop in a 10 gallon bucket



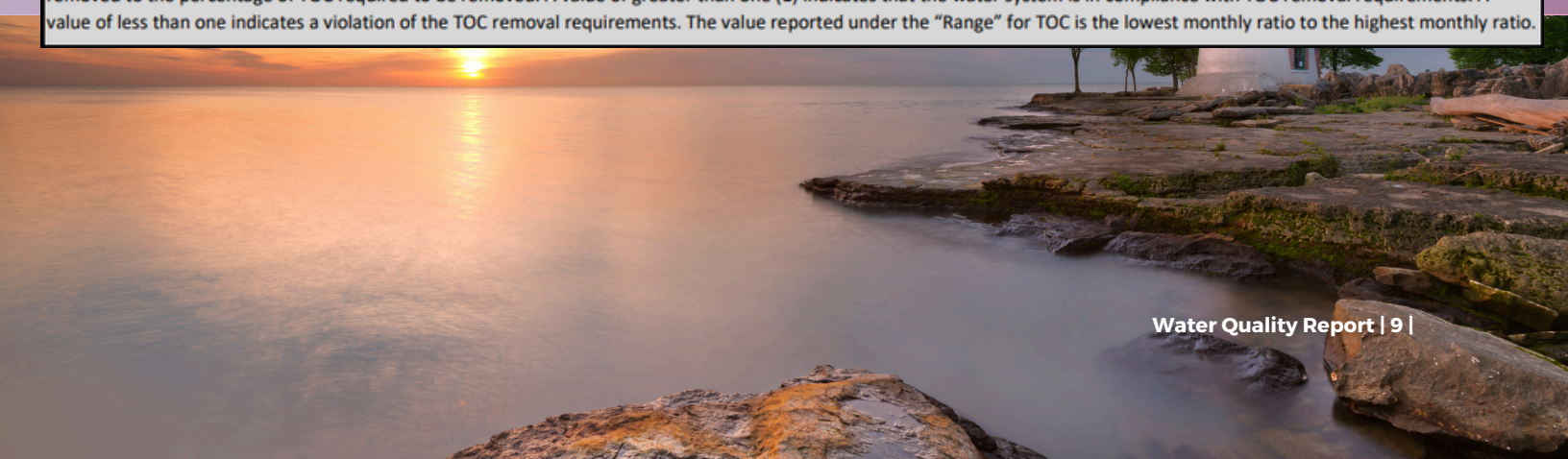
PPB equals 1 drop in a 10,000 gallon pool.

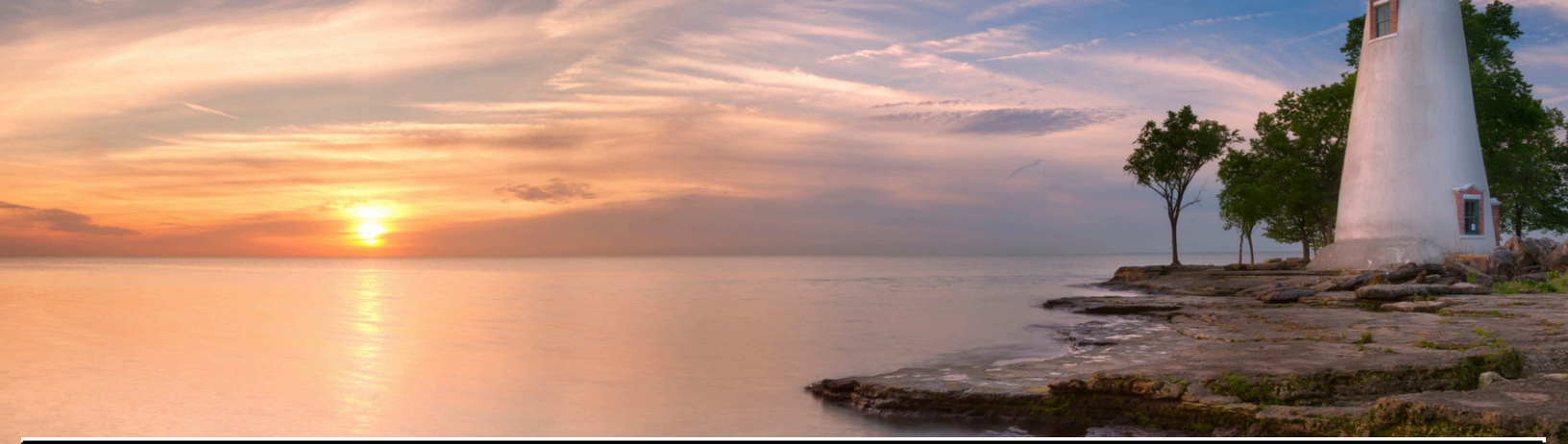


2025 TABLE OF DETECTED CONTAMINANTS - Lake County East Sub-district							
Contaminants (Units)	**MCLG**	**MCL**	**Level Found**	**Range of Detections**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
Microbiological Contaminants							
Turbidity (NTU)	N/A	TT (NTU)	0.12	0.03 - 0.12	No	2025	Soil Runoff
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2025	Soil Runoff
Total Organic Carbon (TOC)*	N/A	TT	1.0	1.0 - 1.3	No	2025	Naturally present in environment
Inorganic Contaminants							
Barium (ppm)	2	2	0.02	NA	No	2025	Erosion from natural deposits
Fluoride(ppm)	4	4	1.06	0.94 - 1.18	No	2025	Water additive which promoted strong teeth
Nitrate (ppm)	10	10	0.46	<0.10 - 0.46	No	2025	Run off from fertilizer use, Leaching from septic tanks
Disinfection By-products							
Haloacetic Acids (HAA5) (ppb)	N/A	60	23.3	11 - 34.7	No	2025	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N/A	80	48.7	24 - 72.2	No	2025	By-product of drinking water disinfection
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.7	1.3 - 1.7	No	2025	Water additive used to control microbes

Contaminants (units)	**AL**	**Results over the AL**	**90% of test levels were less than or equal to**	**Violation**	**Year Sampled**	**Typical source of Contaminants**
Inorganic Contaminants						
Lead (ppb)	15	0	<2.0	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3	0	0.210	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

*The value reported under "Level Found" for Total Organic Carbon (TOC) compliance ratio is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.

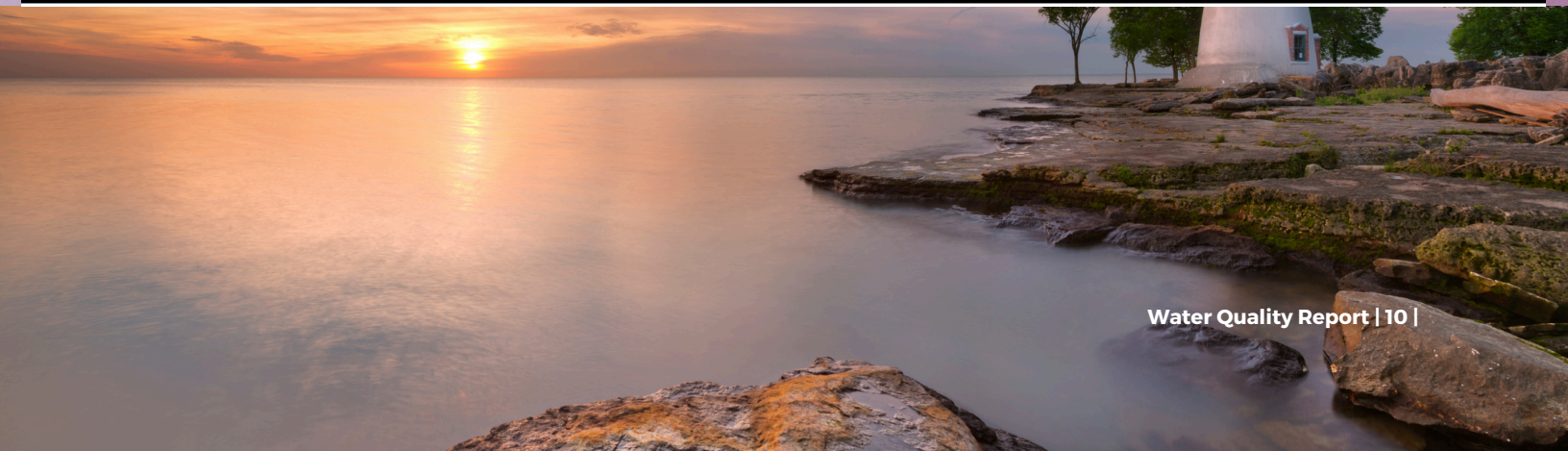




2025 TABLE OF DETECTED CONTAMINANTS - Lake County West Sub-District							
Contaminants (Units)	**MCLG**	**MCL**	**Level Found**	**Range of Detections**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
Microbiological Contaminants							
Turbidity (NTU)	N/A	TT (NTU)	0.13	0.02 - 0.13	No	2025	Soil Runoff
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2025	Soil Runoff
Total Organic Carbon (TOC)*	N/A	TT	1.0	1.0 - 1.32	No	2025	Naturally present in environment
Inorganic Contaminants							
Barium (ppm)	2	2	0.018	NA	No	2025	Erosion from natural deposits
Fluoride(ppm)	4	4	1.07	0.80 - 1.17	No	2025	Water additive which promoted strong teeth
Nitrate (ppm)	10	10	1.68	<0.10 - 1.68	No	2025	Run off from fertilizer use, Leaching from septic tanks
Disinfection By-products							
Haloacetic Acids (HAA5) (ppb)	N/A	60	23.18	7.5 - 37.6	No	2025	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N/A	80	46.9	15.7 - 55.8	No	2025	By-product of drinking water disinfection
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.36	1.21 - 1.50	No	2025	Water additive used to control microbes

Contaminants (units)	**AL**	**Results over the AL**	**90% of test levels were less than or equal to**	**Violation**	**Year Sampled**	**Typical source of Contaminants**
Inorganic Contaminants						
Lead (ppb)	15	0	<2.0	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3	0	0.078	No	2024	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

*The value reported under "Level Found" for Total Organic Carbon (TOC) compliance ratio is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.



Per- and Polyfluoroalkyl Substances (PFAS) for Lake County East and West Sub-districts

Per- and Polyfluoroalkyl Substances (PFAS) - Lake County East Sub-district

As part of the federal 2024 PFAS drinking water rule, Public Water Systems were required to monitor finished drinking water for PFAS by April 26, 2027. We completed this monitoring by participating in the Unregulated Contaminant Monitoring Rule 5 (UCMR 5) program and by collecting additional samples to fully meet the requirements. In 2024, Lake County East Water Sub-district participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5) and did not have any detections. For a copy of the results, please call (440) 350-2155.

Per- and Polyfluoroalkyl Substances (PFAS) - Lake County West Sub-district

As part of the federal 2024 PFAS drinking water rule, Public Water Systems were required to monitor finished drinking water for PFAS by April 26, 2027. We completed this monitoring by participating in the Unregulated Contaminant Monitoring Rule 5 (UCMR 5) program, which monitored multiple contaminants, including the six regulated PFAS: PFOA, PFOS, HFPO-DA, PFBS, PFHxS, and PFNA. For the results, refer to the next section titled “Table of Unregulated Contaminants - Lake County West Sub-district”.

TABLE OF UNREGULATED CONTAMINANTS - Lake County West Sub-District

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 2025, Lake County West Water Sub-district participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). For a copy of the results, please call our laboratory at (440) 350-3420.

Contaminant (ppb)	Sample Year	Average Level Found	Range of Detections
PFOA	2025	0.0011	ND - 0.0016
PFOS	2025	0.0017	0.0012 - 0.0021
PFHxA	2025	0.0013	0.0011 - 0.0017
PFBA	2025	0.0019	0.0015 - 0.0023
PFPeA	2025	0.0006	ND - 0.0012

LAKE COUNTY

Pinecrest District Source of Supply

Lake County Department of Utilities operates and maintains two drinking water systems. We have a current, unconditional license to operate our water system. Water is treated and disinfected before delivery to you. We take every precaution necessary to see that you and your family are getting the best possible product. With that said, residents of the Lake County Pinecrest subdistrict receive water that has been treated by Aqua Lake Shore Division – Lake County water treatment facility.

Water for Aqua's Lake Shore Division – Lake County comes from Lake Erie. For the purpose of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from source to intake. Although Aqua's surface water intake is located offshore in Lake Erie, the proximity of several onshore sources increases the susceptibility of the source water to contamination. The Lake Shore Division – Lake County system's drinking water source protection area is susceptible to contamination from municipal wastewater treatment discharges, runoff from residential, agricultural, and urban areas, oil and gas production and transportation and accidents, releases and spills from vehicular traffic as well as from commercial shipping operations and recreational boating. Aqua treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie. More detailed information is provided in Aqua's Lake Shore Division – Lake County water system Drinking Water Assessment report, which can be obtained by calling Aqua at 877-987-2782.

Lake Erie is classified as a surface supply and serves as a valuable resource for drinking water to millions of Ohio's residents. 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.

TABLE OF DETECTED CONTAMINANTS - Lake County Pinecrest District							
Contaminants (Units)	**MCLG**	**MCL**	**Level Found**	**Range of Detections**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
Microbiological Contaminants							
Turbidity (NTU)	N/A	TT (NTU)	0.09	0.03 - 0.09	No	2025	Soil Runoff
Turbidity (% samples meeting standard)	N/A	TT (NTU)	100%	100%	No	2025	Soil Runoff
Total Organic Carbon (TOC)*	N/A	TT	1.05	0.80 - 1.66	No	2025	Naturally present in environment
Inorganic Contaminants							
Barium (ppm)	2	2	0.017	NA	No	2025	Erosion from natural deposits
Fluoride(ppm)	4	4	0.94	0.80 - 1.20	No	2025	Water additive which promoted strong teeth
Nitrate (ppm)	10	10	1.14	ND - 1.14	No	2025	Run off from fertilizer use, Leaching from septic tanks
Disinfection By-products							
Haloacetic Acids (HAA5) (ppb)	N/A	60	28.4	21.5 - 33.5	No	2025	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N/A	80	57.2	36.5 - 73.0	No	2025	By-product of drinking water disinfection
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.6	0.7 - 1.6	No	2025	Water additive used to control microbes

Contaminants (units)	**AL**	**Results over the AL**	**90% of test levels were less than or equal to**	**Violation**	**Year Sampled**	**Typical source of Contaminants**
Inorganic Contaminants						
Lead (ppb)	15	0	6	No	2025	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 5 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3	0	0.2	No	2025	Corrosion of household plumbing systems; erosion of natural deposits
	Zero of 5 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

*The value reported under "Level Found" for Total Organic Carbon (TOC) compliance ratio is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.

Per- and Polyfluoroalkyl Substances (PFAS) - Lake County Pinecrest District

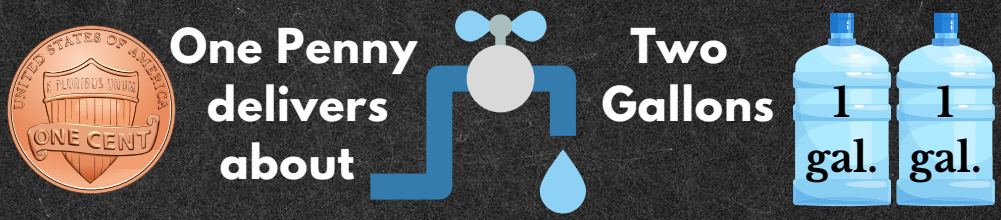
As part of the federal 2024 PFAS drinking water rule, Public Water Systems were required to monitor finished drinking water for PFAS by April 26, 2027. Aqua Lake Shore Division – Lake County completed this monitoring by participating in the Unregulated Contaminant Monitoring Rule 5 (UCMR 5) program, which monitored multiple contaminants, including the six regulated PFAS: PFOA, PFOS, HFPO-DA, PFBS, PFHxS, and PFNA. There were no detections. For a copy of the results, please call (440) 257-6190.

Tap Water
Bottled Water

CHEERS TO YOUR HEALTH

Drinking water – tap, filtered, or bottled – is important for healthy hydration and is an alternative to less-healthy, sugary beverages; especially when consumers want to eliminate or moderate calories, caffeine, and other ingredients from their diets.

Consumers choose bottled water for several reasons, including taste, quality and convenience, but tap water costs considerably less, has a much lower environmental impact, and is regulated by the Environmental Protection Agency. Roughly one penny ($0.01) delivers two gallons of clean, treated, delicious tap water to your home in order to serve your various needs–such as washing clothes, bathing, and industrial and commercial uses.



Many bottled water companies use public water sources for their products. Once the source water enters the bottled water facility , several processes happen to ensure that it meets the U.S. Food and Drug Administration's purified water standard. The finished water is then placed in a sealed bottle under sanitary conditions, distributed and sold to consumers.

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 call the Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

CONTACT US

Customer Service tel. (440-350-2070)
Monday - Friday, 8:00 a.m. – 4:30 p.m.
Customer Service Office -
105 Main St., Suite A113 or the payment address,
P.O. Box 8005 Painesville, Ohio 44077