

About Cryptosporidium

Avon Lake and New London water is regularly tested for organisms that could be harmful to people – including Cryptosporidium (Crypto), which is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. Crypto comes from animal waste in the watershed and may be found in source water. While it is sometimes found in rivers and streams, Cryptosporidium has NEVER been found in our finished water.

Questions About This Report?

If you have any questions about this report or concerning your water utility, please contact Tim Mahoney, RLCWA's general manager by calling 1-800-842-1339 or by writing to this address: 42401 State Route 303, Lagrange, OH 44050.

Public Participation Opportunities

We want our valued customers to be informed about their water utility. You can attend regular public meetings of RLCWA's Board of Trustees on the second Wednesday of each month at 42401 State Route 303, Lagrange, OH 44050.

Find out more on the Internet at www.rlcwa.com.

En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (800) 842-1339 – para hablar con una persona bilingüe en español.

Rural Lorain County Water Authority
42401 State Route 303
Lagrange, OH 44050

RURAL LORAIN COUNTY WATER AUTHORITY

PWS ID #4701803



2016 Annual Drinking Water Quality Report

Our Drinking Water Is Regulated

Rural Lorain County Water Authority is pleased to share this report with you. This report is a summary of the quality of the water we provide our customers. The analysis covers January 1 through December 31, 2016. Rural Lorain County Water Authority strives to comply with the strict regulations of both the State of Ohio and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this each year.

Source of 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:

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

Where Do We Get Our Drinking Water?

Our water source is purchased water from the Village of New London, Avon Lake Regional Water and the City of Ashland. All three sources treat your water using disinfection and filtration to remove or reduce harmful contaminants in the source water. Avon Lake relies on surface water from Lake Erie, which is located north of our service area. The Village of New London pumps surface water into the New London Reservoir from Buck Creek, a tributary of the Vermilion River, which is located southwest of New London Village. The City of Ashland pumps groundwater from 12 wells in the Jerome Fork basin. These ground water wells range in depth from 70 to 300 feet.

We have a current, unconditional license to operate our water system.

Rural Lorain County Water Authority has a backflow prevention program to ensure water quality to all customers, and this requires an on-site survey of individual service connections. Sometime in the near future, you may be contacted to schedule an appointment to perform an on-site survey.

Source Water Assessment

The Ohio EPA conducted a source water assessment based on the Critical Assessment Zone (CAZ) for the City of Avon Lake water system, which draws surface water from Lake Erie. Although surface water is considered to be susceptible to contamination, Lake Erie was determined by the Ohio EPA to have no direct source of pollution due to its vast size and dilution capabilities.

The Village of New London and the Ohio EPA completed the Drinking Water Source Assessment for the Village of New London. It was determined that the water treatment plant draws its water from Buck Creek upstream of the New London Reservoir. While the source water for New London Village is considered susceptible to contamination, historically, the village public water system has effectively treated this source water to meet drinking water quality standards. For information on how to obtain a copy of this report, please visit <http://www.epa.state.oh.us/ddagw/pdu/swap.html> or contact RLCWA.

The Ohio EPA has completed a study of the City of Ashland's drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water-rich zone) that supplies water to the City of Ashland has a high susceptibility to contamination. This determination is based on the following:

1. The thin discontinuous clay layer does not provide much protection to the aquifer.
2. Shallow depth to water.
3. Presence of significant contaminant sources in the protection area.

This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is relatively high. This likelihood can be minimized by implementing appropriate protective measures. The City of Ashland has developed an Ohio EPA approved protection plan. This plan will help protect the health of the community residents, protect the community's water supply investment, and preserve the ground water resource for the future.

All Drinking Water May Contain Contaminants

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. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Lead and Drinking 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. Rural Lorain County Water Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in customer plumbing components. When your water has been sitting in the home piping 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 or at www.epa.gov/safewater/lead.

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2016. In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

Definitions

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

Action Level Goal (ALG) – the level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Avg. – Regulatory compliance with some MCLs is based on running annual average of monthly samples.

HARA – highest annual running average

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.

mrem – millirems per year (a measure of radiation absorbed by the body).

NA – not applicable.

ND – not detected.

NTU (Nephelometric Turbidity Units) – a measure of clarity.

Parts per billion (ppb) – micrograms per liter (µg/l) or one ounce in 7,800,000 gallons of water.

Parts per million (ppm) – milligrams per liter (mg/l) or one ounce in 7,800 gallons of water.

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

90th percentile – 90% of samples are equal to or less than the number on the chart.

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Regulated Contaminants Monitoring for City of Ashland, Village of New London and Avon Lake Municipal Utilities

Substance (Units)	Year Sampled	MCLG [MRDLG]	MCL [MRDL]	City of Ashland		Village of New London		Avon Lake Municipal Util.		Typical Source
				Amount Detected	Range	Amount Detected	Range	Amount Detected	Range	
Inorganic Contaminants										
Antimony (ppb)	2016	6	6	NA	NA	<4.0	NA	NA	NA	Discharge from petroleum and metal refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	2016	NA	50	NA	NA	<3.0	NA	NA	NA	Erosion of natural deposits, runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2016	2	2	0.029 <small>(sampled in 2014)</small>	NA	0.0304	NA	0.032	NA	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	2016	4	4	NA	NA	<1.0	NA	NA	NA	Discharge from metal refineries and coal-burning factories; discharge from electrical aerospace, and defense industries
Cadmium (ppb)	2016	5	5	NA	NA	<1.0	NA	NA	NA	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	2016	100	100	1*	NA	<5.0	NA	NA	NA	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2016	4	4	1.03	0.67 - 1.36	1.03	0.800 - 1.20	1.04	0.48 - 1.23	Water additive, which promotes strong teeth
Mercury (ppb)	2016	2	2	NA	NA	<0.5	NA	NA	NA	Erosion of natural deposits; discharge from refineries and factories, runoff from landfills; runoff from croplandw
Nitrate (ppm)	2016	10	10	0.13	NA	0.54	<0.10 - 0.54	0.99	0.10 - 0.99	Runoff from fertilizer use; erosion of natural deposits
Nitrite (ppm)	2016	1	1	NA	NA	<0.10	NA	NA	NA	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2016	50	50	3	NA	<5.0	NA	NA	NA	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	2016	0.5	2	NA	NA	<1.5	NA	NA	NA	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Volatile Organic Contaminants										
Toluene (ppm)	2016	1	1	NA	NA	<0.0005	NA	NA	NA	Discharge from petroleum factories

Xylenes (ppm)	2016	10	10	NA	NA	<0.0005	NA	NA	NA	Discharge from petroleum factories; discharge from chemical factories
Disinfectants and Disinfection Byproducts										
Total Trihalomethanes [TTHM] (ppb)	2016	NA	80	71.9	43.1 - 81	NA	NA	38.6	23.7 - 49.8	By-product of drinking water disinfection
Haloacetic Acids [HAA5] (ppb)	2016	NA	60	11.4	6.7 - 12.4	NA	NA	18.2	12.1 - 22.3	By-product of drinking water disinfection
Chlorine (ppm)	2016	[4]	[4]	1.24	0.8 - 2	NA	NA	1.51	1.15 - 1.58	Water additive used to control microbes
Microbiological Contaminants										
Turbidity (NTU) ¹	2016	NA	TT	NA	NA	0.28	0.05 - 0.28	0.18	0.03 - 0.18	Soil runoff
Turbidity (% samples meeting standard)	2016	NA	TT	NA	NA	100% of samples met limit		100% of samples met limit		
Total Organic Carbon (ppm) ²	2016	NA	At least 1.0 ratio	NA	NA	1.0 Quarterly RAA	1.0-1.0	1.0	1.0 - 1.85	Naturally present in the environment
Total Coliform	2016	0	1	0	NA	0	NA	NA	NA	Naturally present in the environment.
Unregulated Contaminants										
Chloroform (ppb) ³	2013	NA	70	20.7	4.6-26.4	NA	NA	NA	NA	By-product of drinking water chlorination
Bromoform (ppb) ³	2013	NA	NA	5.5	2.2-7.1	NA	NA	NA	NA	By-product of drinking water chlorination
Bromodichloromethane (ppb) ³	2013	NA	NA	19.3	18.6-23.8	NA	NA	NA	NA	By-product of drinking water chlorination
Dibromochloromethane (ppb) ³	2013	NA	60	17.5	8.2-22.9	NA	NA	NA	NA	By-product of drinking water chlorination
Radioactive Contaminants										
Radium (combined 226/228) (pCi/L)	2014	0	5	0.97	NA	<1 *	NA	NA	NA	Erosion of natural deposits
Synthetic Organic Contaminants										
Alachlor (ppb)	2016	0	2	NA	NA	NA	NA	<0.2	NA	Runoff from herbicide used on row crops
Atrazine (ppb)	2016	3	3	NA	NA	NA	NA	<0.3	NA	Runoff from herbicide used on row crops

Testing Results for Rural Lorain County Water Authority

Substance (Units)	Year Sampled	MCLG [MRDLG]	MCL [MRDL]	Amount Detected	Range	Violation Y/N	Typical Source
Tap Monitoring for Copper and Lead							
Copper (ppm) ³	2014	1.3	1.3=AL	0.09 (90th percentile) 0 out of 30 sites above action level		N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) ³	2014	0	15=AL	7.5 (90th percentile) 2 out of 30 sites above action level**		N	Corrosion of household plumbing systems; erosion of natural deposits
Disinfectants and Disinfection Byproducts							
Chlorine (ppm)	2016	[4]	[4]	1.01 HARA	0.87 - 1.18	N	Water additive used to control microbes
Total Trihalomethanes [TTHM] (ppb)	2016	NA	80	90.7 HARA	22.6 - 90.7	N	By-product of drinking water chlorination
Haloacetic Acids [HAA5] (ppb)	2016	NA	60	11.4 HARA	6.8 - 40.6	N	By-product of drinking water chlorination

Testing Results for City of Ashland

Substance (Units)	Year Sampled	MCLG [MRDLG]	MCL [MRDL]	Amount Detected	Range	Violation Y/N	Typical Source
Tap Monitoring for Copper and Lead							
Copper (ppm) ³	2015	1.3	1.3=AL	0 sites above action level		N	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) ³	2015	0	15=AL	0 sites above action level		N	Erosion of natural deposits; leaching from wood preservatives

* Testing was done in 2014.

** The two sites above the action level for lead were measured at 21.4 ppb and 19.5 ppb.

¹ Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. 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.

² Total Organic Carbon has no health effects. However, TOC provides a medium when the water is disinfected for the formation of disinfection byproducts. The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements and other parameters. The ratios shown are the average of the ratios for the 12 months in 2011.

³ 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, while accurate, is more than one year old.

We have a current, unconditional license to operate our water system.