Amherst Water Department

Dear Resident,

We are pleased to present you the consumer confidence report for the year 2017. The City of Amherst purchases all of its water from the cities of Lorain and Elyria. This report contains sampling data that was collected within the City of Amherst's water distribution system as well as the reports for the cities of Lorain and Elyria.

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

If you have any questions, please contact John Corbin at the Amherst Water Department at (440) 988-7625.

Amherst Water Department

John Corbin, Jr., OEPA Operator II
Barry Dillon, Foreman

Important Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on 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 these 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 EPA's Safe Drinking Water Hotline (800-426-4791).

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 materials, 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, bacteria, and protozoa, 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, that may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can 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.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, who have undergone organ transplants, with HIV/AIDS or other immune system disorders, and 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 are available from the **Safe Drinking Water Hotline (800-426-4791).**

Call us for information regarding public participation in decisions about our drinking water.

2017 Consumer Confidence Report Information

Contaminant	Date	Unit	MCL	MCLG	Detected	Range Detected	Major Sources	MCL Violation
Inorganic Contaminants Copper (90th Percentile)	2015	ppm	AL=1.3	1.3	.063	<.01-.12	Corrosion of household plumbing system	No
Lead (90th Percentile)	2015	ppb	AL=15	0	2.3	<2.0-27.0	Corrosion of household plumbing system	No
Volatile Organic Contaminants Total Trihalomethanes	2017	ppb	80		57.6	33.4-79.3	By-product of drinking water chlorination	No
Includes: Bromodichloromethane					14.8	8.6-17.8		
Dibromochloromethane					5.6	3.7-6.8		
Chloroform					37.3	21.0-54.0		
Haloacetic Acid	2017	ppb	60		20.7	<6.0-37.0	By-product of drinking water chlorination	No
Dibromoacetic Acid					1.2	<1.0-1.8		
Dichloroacetic Acid					9.7	1.9-18.7		
Monobromoacetic Acid					<1.0	<1.0		
Monochloroacetic Acid					2.2	<2.0-2.7		
Trichloroacetic Acid					10.6	<1.0-18.2		

Terminology

MCL: Maximum Contaminant Level: 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.
MCLG: Maximum Containment Level Goal: 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.
AL: Action Level: The concentration of a contaminant, which if exceeded, triggers treatment or other requirement that a water system must follow.
ppb: parts per billion, or micrograms per liter (ug/L)
ppm: parts per million, or milligrams per liter (mg/L)
90th Percentile: 90% of samples are equal to or less than the number in the chart.
< = A symbol meaning LESS THAN
> = A symbol meaning GREATER THAN

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. The City of Amherst is responsible for providing high quality drinking water, but cannot control the variety of materials used in the 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 your 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 http://www.epa.gov/safewater/lead.

Phone Numbers

Water Department (Technical information only).....(440) 988-7625
Questions involving billing, accounts, and service calls.....(440) 988-4224
Emergencies (After 4:30 and on Weekends).....(440) 988-2625

City of Elyria Water Plant

2018 Water Quality Report

The City of Elyria is proud to present our Consumer Confident report that covers all testing from January 1, 2017 to December 31, 2017. 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.

The City of Elyria Water Pumping Plant has been making clean drinking water for customers since 1902, over 115 years. We work 24 hours a day, seven days a week to ensure that you, our customer, has a ready, unlimited source of drinking water that meets all of the Ohio EPA's standards. We operate and maintain a state of the art conventional surface water plant, located in Lorain, on the shore of Lake Erie. We have five water towers and two remote pump stations located in the City of Elyria. Over 4.4 billion gallons of water was pumped in 2016. We serve over 120,000 people in a number of communities. We are truly a Regional Water plant serving the needs of our customers.

Where does your water come from?

The United States has one of the safest water supplies in the world. Elyria's water comes from Lake Erie. However, national statistics don't tell you specifically about the quality and safety of the water coming out of your tap. That's because drinking water quality varies from place to place, depending on the condition of the source water from which it is drawn and the treatment it receives. Therefore we are providing to you, as per the Safe Drinking Water Act, this water quality report which includes information obtained from evaluating the results of our water tests performed last year.

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.

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the appropriate authorities. Only by working together can we ensure an adequate safe supply of water for future generations.

Our water system uses surface water drawn from two intakes in 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 time from source to intake.

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. Although the City of Elyria's surface water intakes are located offshore in Lake Erie, the proximity of Beaver Creek and Martin's Run increases the susceptibility of the source water to contamination. The City of Elyria's drinking water source protection area is susceptible to contamination from municipal wastewater treatment discharges, air contamination deposition, runoff from residential, agricultural and urban areas, oil and gas production and transportation, leaking underground storage tanks and accidental releases and spills from rail and vehicular traffic as well as from commercial shipping and recreational boating.

The City of Elyria's public water system 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, Beaver Creek, and Martin's Run. More detailed information is provided in the City of Elyria's Drinking Water Source Assessment report, which can be obtained by calling Elyria Water Works, 440-324-7669.

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).

The City of Elyria Water Plant also has an emergency connection with the Lorain County Rural Water District which is only used when the Water Treatment Plant is not operating properly or during problems with the system. During 2017 we did not use any water from Lorain County Rural Water District.

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 City of Elyria Water Plant conducted sampling for bacteria, inorganic, synthetic organic, and volatile organic contaminants during 2017. Samples were collected for a total of 83 different contaminants most of which were not detected in the City of Elyria Water Plant water supply. The Ohio EPA requires 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, are more than one year old.

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. ***The City of Elyria Water*** 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 800-426-4791or at http://www.epa.gov/safewater/lead.

Revised Total Coliform Rule (RTCR) Information

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the Public Water System (PWS).

How can I learn more or what if I have any questions?

You can contact Samuel F. Jacob, Water Plant Superintendent who has prepared this report. Mr. Jacob has over 42 years of experience in Water Treatment, and Class IV Water Plants. He currently holds an Ohio EPA Class IV Water Certificate. If you have any questions, concerns or would like additional information, please contact him at 440-324-7669 or 440-244-4310 extension 6201.

How to Participate in Decisions Concerning Your Drinking Water

Elyria City Council meets the first and third Mondays, January through December, except for June, July and August, when they meet only on the first Monday. The meetings take place at 7:00 PM at Elyria City Hall. Please visit http://www.cityofelyria.org/ for access to city Council meeting information.

License to Operate (LTO) Status Information

In 2017 we had an unconditioned license to operate our water system

Compliance with Applicable Laws

As a condition for receiving utility services, water, sanitary sewer and trash pickup, from the City of Elyria, the owner and occupants of the ***property*** agree to comply with any applicable City, State and Federal laws, rules and regulations as well as the City of Elyria's Water Rules and Regulations Chapter 939.

Installation and service of taps, service laterals or lines, curb stops, meters, meter pits and any plumbing fixtures or devices shall comply with City, State and Federal laws, rules and regulations, as well as the City of Elyria's Water Rules and Regulations Chapter 939.

The work is to be completed by a licensed contractor in the City of Elyria. The owner/occupant shall provide access for City employees or representatives to inspect the completed work. Failure to comply with these regulations is grounds for turn off or denial of services to the service address.

Water Quality Table 2017

Contaminant	Date	Unit	MCL	MCLG	Detected	Detected	Violation	Typical Source of contaminants
Inorganic Contaminants								
Barium	2017	ppm	2	2	0.0019	0.0019	no	Discharge of drilling wastes. Discharge from metal refineries, erosion of natural deposits
Fluoride	2017	ppm	4	4	1.18	0.88-1.18	no	Erosion of natural resources, additive which promotes strong teeth
Nitrates	2017	ppm	10	10	1.11	<.1-1.11	no	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Microbiological								
Turbidity	2017	NTU	100% <0.3 NTU	NA	0.17 & 100%	0.04-0.17	no	soil runoff
Total Organic Carbon (TOC)	2017	none	N/A	TT removal > 1.0	1.11	1.11 to 1.52	no	normally present in environment
Total Coliform	2017	% positive	5%	0	1%	0 - 1%	no	Bacteria Present in environment
Residual Disinfectant								
Total Chlorine	2017	ppm	4.0 (MRDL)	4.0 (MRDLG)	1.62	1.18-1.75	no	water additive used to control microbes
Volatile Organic Contaminants								
Total Trihalomethanes	2017	ppb	80	N/A	45.95	20.1-50.5	no	byproduct of drinking water chlorination
Haloacetic Acids	2017	ppb	60	N/A	29.15	9.6-35.2	no	byproduct of drinking water chlorination

Lead and Copper	Action level (AL)	Individual Results over the AL	90% of test results were less than	Vilolation	Year Sampled	Typical Source of Contaminants
Lead (ppb)	15 ppb	0	ND	NO	2015	Corrosion of household plumbing fixtures, erosion of natural deposits
	0 out of 30 samples were found top have levels in excess of the lead action level of 15 ppb					
Copper (ppm)	1.3 ppm	0	0.11	NO	2015	
	0 out of 30 samples were found top have levels in excess of the copper action level of 1.3 ppm					Corrosion of household plumbing fixtures, erosion of natural deposits
Microcystin						
Microcystin	2017	0.3 Children under 6 years 1.6 anyone 6 or older	ND	NA	no	Toxins produced by harmful algal blooms
Synthetic Organic Contaminants						
Atrazine	2017	ppb	3.0	3.0	0.28	0.28	no	Runnoff from herbicides used on row crops

How to read the water quality table: the EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances not detected are not included in the table

Definitions of some terms contained in 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.

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.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

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.

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.

NTU: Nephelometric Turbidity Units A measurement of the clarity of the water.

N/D: Non-Detects: Laboratory analysis indicates the contaminant is not present

TOC (Total Organic Carbon): The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements. The ratio shown is the average of the ratios for 12 months

Turbidity: 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 5 NTU at any time. As reported above, the City of Elyria's highest recorded turbidity result for *2016* was *0.16* NTU and lowest monthly percentage of samples meeting the turbidity limits was *100%.*

Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.

2017 CCR

3/28/2018

Regulated Substances	Year Sampled	MCL	MCLG	Amount	Range
Barium (ppm)	2017	2	2	0.02	NA
Total Chlorine (ppm)	2017	[4]	[4]	1.37	1.30 -1.37
Fluoride (ppm)	2017	4	4	0.99	0.28 - 1.15
HAA5's (ppb)	2017	60 ppb	NA	10.3	6.0 - 16.3
Nitrate (ppm)	2017	10	10	1.5	ND - 1.5
TTHM's (ppb)	2017	80 ppb	NA	22.6	12.6 - 37.5
TOC's (removal ratio)	2017	TT	NA	1.00	1.0 - 1.5
Turbidity (NTU)	2017	TT	NA	0.16	0.04 - 0.16
Turbidity Lowest %	2017	TT	NA	100	NA

Substance	Year Sampled	AL	MCLG	Amount 90th %tile	Range PPM	Sites above AL # sites	Violation
Copper (ppm)	2016	1.3	1.3	0.078	0 - 0.160	0/30	no
Lead (ppb)	2016	15	0	0	0 - 9.3	0/30	no

Unregulated Substances	Year Sampled	Amount	Range
BrCl2CH (ppb)	2017	6.6	3.8 - 10.1
Cl3CH (ppb)	2017	13.7	7.5 - 24.2
Br2ClCH (ppb)	2017	2.3	1.3 - 3.2
Cl2 Acetic Acid (ppb)	2017	4.9	3.3 - 7.4
Cl3 Acetic Acid (ppb)	2017	5.1	2.2 - 7.9
Br2 Ascetic Acid (ppb)	2017	1.0	1
Ortho (ppm)	2017	0.69	0.60 - 0.86