

# AURORA CITY WATER CLEVELAND / PORTAGE WATER SYSTEMS 2018 CONSUMER CONFIDENCE REPORT

“We have current, unconditioned licenses to operate our water systems”

April 2019

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## **PURPOSE:**

The City of Aurora has prepared the following annual Consumer Confidence Report to provide information to you, the consumer, on the quality of our drinking water and raise awareness about what is involved with the production and delivery of safe water. This report is required as part of the Safe Drinking Water Act Re-authorization of 1996.

## **THE SOURCE OF YOUR WATER AND ASSESSMENT:**

### **PORTAGE COUNTY WATER:**

#### **Aurora Portage System**

The Portage Water system derives its water from a well field located on Coit Road and is a ground water system. The water is treated at the Shalersville Water Treatment Plant. The Shalersville plant utilizes ion exchange to soften the water. The aquifer, that supplies drinking water to the Shalersville area has a high susceptibility to contamination due to the sensitive nature of the aquifer in which the drinking water wells are located and existing potential contamination sources identified. More information is available by calling 1-800-963-1292. Portage County Water Resources vigilantly safeguards its ground water supplies. Future contamination may be avoided by implementing protective measures. Ohio EPA has approved the Shalersville “Wellhead Protection Area Delineation” and has prepared a “Drinking Water Source Assessment” on the Shalersville well field area. This document can be found on its web site at [www.portageco.com/waterresources.htm](http://www.portageco.com/waterresources.htm). There are presently no known sources of pollution affecting our ground water and we intend to use public education and constant monitoring to improve our protection program. We need the cooperation of everyone living and working in the area where our water originates to prevent contamination. Portage County Water Resources maintains a comprehensive Source Water Protection Program to protect the area around the wells. Portage County supplies water to the cities of Aurora and Streetsboro, as well as Shalersville Township, from this plant.

### **CITY OF CLEVELAND WATER:**

#### **Aurora Cleveland System**

Cleveland Water is one of the largest public water systems in the United States. Every day, we treat and deliver up to 300 million gallons of water to more than 1.4 million people and thousands of businesses, schools, churches and recreation centers in the 80 communities we serve in Cuyahoga County and parts of five surrounding counties – Geauga, Lake, Medina, Portage and Summit.

The Cleveland Water system draws source water from four intakes located far offshore in Lake Erie’s Central Basin. These intakes are spread out over 15 miles and are 3 to 5 miles offshore where the water is cleaner and has been minimally impacted from tributary runoff and coastal activities. Lake Erie is considered to be a surface water source. Cleveland Water also has interconnections with other area water systems, but these are for emergency use only. These inter-connections are designed to assist other water systems if needed, not for other systems to supply Cleveland Water. As a result, we received no emergency water in 2018.

## **SUSCEPTIBILITY ANALYSIS**

### **Cleveland Water**

#### **Lake Erie – Our Source Water and Assessment**

Cleveland draws source water from four intakes located far offshore in Lake Erie’s Central Basin. These intakes are spread out over 15 miles and are each 3 to 5 miles offshore where the water is cleaner and has been minimally impacted from tributary runoff and coastal activities. Lake Erie is considered to be a surface water source. Cleveland Water also has interconnections with other area water systems, but these are for emergency use only. These interconnections are designed for Cleveland Water to assist other water systems if needed. We received no emergency water in 2018.

The State of Ohio performed an assessment of our four source water intakes in the late 1990s. A Drinking Water Source Assessment Report was completed in 2003. For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be easily contaminated by chemicals and pathogens from an upstream spill. Because Cleveland Water’s intakes are located a considerable distance offshore, potential contamination from the Cuyahoga River and nearshore sources is minimized to

a great degree. As a result, Ohio EPA considers Cleveland Water's source water (Lake Erie) to have a low susceptibility to contamination due to the location of our intakes.

Cleveland Water public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. To address this, Cleveland Water uses the multiple barrier approach for protecting and treating our source water. Protection of source water is one of the barriers we use. The potential for water quality impacts can be further decreased by implementing measure to protect Lake Erie. More detailed information is provided in the Cleveland Water Drinking Water Source Assessment Report which can be obtained by calling our Risk Management Section at 216-664-2444 x75838.

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).

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.

Cleveland Water is in compliance with all Maximum Contaminant Levels and Treatment Techniques for drinking water. We had no Safe Drinking Water Act Violations in 2018. Cleveland Water had a 2018 unconditioned license to operate our water system. The license is issued by the Ohio Environmental Protection Agency.

On-shore potential sources of contamination that impact the major streams in the Cleveland vicinity include point and nonpoint source discharges along the shore and along streams that empty into the lake. However, Cleveland Water has not documented any evidence that local shoreline and/or upstream potential contaminant sources influence water quality in the lake near our intakes. Lake Erie water in the vicinity of our intakes generally flows from west to east, although fluctuations can occur due to wind direction. Flows from the Cuyahoga River move into the harbor area and tend to hug the shoreline as they move eastward. Because Cleveland Water's intake structures are located a considerable distance offshore, potential contamination from the Cuyahoga River, Rocky River and nearshore sources is greatly minimized.

It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses, and other activities that are potential sources of contamination may change with time. For more information about potential pollution sources or to get a copy of our Drinking Water Source Assessment Report, contact our Risk Management Section at 216-664-2444 x75838.

Since no single treatment process can address all possible contaminants, Cleveland uses a multiple barrier process to treat Lake Erie water in order to meet drinking water quality standards.

Cleveland is a surface water supplier and meets all state and federal standards.

The Aurora City Cleveland Water system also has an auxiliary connection with the Aurora City Portage Water system. During 2018 we used 0 gallons from this connection over 0 days. On average, this connection is used for approximately 1 day each year. This report does contain information on the water quality received from the Aurora Cleveland PWS and the Aurora Portage PWS.

#### **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 run-off, 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 the 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)**.

**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 infections. These people should seek advice about drinking water from their healthcare providers. EPA/CDC guidelines on the 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 Aurora City Water conducted sampling for bacteria, lead and copper and disinfectant byproducts during 2018. There were a total of 245 bacteria samples collected during 2018. All sampling completed for the year proved negative for coliform bacteria. Daily chlorine residual samples are conducted to ensure that the water distribution system is maintaining an acceptable level to control bacteria. In 2018 the city performed 1,705 samples. All sampling met Ohio EPA standards. 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.

**ASBESTOS LEVEL:**

The City of Aurora tested for Asbestos in drinking water in 2013. There were no detectable levels found in the samples.

**LICENSE TO OPERATE (LTO) STATUS INFORMATION:**

In 2018 we had an unconditioned license to operate our water systems.

**TABLE OF DETECTED CONTAMINANTS – Aurora Portage System – Portage County Regulated Substances**

Contaminants (units)	MCLG	MCL	Level Found	Range of Low – High	Violation	Sample Year	Typical Source of Contaminants
Alpha Emitters							
pCi/L	0	15	6.38	N/A	NO	2016	Erosion of natural deposits
Barium							
ppm	2	2	0.091	0.033 – 0.091	NO	2016	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine							
ppm	[4]	[4]	1.30	0.7 – 1.40	NO	2018	Water additive used to control microbes
Combined Radium							
pCi/L	5	0	0.04	N/A	NO	2016	Erosion of natural deposits
Fluoride							
ppm	4	4	1.15	0.80 – 1.33	NO	2018	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate							
ppm	10	10	<0.1	NA	NO	2018	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

**TABLE OF DETECTED CONTAMINANTS – Aurora Cleveland System – City of Cleveland Regulated Substances**

Contaminants (units)	MCLG	Baldwin Plant			Nottingham Plant		Violation	Sample Year	Typical Source of Contaminants
		MCL	Level Found	Range of Detection	Level Found	Range of Detection			
Turbidity									
NTU	N/A	TT	0.1 100%	0.02 – 0.1	1.03 99.44%	0.02 – 1.03	NO	2018	Soil runoff
Fluoride									
mg/L	4	4	1.08	0.82 – 1.28	1.01	0.8 – 1.14	NO	2018	Water additive which promotes strong teeth
Nitrate as Nitrogen									
mg/L	10	10	0.99	0.11 – 0.99	0.57	0.11 – 0.57	NO	2018	Runoff from farm fertilizer use; leaching from septic; erosion of natural deposits
Total Organic Carbon									
N/A	N/A	TT	1.18	1.13 – 1.71	1.27	1.14 – 1.52	NO	2018	Naturally present in the environment

**TABLE OF UNREGULATED SUBSTANCES – CITY OF CLEVELAND WATER**

Contaminants (units)	MCLG	Baldwin Plant		Nottingham Plant		Sample Year	Typical Source of Contaminants
		Level Found	Range of Detection	Level Found	Range of Detection		
Manganese							
ppb	N/A	0.476	N/A	3.8	N/A	2018	Naturally occurring in water

**TABLE OF UNREGULATED SUBSTANCES – PORTAGE COUNTY WATER RESOURCES**

Substance Unit of Measure	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2016	13.3	NA	1.9	NA	Byproduct of drinking water chlorination
Bromoform (ppb)	2016	8.4	NA	1.3	NA	Byproduct of drinking water chlorination
Chloroform (ppb)	2016	5.7	NA	1.1	NA	Byproduct of drinking water chlorination
Dibromochloromethane (ppb)	2016	19.4	NA	2.8	NA	Byproduct of drinking water chlorination

**Unregulated Contaminants –**

Unregulated contaminants are substances for which USEPA has no established drinking water standard. USEPA requires us to monitor in order to determine where certain substances occur and whether USEPA needs to regulate those substances in the future.

**Turbidity – City of Cleveland**

Turbidity is a measure of the cloudiness of water and 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. Cleveland Water’s highest recorded treated water turbidity result for 2018 was 1.03 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.44% (i.e. total compliance at all four treatment plants).

## 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. City of Aurora 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. A list of laboratories certified in the state of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling 614-644-2752. 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>.

## LEAD AND COPPER ACTION LEVELS:

### AURORA CITY WATER – CLEVELAND SYSTEM

Lead and Copper						
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15 ppb	0	.002	NO	2018	Plumbing / service lines
	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 ppm	0	.36	NO	2018	Plumbing / service lines
	0 out of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

### AURORA CITY WATER – PORTAGE SYSTEM

Lead and Copper						
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15 ppb	0	.002	NO	2018	Plumbing / service lines
	0 out of 9 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3 ppm	0	.227	NO	2018	Plumbing / service lines
	0 out of 9 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

## DISINFECTANT BYPRODUCTS LEVELS:

### AURORA CITY WATER – CLEVELAND SYSTEM

Contaminants (units)	MCLG	MCL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
TTHM – TRIHALOMETHANE							
ppb	No goal for the total	80	47.825	17.3 – 61.1	NO	2018	Byproduct of chlorination
HAAE – HALOACETIC ACID							
ppb	No goal for the total	60	16.35	7.2 – 20	NO	2018	Byproduct of chlorination

**AURORA CITY WATER – PORTAGE SYSTEM**

Contaminants (units)	MCLG	MCL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
<b>TTHM – TRIHALOMETHANE</b>							
ppb	No goal for the total	80	32.4	32.4 – 32.4	NO	2018	Byproduct of chlorination
<b>HAA5 – HALOACETIC ACID</b>							
ppb	No goal for the total	60	10	10 – 10	NO	2018	Byproduct of chlorination

**CHLORINE RESIDUAL AVERAGES**

**AURORA CITY WATER – CLEVELAND SYSTEM**

Contaminants (units)	MRDLG	MRDL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
CHLORINE –(ppm)	4	4	.584033	.2974 - .7657	NO	2018	Water additives used to control microbes

**AURORA CITY WATER – PORTAGE SYSTEM**

Contaminants (units)	MRDLG	MRDL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
CHLORINE –(ppm)	4	4	1.164052	1.01442 – 1.34	NO	2018	Water additives used to control microbes

**UNREGULATED CONTAMINANTS**

**AURORA CITY WATER – CLEVELAND SYSTEM – UNREGULATED CONTAMINANTS (UCMR3)**

Contaminant	Year	Range of Detections
CHLORATE	2014	44.5 – 148
CHROMIUM – (ug/L)	2014	.181 – .40
MOLYBDENUM (ug/L)	2014	.77 – 1.4
STRONTIUM (ug/L)	2014	97.2 – 169
VANADIUM (ug/L)	2014	.131 – 0.30

**AURORA CITY WATER – CLEVELAND SYSTEM – UNREGULATED CONTAMINANTS (UCMR4)**

Contaminants (units)	MCLG	Average	Range of Detection	Sample Year	Typical Source of Contaminants
<b>Manganese</b>					
Ug/L	N/A	2.055	1.63 – 2.48	2018	Naturally occurring in water
<b>Total HAA5</b>					
Ug/L	N/A	33.5	7.3 – 69.7	2018	Naturally occurring in water
<b>Total HAA6Br</b>					
Ug/L	N/A	19.933	8.4 – 36.3	2018	Naturally occurring in water
<b>Total HAA9</b>					
Ug/L	N/A	51.55	15.7 - 103	2018	Naturally occurring in water

## Keep Your Home's Water Healthy

Flush, Clean and Consume Cold are the actions all customers should implement to help ensure the highest quality of water is coming out of your tap, especially if there is the possibility of lead in your plumbing system. In some situations, a water system repair/replacement may temporarily increase lead levels in water and/or cause discoloration. As a standard practice the USEPA recommends these actions (flush, clean, consume cold) which are important to take when water has been restored after a disruption of service



Flush your cold water lines before consuming water when water has not been used for 6 or more hours. The goal is to have cold, fresh water from the main in the street come out of your tap before drinking the water. To flush the plumbing, run water until you feel a temperature change then run water for an additional 30 seconds to 3 minutes. The time depends on the length of your service line. When in doubt, flush it out.



Clean your faucet aerator screens regularly. Small particles of solder and other material can accumulate in faucet aerators and in some circumstances can release lead into the water. Aerators should be cleaned at least twice a year, and more frequently after work on your plumbing system.



Always use cold water for cooking, drinking and preparing baby formula. Hot water corrodes pipes faster and is more likely to contain lead. If you need hot water for food or drinks, get water from the cold water tap then heat the water.

## PUBLIC PARTICIPATION AND CONTACT INFORMATION:

### HOW DO I PARTICIPATE IN DECISIONS CONCERNING MY DRINKING WATER?

While we do not hold regular meetings, customers are encouraged to participate by contacting the Utilities Department / Customer Service at 330-995-9109. Inquiries about public participation and policy decisions can be made by calling the Utilities Department at 330-995-9109.

## 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.
- 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.
- Not Applicable (N/A): Does not apply.
- PicoCuries per liter (pCi/L): A common measure of radioactivity.