CITY OF CAMBRIDGE
WATER DEPARTMENT
2018
Drinking Water Consumer Confidence Report

INTRODUCTION

The City of Cambridge has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. Public participation and comment are encouraged at regular meetings of Cambridge City Council which meets the second and fourth Mondays of each month at 7:00 p.m. For more information on your drinking water contact Tom McVicker, Water Plant Superintendent at (740) 439-2130 or Lou Thornton at (740) 432-3601.

SOURCE WATER INFORMATION

The City of Cambridge public water system uses surface water from a reservoir that is filled with water drawn from Wills Creek. 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 which may rapidly arrive at public drinking water intakes with little warning or time to prepare. The City of Cambridge public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The source water assessment report can be viewed at http://wwwapp.epa.ohio.gov/gis/swpa/OH3000111.pdf.

HEALTH INFORMATION

The sources of drinking water both tap water and bottled water includes 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 agricultural, 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

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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 which limit the number of certain contaminants in water provided by public water systems. FDA regulations establish limits for contamination in bottled water that 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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

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 Cambridge 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, & steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead.

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 below, the Cambridge Water Department's highest recorded turbidity result for 2018 was 0.18 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

LICENSE TO OPERATE LANGUAGE

In 2018, The City of Cambridge had an unconditioned license to operate our water system.

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DEFINITIONS

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 (ug/l) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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.

NA: Not applicable.

Contact Time (CT): means the mathematical product of a "residual disinfectant concentration: ©, which is determined before or at the first customer, and the corresponding "disinfectant contact time" (T).

Cyanotoxin: Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as "algal toxin".

Cyanobacteria: Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.

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

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Listed below are the results of the tests that were conducted on Cambridge drinking water:

INORGANIC CONTAMINANTS (LEAD & COPPER TESTED AT CUSTOMER TAPS)							
CONTAMINANT	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR	TYPICAL SOURCE OF CONTAMINATION
LEAD (ppb)	AL = 15	0	2	N/A	NO	2018	Corrosion of household plumbing: erosion of natural deposits.
	Zero out of thirty samples were found to have lead in excess of the Action Level of 15 ppb.						
COPPER (ppb)	AL = 1350	0	25	N/A	NO	2018	Corrosion of household plumbing: erosion of natural deposits: leaching from wood preservatives.
	Zero out of thirty samples were found to have copper levels more than the Action Level of 1300 ppb.						
FLUORIDE (ppm)	4	4	1.09	0.80 - 1.30	NO	2018	Erosion of natural deposits, water additive which promotes strong teeth.
NITRATE (ppm)	10	10	0.83	0.10 - 0.83	NO	2018	Runoff from fertilizer use: erosion of natural deposits.es strong teeth.
DISINFECTION BYPRODUCTS							
ANALYTE	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR	TYPICAL SOURCE OF CONTAMINATION
TOTAL TRIHALOMETHANES TTHMs (ppb)	N/A	80	75.5	33.6 - 91.3	No	2018	By-products of drinking water chlorination.
HALOACETIC ACIDS HAA5 (ppb)	N/A	60	41.8	19.2 - 47.4	NO	2018	By-products of drinking water chlorination.
RESIDUAL DISINFECTANTS							
ANALYTE	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR	TYPICAL SOURCE OF CONTAMINATION
Total Chlorine (ppm)	MRDLG 4	MRDL 4	1.52	1.11 - 1.61	NO	2018	Water additive used to control microbes.
MICROBIOLOGICAL CONTANIMENTS							
ANALYTE	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	VIOLATION	SAMPLE YEAR	TYPICAL SOURCE OF CONTAMINATION
Turbidity (NTU)	TT=95% of SAMPLES ≤ 0.30	NA	0.18	0.03 - 0.18	NO	2018	Soil Runoff
Turbidity (% samples meeting standard)	TT	NA	100%	100%	NO	2018	Soil Runoff
Total Organic Carbon	TT	NA	1.5	1.33 - 2.70	NO	2018	Naturally present in the environment.

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Unregulated Contaminant Monitoring Rule Sampling

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2018 the City of Cambridge Water Department participated in the fourth round of Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call Tom McVicker at 740-439-2130.

Contaminant	Sample Year	Units	Average Level Found	Range of Detection
Bromide	2018	mg/L	0.030	0.0277 - 0.0324
Bromochloroacetic Acid	2018	ug/L	3.498	1.49 - 5.27
Bromochloroacetic Acid [2C]	2018	ug/L	3.574	2.97 - 4.49
Bromodichloroacetic Acid	2018	ug/L	4.116	2.63 - 5.92
Chlorodibromoacetic Acid	2018	ug/L	0.838	0.53 - 1.06
Chlorodibromoacetic Acid [2C]	2018	ug/L	0.475	0.344 - 0.563
Dibromoacetic Acid	2018	ug/L	0.705	0.7 - 0.71
Dibromoacetic Acid [2C]	2018	ug/L	0.443	0.318 - 0.532
Dichloroacetic Acid	2018	ug/L	17.080	5.3 - 26
Dichloroacetic acid [2C]	2018	ug/L	16.173	9.71 - 24.7
Manganese 55	2018	ug/L	5.630	3.81 - 7.2
Monobromoacetic Acid	2018	ug/L	0.804	0.57 - 1.08
Total HAA5	2018	ug/L	39.950	32.8 - 50.7
Total HAA6	2018	ug/L	9.743	7.3 - 12.3
Total HAA9	2018	ug/L	49.350	40.1 - 62.3
Total Organic Carbon	2018	ug/L	3700.000	3430 - 3940
Trichloroacetic Acid	2018	ug/L	18.633	10.2 - 27.5

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