

ANNUAL DRINKING WATER QUALITY REPORT FOR 2018
ONTARIO TOWN BENEFIT AREA #1
TOWN OF ONTARIO WATER UTILITIES DEPARTMENT
2200 LAKE ROAD
ONTARIO, NEW YORK 14519
(PUBLIC WATER SUPPLY ID# NY5801233)

INTRODUCTION

To comply with State regulations, the Town of Ontario Water Utilities Department will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Adam Cummings, PE, BCEE (Town Engineer/Water Superintendent) Phone (315) 524-2941, Fax email: acummings@ontariotown.org or Frank Robusto (Town Supervisor) Phone (315) 524-7105, Fax (315) 524-4903, email: supervisor@ontariotown.org. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held at the Town Hall, located at 1850 Ridge Road every 2nd and 4th Monday of the month at 7:00 P.M. All Town residents are encouraged and welcome to attend.

WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is Lake Ontario. Water is drawn from the lake via an intake pipe, which extends approximately 4,000 feet offshore to a water depth of approximately 50 feet. This intake and the Town of Ontario Water Treatment Plant are located near the intersection of Knickerbocker and Lake Road in the Town of Ontario. During 2018, our system did not experience any restriction of our water source. The Town of Ontario Water Treatment Plant utilizes coagulation, filtration, chlorination, UV irradiation, and fluoridation in the process of producing potable water. As water enters the plant, coagulants are added to the incoming raw water to help clump together fine particles to enhance removal during filtration. The filtration process involves the utilization of multi-media filters containing sand and granular activated carbon (GAC) to remove particles as water passes through the media. This filtration process is the most important aspect of the treatment plant. During filtration, fine organic and inorganic particulate matter is removed and an optimum turbidity (clarity of the water) is the result. Chlorine is used to disinfect the filtered water and to maintain a residual disinfectant throughout the water distribution system that delivers water to your home. In addition to chlorinating, ultraviolet disinfection is utilized as an effort in

providing a multi-barrier disinfection process at the Town water plant. Prior to leaving the treatment plant the water is injected with fluoride.

The New York State Department of Health (NYSDOH) completed a source water assessment for the Town's surface water (Lake Ontario). The NYSDOH concluded that the Great Lakes watershed is exceptionally large and too big for a detailed evaluation in the Source Water Assessment Program (SWAP). General drinking water concerns for public water supplies which uses these sources include: storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels – intake clogging and taste and odor problems). The summary below is based on the analysis of the contaminant inventory compiled for this drainage area deemed most likely to impact drinking water quality at this Public Water Supply (PWS) intake.

This assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa, DBP precursors, and pesticides contamination. Non-sanitary wastewater discharges may contribute to contamination. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: Chemical Bulk Storage (CBS) and Inactive Hazardous Waste Sites (IHWS).

FACTS AND FIGURES

Our water system serves approximately 10,950 people through 3,779 connections. Two of these connections serve the Monroe County Water Authority and two serve the Wayne County Water and Sewer Authority. The total water treated, produced and sent into the distribution system in 2018 was 640,369,000 gallons with 592,496,000 gallons being metered in the distribution system (accounted for water). The daily average of water treated and pumped into the distribution system was 1,754,750 gallons per day. Our highest single day was 2,631,000 gallons, which occurred on 06/16/2018. The amount of water delivered to customers was 272,455,000 gallons (Town of Ontario), and 320,041,000 gallons (Wayne County W&SA). This leaves an unaccounted total of 47,873,000 gallons. This unaccounted water, which can be attributed to water that was used to flush mains, fight fires or due to leakage; accounts for the remaining 47,873,000 (7.5% of the total amount treated and produced). In 2018, water customers were charged \$20.00 for a basic service charge and \$2.85 per 1,000 gallons of water.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: turbidity, inorganic compounds, total organic carbon, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes and haloacetic acids, alkalinity, and synthetic organic compounds. Additionally, your water is tested for total coliform bacteria and *E coli* ten (10) times a month in our New York State Department of Health certified laboratory #10461. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the New York State Department of Health District Office of Geneva (315-789-3030).

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT, MRL or AL)	Likely Source of Contamination
A. Microbiological Contaminants							
Turbidity ⁽¹⁾	No	2018	0.034/0.071 (0.024-0.071)	NTU	N/A	TT=1	Soil runoff
Turbidity	No	See ⁽¹⁾ footnote	100%	NTU	N/A	TT=95% of samples <0.3 NTU	
B. Inorganic Contaminants							
Barium	No	2/22/18	0.022	mg/l	2	MCL=2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	No	2/22/18	0.0032	mg/l	0.10	MCL=0.10	Naturally-occurring element found in ores and present in plants
Copper	No	2017	0.32 ⁽²⁾ (0.0041-0.89)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Fluoride	No	2/22/18	0.7	mg/l	N/A	MCL=2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum refineries.
Lead	No	2017	3.6 ⁽³⁾ (<1.0-22)	µg/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Molybdenum	No	2015	1.3 (1.1-1.3)	µg/l	N/A	MRL=1.0	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Nickel	No	2018	0.0011	mg/L	0.1	MCL=0.1	Dissolution of rock; Atmospheric fallout; Waste disposal
Nitrate	No	2/22/18	0.33	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Strontium	No	2015	194 (188-194)	µg/l	N/A	MRL=0.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions

Vanadium	No	2015	0.23 (0.21-0.23)	µg/l	N/A	MRL=0.2	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
C. Organic Contaminants							
Organic Carbon	No	2018	1.618 ⁽⁴⁾ (1.1-2.1)	mg/l	N/A	N/A	Naturally occurring organic material in the source water
Dioxin	No	3/24/18	ND	pg/L	0	30	Emission from waste incineration and other combustion; Discharge from chemical factories
D. Disinfection Byproducts							
Total Trihalomethanes							By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Stage 2 Results	No	2018	42.25 ⁽⁵⁾ (24-54)	µg/l	N/A	MCL=80	
Total Haloacetic Acids							By-product of drinking water chlorination needed to kill harmful organisms.
Stage 2 Results	No	2018	14.25 ⁽⁶⁾ (0-23)	µg/l	N/A	MCL=60	
E. Radioactive Particles							
Radium – 228	No	2/16/12	0.9	pCi/L	N/A	MCL=5	Naturally occurring element in rocks and soils

Notes:

1. Turbidity is a measure of the cloudiness of the water. We test and record it every 8 seconds because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 7/13/2018 (0.071 NTU). The number 0.034 NTU represents the average measured and 0.024 – 0.071 NTU represents the range measured. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.
2. This level represents the 90th percentile of the 31 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, thirty samples were collected from our water system and the 90th percentile value was (0.32 mg/l). The numbers 0.0041 – 0.89 mg/l represent the range of copper detected. The action level for copper was exceeded one time in 2014.
3. This level represents the 90th percentile of the 31 sites tested. In this case, thirty samples were collected from our water system and the 90th percentile value was (3.6µg/l). The numbers <1-22 µg/l represent the range of Lead detected. The action level for Lead was exceeded at one of the sites tested.
4. This value represents the average detected level from the data collected. The numbers 1.1-2.1 mg/l represents the range of carbon detected.
5. This level represents the highest Locational Running Annual Average (LRAA) calculated from data collected.
6. This level represents the highest Locational Running Annual Average (LRAA) calculated from data collected.

Definitions:

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.

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 contamination.

Minimum Reporting Level (MRL): The concentration of a contaminant which, if exceeded, must be reported.

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.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Picogram per liter (pg/L): Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion – ppt).

The contaminants that were analyzed but not detected include the following: Antimony, Arsenic, Beryllium, Cadmium, Cyanide (total), Mercury, Selenium, Thallium, Uranium, gross alpha, Radium-226, 1,2-Dibromo-3-chloropropane, 1,2-Dibromomethane (EDB), Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1254, Aroclor-1260, Hexachlorocyclopentadiene, Toxaphene, 2,4-D, Dalapon, Dicamba, Dinoseb, Pentachlorophenol, Picloram, 2,4,5-TP (Silvex), Alachlor, Aldrin, Atrazine, Benzo(a)pyrene, gamma-BHC (lindane), Butachlor, alpha-Chlorane, gamma-Chlordane, Dieldrin, Endrin, bis(2-Ethylhexyl)adipate, bis(2-Ethylhexyl)phthalate, Heptochlor, Heptochlor epoxide, Hexachlorobenzene, Methoxychlor, Metolachlor, Metribuzin, Propachlor, Simazine, Endothall, Adicarb, Adicarb sulfone, Adicarb sulfoxide, Carbaryl (Sevin), Carbofuran, 3-Hydroxycarbofuran, Methomyl, Oxamyl (Vydate), Diquat, Benzene, Bromobenzene, Bromochloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Coliform, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane (EDB), Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropene, cis-1,3-Dichloropropene, tran-1,3-Dichloropropene, Ethyl benzene, Hexachlorobutadiene, Isopropylbenzene (Cumene), 4-Isopropyl toluene (Cymene), Methylene chloride, Naphthalene, N-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethane, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethane, Trichlorofluoromethane (Freon 11), 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Vinyl Chloride, o-Xylene, m-Xylene, p-Xylene, MTBE, Glyphosate, Dibromoacetic acid, Monobromoacetic acid, Monochloroacetic acid, Cryptosporidium and Giarda.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violation for the 2018 calendar year. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2018, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we, the Town of Ontario Water Utilities Department, monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.70 mg/l. During 2018, monitoring showed that fluoride levels in your water were within 0.1 mg/l of the target level for 90% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

The Town of Ontario Water Utilities Department recently received a Water Fluoridation Quality Award for 2015 from the Centers for Disease and Control Prevention for its consistent and professional adjustment of the water fluoride content to the optimum level for oral health for 12 consistent months.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ♦ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ♦ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ♦ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- ◆ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

SYSTEM IMPROVEMENTS

In 2018, a town wide initiative to replace all residential meters was finalized. The new meters that have been installed will also provide a more accurate reading for water usage. In addition, the Water Utilities Department has instituted a new meter reading policy where readings are taken on a monthly basis. This has allowed the Department to more quickly identify leaks and suspicious water usage and communicate these potential issues to our customers. It has also allowed the Department to maintain a more confident level of accounted and unaccounted water amounts. Please feel free to contact the Water Utilities Department or the Town Hall if you have any questions or would like to see a presentation of the new system.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all of our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions. We also encourage you to contact our office or call 911 if you ever notice any unusual or suspicious activities at the Water Treatment Plant or any of our water system facilities.