



**ANNUAL DRINKING WATER QUALITY REPORT FOR 2009**  
**ONTARIO TOWN BENEFIT AREA #1**  
**TOWN OF ONTARIO WATER UTILITIES DEPARTMENT**  
2200 LAKE ROAD  
ONTARIO, NEW YORK 14519  
(PUBLIC WATER SUPPLY ID# 5801233)

## **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 Rodney Peets (Superintendent of Water Utilities) Phone (315) 524-2941, Fax (315) 524-3840, email: [peets@ontariotown.org](mailto:peets@ontariotown.org) or Robert Kelsch (Town Supervisor) Phone (315) 524-7105, Fax (315) 524-4903, email: [kelsch@ontariotown.org](mailto:kelsch@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 2<sup>nd</sup> and 4<sup>th</sup> 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 2009, 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 26,000 people through 3,700 connections. Two of these connections serve the Monroe County Water Authority and two serve the Wayne County Water and Sewer Authority. The total water produced in 2009 was 645,188,000 gallons. The daily average of water treated and pumped into the distribution system was 1,768,000 gallons per day. Our highest single day was 3,058,000 gallons, which occurred on 3/25/09. The amount of water delivered to customers was 334,899,000 gallons (Town of Ontario), 258,674,000 gallons (Wayne County W&SA) and 7,473,000 gallons (Monroe County WA). This leaves an unaccounted total of 51,615,000 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 44,142,000 (7% of the total amount produced). In 2009, water customers were charged \$20.00 for any amount under 5000 gallons and \$2.85 per 1,000 gallons of water for any usage over 5000 gallons. The annual average water charge per customer was \$261.33 in 2009 (Town of Ontario only).

## **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, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, 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 or AL)	Likely Source of Contamination
<b>A. Microbiological Contaminants</b>							
Turbidity <sup>(1)</sup>	no		0.04/0.129 (.024-0.129)	NTU	n/a	TT=1	Soil runoff
Turbidity <sup>(1)</sup>	no	see footnote (1)	100%	NTU	n/a	TT=95% of samples <0.3 NTU	
<b>B. Inorganic Contaminants</b>							
Barium	no		0.022	mg/l	2	MCL=2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Copper	no	2008	0.036 <sup>(2)</sup> (0.004-0.076)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Fluoride	no	2009	0.77 <sup>(3)</sup> (0.60-1.1)	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	2008	1.44 <sup>(4)</sup> (<1-2.8)	µg/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Nickel	n/a		0.012	mg/l	n/a	n/a	n/a
Nitrate	no		0.55	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>C. Organic Contaminants</b>							
Organic Carbon	no	2009	1.75 <sup>(5)</sup> (1.6-1.9)	mg/l	n/a	n/a	Naturally occurring organic material in the source water
<b>D. Disinfection Byproducts</b>							
Total Trihalomethanes				µg/l	n/a	MCL=80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Stage 1 DBP Results	no	2008-2009	21.4 (10-38)				
Stage 2 DBP Results	no	2008-2009	32.1 (19-49)				
Total Haloacetic Acids				µg/l	n/a	MCL=60	By-product of drinking water chlorination needed to kill harmful organisms.
Stage 1 DBP Results	no	2008-2009	10.2 (5.2-15)				
Stage 2 DBP Results	no	2008-2009	9.61 (<2-17)				
<b>E. Radioactive Particles</b>							
Gross Alpha	no	7/17/07	< 0.69	pCi/L	0	15	Erosion of natural deposits.
Gross Beta	no	7/17/07	< 0.78	pCi/L	n/a	MCL=50 <sup>(8)</sup>	Decay of natural deposits and man made emissions.

**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 3/13/09 (0.129 NTU). The number 0.04 NTU represents the average measured and 0.02 – 0.129 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 90<sup>th</sup> percentile of the 11 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, eleven samples were collected from our water system and the 90<sup>th</sup> percentile value was (0.068 mg/l). The numbers 0.004-0.076 mg/l represent the range of copper detected. The action level for copper was not exceeded at any of the sites tested.
3. This value represents the average detected level from the data collected during daily sampling procedures. The numbers 0.60 – 1.10 mg/L represents the range of fluoride detected.
4. This level represents the 90<sup>th</sup> percentile of the 11 sites tested. In this case, eleven samples were collected from our water system and the 90<sup>th</sup> percentile value was (2.4 µg/l). The numbers < 1- 2.8 µg/l represent the range of Lead detected. The action level for Lead was not exceeded at any of the sites tested.
5. This value represents the average detected level from the data collected. The numbers 1.6-1.9 mg/l represents the range of carbon detected.
6. This value represents the average detected level from the data collected. The numbers 10-49 µg/l represents the range of the Total Trihalomethanes detected, which combines Stage 1 and 2 results.
7. This value represents the average detected level from the data collected. The numbers <2 - 21 µg/l represents the range of the Haloacetic Acids detected, which combines Stage 1 and 2 results.
8. The state considers 50 pCi/L to be the level of concern for beta particles.

**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.

**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 (µg/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.

The contaminants that were analyzed but not detected include the following: Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cyanide (total), Mercury, Potassium, Selenium, Thallium, 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, 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 Giardia.

## **WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, our system had no violations. 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 2009, 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 an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we, the Town of Ontario Water Utilities Department, monitor fluoride levels on a daily basis. During 2009 monitoring showed fluoride levels in your water were in the

optimal range 90 % of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

## **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 fire fighting 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 2009, the Water Utilities Department continued to use the handheld GPS unit and GIS Viewer to field locate water services for stakeout and location purposes. Please feel free to contact the Water Utilities Department or the Town Hall if you would like to see a presentation of this new system.

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all 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.