

Annual Drinking Water Quality Report for 2010
Village of Caledonia
3095 Main Street Caledonia, NY 14423
Public Water Supply ID# 2501013
Caledonia District 1 ID# 2530004

INTRODUCTION

To comply with State regulations, the Village of Caledonia, 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. We are proud to report that our system did not violate a maximum contaminant level throughout 2010. 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 **Christopher Buckley, Water Superintendent, (585) 538-2253** or **Livingston County Environmental Health Department, (585) 243-7280**. For information regarding the Caledonia Town District 1, please contact the Livingston County Water and Sewer Authority at 346-3523. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. The meetings are held the 1st Tuesday of every month at the Village of Caledonia Village Office located at 3095 Main Street Caledonia, NY. The meetings start at 6:30pm except for July and August, which start at 4:00pm.

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 system serves 2,327 residents through 880 service connections. Our system also serves the Town of Caledonia District #1 (PWS ID# 2530004) and the Caledonia Manufactured Home Park. The Village of Caledonia purchases water from the Monroe County Water Authority through a metered connection. The MCWA draws its water from Lake Ontario and uses a treatment process that consists of: coagulation, filtration, and disinfection. *Coagulants are added to clump together suspended particles, enhancing their removal during filtration. Chlorine is used to disinfect the water and to provide the residual disinfectant that ensures the sanitary quality of the water as it travels from each plant to your home.* Chlorine is added for disinfection and fluoride to help prevent tooth decay. In 2010 we purchased a total of 76,003,000 gallons of water. That is a monthly average of 6,334,000 gallons and a daily average of 208,000 gallons. 53,588,000 gallons was metered water. That leaves 22,415,000 gallons of unaccounted for water. The unaccounted for water consists of flushing, operation & maintenance, leaks, fire fighting, and mostly poor operating meters.

The NYSDOH has completed a source water assessment for the Great Lakes, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

In general the Great Lakes source used by MCWA is not very susceptible because of the size and quality of Lake Ontario. Because storm and waste water contamination are potential threats to any source water, the water provided to our customers undergoes rigorous treatment and testing prior to its delivery

The Livingston County Department of Health and the NYSDOH will use this information to assist in the direction of future source water protection activities. These may include additional water quality monitoring, resource management, planning, and education programs.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: Volatile Organic Contaminants, Synthetic Organic Contaminants, Inorganic Contaminants, Nitrate, Fluoride, Total Trihalomethanes, Halo-acetic Acids, Radioactive Contaminants, and Coliform Bacteria. The table presented below depicts which compounds were detected in your drinking water. Total Trihalomethanes, and Halo-acetic Acids were sampled for in Town of Caledonia District #1, Brown Road, and W. Main Street. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, might 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 Livingston County Health Department at (585) 243-7280.

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, volatile organic compounds, and synthetic organic compounds. None of these compounds were detected in your drinking water.

Water Quality Table

Detected Substances							2010 Results except as noted	
Supply (Source)				Village of Caledonia Distribution Sampling	Purchased Water MCWA L. Ontario		Meets EPA Standards	
Substances	Units	MCLG	MCL	Range of detected values		Likely Source		
Barium	mg/L	2	2	NA	0.021 - 0.023	Erosion of natural deposits	Yes	
Chloride	mg/L	NA	250	NA	24 - 26	Naturally occurring	Yes	
Fluoride	mg/L	NA	2.2	NA	0.1 - 1.5	Natural and additive - promotes strong teeth	Yes	
Nitrate	mg/L	10	10	NA	0.22 - 0.37	Erosion of natural deposits	Yes	
Sodium	mg/L	NA	NS	NA	13 - 15	Naturally occurring	Yes	
Sulfate	mg/L	NA	250	NA	27-28	Naturally occurring	Yes	
Organics, Pesticides, Herbicides								
Caffeine	ng/L	NS	NS	NA	4 (2008)	Pharmaceutical	Yes	
Cotinine	ng/L	NS	NS	NA	2.1 (2008)	Pharmaceutical	Yes	
Triclosan	ng/L	NS	NS	NA	ND (2008)	Personal care products	Yes	
Treatment Requirements - 95% of samples each month must be less than 0.3 NTU (For filtered surface water such as MCWA). Range and lowest monthly percentage are listed. Turbidity is a measure of water clarity and is used to gauge filtration performance.								
Turbidity - Entry Point	NTUs	NA	TT	0.21-0.52** 0.34**	0.04 - 0.08 100%	Soil runoff	Yes	
Microbial - No more than 5% of monthly samples can be positive. The highest monthly % positive is listed.								
Coliform	% Positive	0	0.05	0% positive	NA	Naturally occurring	Yes	
Disinfectant and Disinfectant By-products (DBPs) - Average and Range are listed. * Chlorine has a MDRL (Maximum Disinfectant Residual Level) and MDRLG (MDRL Goal) rather than an MCL and MCLG.								
Chlorine Residual - Entry Pt	mg/L	4 *	4 *	0.49 (0.29-0.90)	1.1 (0.8-1.5)	Additive for control of microbes	Yes	
Total THMs Stage 1 3 samples (3/9/10-12/7/10) Stage 2 12 samples (6/9/09-9/13/10)	ug/L	NA	80	56 (50-63) 41.2 (25-60)	40 (14-87)	Byproduct of water chlorination	Yes	
Haloacetic Acids Stage 1 3 samples (3/9/10-12/7/10) Stage 2 12 samples (6/9/09-9/13/10)	ug/L	NA	60	25.6 (15-42) 21.4 (5.9-42)	11 (2-22)	Byproduct of water chlorination	Yes	
Lead and Copper - 90% of samples must be less than the Action Level (AL). The 90th Percentile and the number of samples exceeding the AL are listed.								
Copper (Customer Tap Samples)	mg/L	1.3	AL=1.3	0.27 (None)	0.1 (None)	Corrosion of household plumbing	Yes	
Lead (Customer Tap Samples)	ug/L	0	AL=15	2.3 (None)	4.3 (None)	Corrosion of household plumbing	Yes	

Definitions:

***90th Percentile Value:** The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or greater than 90% of the lead and copper values detected at your water system. The action level for lead and copper was not exceeded at any of the sites tested.

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.

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

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.

Not Applicable: (N/A)

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).

Nanograms per liter ng/l: Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion – ppt).

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

MCWA: Monroe County Water Authority.

****:** Average of monthly distribution system turbidity samples must be less than 5.0 NTUs.

Note: The following contaminants were tested for but not found: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, EDB, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,3-Dichloropropene (Cis), 1,3-Dichloropropene (Trans), 1,3-dinitrobenzene, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2,2,4,4-tetrabromodiphenyl ether, 2,2,4,4,5,5-hexabromodiphenyl ether, 2,2,4,4,5,5-hexabromobiphenyl, 2,2,4,4,5,5-pentabromodiphenyl ether, Dioxin, 2,4 D, 2-4-5 TP, 2,4,6-trinitrotoluene (TNT), 2-Chlorotoluene, 3-Hydroxycarbofuran, 4,4'-DDT, 4-Chlorotoluene, Acetochlor, Acetominophen, Aldicarb Sulfone, Aldicarb Sulfoxide, Aldrin, Aluminum, Antimony, Arsenic, Atrazine, Benzene, Benzo(a)pyrene, Beryllium, Bromobenzene, Bromochloromethane, Bromomethane, Butachlor, Cadmium, Carbamazepine, Carbaryl, Carbofuran, Carbon Tetrachloride, Chlordane, Chlorobenzene, Chloroethane, Chloromethane, Chromium, cis-1,2-Dichloroethene, Cryptosporidium, Cyanide, DCPA, Dalapon, DBCP, Di(2-Ethylhexyl) Adipate, Di(2-Ethylhexyl) Phthalate, Diazepam, Dibromomethane, Dicamba, Dichlorodifluoromethane, Dichloromethane (Methylene Chloride), Dieldrin, Dimethoate, Dinoseb, Diquat, Endothall, Endrin, Estrone, Estradiol, Ethinyl Estradiol, Ethylbenzene, Fluoxetine, Gemfibrozil, Glyphosate, Gross Alpha, Giardia, Gross Beta, Heptachlor, Heptachlorepoxyde, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Ibuprofen, Iron, Isophorone, Isopropyl Benzene, Lindane, Iopromide, Manganese, Mercury, Methomyl, Methoxychlor, Metolachlor, Metribuzin, MTBE, n-Butylbenzene, Nickel, Nitrite, N-nitroso-di-n-butylamine, N-nitroso-di-n-propylamine, N-nitroso-diethylamine, N-nitroso-dimethylamine, N-nitroso-methylethylamine, N-nitroso-pyrrolidine, n-Propylbenzene, Oxamyl, PCB's, Pentachlorophenol, Pichloram, p-Isopropyltoluene, Progesterone, Propachlor,

RDX, sec-Butylbenzene, Selenium, Silver, Simazine, Styrene, Sulfamethoxazole, Terbufos sulfone, tert-Butylbenzene, Testosterone, Tetrachloroethene, Thallium, Toluene, Toxaphene, trans-1,2-Dichloroethene, Trichloroethene, Trichlorofluoromethane, Trimethoprim, Tritium, Vinyl Chloride, Xylene, Zinc

For more information on The Village of Caledonia's or MCWA's monitoring program call **Christopher Buckley, Water Superintendent, (585) 538-2253 or Livingston County Environmental Health Department, (585) 243-7280**. Additional information is available at www.mcwa.com.

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.

INFORMATION ON FLUORIDE

The MCWA Treatment Plant is one of the many drinking water plants in New York State that provide 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 NYDOH requires that the MCWA monitor fluoride levels on a daily basis.

Information on Lead in Drinking Water

There is no lead in the water we deliver to your home. It is possible for water to pick up lead from home plumbing solder or fixtures if it sits in the pipes for a long time but our testing indicates this is not a problem for our customers. However, due to problems some water suppliers have had with drinking water lead levels, the USEPA is requiring all water suppliers to include the following educational text in their annual water quality reports:

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. MCWA 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 or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2010, our system was in violation of a drinking water standard. The required disinfection byproduct sample set (THM/HAA5) was not collected at the correct location during the 2nd quarter (April, May, June), and therefore we cannot be sure as to the quality of your drinking water at that time. However, two disinfection byproduct sample sets were collected during this time at alternative sites at Brown Road and West Main Street.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded most 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).

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, and you can save almost 6,000 gallons per year.
 - ◆ Watering lawns less frequently and preferably in early morning or late evening.
 - ◆ Use swimming pool covers to minimize evaporation.
 - ◆ 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.

SYSTEM IMPROVEMENTS AND UPGRADES

In 2010 the Water Department replaced the existing meter vault and meter that services the Caledonia Manufactured Home Community. Also, the interior of the West Main Street Water Tower was inspected.

In 2011 the Water Department will be installing a new water main on Grand Circle, replacing 2 main line valves, 3 hydrants and repairing approximately 30 curbstops. We will also continue our leak locating and valve exercising program.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. 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. **This report was prepared by Christopher Buckley, (State of New York Department of Health Public Water System Operator Certification # NY0036450) and Livingston County Environmental Health Department utilizing the testing results provided by New York State Department of Health and Life Science Laboratories.**