Caledonia Water—Sources and Supply

Our South Water System was installed in 1994, with the North Water System in service since December 2002. In the Spring of 2004 the North and South Water Systems were interconnected along M-37. Both water systems rely on groundwater to supply the daily water demands of each service area. Both water plants have three production wells each at an average depth of approximately 300 feet. All six wells are in the Marshall Formation Sandstone, which is a high quality, high yielding geological formation. The water plants remove iron by aeration/filtration, add Sodium Hypochlorite for disinfection, add Fluoride to help prevent tooth decay, and add Sodium Polyphosphate to help prevent plumbing corrosion. The complete water distribution system, including the two water towers, has a maximum total storage of over 1,000,000 gallons.

The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "high" based primarily on geological sensitivity, water chemistry, and contaminate sources. The susceptibility of our ground water wells is "moderately low". A copy of this report can be obtained by contacting Caledonia Township Public Utilities.

Caledonia Township has an aggressive Cross Connection Program to ensure that the quality and safety of the water in the distribution system is not compromised within plumbing connections of commercial/industrial water customers. A cross connection is defined as any physical connection or arrangement which would allow the movement of contaminants or fluids between any non-potable water system, such as the reclaimed water system, and potable water system. Utility personnel specifically inspect every non-residential customer for proper mechanical devices and/or specific testing requirements.

Special Information

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses health risks. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791). In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The sources of drinking water (both tap 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, radioactive materials (in some cases), and substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include the following:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

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.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also come from gas stations, urban storm-water runoff, and septic systems.

Radioactive Contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

General Information

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 persons, and infants can be particularly at risk from infections. These people should seek advice about their drinking water from 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 at 1-800-426-4791.

Caledonia Township Water System has not had lead levels exceed the action limit, however, 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. Caledonia Township water system 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 at 800-426-4791 or on-line at http://www.epa.gov/safewater/lead

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

The Caledonia Township Water System does not have any lead service lines.

2020 Caledonia Township Water Quality Report

Caledonia Township Utilities and Infrastructure Alternatives (as contractually operating and maintaining the Caledonia Township Water System) are pleased to present the twenty-second annual Water Quality Report for 2020. This report will inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you a safe and dependable supply of drinking water. Both advanced water treatment facilities operate 24 hours a day, seven days a week, and are monitored daily by on-site trained personnel as well as by continuous on-site

Contact Information:

If you have any questions, concerns, or would like to have copies of this report or the Source Water Assessment, please feel free to contact Kathy VanKalker at the Caledonia Township Public Utilities by mail at: 8196 Broadmoor Ave, Caledonia, MI 49316, by phone at (616) 891-0070 ext. 204, or email at kvankalker@caledoniatownship.org.

Water Testing Data 2020

Caledonia Township Water System, Caledonia, MI WSSN #1039

Includes all MDEQ's Regulated and Unregulated Testing for 2020[a]

Substance	Date(s) Sampled	Highest Result	Range of Detection	MCL (limit)	MCLG (goal)	Violation Yes/No	Source
Regulated Monitoring at the Treatment Plants							
Barium (mg/L)	6/2/2020	0.03	NA	2.00	2.00	No	Erosion of natural deposits
Arsenic (ug/L)	6/2/2020	3	NA	10	0	No	Erosion of natural deposits
Fluoride (mg/L)	7/13/2020	0.63	0.56 - 0.63	4.0	4.0	No	Addition / Erosion of natural deposits
Gross Alpha (pCi/l)	6/19/2017	3.20	NA	15	0	No	Erosion of natural deposits
Selenium (ug/L)	8/24/2011	7	NA	50	50	No	Erosion of natural deposits
Radium 226/228 (pCi/l)	6/5/2018	1.26	NA	5	0	No	Erosion of natural deposits
Unregulated Monitoring at the Treatment Plants							
Hardness as CaCO3 (mg/L)	7/13/2020	360	360 - 640	NA	NA	No	Erosion of natural deposits
Sodium (mg/L)	6/4/2019	89	12 - 89	NA	NA	No	Erosion of natural deposits
Iron (mg/L)	7/13/2020	0.05	0.04 - 0.05	NA	NA	No	Erosion of natural deposits
Regulated Monitoring in the Distribution System							
Chlorine, Residual (mg/L)	Every Day	0.27[b]	0.01 - 0.64	4.0[c]	4.0[c]	No	Drinking water chlorination for disinfection
Total Trihalomethanes (ug/L)	8/4/2020	28[b]	13.1 - 28.0	80	NA	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5) (ug/L)	8/4/2020	4.8[b]	3.3 - 4.8	60	NA	No	By-product of drinking water chlorination

Regulated Monitoring at the Customer's Tap

Contaminant Subject to Action Level	Action Level	MCLG (goal)	90% of Samples ≤ This Level[d]	Year Sampled	Number of Samples Above AL	Range of Sample Results	Typical Source of Contaminant
Lead (ug/L)	15	0	0	JAN - JUN 2020	0	0 - 0 ug/l	Corrosion of household plumbing systems: Erosion of natural deposits
			0	JUL - DEC 2020	0	0 - 0 ug/l	
Copper (mg/l)	1.3	1.3	1.0	JAN - JUN 2020	1	0.0 - 1.4 mg/l	Corrosion of household plumbing systems: Erosion of natural deposits; Leaching from wood preservatives
			1.1	JUL - DEC 2020	0	0.0 - 1.2 mg/l	

[a] As authorized by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some data (Metals, Volatile Organics, etc.) though still representative of the current water quality, is more than one year old.

[b] the given result denotes the highest Running Annual Average (RAA) as required to be reported by the MDEQ.

[c] MCL is replaced by MRDL and MCLG is replaced by MRDLG. See definitions below for more detail

[d] Lead and Copper reporting and compliance is based on percentiles, with the concentration of the 90th percentile denoted as the highest result.

In the above table you will find many terms and abbreviations you might not be familiar with. The following definitions will help you understand these terms:

Not Detectable (ND)---------- the concentration was below the measurable range of the testing instrument.

Not Applicable (NA)---------- the data does not apply to the listed parameter.

Milligram per Liter (mg/L)---------- or one part per million parts (ppm) corresponds to one minute in two years or a single penny in $10,000.

Microgram per Liter (ug/L)---------- or one part per billion parts (ppb) corresponds to one minute in 2,000 years or a single penny in $10,000,000.

Action Level (AL)---------- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Residual Disinfectant Level Goal (MRDLG)--- the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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 Contaminant Level (MCL)---------- the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available technology.

Maximum Contaminant Level Goal (MCLG)---------- the level of a contaminant in drinking water below which there is no known or expected risks to health.

Picocuries per liter (pCi/L)---------- picocuries per liter is a measure of the radioactivity in water