City of Canton Water Department 2015

QUALITY REPORT

WATER

From glacial aquifer to you... Canton delivers exceptional quality, value and service to our consumers.

The Canton Water Department is pleased to present our **eighteenth** Annual Water Quality Report. The City of Canton is fortunate to have an abundant, dependable source of high quality drinking water. We are proud to announce that our water continues to meet or exceed all federal and state Environmental Protection Agency (EPA) *primary standards* set for water quality. We have a current, unconditional license to operate our water system. Our goal is and always has been to provide our consumers with a safe, dependable supply of drinking water and top-notch customer service at a minimum cost. **Beginning in 2014, the Canton Water Department entered into contract with Professional Meters, Inc. (PMI) to replace all residential and small commercial water meters. Each customer account holder will be contacted to schedule an appointment for replacement. This replacement project is expected to last through 2015.**

TASTE TIP:

If you feel Canton drinking water has a chlorine taste, try leaving an open pitcher of it in your refrigerator overnight. The chlorine will be reduced by morning.

For more information about your drinking water cotact the EPA Safe Drinking Water Hotline at 800-426-4791; or contact the Northeast District Office of Ohio EPA at (330) 963-1200.

IMPORTANT QUESTIONS

What to expect from your drinking water? 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 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).

What are sources of contamination to drinking water? 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 agriculture, 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; and **(E) Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

How do the EPA and the FDA fit in? In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Who needs to take special precautions? Some people may be more vulnerable to contaminants 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 persons 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).

What is the source of Canton's drinking water? The Canton Water Department obtains 100% of its water from underground wells. Our wells extend hundreds of feet deep into sand and gravel aquifers that were created long ago by glacial activity. These natural aquifers provided Canton with **7,438,389,000** gallons of water in **2014**. We have three separate well fields that supply water to our three water treatment plants. The first is referred to as our Northeast Well Field, which is located in the northeast section of Canton. The second is referred to as our Northwest Well Field, which is located in the northwest section of Canton. Finally, our Sugarcreek Well Field is located southwest of Canton. The Source Water Assessment Reports have been completed for all three well fields. The reports indicate the well fields are potentially susceptible to contamination due to the physical nature and location of the respective aquifers. We have taken protective measures to avoid contamination. More information can be obtained by calling the Safe Drinking Water Hotline (1-800-426-4791).

Backup Measures: Should the need ever arise, we have several protective backup systems built into our utility that enable us to ensure a dependable flow of drinking water to our consumers. As previously mentioned, Canton has three separate water treatment plants and well fields. If one plant is taken off-line, the other two plants can make up the difference in water production. The City also has nearly 30 million gallons of drinking water stored in enclosed reservoirs, acting as a protective reserve of water. Another backup system includes diesel generators at the Northeast and Sugarcreek Water Treatment Plants. These powerful generators can provide enough electricity to operate the plants in the event of a widespread power outage. We also have two interconnections with the North Canton Water System which are normally kept in a closed position. In an emergency, however, these valves could be opened and potable water supplied as needed. All of the redundant and overlapping "backup" systems described above ensure that the Canton Water Department can provide a dependable supply of drinking water to all of our consumers.

WATER TRIVIA: The average home water use is 50 gallons a day for each person in the USA. The average cost is about a penny for every

ABOUT OUR WATER...

What's in Canton's Drinking Water? The EPA requires regular sampling of the Canton water supply to ensure drinking water safety. In 2014 alone we ran over 30,000 tests for more than 100 different substances. The good news is **none** of the contaminants that we detected exceed EPA established Maximum Contaminant Levels or resulted in a violation of drinking water standards. Only a very small percentage of the contaminants tested for exist in our water at detectable levels. The accompanying tables identify the contaminants that were detected. *The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, are more than one year old.*

Canton Water Department has been involved in three Federal studies: Lead and Copper Monitoring, Disinfectants/Disinfection Byproduct Evaluation and Unregulated Contaminate Monitoring Rule III.

Lead: 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 Canton Water Department 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.

Disinfectant/Disinfection Byproducts: Under the Stage 2 Disinfectant/Disinfection Byproduct Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and was to identify locations in our distribution system with elevated disinfection byproduct concentrations. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and from when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes and Haloacetic Acids. USEPA sets standards for controlling the levels of disinfectants and disinfection byproducts in drinking water. For compliance purposes, we currently sample for Stage II compliance at 4 distribution sites quarterly.

Unregulated Contaminate Monitoring Rule III: Three of the Unregulated Contaminates tested in this study where found in detectable levels.

Who do I contact for more information? For more information about your drinking water contact the EPA Safe Drinking Water Hotline at 800-426-4791; or contact the Northeast District Office of Ohio EPA at (330) 425-9171; or contact the Water Department Superintendent, Mr. Tyler S. Converse at (330) 489-3308.

Frequently Asked Questions.

What is hard water? Canton's water contains the naturally occurring mineral calcium, which is better known as hardness. Water was nicknamed hard when people found it hard to make soap suds or lather from the water. The presence of calcium in the water is not a health concern, but rather somewhat of a nuisance that is very costly to remove on a large scale. Some individuals use a water softener to remove unwanted hardness. Calcium buildup can be removed from spigots and coffee pots using vinegar.

Why do I occasionally see discolored water leaving my tap? Discolored water is usually due to the presence of iron. Visible iron in drinking water can be caused by oxidation of dissolved iron by chlorine in the water, corrosion in the pipes that carry the water from the treatment plant to your home or corrosion in your home's plumbing, including the hot water heater. Problems with discolored water usually clear themselves within a day. If you have a prolonged discolored water problem, please notify us.

Hydrant Flushing: During the warm summer months, you may see Water Department personnel flushing fire hydrants. We do this to remove the accumulation of iron sediment in the pipes, thereby reducing discolored water situations over the long term. Be aware, however, that hydrant flushing may temporarily cause both a drop in water pressure and discolored water.

5 gallons of water, which totals about 10 cents per day for each person! In comparison, bottled water may cost $1.00 to $3.00 per gallon.

TEST RESULTS

INORGANIC CONTAMINATS

Contaminats	Violation Yes/No	Level Detected	Unit Measure	MCLG	Range of Detection	Date of Sample	MCL	Likely Source of Contamination
Barium	No	0.102	ppm	2	.067-.130	7/22/2013	2	Discharge from metal refineries; erosion of natural deposits
Copper	No	110	ppb	1300	ND-510	2013	AL = 1300	Corrosion of household plumbing systems
Fluoride	No	1.03	ppm	4	.81-1.32	2014	4	Erosion of natural deposits; water additive which promotes strong teeth
Lead	No	1	ppb	0	ND-18.0 (1 out of 49 samples exceeded the AL)	2013	AL = 15.0	Corrosion of household plumbing systems

RESIDUAL DISINFECTANTS

Total Chlorine	No	1.03	ppm	.30-2.23	2014	MRDL = 4.0	Water additive to control microbes

DISINFECTION BY-PRODUCTS

TTHM (Total Trihalomethanes)	No	24.5	ppb	0	10.9-42.2	2014	80	By-product of drinking water chlorination
HAA (Haloacetic Acids)	No	8.1	ppb	MRDLG	1.1-16.1		60	By-product of drinking water chlorination
				NA	2014			

*UNREGULATED CONTAMINANTS

Contaminant	Level Detected	Unit Measure	Range of Detection	Date of Sample	Contributing Source
Bromodichloromethane	8.1	ppb	3.8 - 13.8	2014	By-product of drinking water chlorination
Bromoform	1.6	ppb	0.6 - 3.4	2014	By-product of drinking water chlorination
Dibromochloromethane	6.8	ppb	3.1 - 16.2	2014	By-product of drinking water chlorination
Chloroform	8.3	ppb	3.4 - 10.8	2014	By-product of drinking water chlorination
Monoacetic Acid	2.2	ppb	2.0-2.4	2014	By-product of drinking water chlorination
Dichloroacetic Acid	3.4	ppb	1.0-7.5	2014	By-product of drinking water chlorination
Trichloroacetic Acid	2.1	ppb	1.0-5.2	2014	By-product of drinking water chlorination
Monobromoacetic Acid	1.0	ppb	1.0	2014	By-product of drinking water chlorination
Dibromoacetic Acid	2.4	ppb	1.0-3.5	2014	By-product of drinking water chlorination

* Unregulated contaminant monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminates.

UNREGULATED CONTAMINATE MONITORING RULE 3

Contaminant	Level Detected	Unit Measure	Range of Detection	Date of Sample	Contributing Source
Chromium	0.28	ppb	ND-.34	2014	Discharge from metal refineries; erosion of natural deposits
Strontium	230	ppb	170-260	2014	Erosion of natural deposits
1,1-Dichloroethene	0.038	ppt	ND-.053	2014	Release from chemical manufacturing

Definitions of some terms contained within this report. 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. **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. **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 days. **Parts per Billion (ppb) or Micrograms per Liter (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in about 32 years. **Parts per Trillion (ppt) or Nanograms per Liter (ng/L)** are units of measure for concentration of a contaminant. A part per trillion corresponds to one second in 31,546 years. **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **ND:** Contaminate Not Detected. **How do I participate in decisions concerning my drinking water?** Public participation and comments are encouraged at regular meetings of the City Council which meets every Monday at 7:30 PM in City Hall Council Chambers. During the summer months of June, July and August, the Council meets every other week. **Who do I contact for more information?** For more information about your drinking water contact the EPA Safe Drinking Water Hotline at 800-426-4791; or contact the Northeast District Office of Ohio EPA at (330) 425-9171; or contact the Water Department Superintendent, Mr. Tyler S. Converse at (330) 489-3308.