

DWSD 2003 Regulated Contaminants Tables

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Level Detected	Range of Detection	Violation Yes/No	Major Sources in Drinking Water
Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap								
Fluoride	9/10 2003	ppm	4	4	1.1	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	9/10 2003	ppm	10	10	0.4	n/a	No	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System (level detected in the highest running annual average based on quarterly averages)								
Total Trihalomethanes (TTHM)	Feb-Dec 2003	ppb	n/a	80	16.2	6.2-27.3	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Dec 2003	ppb	n/a	60	12.4	2.0-25.0	No	By-product of drinking water disinfection
Disinfectant (chlorine) Residual (ppm)	Jan-Dec 2003	ppm	MRDGL 4	MRDL 4	0.67	0.54-0.78	No	Water additive used to control microbes
2003 Turbidity – Monitored every 4 hours at Plant Finished Water Tap								
Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)			Violation Yes/No	Major Sources in Drinking Water			
0.27 NTU	100%			No	Soil Runoff			
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.								
2003 Microbiological Contaminants – Monthly Monitoring in Distribution System								
Contaminant	MCLG	MCL	Highest Number Detected	Violation Yes/No	Major Sources in Drinking Water			
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	in one month 0	No	Naturally present in the environment.			
<i>E.coli</i> or fecal coliform bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive.	entire year 0	No	Human waste and animal fecal waste.			
Total Organic Carbon Removal								
Regulated Contaminants	Treatment Technique	Running Annual Average	Monthly Ratio Range	Violation Yes/No	Typical Source of Contaminant			
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ration between the actual TOC removal and the TOC removal requirements. The TOC was measured each month and because the level was low, there is no requirement for TOC removal.				Erosion of natural deposits.			
2003 Special Monitoring								
Contaminant	MCLG	MCL	Level Detected	Source of Contamination				
Sodium (ppm)	n/a	n/a	Not detected	Erosion of natural deposits				

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. Results are available upon request.



Key to Detected Contaminants Tables

Symbol	Abbreviation for	Definition/Explanation
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MRDLG	Maximum Residual Disinfectant Level Goal	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 contaminants.
MRDL	Maximum Residual Disinfectant Level	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.
ppb	Parts per billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts per million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, Chloroacetic, dibromoacetic, dichloroacetic and trichloroacetic acids. Compliance is based on the total.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total.
pCi/l	picocuries per liter	A measure of radioactivity.
n/a	Not applicable	
≥	More than or equal to	

Public comments are always welcome and can be addressed at Canton Board meetings. For dates and times, call 734/394-5100. For questions about this report, call Canton Public Works Division, at 734/397-1011, extension 101 or the DWSD hotline at 313/267-3629. The following web sites also offer additional information about water quality:



- www.canton-mi.org
- www.ci.detroit.mi.us
- www.epa.gov/safewater
- www.awwa.org

 Canton Municipal Services Department
Public Works Division
1150 Canton Center Road S.
Canton, MI 48188

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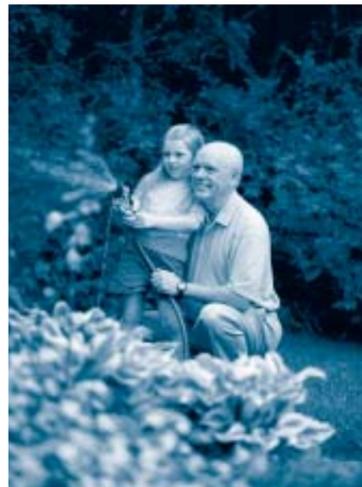
2003



In 1998, a Federal rule was passed to ensure that consumers of community drinking water supplies receive annual information about their water's quality. Canton takes great pride in providing quality water services and is pleased to present you with this sixth water quality report. The purpose of this report is to explain where your water comes from, as well as the treatment process it goes through. The charts contained in this report show that all contaminants detected in your water are within U.S. Environmental Protection Agency standards.

Canton meets the requirements

The State of Michigan and the EPA require testing of the water on a regular basis to ensure its safety. Canton has met all the monitoring and reporting requirements for 2003. This report will be annually updated to keep Canton residents informed of any changes in water quality.



Our water comes from...

Canton purchases its water from the Detroit Water and Sewerage Department (DWSD). Raw water is drawn from the Detroit River from two locations - near the east end of Belle Isle and also at the Fighting Island intake located beyond the international boundary line in Canadian waters.

Canton's system

Once water is purchased, it is moved via large transmission mains to five master meter pits in Canton. Pressure and flow are controlled by a series of meters and pressure-reducing valves and is then delivered via piping to your home. Weekly water samples are collected at various locations in Canton and then tested. Dead-end mains are flushed by Canton's Public Works Division and tested for chlorine levels each quarter.

Source water

treatment process

Canton's water is treated at Detroit's Springwells plant and at the DWSD's Southwest plant in Allen Park. Water treatment facilities operate 24 hours a day, seven days a week. The treatment process begins with disinfecting the source water with chlorine to kill harmful microorganisms that can cause illness. Next, a chemical called alum is mixed with the water to remove the fine particles that make the water turbid (cloudy). Alum causes the particles to clump together and settle to the bottom. These particles are then removed. Fluoride is also added to protect teeth from cavities and decay.

Water then flows through fine sand filters called filter beds. These filters remove even more particles and substances before treatment, during treatment, and throughout the distribution system. Hundreds of samples are collected and tested each week at certified laboratories by highly qualified and trained staff. The Detroit Water System not only meets safety and health standards, but also ranks among the top ten in the country for quality.

Substances that may be found in source water

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 activity.



Contaminants that may be present in source water include:

- 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 by-products of industrial processes and petroleum production, and can 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.

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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be 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 Environmental Protection Agency's Safe Drinking Water Hotline at 800/426-4791.



Vulnerability of some populations to contaminants in drinking water

Some people may be more vulnerable to contaminants in drinking water than is 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 about drinking water from their health care providers. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800/426-4791.

Public Act 222

Under Michigan State law, if you experience an overflow or backup of a sewage disposal system or storm water system, you must file a written claim with the Charter Township of Canton, Division of Public Works within **45 days** after the overflow or backup was discovered. Notice should be mailed to the Charter Township of Canton, Municipal Services Department, Division of Public Works, 1150 S. Canton Center Road, Canton, Michigan 48188. Failure to provide the written notice will prevent recovery of damages. Contact the Division of Public Works at 734/394-5150 for assistance immediately upon discovery of an overflow or backup.

It is the responsibility of residents to operate and maintain the private portion of their sanitary sewer system to avoid sewage back-ups.

Canton's Individual Lead and Copper Monitoring Results

Lead and Copper Monitoring at Customers' Tap								
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90th Percentile Value*	Number of Samples Over AL	Violation Yes/No	Major Sources in Drinking Water
Lead	2002	ppb	0	15	0	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2002	ppb	1300	1300	15.5	0	No	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.