

DWSD 2005 REGULATED DETECTED CONTAMINANTS TABLE

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	8/9/2005	ppm	4	4	.94	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	8/9/2005	ppm	10	10	.38	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								
Total Trihalomethanes (TTHM)	Feb-Dec 2005	ppb	n/a	80	24.5	8.1-36.3	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Dec 2005	ppb	n/a	60	18.0	4.7-17.1	No	By-product of drinking water disinfection
Disinfectant Chlorine	Jan-Dec 2005	ppm	MRDLG 4	MRDL 4	0.68	0.53-0.77	No	Water additive used to control microbes

2005 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
0.20 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.			

2005 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.

2005 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.

KEY TO DETECTED CONTAMINANTS TABLE

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.
n/a	Not applicable	
≥	More than or equal to	

Public comments are welcome and can be addressed at Canton Board meetings. For dates and times, call 734/394-5100. For questions about this report, call the Canton Public Works Division, at 734/394-5150 or the DWSD hotline at 313/267-3629. The following websites also offer additional information about water quality:

www.canton-mi.org
www.awwa.org
www.epa.gov/safewater
www.dwsd.org



 Canton Municipal Services Department
Public Works Division
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Canton, MI 48188

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Important Information Enclosed: 2005 Water Quality Report

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2005 Water Quality Report
CANTON COMMUNITY



CANTON'S EIGHTH ANNUAL REPORT

This report represents Canton's required annual consumer confidence report (CCR) on water quality. The purpose of the report is to inform you about the quality of your drinking water and the services associated with the process. **This report will illustrate that we are providing you a safe and dependable water supply.** In order to ensure that tap water is safe to drink, the Environmental Protection Agency (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

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.



SOURCE WATER ASSESSMENT

Canton Township's drinking water comes from the following U.S. rivers; Detroit River, Clinton River, Rouge River, and Ecorse River, as well as parts of the Thames River, Little River, Turkey Creek, and the Sydenham watersheds in Canada.

The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department (DWSD), and the Michigan Public Health Institute performed a source water assessment to determine the susceptibility of potential contamination.

The susceptibility rating is on a seven-tiered scale from very low to high based primarily on geologic sensitivity, water chemistry, and contaminant

sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination.

However, all four Detroit water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet the drinking water standards.

You can learn more about this report by visiting the DWSD website at www.dwsd.org or by calling DWSD at 313/935-7106

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 land, 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:

- **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;

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban stormwater runoff, and septic systems;
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; and

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

CANTON'S WATER SOURCE

Canton purchases its water from the DWSD. Raw water is drawn from the Detroit River from two locations.

The water is transported via large transmission mains to five master meter pits in Canton. Pressure and flows are controlled by a series of meters and pressure-reducing valves and delivered via piping to your home.

Weekly water samples are collected by the City of Detroit 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.

CANTON MEETS THE REQUIREMENTS

The State of Michigan and the EPA requires water testing on a regular basis to ensure its safety. Canton has met all the monitoring and reporting requirements for 2005.



YOUR DRINKING WATER IS SAFE - YOU CAN HELP KEEP IT THAT WAY

Your activities at home directly affect the quality of the rivers and lakes that are Southeast Michigan's greatest resources. Every ditch, storm drain, and stream in your area empties into a larger waterway. The storm sewer catch basins and ditches at the end of your driveway and along your neighborhood streets empty into the Lower Rouge River and the Middle Rouge River.

- Select slow-release fertilizers which gradually contribute nitrogen to the grass roots. Slow-release fertilizers protect lakes and streams, promote and protect steady grass growth, and protect microbial life in the soil. Nutrients that reach rivers and lakes can cause excessive weed growth that depletes the oxygen supply for fish and aquatic insects.

- Avoid combination fertilizer and weed control products that often add unnecessary herbicides to the landscape.

- Much of the pollution that makes our rivers and lakes unsafe for swimming and fishing comes from animal waste, lawn and garden fertilizers, and vehicles leaking oil or antifreeze.

- Pesticides, fertilizer, and other improperly applied lawn chemicals can kill beneficial bacteria, insects, and worms while promoting shallow root growth and polluting our water resources.

- Paved services such as sidewalks, roads, roofs, patios, and parking lots allow pollutants to easily get into water instead of filtering through soil.

Fertilizers left on sidewalks and driveways can easily wash into storm drains if not swept back onto the lawn.

PEOPLE WITH SPECIAL HEALTH CONCERNS

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, persons with HIV/AIDS or other immune system disorders, some elderly, and infants are particularly at risk for 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 at 800/426-4791.

IMPORTANT INFORMATION ABOUT LEAD

Since 1995, with the cooperation of several Canton residents, Public Works has been testing homes with plumbing systems that may contribute lead to the household water supply. The latest round of

testing shows that all samples have been below the required action levels. Please refer to the lead monitoring results table.

Lead was never used in the transmission system piping or service lines to the homes, but was present in the soldered joint during the installation of plumbing in homes built prior to 1987.

SOME TIPS TO ENSURE REDUCTIONS IN LEAD CONSUMPTION FROM YOUR PLUMBING SYSTEM

- If your water has not been used for more than six hours, run your water for 30 to 60 seconds or until it feels colder.
- Always use cold water for drinking, cooking and making baby formula.
- Use fixtures and plumbing materials that are either lead-free or will not cause unsafe levels of lead into your water.

CANTON'S VOLUNTARY OUTDOOR WATER USE RESTRICTIONS

In a continued effort to reduce instances of low water pressure and help control future water rate increases, Canton is asking residents and businesses to use voluntary odd/even days for outdoor water usage throughout 2006.

Residents and businesses with odd-numbered addresses are asked to do outdoor watering only



on odd-numbered dates. Likewise, those with even-numbered addresses should water lawns, fill swimming pools, and wash cars only on even-numbered dates.

In addition, Canton residents are asked to voluntarily limit outdoor water use between the hours of 5 a.m. to 9 a.m. Water consumption is often at its peak during this time of day and observing water use restrictions enables all customers to continue receiving an even distribution of water with minimal low-pressure problems.

Following these voluntary restrictions is a good way to keep future water rates down. There are three major factors that the DWSD uses to calculate wholesale water rates: 1) the distance the community is from the water treatment plants, 2) the elevation of the community relative to water

treatment plants, and 3) the maximum daily water demand and the peak hour water demand for each community. By following the odd/even day water cycle, Canton can level out these high water demand factors resulting in more stable long-term water rates. For questions regarding the requested water use restrictions please call the

Canton Public Works Engineering Division at 394-5150.

CANTON'S INDIVIDUAL LEAD AND COPPER MONITORING RESULTS

Lead and Copper Monitoring at Customers' Tap								Major Sources in Drinking Water
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90th Percentile Value*	Number of Samples Over AL	Violation Yes/No	
Lead	2005	ppb	0	15	0	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2005	ppb	1300	1300	53	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.