

Water Quality Report for Charter Township of Genesee

This report covers the drinking water quality for Charter Township of Genesee for the 2008 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2008. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

- **Contaminants and their presence in 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 **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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 systems 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/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 (800-426-4791).

- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

- **Our water** comes from the **lower Lake Huron watershed**, and is supplied by the **City of Detroit**. We purchase it from **Genesee County Water and Waste**. We are pleased to report that our drinking water is safe and meets Federal and State requirements.

- Contaminants that may be present in source water include:

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

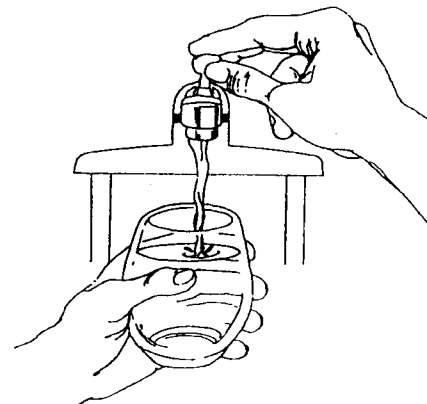
- T **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial

or domestic waste water discharges, oil and gas production, mining or farming.

- T **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.

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

- T **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.



In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2008 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2008. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- **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 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 using the best available treatment technology.
- **Maximum Residual Disinfectant Level (MRDL):** means 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):** means 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.
- **N/A:** Not applicable **ND:** not detectable at testing limit **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **pCi/l:** picocuries per liter (a measure of radioactivity).
- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Regulated Contaminant	MCL	MCL G	Range of Detection	Level Detected	Sample Date	Violation Yes / No	Typical Source of Contaminant
Fluoride (ppm)	4	4	N/A	1.15	09/09/2008	NO	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppb)	10	10	N/A	0.33	09/09/2008	NO	Discharge from steel and pulp mills; Erosion of natural deposits
Barium (ppm)	2	2	N/A	0.01	09/09/2008	NO	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.

Disinfectant Residuals and Disinfection By-Products-Monitoring in the Distribution System

Contaminant	MCL	MCL G	Range of Detection	Level Detected	Sample Date	Violation Yes / No	Typical Source of Contaminant
TTHM – Total Trihalomethanes (ppb)	80	N/A	6.6-31.8	16.2	Feb-Nov 2008	NO	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	4.3-12.7	8.5	Feb-Nov 2008	NO	Byproduct of drinking water disinfection
Disinfectant Total Chlorine Residual (ppm)	MRDL	MRDL G	0.68-1.08	0.51	Jan-Dec 2008	NO	Water additive used to control microbes
	L	G					

Special Monitoring and Unregulated Contaminant **	MCL	MCL G	Your Water	Typical Source of Contaminant
Sodium (ppm)	N/A	N/A	4.38	Erosion of natural deposits

2008 Lead and Copper Monitoring at the Customers Tap

Contaminant Subject to AL	Action Level	MCL G	90% of Samples ≤ This Level	Test Date	Number of Samples Above AL	Violation N/Y	Typical Source of Contaminant
Lead (ppb)	15	0	2.5	2008	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0	2008	0	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

* EPA considers 50 pCi/l to be the level of concern for beta particles.

** 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.

Information about 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 Charter Township of Genesee 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>.

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample (>5% of monthly samples positive)	0	0	NO	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	NO	Human and animal fecal waste

Included is a Letter from DEQ, stating Monitoring Requirements Not Met for Genesee Township. There were no water quality problems, the samples were taken and mailed, all samples were negative for coliform. See Attached Sheet:

Also see attached sheets from: **Lake Huron Water Treatment Plant_2008 Regulated Detected Contaminants Tables.**

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at **Genesee Public Library**. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. Township board meetings are held at the Township Hall every 2nd Tuesday of the month at 6:00 pm. For more information about your water, or the contents of this report, contact the Charter Township of Genesee 810-640-2000 ext. # 5, Randal R. Waites Department of Public Works. Web site <http://www.genesetwp.com/>

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Genesee Township

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During July 2008 we did not complete all monitoring for bacteriological contaminants. The violation **does not** pose a threat to the quality of the supply's water.*

What should I do? There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time.

The table below lists the contaminants we did not properly test for, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	Date additional samples were (or will be) taken
Total Coliform Bacteria	10 samples per month	5	7/1/08 to 7/31/08	August 2008

What happened? What is being done? The correct number of samples was collected for July 2008, however one set of 5 samples exceeded the laboratory hold time of 30 hours, no replacement samples were collected. Samples taken since then show that all results met acceptable limits.

For more information, please contact Genesee Township at 810-640-2000 ext. 5.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Genesee Township.

CERTIFICATION:

WSSN: 02617

I certify that this water supply has fully complied with the public notification regulations in the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, and the administrative rules.

Signature:

Title:

Date Distributed:

Lake Huron Water Treatment Plant 2008 Regulated Detected 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	9/9/2008	ppm	4	4	1.15	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	9/9/2008	ppm	10	10	0.33	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewages; Erosion of natural deposits
Barium	6/9/2008	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System								
Total Trihalomethanes (TTHM)	Feb-Nov 2008	ppb	n/a	80	16.2	6.6-31.8	no	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb- Nov 2008	ppb	n/a	60	8.5	4.3-12.7	no	By-product of drinking water disinfection
Disinfectant (Total Chlorine residual)	Jan-Dec 2008	ppm	MRDGL 4	MRDL 4	0.72	0.64-0.86	no	Water additive used to control microbes

2008 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
0.11 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.			

2008 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		Naturally present in the environment.
E.coli or fecal coliform bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	entire year		Human waste and animal fecal waste.

2008 Lead and Copper Monitoring at Customers' Tap								
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2008	ppb	0	15				Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2008	ppm	1.3	1.3				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.								

Regulated Contaminant	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 ratio 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

2008 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.38	Erosion of natural deposits