2013 Consumer Confidence Report

This report contains our water quality data for 2013 required by the United States Environmental Protection Agency

Dear Resident:

Enclosed is our Consumer Confidence Report for 2013. For the customers of Genesee County, we continue to receive treated water from Detroit. We will continue to do so until our treatment plant is operational. To reiterate, your water is the same as it always has been.

The first half of 2014 has been busy for the county. As the agent for Karegnondi Water Authority (KWA), we have nearly completed the intake out into Lake Huron and have begun construction on both the lake pumping station and the intermediate pumping station. Water transmission main construction will begin in July and we will break ground on our new water treatment plant this fall. Financially, all construction bids to date have been lower than engineer's estimates and we sold bonds at a lower rate than anticipated. These facts will translate to a lower project cost. We continue to be on schedule, with the bulk of the construction occurring in 2015. The new system should be in operation by fall of 2016.

The County has reached a tentative agreement with Detroit to provide water to Genesee County residents for July 2014 to June 2015 for a 20% increase in the price of water. It is anticipated that July 2015 to June 2016, we will see another 10% rate increase. These rate increases are more than the 5% projection used by Detroit in 2010 when the County and City of Flint evaluated all our options and chose KWA as the most cost effective plan.

Proudly providing water and sewer service to the residents of Genesee County,
Jeff Wright, Drain Commissioner
John O'Brien, P.E., Director, Water and Waste Services
Tim Davidek, Assistant Director - Operations

Water Source

GCDC-WWS is supplied water through the City of Flint by the Detroit Water and Sewerage Department, which draws its water from Lake Huron. We provide water to nineteen communities within the County.

Additional Information

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 (800-426-4791).

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:

(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 stormwater 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 stormwater runoff and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

How Do I Read This Chart?

It's easy! Our water is tested to assure that it is safe and healthy. These tables are based on tests conducted by GCDC-WWS and the City of Detroit within the last five (5) calendar years. We conduct many tests throughout the year, however, only tests that show the presence of a contaminant are shown here. The table on this page is a key to the terms used in the following tables. Sources of Contaminant show where this substance usually originates.

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
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/D	Not Detected	
pCi/I	picocuries per liter	a measure of radioactivity
n/a	not applicable	
>	Greater Than	

Genesee County Water and Waste Services Detected Contaminants Tables

Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Inorganic Chemicals - Annual Monitoring at Plant Finished Water Tap								
Fluoride	5/13/2013	ppm	4	4	0.55	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	5/13/2013	ppm	10	10	0.32	n/a	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; 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.

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Disinfectant By-Product Monitoring in Distribution System								
Total Trihalomethanes (TTHM)	2013	ppb	n/a	80	0.0438	0.0099 to 0.0438	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2013	ppb	n/a	60	0.025	0.006 to 0.025	No	By-product of drinking water disinfection
Disinfectant (Total Chlorine residual)	Jan-Dec 2013	ppm	MRDGL 4	MRDL 4	Highest RAA 1.33	0.5 to 1.33	No	Water additive used to control microbes

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
2013 Turbidity - Monitored every 4 hours at Plant Finished Water Tap			
0.26 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.			

Contaminant	MCLG	MCL	Number Detected	Violations yes/no	Major Sources of Contaminant
2013 Microbiological Contaminants - Monthly Monitoring in Distribution System					
Total Coliform bacteria	0	Presence of Coliform bacteria >5% of monthly samples	none detected	No	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 postitive	none detected	No	Human waste and animal fecal waste

2013 Special Monitoring						
Sodium (ppm)	ppm	na	na	4.52	na	Erosion of natural deposits

Regulated Contaminant	Treatment Techniques	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

Genesee County Lead and Copper Results

Contaminants	Test Date	Units	Number of Samples	Number of Samples Exceeding AL	Action Level AL	90th Percentile	Major Source in Drinking Water	Violations (Yes or No)
Lead	2011	ppb	14	0	15	0.001	Crosion of Household Plumbing Erosion of natural deposits	NO
Copper	2011	ppb	14	0	1.3	0.04	Crosion of Household Plumbing Erosion of natural deposits	NO

Important Health Information - 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. Genesee County Water and Waste Services is responsible for providing high quality drinking after, 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 (800) 426-4791 or at *http://www.epa.gov/safewater/lead*.

Monitoring Requirements

We are required to monitor drinking water for specific contaminants on regularly scheduled basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. Our routine quarterly monitoring for Disinfection Byproducts (DBP's) was not completed in the months of April and July of 2013. Monitoring resumed in October 2013. All the monitoring results were within the acceptable limits.

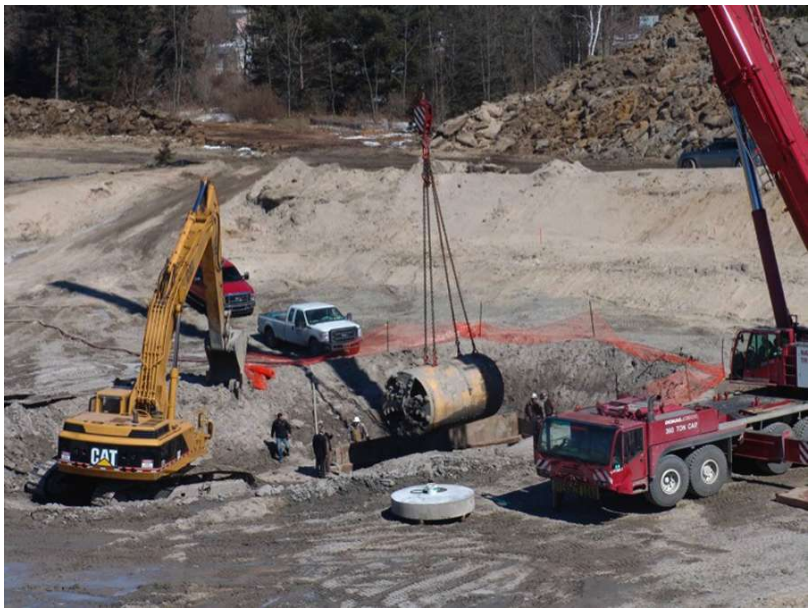
The table below lists the contaminants we did not properly test for.

Contaminant	Required sampling Frequency	Number of samples Taken	When Samples should have been taken	Dates samples were taken
TTHM	2 samples per quarter	0	April & July 2013	October 2013
HAA5	2 samples per quarter	0	April & July 2013	October 2013

The purpose of providing you this information is to notify you of our procedural deficiency and that it has been corrected. 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. Should you have any questions, please contact Tim Davidek at (810) 732-7870.

Please share this information with all 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.

Genesee County
Drain Commissioner
Water & Waste Services
G-4610 Beecher Rd.
Flint, MI 48532



Water Quality Report

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, who are 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/CDC (Communicable Disease Center) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-425-4791).
*We are required by the EPA to send this report to all residents within Geneseee County.

Cryptosporidium

Cryptosporidium is a disease-causing parasite that lives in the intestinal tract of many animals, including dogs and cats. Symptoms of infection include diarrhea, abdominal cramps, headaches, nausea, and vomiting. The disease is typically spread through contact with feces of an infected animal or person and by consuming contaminated food or water. Cryptosporidium can be introduced into bodies of water by way of surface water runoff containing animal waste and sewage discharge. The water supplied to the Genesee County Division of Water and Waste Services has been tested for Cryptosporidium since 1994 and has never been detected in any water supply samples.

Opportunities for Public Participation

We encourage public interest and participation in our community's decisions affecting drinking water. Regular Advisory Board Meetings occur on the third Wednesday of every month, at G-4610 Beecher Road, Flint, Michigan at 9:00 A.M. The public is welcome.

National Primary Drinking Water Regulation Compliance

We'll be happy to answer any questions about Genesee County Division of Water and Waste Services and our water quality. Call Rich Bysko or Jim Thompson at (810) 732-7870. You may also visit our website *http://www.gcdcwws.com.*

A Message from the Flint River Watershed Coalition (FRWC)

The Flint River Watershed Coalition's mission is to protect, preserve, and improve our watershed. FRWC efforts include educational programs such as Flint River GREEN, activities such as canoe trips and river walks, and outreach programs such as a speaker's bureau that is available for your service club or organization. These programs, and others, focus on reducing pollution and helping residents understand how we can all work to enhance our water quality.

For additional information about FRWC programs, please visit our website at www.FlintRiver.org. You can also find the Coalition on FaceBook, Live Journal and Flickr.

Lake Huron Plant Source Water Assessment

Your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards. If you would like more information about this report or a complete copy of this report, please contact your water department at (810) 732-7870.