



Dedicated to Providing Top Quality, Cost Effective, and Environmentally Safe Water and Wastewater Services to Our Customers

2016 Drinking Water Quality Report

Keeping You Informed!

We at YCUA provide your drinking water and are pleased to present you with our 19th annual water quality report. This report follows the guidelines set by the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (MDEQ). Our goal is to provide you with a safe and dependable water supply. This report illustrates that we are achieving our goal.

Source Water Assessment

YCUA obtains your drinking water from the Great Lakes Water Authority (GLWA) water system, formerly Detroit Water and Sewerage Department (DWSD). Your source water comes from the Detroit River, situated within the Lake St. Clair, and several watersheds within U.S. and Canada.

The Michigan Department of Environmental Quality (MDEQ) in partnership with the Detroit Water and Sewerage Department (DWSD) and several other governmental agencies performed a source water assessment in 2004 to determine the susceptibility or relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contamination 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 Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA voluntarily developed and received approval in 2016 for a source

water protection program (SWIPP) for the Detroit River intakes. The program includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education.

If you would like to know more information about the Source Water Assessment report or a complete copy of this report, please contact the Water Quality Division Manager at 313.926.8102 or mary.semegen@glwater.org.

General Information About GLWA

If you wish to learn more about the plants that treat our water or obtain information regarding GLWA Board meetings, please visit www.glwater.org.

2016 Water Supply System Improvements

Augusta Township

3,400 linear feet of water main and was replaced and three more fire hydrants were added on Tuttle Hill from Liss Road to Torrey Road.

More Resources

EPA Safe Drinking Water Hotline: **800.426.4791**

EPA Website: www.epa.gov/safewater

MDEQ Website: www.michigan.gov/deq

This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.

YCUA Water Quality Test Results for 2016

Your drinking water is continuously monitored above and beyond Federal and State regulations. The table below lists all of the contaminants detected in your drinking water during calendar year 2016. Lead, copper, bacteriological monitoring, and disinfectant by-product rule is performed by each individual community, except as noted. THERE WERE NO BACTERIOLOGICAL DETECTIONS DURING 2016. All other results are for the entire YCUA service area. The presence of contaminants in the water does not necessarily indicate a health risk. This table does not show the hundreds of other contaminants tested for, but not found in your drinking water. The test results confirm that ALL DETECTED CONTAMINANTS WERE BELOW REGULATED LEVELS. THERE WERE NO VIOLATIONS OF STATE DRINKING WATER STANDARDS.

Regulated Inorganic Parameters (annual monitoring at plant finished water taps)

contaminant	test date	unit	level detected	MCLG	MCL	likely sources
Fluoride	2016	ppm	0.50	4	4	Water additive to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate	2016	ppm	0.48	10	10	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Radium	2016	pCi/L	0.65 + or - 0.54	0	5	Erosion of natural deposits. <i>NOTE: Radium not reported in 2016</i>

Regulated Disinfectant Residuals and Disinfection By-Products (sampled in the distribution system)

contaminant	test date	unit	result	low	high	MCLG	MCL	likely sources
<i>Charter Township of Ypsilanti, City of Ypsilanti, Southwest Canton Charter Township, and Township of York</i>								
TTHMs	2016	ppb	33	18	41	na	80	By-products of drinking water disinfection
Haloacetic Acids	2016	ppb	14	8	22	na	60	
<i>Augusta Charter Township</i>								
TTHMs	2016	ppb	24	na	na	na	80	By-products of drinking water disinfection
Haloacetic Acids	2016	ppb	11	na	na	na	60	
<i>Pittsfield Charter Township</i>								
TTHMs	2016	ppb	35	21	53	na	80	By-products of drinking water disinfection
Haloacetic Acids	2016	ppb	13	10	16	na	60	
<i>Superior Charter Township</i>								
TTHMs	2016	ppb	44	na	na	na	80	By-products of drinking water disinfection
Haloacetic Acids	2016	ppb	10	na	na	na	60	

Samples were collected to test for the disinfection by-products TTHMs and Haloacetic Acids in all YCUA service area communities at the frequencies and times prescribed by Federal regulations. All samples collected throughout the YCUA service area during 2016 met the MCL for disinfection by-products.

contaminant	test date	unit	result	MRDLG	MRDL	likely sources
Disinfectant Chlorine	2016	ppm	0.77	4	4	Water additive used to control microbes

Regulated Microbiological Parameters (monitored every 4 hours at the plant taps)

contaminant	test date	unit	highest result	maximum limit	likely sources
Turbidity	2016	ntu	0.33	1.0	Soil runoff
<i>Augusta Charter Township</i>					
Total Coliform	2016		negative	Result Range: 0 to 1 positive samples; MCL: >1 sample/month; MCLG: 0	

Turbidity measures the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The rules state that turbidity must never exceed 1.0 ntu (see "high"), and must not exceed 0.3 ntu in more than 95% of daily samples in any single month. The turbidity in daily samples was below 0.3 ntu 99.7% of the time. Therefore, we achieved both requirements and remained in compliance.

Individual Community Regulated Copper and Lead Testing (sampled at individual taps)

contaminant	test date	unit	90th	samples >AL	MCLG	MCL	likely sources
<i>Charter Township of Ypsilanti, City of Ypsilanti, Southwest Canton Charter Township, and Township of York</i>							
Lead	2014	ppb	0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2014	ppm	0.083	0	1.3	AL=1.3	
<i>Augusta Charter Township</i>							
Lead	2014	ppb	0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2014	ppm	0.115	0	1.3	AL=1.3	
<i>Pittsfield Charter Township</i>							
Lead	2014	ppb	0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2014	ppm	0.027	0	1.3	AL=1.3	
<i>Superior Charter Township</i>							
Lead	2014	ppb	0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2014	ppm	0.044	0	1.3	AL=1.3	

Lead and Copper compliance is based on the 90th percentile, where nine out of ten samples must be below the Action Level (AL). State and Federal regulations allow us to monitor for lead and copper every three years, because conditions here are such that concentrations of these contaminants are not expected to vary significantly from year to year. All of the data are therefore representative of the current water quality.

Total Organic Carbon (TOC) Removal - The TOC removal ratio is the ratio between actual TOC removal and the TOC removal requirements. During 2016, TOC was measured each quarter and because the level was low, there was no requirement for TOC removal.

UNREGULATED PARAMETERS (No established EPA drinking water standards)

contaminant	test date	unit	level found	EPA Health Guidance	likely sources
Sodium	2016	ppm	4.96	20	Erosion of natural deposits

4.96 ppm equates to about 1.17 milligrams of sodium per 8-ounce glass of water. EPA Health Guidance is for people restricted to taking in less than 500 mg of sodium per day according to "Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Sodium," US EPA, EPA 822-R-03-006, February 2003.

Unregulated Contaminate Monitoring Rule 3 (sampled in the distribution system)

contaminant	test date	unit	ave.	min	max	likely sources
<i>Charter Township of Ypsilanti, City of Ypsilanti, Southwest Canton Charter Township, and Township of York</i>						
Chromium, Total	2015	ppb	0.3	0.2	0.3	Naturally occurring sources; erosion of natural deposits Drinking Water Standard: 100 ppb (ref: DrinkTap.org)
Chromium, Hexavalent (6+)	2015	ppb	0.22	0.17	0.25	Naturally occurring sources; erosion of natural deposits Regulated under Total Chromium
Strontium	2015	ppb	108	100	110	Naturally occurring sources; erosion of natural deposits EPA Health Guidance: 1500 ppb
Vanadium	2015	ppb	0.5	0.2	0.8	Naturally occurring sources; erosion of natural deposits
Chlorate	2015	ppb	<20	<20	41	By-product of drinking water disinfection

Pittsfield Charter Township

Chromium, Total	2015	ppb	0.225	<0.2	0.039	Naturally occurring sources; erosion of natural deposits Drinking Water Standard: 100 ppb (ref: DrinkTap.org)
Chromium, Hexavalent (6+)	2015	ppb	0.193	0.12	0.248	Naturally occurring sources; erosion of natural deposits Regulated under Total Chromium
Strontium	2015	ppb	107.007	99.546	114.280	Naturally occurring sources; erosion of natural deposits EPA Health Guidance: 1500 ppb
Vanadium	2015	ppb	0.633	0.366	0.895	Naturally occurring sources; 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. Note: Augusta Charter Township and Superior Charter Township are not required to sample for UCMR3.

Health and Safety 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 (EPA) Safe Drinking Water Hotline at 800.426.4791.

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 organics, 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, 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.

Based on testing results during 2016-2015 (Test Results table), all of these contaminants were below the level of concern for safe drinking water standards set by EPA.

Information for People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons 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 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).

Lead In Drinking Water

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. Your local Township Utility Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components in private properties. 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 www.epa.gov/safewater/lead.

POSTAL CUSTOMER

IMPORTANT INFORMATION ENCLOSED: 2016 WATER QUALITY REPORT

Definitions

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other required actions a water system must follow.

Haloacetic Acids (HAA5) - The total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.

Maximum Contaminant Level (MCL) - The highest level of a contaminant 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 health risk. MCLGs provide for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of 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) - The level of 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.

na - Not applicable.

Nephelometric Turbidity Unit (ntu) - Measures the cloudiness of water.

Picocuries per liter (pCi/L) - A measurement of radioactivity.

Parts per billion (ppb) (One in one billion) - Equivalent to micrograms per liter. A microgram = 1/1000 milligram.

Parts per million (ppm) (one in one million) - Equivalent to milligrams per liter. A milligram = 1/1000 gram.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Total Trihalomethanes (TTHMs) - The sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.

General Information About YCUA

YCUA staff works around the clock to provide you with a safe and reliable supply of water. If you have questions about the YCUA water system, please contact Jeff Castro, Director, at jcastro@ycua.org or 734.484.4600 ext. 116. Additional information about YCUA is available on www.ycua.org. Click on the tab "Publications," and then "GLWA Lab Reports" for more detailed water quality data. This report is also published on our website and additional copies may be obtained by calling YCUA Administration at 734.484.4600 ext. 107.

YCUA's annual Consumer Confidence Drinking Water Quality Report contains important information about the source and quality of your drinking water. After May 1, 2016, the report will be at www.ycua.org/waterreport.pdf. Please call us at 734.484.4600 ext. 107 if you are unable to access the Internet and wish to continue having a paper copy of the report delivered.

If you have questions specific to your community's water distribution system, please contact the following individuals, or attend your local board meeting:

Augusta Charter Township: John Linville, Utilities Management Services: 734.260.9135 or johnum@gmail.com. Website: www.augustatownship.org. Telephone: 734.461.6117.

Pittsfield Charter Township: Craig A. Lyon, Director of Utilities and Municipal Services: 734.822.2109; Utilities Customer Service: 734.822.3105; Water and Sewer 24-hour Emergency Service Line: 734.944.4911. The Township Board meets on the second and fourth Wednesdays of the month at 6:30 pm at the Township Hall, 6201 W. Michigan Avenue, 734.822.3145.

Superior Charter Township: Keith Lockie, Director: 734.480.5500. The Township Board meets on the third Monday of the month at 7:00 pm at the Township Hall, 3040 North Prospect Road.

Township of York: Chuck Tellas, Township Supervisor: 734.439.8842 or ctellas@twp-york.org. The Township Board meets on the second Tuesday of the month at 7:30 pm at the Township Hall, 11560 Stony Creek Road.

Charter Township of Ypsilanti, City of Ypsilanti, and Southwest Canton Charter Township: Jeff Castro, Director: jcastro@ycua.org or 734.484.4600 extension 116. YCUA's Board meets the fourth Wednesday of the month at 4:00 pm at the YCUA Eldon P. Ahles Administration Building located at the corner of State and McGregor Roads.