

2017 Drinking Water Quality Report

YPSILANTI COMMUNITY UTILITIES AUTHORITY

Environmental Leaders



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

Keeping You Informed!

We at YCUA provide your drinking water and are pleased to present you with our 20th 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, Clinton River, Detroit River, Rouge River, and Ecorse River watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada.

MDEQ in partnership with the U.S. Geological Survey, DWSD, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very 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 GLWA water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA has 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. In 2015, GLWA received a grant from MDEQ to develop a source water protection program for the Detroit River intakes. The programs includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of source water protection areas, identification of potential contaminate sources, management approaches for source water protection, contingency plans, siting of new sources and public participation. If you would like to know more information about the Source Water Assessment 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.

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 2017

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 2017. Lead, copper, bacteriological monitoring, and disinfectant by-product rule sampling is performed by each individual community, except as noted. THERE WERE NO BACTERIOLOGICAL DETECTIONS DURING 2017. 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	2017	ppm	0.63	4	4	Water additive to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate	2017	ppm	0.95	10	10	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Barium	2017	ppm	0.01	2	2	Discharge is drilling wastes; discharge from metal refineries; erosion of natural deposits
Radium	2014	pCi/L	0.65 + or - 0.54	0	5	Erosion of natural deposits. <i>NOTE: Radium not reported in 2017</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	2017	ppb	41	14	67	na	80	By-products of drinking water disinfection
Haloacetic Acids	2017	ppb	17	9	31	na	60	
<i>Augusta Charter Township</i>								
TTHMs	2017	ppb	32	na	na	na	80	By-products of drinking water disinfection
Haloacetic Acids	2017	ppb	12	na	na	na	60	
<i>Pittsfield Charter Township</i>								
TTHMs	2017	ppb	39	17	58	na	80	By-products of drinking water disinfection
Haloacetic Acids	2017	ppb	17	10	30	na	60	
<i>Superior Charter Township</i>								
TTHMs	2017	ppb	54	na	na	na	80	By-products of drinking water disinfection
Haloacetic Acids	2017	ppb	13	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 2017 met the MCL for disinfection by-products.

contaminant	test date	unit	result	low	high	MRDLG	MRDL	likely sources
Disinfectant Chlorine	2017	ppm	0.71	0.51	0.74	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	2017	ntu	0.22	1.0	Soil runoff

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 100% 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	2017	ppb	1.4	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2017	ppm	0.2	0	1.3	AL=1.3	
<i>Augusta Charter Township</i>							
Lead	2017	ppb	0.0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2017	ppm	0.1	0	1.3	AL=1.3	
<i>Pittsfield Charter Township</i>							
Lead	2017	ppb	0.0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2017	ppm	0.1	0	1.3	AL=1.3	
<i>Superior Charter Township</i>							
Lead	2017	ppb	0.0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2017	ppm	0.2	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).

Total Organic Carbon (TOC) Removal - The TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. During 2017, TOC was measured each quarter and because the level was low, there is 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	2017	ppm	5.90	20	Erosion of natural deposits

5.90 ppm equates to about 1.40 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.

Giardia

The GLWA voluntarily monitors for the protozoans *Cryptosporidium* and *Giardia*. The December 2017 untreated water sample collected at the Belle Isle intake contained 1 *Giardia* cyst. All other samples collected in the year 2017 were absent for the presence of *Cryptosporidium* and *Giardia* in the untreated water. Systems using surface water like GLWA must provide treatment so that 99.9 percent of *Giardia lamblia* is removed or inactivated.

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.

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 2015-2017 (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 those undergoing chemotherapy, having 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).

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. YCUA 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.

POSTAL CUSTOMER

IMPORTANT INFORMATION ENCLOSED: 2017 WATER QUALITY REPORT

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://water.epa.gov/drink/info/lead>.

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) - 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. Highlight the tab "Publications," and then click on "GLWA Lab Reports" for more detailed water quality data.

YCUA's annual Consumer Confidence Drinking Water Quality Report contains important information about the source and quality of your drinking water. This report is also published on our website after May 1, 2018, at www.ycua.org/waterreport.pdf. If you are unable to access the Internet and wish to continue having a paper copy of the report delivered, or if you want additional copies, please call YCUA Administration at 734.484.4600 ext. 107.

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 johnums@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: Ken Schwartz, Township Supervisor: 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.