

2011

DRINKING WATER QUALITY REPORT

Keeping You Informed!

The Ypsilanti Community Utilities Authority (YCUA) provides your drinking water and is pleased to present you with our 14th 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 Detroit water system. 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 River watersheds in Canada.

In 2004, the MDEQ, 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 for the Detroit River to determine its susceptibility to potential contamination. The susceptibility was rated on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. 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 to meet drinking water standards.

DWSD has initiated source water protection activities that include chemical containment, spill response, and mercury reduction programs. DWSD participates in a National Pollutant Discharge Elimination System permit discharge program, and has an emergency response management plan. If you would like more information about this report or to receive a complete copy of this report, please contact the Water Quality Division Manager at 313.926.8102 or semegen@dwsd.org.

2011 Water Supply System Improvements

All communities performed hydrant flushing and valve exercising to ensure system reliability according to their own schedules.

Holmes Road Phase III Water Main Replacement. This project consisted of replacing approximately 5,000 feet of existing water mains on Holmes Road between Spencer Lane and Michigan Avenue in the Charter Township of Ypsilanti. The work was completed in conjunction with road improvements made by the Washtenaw County Road Commission. Project costs totaled approximately \$1,080,000.

Ford Boulevard Water Main Replacement. This project consisted of replacing approximately 1,500 feet of aging and undersized water main on Ford Boulevard between Parkwood Avenue and Russell Street in the Charter Township of Ypsilanti. The work was completed in advance of road improvements made by the Washtenaw County Road Commission. Project costs totaled approximately \$406,000.

East Cross Water Supply System Improvements. This project consisted of the replacement of water services, hydrants, and valves on the existing water main in East Cross Street between River Street and Prospect Street in the City of Ypsilanti. The work was completed in conjunction with road improvements made by the City of Ypsilanti. Project costs totaled approximately \$180,000.

Ypsilanti Community Utilities Authority

Environmental Leaders

YCUA

www.ycua.org

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

Augusta Charter Township • Pittsfield Charter Township • Superior Charter Township
Township of York • Charter Township of Ypsilanti • City of Ypsilanti
Southwest Canton Charter Township

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.

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:

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

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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Based on testing results during 2011 (see table at right), 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 at elevated levels, 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 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.

Definitions

Parts per million (ppm) and parts per billion (ppb) - One ppm can be equated to one gallon in 1,000,000 gallons (an Olympic-sized pool.) One ppb is like one gallon in 1,000 Olympic-sized pools combined.

Maximum Contaminant Level Goal (MCLG) - The MCLG is 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 Contaminant Level (MCL) - The MCL is the highest level of a contaminant that is allowed in the drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology. MCLs are set at very stringent levels by the State and Federal governments. To understand the possible health effects, a person would have to drink about two quarts of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the associated health effect.

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.

Maximum Residual Disinfectant Level (MRDL) - 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.

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

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

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

TTHMs - Total Trihalomethanes.

na - Not applicable.



YCUA Water Quality Test Results For 2011

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 2011. Lead, copper, and bacteriological monitoring is performed by each individual community, except as noted. THERE WERE NO BACTERIOLOGICAL DETECTIONS DURING 2011.

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.

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

contaminant	test date	unit	level detected	MCLG	MCL	likely sources
Fluoride	2011	ppm	0.77	4	4	Water additive to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate	2011	ppm	0.21	10	10	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Barium	2008	ppm	0.01	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium	2008	ppb	1	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

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

contaminant	test date	unit	avg	low	high	MCLG	MCL	likely sources
TTHMs	2011	ppb	33.1	11.9	49.2	na	80	By-products of drinking water chlorination
Haloacetic Acids	2011	ppb	16.8	10.3	21.0	na	60	By-products of drinking water disinfection
Disinfectant Chlorine	2011	ppm	0.77	0.62	0.76	MRDLG=4	MRDL=4	Water additive used to control microbes

In 2008, some of the individual communities also participated in Initial Distribution System Evaluation (IDSE) monitoring for EPA's Stage 2 Disinfection By-Products Rule. The next testing period will take place in 2012. Here are their highest and lowest detections (in ppb) for TTHM and Haloacetic Acids, respectively. These results are not subject to MCL compliance. YCUA (4.9 - 36.0 / 3 - 23); Pittsfield (7.7 - 32.0 / 6 - 22); Superior (9.9 - 40.0 / 3 - 25).

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

contaminant	test date	unit	lowest %	high	MCLG	MCL	likely sources
Turbidity	2011	ntu	100%	0.3	na	TT	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 (see lowest %). We achieved these 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	2011	ppb	0	0	0	AL=15	Corrosion of household plumbing and erosion of natural deposits
Copper	2011	ppm	0.118	0	1.3	AL=1.3	
<i>Augusta Charter Township</i>							
Lead	2011	ppb	0	0	0	AL=15	
Copper	2011	ppm	0.124	0	1.3	AL=1.3	
<i>Pittsfield Charter Township</i>							
Lead	2011	ppb	0	0	0	AL=15	
Copper	2011	ppm	0.057	0	1.3	AL=1.3	
<i>Superior Charter Township</i>							
Lead	2011	ppb	1.2	0	0	AL=15	
Copper	2011	ppm	0.043	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 the ratio between actual TOC removal and the TOC removal requirements. During 2011, TOC was measured each month 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	likely sources
Sodium	2011	ppm	6.28	Erosion of natural deposits

For those concerned with sodium in their diet, 5.21 ppm equates to about 1.23 milligrams of sodium per 8-ounce glass of water.

General Information About YCUA

YCUA staff works around the clock to provide you with a reliable supply of water. If you have questions about the YCUA water system, please contact Jeff Castro, Director of Service Operations, at jcastro@ycua.org or 734.484.4600 extension 305.

Additional information about YCUA is available on www.ycua.org. Click on the tab "DWSD 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 Customer Service at 734.484.4600 extension 107.

General Information About DWSD

If you wish to learn more about the plants that treat our water or obtain information regarding Detroit Board of Water Commissioner meetings, please visit www.dwsd.org.

More Information About Your Tap Water

A typical 20-ounce bottle of water costs \$1.00. For that much YCUA water, you pay less than 1/20th of a penny. The other "almost dollar," pays for the bottle, the advertising, and transportation.

Most commercial, single-use water bottles are made of polyethylene terephthalate. Recent studies indicate these containers may leach endocrine-disrupting chemicals into the water! As an alternative, try reusable bottles and fill them with tap water from your own faucet. You'll save hundreds of dollars per year, reduce plastics going to landfill or needing recycling, and reduce your health risks all while keeping up your hydration level! Go Green!

Still not convinced? Consider this: Some of your tap water comes from the Detroit River, which is also the source for a well-known brand of bottled water. Drinking bottled water and living in a community served by DWSD means that you may be paying for your water twice!

Questions? Comments?

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: Jason Karmol, Project Manager: 734.679.2510; jkarmol@wadetrim.com. In the event of an emergency, please call Dave Conger (734.890.2763) or Jason Karmol (734.679.2510) Website: www.augustatownship.org. Telephone: 734.461.6117.

Pittsfield Charter Township: Craig A. Lyon, Director of Utilities and Municipal Services: 734.822.2110; Utilities Customer Service: 734.822.3105; Water and Sewer Field Office and 24-hour Emergency Service Line: 734.944.4911. The Township Board meets on the second and fourth Wednesdays of the month at 6:30pm at the Township Hall, 6201 W. Michigan Avenue. For more information, please call 734.822-3145.

Superior Charter Township: Rick Church, Utilities Director, 734.480.5500. The Township Board meets on the third Monday of the month at 7:30pm at the Township Hall, 3040 North Prospect Road.

Township of York: Joe Zurawski, Township Supervisor, 734.439.8842, jjurawski@twp-york.org. The York Township Board meets on the second Tuesday of each month at 7:30pm at the Township Hall at 11560 Stony Creek Road.

Charter Township of Ypsilanti, City of Ypsilanti, and Southwest Canton Charter Township: Jeff Castro, Director of Service Operations, jcastro@ycua.org or 734.484.4600 extension 305. YCUA's Board meets the fourth Tuesday of the month at 9:00am at the YCUA Eldon P. Ahles Administration Building located at the corner of State and McGregor Roads.

EPA Safe Drinking Water Hotline: 800.426.4791

EPA Website: www.epa.gov/safewater

MDEQ Website: www.michigan.gov/deq

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