



Drinking Water Quality Report for 2008

KEEPING YOU INFORMED!

The Ypsilanti Community Utilities Authority (YCUA) provides your drinking water and is pleased to present you with this eleventh annual water quality report. This report follows the guidelines set by the 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 will illustrate 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 Lake St. Clair, the Clinton River, Detroit River, Rouge River, and Ecorse River 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, the Detroit Water & Sewerage Department (DWSD), and the Michigan Public Health Institute, performed a Source Water Assessment to determine susceptibility to potential contamination.

Susceptibility was rated on a seven-tiered scale from very low to very high based primarily on geologic sensitivity, water chemistry, and contaminant sources. Even though DWSD's source water intakes were found to be highly susceptible to potential contamination, DWSD has historically provided satisfactory treatment of this source water to meet drinking water standards.

DWSD has initiated source water protection activities that include chemical containment, spill response, and a mercury reduction program. DWSD participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. For further information contact the Water Quality Manager at 313.926.8102.

Ypsilanti Community Utilities Authority

Environmental Leaders



www.ycua.org

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

2008 WATER SYSTEM IMPROVEMENTS

All communities performed routine hydrant flushing and valve exercising to ensure system reliability.

Township and City of Ypsilanti and Canton Charter Township

Water Main Improvements with Approximate Project Costs:

- Holmes Road Phase 2: Replaced approximately 6,800 feet of aging water mains on Holmes Road between Rue Deauville and Spencer Avenue. The work was completed in conjunction with road improvements made by the Washtenaw County Road Commission. Project cost: \$1,290,000.
- City Housing Water Main Improvements: Replaced approximately 2,500 feet of aging and undersized water mains within the public housing complex southeast of the intersection of First Street and Harriet Street in the City of Ypsilanti. Project cost: \$460,000.

Pittsfield Charter Township

- New Meter Reading Technology: Replaced residential water meters with radio read technology.
- Pump Station Upgrade: Replaced all three water pumps located at the District 3 water station.

Superior Township

- Geddes Road – 16" Water Main Extension: Approximately one-quarter mile (1,259 feet) of 16-inch water main was constructed along Geddes Road in front of the Hyundai/Kia Research and Development Center. This infrastructure improvement was part of the Leforge and Geddes Roads Intersection Improvement Project.
- Leforge Road Water Main Replacement: Approximately 2,178 feet of aging 12-inch water main, located along Leforge Road in front of the Hyundai/Kia Research and Development Center, was replaced by a new 16-inch water main. This effort was also part of the Leforge and Geddes Roads Intersection Improvement Project.
- Huron Ophthalmology Public Water Main Extension: Approximately 866 feet of water main, ranging in size from 6 to 12 inches, was constructed to supply both domestic and fire protection needs for the newly built Huron Ophthalmology Center. This facility is located on the St. Joseph Mercy Hospital campus.

York Township

- New Water Service: Water transmission lines were extended south along Platt Road to service the Toyota Research Center. Water service began in the early summer of 2008. YCUA provided all water testing for York Township during 2008. York Township began its own bacteriological and "partial chemistry" sampling (primarily for nitrate and sodium levels) in the spring of 2009. They are not required to perform separate lead and copper testing at this time, and are covered by YCUA's results.

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

HEALTH and SAFETY INFORMATION

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk.

The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, and can also pick up substances resulting from animal or 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 occur naturally, or result from urban stormwater runoff and residential uses
- *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, septic systems, and urban or agricultural runoff (i.e., pesticides and herbicides)
- *Radioactive contaminants*, which can be naturally occurring or the result of oil and gas production and mining activities

Based on testing results during 2008 (see table, right), all of these contaminants were below the level of concern for safe drinking water standards set by EPA. To ensure that tap water is safe, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration is in the process of establishing limits for contaminants in bottled water, which must provide the same level of protection for public health.

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.

Federal guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are also available from EPA's 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. 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.

2008 SPECIAL MONITORING

Beginning in July of 2008, DWSD began monitoring quarterly for unregulated contaminants under the Unregulated Contaminant Monitoring Rule 2 (UCMR2.) All the UCMR2 contaminants monitored on List 1 and List 2 in 2008 were undetected. Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA determine where certain contaminants occur and whether it needs to regulate those contaminants.



YCUA Water Quality Test Results for 2008

Your drinking water is continuously monitored above and beyond Federal and State laws. The table below lists all of the contaminants detected in your drinking water during calendar year 2008. Lead, copper, and bacteriological monitoring is performed by each individual community, except as noted. **There were no bacteriological detects during 2008.**

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 ARE BELOW ALLOWED 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	2008	ppm	1.05	4	4	Water additive to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate	2008	ppm	0.26	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	2008	ppb	19.9	4.1	36.4	na	80	By-products of drinking water chlorination
Haloacetic Acids	2008	ppb	11.4	4.4	16.5	na	60	By-products of drinking water chlorination
Disinfectant Chlorine	2008	ppm	0.73	0.51	0.79	MRDLG=4	MRDL=4	Water additive used to control microbes

Some of the individual communities also participated in Initial Distribution System Evaluation (IDSE) monitoring for EPA's Stage 2 Disinfection By-Products Rule. 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 four hours at the plant taps)

contaminant	test date	unit	lowest %	high	MCLG	MCL	likely sources
Turbidity	2008	ntu	100%	0.27	na	TT	Soil runoff

Turbidity measures the cloudiness of water. 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
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Charter Township of Ypsilanti, City of Ypsilanti, Southwest Canton Charter Township, and York Township

Lead	2008	ppb	0	0	0	AL=15	The likely sources of lead and copper are the corrosion of household plumbing and erosion of natural deposits.
Copper	2008	ppm	0.158	0	1.3	AL=1.3	

Augusta Charter Township

Lead	2008	ppb	0	0	0	AL=15
Copper	2008	ppm	0.088	0	1.3	AL=1.3

Pittsfield Charter Township

Lead	2008	ppb	0	0	0	AL=15
Copper	2008	ppm	.04	0	1.3	AL=1.3

Superior Charter Township

Lead	2008	ppb	0	0	0	AL=15
Copper	2008	ppm	0.027	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 2008, 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	2008	ppm	4.8	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



2777 STATE ROAD
YPSILANTI, MI 48198

INFORMATION ABOUT CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal.

DWSD's monitoring indicates the presence of these organisms in our source water. Cryptosporidium was detected once, during a twelve-month period at our Detroit River intake plants. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking 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, Water Distribution Supervisor, at jcastro@ycua.org or 734.484.4600 extension 305.

Additional information about YCUA is available on our web site at www.ycua.org. Click on the tab "DWSD Lab Reports" for more detailed water quality data. This report is also published on our web site and additional copies of this report may be obtained by calling YCUA Customer Service at 734.484.4600.

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.

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: John Linville, Utilities Manager, 734.439.7715, 800.884.2860, or 734.817.2326 (pager). The Township Board meets on the second and fourth Tuesdays of each month at the Township Hall, 8021 Talladay Road. Dates and times are posted on cable channel 12 or call 734.461.6117.

Pittsfield Charter Township: Michael Luptowski, Utilities Director: 734.822.2110; Utilities Customer Service: 734.822.3105; Water and Sewer Field Office and 24-hour Emergency Line: 734.822.2110. The Township Board meets on the second and fourth Tuesdays of the month at 6:30 p.m. at the Administration Building, 6201 W. Michigan Avenue. For more information call 734.822.3120.

Superior Charter Township: Rick Church, Utilities Director, 734.480.5500. The Township Board meets on the first and third Mondays of the month at 7:30 p.m. at the Township Hall, 3040 North Prospect Road. During the months of June, July and August, the Board will only be meeting on the third Mondays of the month.

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

Charter Township of Ypsilanti, City of Ypsilanti, and Southwest Canton Charter Township: Jeff Castro, Water Distribution Supervisor, jcastro@ycua.org or 734.484.4600 extension 305. YCUA's Board meets the fourth Tuesday of the month at 9:00 a.m. 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 Web Site: www.epa.gov/safewater

MDEQ Web Site: www.michigan.gov/deq