

WHAT THE EPA SAYS ABOUT DRINKING WATER CONTAMINANTS

Drinking Water

Between claims made by people selling water treatment devices and news reports about environmental issues, it is easy to forget that the water delivered by the Midland Water System undergoes a multi-stage treatment process and is rigorously tested to ensure it meets strict government standards. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Additionally, 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 from the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791) or www.epa.gov/drink/.

What if I Have Special Health Needs?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons – such as persons with cancer 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 individuals should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers 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) or www.epa.gov/drink/.

Source Water

The sources of drinking water (both tap 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. In order 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. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

UTILITIES DEPARTMENT

WATER TREATMENT • WATER DISTRIBUTION • WATER OFFICE

Here are some helpful City of Midland telephone numbers:

24-hour water emergency services:	989-837-3515
Questions or concerns about water quality:	989-837-3515
Distribution system questions or problems:	989-837-6950
Utility Billing – Water office @ City Hall:	989-837-3341



Water Quality News

A Newsletter for the Citizens Served by the City of Midland Water System May 2012

2011 DRINKING WATER QUALITY REPORT

The City of Midland has a water treatment facility designed to do one thing – provide drinking water that meets all state and federal water-quality standards. Midland's annual **Drinking Water Quality Report** is intended to provide you, our customer, with the most recent water quality testing data. Your concerns and opinions are important to us, and we encourage you to contact us with any questions or comments. You can reach us by calling the Water Treatment Plant at **837-3515** or leaving a message on our 24 hour citizen comment line, **837-3400**. You may also send an e-mail to cityhall@midland-mi.org or write to us at **333 West Ellsworth Street, Midland, MI 48640**.

SOURCE WATER INFORMATION

Midland has received its source water supply from Lake Huron since 1948. The source water pumping system is jointly owned and operated by the cities of Midland and Saginaw and is called the Saginaw-Midland Municipal Water Supply Corporation (SMMWSC). Water is drawn into the system through two intake structures located in Lake Huron off the shores of Whitestone Point. The water is chlorinated at the lake intake structures to kill harmful bacteria and zebra mussels and is then pumped through 65 miles of pipeline to Midland. The water treatment complex is able to provide 48 million gallons per day (MGD) of treated Lake Huron water to our community. The water plant is staffed by state-certified water treatment operators, water analysts and maintenance personnel that monitor, test, maintain and adjust the treatment process to provide high-quality and reliable water service. Water distribution personnel are on duty to ensure water quality and safety as the water is delivered to the Midland area through approximately 359 miles of water main.

In June 2004, the Michigan Department of Environmental Quality (MDEQ) released a Source Water Assessment Report (SWAR) for our community's source of raw water. Included in the Source Water Assessment is a susceptibility analysis of our raw water. Susceptibility is a measure of the factors within the source water area that may pose a risk to the water supply. The Source Water Assessment Report concluded that potential contaminant sources present a negligible risk due to the physical location of the intakes. Based on our intake's infrequent experience with abnormal current flows, the Saginaw-Midland source water is defined as moderately low for susceptibility to potential contamination. Midland has effectively treated this source to meet drinking water standards.

Protecting the source of our drinking water is an investment in our community's future and one of our main priorities. A copy of the Source Water Assessment is available for review at the Water Office, located at City Hall. If you have questions or need additional information on the report, please call the Water Plant at **837-3515**.

2011 Drinking Water Quality Report

Is produced by the Utilities Department – Water Division
333 W. Ellsworth • Midland, MI • 48640 • www.midland-mi.org

Midland City Council – meetings held twice monthly on Monday evenings at 7 p.m. Check your City calendar for dates.

Tom Adams, Ward I
Maureen Donker, Ward II / Mayor
J. Dee Brooks, Ward III
Diane Brown, Ward IV
Marty Wazbinski, Ward V / Mayor Pro Tem

This report was mailed to all residences and businesses in the city of Midland and to customers in communities that purchase their water directly from the City of Midland. Extra copies are available at the Water Plant by calling **989-837-3515** or on the City's website at www.midland-mi.org.

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CITY OF MIDLAND TEST RESULTS FOR 2011

SUBSTANCES REGULATED AT MIDLAND'S WATER TREATMENT PLANT

Substance	Unit	Amount Detected				Likely Source	Violation?
		Range	Average	MCL	MCLG		
Fluoride	ppm	0.1 - 1.1	0.8	4	4	Erosion of natural deposits; Water Treatment additive that promotes strong teeth	NO
Turbidity	ntu	0.01 - 0.25	n/a	TT ^a	n/a	Soil runoff; suspended matter in surface water	NO
Barium ^b	ppm	0.01	0.01	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	NO
Selenium ^b	ppb	2	2	50	50	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines	NO

a. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system. The treatment technique for turbidity requires that all samples be below 1 ntu, and at least 95% of the samples each month be lower than 0.3 ntu. 100% of our samples were below 0.3 ntu.
 b. Testing for this substance is conducted every nine years. Last test date 2004.

SUBSTANCES REGULATED IN THE DISTRIBUTION SYSTEM

Substance	Unit	Amount Detected				Likely Source	Violation?
		Range	Highest RAA ^c	MCL	MCLG		
Total Trihalomethanes	ppb	39 - 69	59	80	80	By-products of drinking water chlorination	NO
Total Haloacetic Acids	ppb	15 - 21	23	60	60	By-products of drinking water chlorination	NO
Substance	Unit	Range	Highest RAA ^c	MRDL	MRDLG	Likely Source	Violation?
Chlorine	ppm	0.00 - 1.03	0.69	4.0	4.0	Water Treatment additive for control of microbial contaminants	NO

c. Highest Running Annual Average (RAA) calculated quarterly.

SUBSTANCES REGULATED AT THE CUSTOMER'S TAP (CITY OF MIDLAND)

Substance	Unit	Amount Detected			Likely Source	Violation?
		90th Percentile	MCL	MCLG		
Copper ^{d,f}	ppm	0.260	AL=1.3	1.3	Corrosion of household plumbing systems	NO
Lead ^{e,f}	ppb	3	AL=15	0	Corrosion of household plumbing systems	NO

d. No testing site exceeded the Copper Action Level of 1.3 ppm.
 e. No testing sites exceeded the Lead Action Level of 15 ppb.
 f. Testing for this substance is conducted every three years. Last test date 2010.

UNREGULATED (SINGLE SAMPLE AT WATER TREATMENT PLANT)

Substance	Unit	Amount Detected	Likely Source	Violation?
Sodium	ppm	5	Erosion of natural deposits	NO

Glossary of Terms

Tables contain scientific terms and measures, some of which may require an explanation.

Action Level or AL: The concentration of a contaminant which, if exceeded, triggers the need for additional treatment or other requirements that a water system must meet.

Maximum Contaminant Level or MCL: 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.

Maximum Contaminant Level Goal or MCLG: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level or 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.

Maximum Residual Disinfectant Level Goal or MRDLG: 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 contamination.

Nephelometric Turbidity Units (ntu): A measure of the clarity of water. The lower the numbers, the clearer the water.

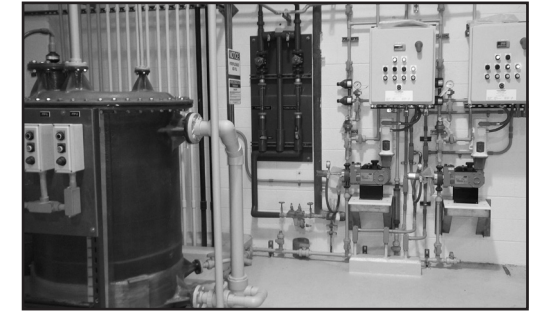
Not Applicable: n/a

Part per million (ppm); part per billion (ppb): These units describe the levels of detected contaminants. One part per million is about 1/2 of a dissolved aspirin tablet (162.5 mg) in a full bathtub of water (about 50 gallons). One part per billion is about one dissolved aspirin tablet (325 mg) in a typical 25-meter swimming pool (about 100,000 gallons).

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

2011 PROJECTS

A chemical feed upgrade was completed that replaced most of the chemical feed system components. Also the computer process control system was updated.



Drain vaults on the east plant were completely rebuilt.

WATER FUN FACTS

The Great Lakes contain 20% of the world's fresh water.



You can fill up one hundred 20 oz bottles with Midland tap water for less than two cents.

INFORMATION ON LEAD AND COPPER

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. The City of Midland 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 1-800-426-4791 or at www.epa.gov/drink/.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should contact their physician. If you are concerned about elevated copper levels in your home's water, you may wish to have the water tested, and flush your tap for 30 seconds to 2 minutes before using the water.

Contact the City's Water Treatment Plant at **837-3515** for further information on water testing.