



2014 Drinking Water Quality Report

Dear Customer,
The City of Dexter is once again proud to present to you our Annual Drinking Water Quality Report.

Why did you get this report?

Drinking water regulations require the City to make this information available to customers each year – it's the law!

Why should you read it?

Let's face it – this report isn't going to end up on any Best Seller list. A lot of the wording is technical and mandated by law. However, the quality of our water is important, and we want to keep you informed. It can be useful in your everyday life, as well, if you have special health concerns, or just need to adjust the settings on your water softener.

What does it contain?

This report uses data collected in 2014 to summarize information about your water supply sources, the water system facilities that deliver water to your tap, and the quality of your drinking water. Also included is information about programs underway that ensure that you have safe and dependable drinking water.

Did we meet all our monitoring requirements in 2014?

We have continued to meet the challenge of providing you with a safe and dependable supply of quality drinking water which meets or exceeds the requirements set forth by the United States Environmental Protection Agency (USEPA) and Michigan Department of Environmental Quality (MDEQ).

What if you have questions?

Please contact Water Utilities at (734) 426-4572 if you would like help understanding the information provided, or have questions about your drinking water. This report is also available online at

http://dextermi.gov/sites/dextermi.gov/files/client_files/documents/water_quality_report_2014.pdf.

Get involved!

The City of Dexter Council meets at 7:30 p.m. on the 2nd and 4th Mondays of every month in the Dexter Senior Center at 7720 Ann Arbor Street, Dexter, Michigan.

Quick Reference

CITY OFFICE

(734) 426-8303

www.dextermi.gov

WATER & SEWER UTILITIES

Business Line

(734) 426-4572

Emergency Line

(734) 368-5212



**Read about
mandatory
outdoor watering
restrictions
(back page)**



Water Quality Test Results

Each year, we constantly take of water samples in order to determine the levels of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants that might be present. This report includes information on all regulated drinking water contaminants detected during the calendar year of 2014. Contaminants which were tested for, but not detected, are not included in this report. Some other contaminants are not required to be monitored every year because they change infrequently.


Regulated Parameter	Your Water Results	Results Range	EPA Limit (MCL, or MRDL)	EPA Goal (MCLG or MRDLG)	Likely Source
Alpha Emitters	1.4 pCi/L	N/A	15 pCi/L	0 pCi/L	Erosion of natural deposits
Arsenic	2.4 ppb	1.7-2.8ppb	10 ppb	0 ppm	Erosion of natural deposits
Barium	0.15 ppm	N/A	2 ppm	2 ppm	Erosion of natural deposits
Chlorine	0.47 ppm	0.2 - 1.5 ppm	4 ppm	4 ppm	Water additive used to control microbes
Chromium	9 ppb	N/A	100 ppb	100 ppb	Erosion of natural deposits
Combined Radium	1.8 pCi/L	N/A	5 pCi/L	0 pCi/L	Erosion of natural deposits
Fluoride	0.76 ppm	0.2 - 1.6 ppm	4 ppm	4 ppm	Erosion of natural deposits, water additive for strong teeth
HAA5 (total haloacetic acids)	5.4 ppb	0 – 4.4 ppb	60 ppb	N/A	By-product of drinking water disinfection
Nitrate	0.6 ppm	0.1 - 0.95ppm	10ppm	10ppm	Fertilizer runoff, natural deposits, leaching septic tanks
Selenium	2 ppb	N/A	50 ppb	50 ppb	Erosion of natural deposits
TTHMs (total trihalomethanes)	42 ppb	5-18 ppb	80 ppb	N/A	By-product of drinking water disinfection

Lead and Copper in Drinking Water

Although there is no detectable lead in our source water, tests occasionally show low levels of lead and copper in household tap water. These are primarily caused by the corrosion of household plumbing systems. Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The City of Dexter is responsible for providing high quality drinking water, but cannot control the composition or condition of your home plumbing. You can minimize the potential for lead exposure by flushing your system before using the water for drinking or cooking. Just run your tap for thirty seconds to two minutes. If you are concerned about the lead levels in your home, you may wish to have your water tested. Information about lead in drinking water, testing methods, and the steps you can take to minimize your exposure is available from the **Safe Drinking Water Hotline (1-800-426-4791)** or at www.epa.gov/safewater/lead.

Regulated at the Customer's Tap	Your Water Results	Results Range	Action Level	EPA Goal (MCLG or MRDLG)	Likely Source
Lead	2 ppb	0 results above AL (22 tested)	15 ppb	0 ppb	Erosion of natural deposits, corrosion of household plumbing systems
Copper	753 ppb	0 results above AL (22 tested)	1300 ppb	1300 ppb	Erosion of natural deposits, corrosion of household plumbing systems, added by water softeners to remove hardness

Other Parameters of Interest	Sample Average	Results Range	Likely Source
Hardness	370 ppm	350 - 390 ppm	Erosion of natural deposits (multiply ppm by .058 to get grains/gallon)
Sodium	42 ppm	23 - 53 ppm	Erosion of natural deposits, road runoff, added by water softeners to remove hardness
Sulfate	34 ppm	20 - 62 ppm	Erosion of natural deposits, industrial processes





Terms used in this report:

- **Action Level (AL):** The concentrations of a contaminant which, if exceeded, triggers treatment or other requirements which the water system must follow.
- **Maximum Contaminant Level (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 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.
- **N/A:** Not applicable.
- **Not Detected:** Not Detected at or above the minimum reporting level – laboratory analysis indicates that the constituent is not present.
- **pCi/L:** Picocuries per liter (a measure of radioactivity).
- **1 part per million (ppm) or milligrams per liter (mg/L)** corresponds to one minute in two years or a single penny in \$10,000. 1ppm – 1000 ppb.
- **1 part per billion (ppb) or micrograms per liter (µg/L)** corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

You can receive news by email!

Are you interested in an easy way to stay current on City information and events? The **City Email Update** is sent out every two weeks, and includes details of upcoming events, project updates, due date reminders, and general news.

Just go to the City of Dexter homepage at www.dextermi.gov. Click on the "I Want to" button at the top and select 'Receive the City Email Update' from the drop-down menu.

If you have any questions, send them to Courtney Nicholls at cnicholls@DexterMI.gov.

Thank you!

Message from the EPA

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the Michigan Department of Environmental Quality (MDEQ) prescribe regulations that limit the amount of certain contaminants allowed in the water we drink.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-suppressed 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 people should seek advice about drinking water from their health care providers. USEPA and CDC guidelines on appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbiological contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

Impurities that may be present in untreated water include:

1. Microbial contaminants, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. Inorganic contaminants, such as salts and metals which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
4. 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, urban stormwater runoff, agricultural application, and septic systems.
5. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Cryptosporidium is a protozoan parasite that is too small to be seen with a microscope. It is sometimes found in surface waters, especially when the waters contains a high amount of fecal waste from runoff or other activities. Those who are infected with this parasite can experience gastrointestinal illness. The USEPA and the Center for Disease Control (CDC) have published guidelines on ways to reduce the risk of *Cryptosporidium* infection. The guidelines are available from the **Safe Drinking Water Hotline (1-800-426-4791)**





Mandatory Outdoor Water Restrictions

In an effort to protect our aquifers, conserve water resources, and help ease peak hour water demands, the City of Dexter has implemented mandatory outdoor water restrictions effective May 15, 2013.

Outdoor water usage (watering lawns, washing cars, irrigation, etc.) is restricted to odd or even days based on your street address. Residents and businesses with odd-numbered addresses (addresses ending in 1, 3, 5, 7, or 9) are only allowed to water on odd-numbered days. Residents and businesses with even-numbered addresses (ending in 2, 4, 6, 8, or 0) may only water on even-numbered days.

Outdoor watering is also prohibited between 6 am and 10 am. Please adjust the start time(s) for your sprinkler or irrigation system accordingly.

We would like to thank you for your cooperation protecting and conserving our water resources.

Why do we have mandatory water restrictions?

In 2012 before water restrictions, Dexter used more water than ever before. This caused increased maintenance and infrastructure costs, and drained one of our aquifers faster than it could recharge. If this was allowed to continue, Dexter would have eventually run out of secure ground water.

People have traditionally watered early in the morning, between 6 am and 10 am. Since this is also the peak use time for other purposes, as people get up and start their day, it places a strain on the pumps that feed the water tower. If the pumps fall behind, water levels in the tower drop, which can result in low water pressure, 'red' water (water with a lot of rust in it), or not enough water being available in an emergency. Increased pumping also requires more electricity, which is most expensive during those same hours.

Reducing overall water use (the odd/even restrictions) will preserve our aquifers. Shifting outdoor water use to other times of day will protect our infrastructure, reduce costs, and ensure that you will get clear water when you want it.



From Source to Tap

The City of Dexter strives to provide the best quality drinking water possible. This report is intended to provide you with useful information about your drinking water and satisfy United States Environmental Protection Agency (EPA) and Michigan Department of Environmental Quality (MDEQ) notification requirements.

Where does my water come from?

Dexter's water comes from two well fields: one in Dexter Community Park, behind LaFontaine Chevrolet; the other behind the new Dexter High School, off Parker Road.

There are four wells in Dexter Community Park. These feed the filtration plant on Central Street. The water is filtered, fluoridated, iron is removed, orthophosphate is added for corrosion control, and disinfected. Then it is pumped into the City water tower for use by the public.

Water from the single well by Dexter High School is treated on-site. It is fluoridated, treated with polyphosphate for iron sequestration and corrosion control, disinfected, and pumped to the water tower for public use.

Protected Sources

In 2003, the State of Michigan conducted tritium testing to determine the relative potential for contamination of our wells by surface pollutants. The Dexter aquifer was classified by the State as "not vulnerable" to casual contamination, and the Dexter Wellhead Program was instituted to help protect against other threats to our water supply.

Educational Information

The sources of drinking water (both tap water and bottled water) include: rivers, lakes, streams, ponds, reservoirs, springs, and wells.

As water travels through the ground it dissolves naturally-occurring minerals and can pick up substances resulting from the presence of animals or from human activity. These include: microbial contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; organic chemical contaminants, pesticides, herbicides, and radioactive substances, which can be naturally-occurring.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants even after treatment. The presence of contaminants does not necessarily indicate that the water poses a health risk.

More information about the contaminants and potential health effects can be obtained by call the EPA's **Safe Drinking Water Hotline** at (1-800-426-4791).

