City Of Miamisburg Drinking Water Quality Report For 2010

Introduction

The City of Miamisburg has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. It should be noted that the City of Miamisburg's drinking water met all regulatory standards during 2010. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. We have a current, unconditioned license to operate our water system.

Source Water Information

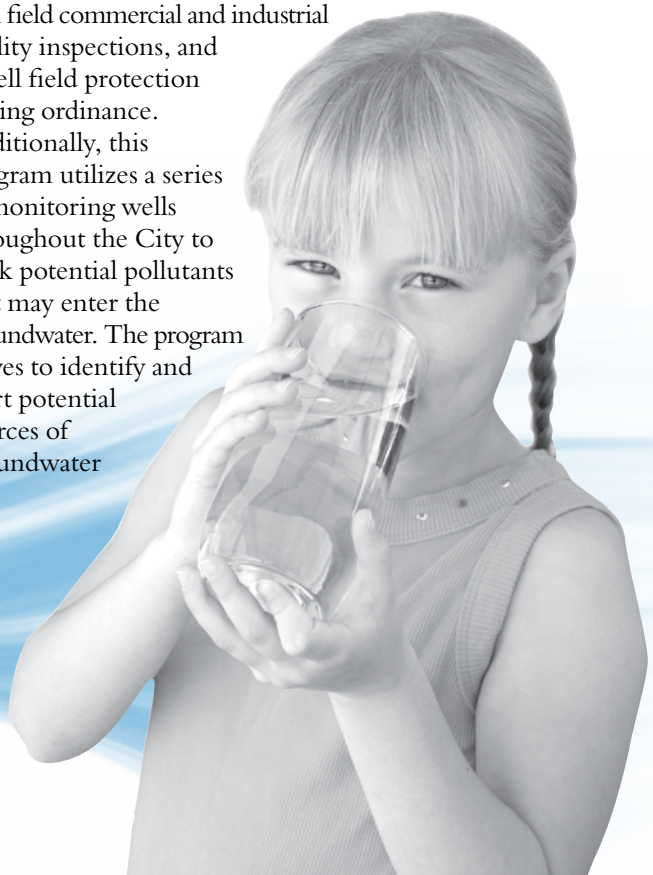
The City of Miamisburg receives its drinking water from the Great Miami River Buried Valley Aquifer System. The City currently uses five (5) production wells to draw water from the Aquifer for treatment at the Water Treatment Facility. The water production wells are located on the land adjacent to the Great Miami River. Well water is pumped to the Water Treatment Facility where it is treated to remove iron and manganese, filtered, disinfected with chlorine, and fluoridated prior to being pumped to our water customers. Water from the City of Miamisburg Water Treatment Facility has an average hardness of 22 grains per gallon. The minerals calcium and magnesium make water hard. During the year 2010, the City of Miamisburg Water Treatment Facility treated an average of 2.30 million gallons per day. The City of Miamisburg also has emergency connections with the City of West Carrollton and Montgomery County. The emergency connections were never used during the year of 2010.

The Ohio Environmental Protection Agency (EPA) performed a source water assessment on the City of Miamisburg's source of drinking water to determine its susceptibility. According to this study, the aquifer (water-rich zone) that supplies water to the City of Miamisburg has a high susceptibility to contamination.

This determination is based on the following:

- Lack of a protective layer of clay overlying the aquifer;
- Shallow depth (less than 15 feet below ground surface) of the aquifer;
- The presence of significant potential contaminant sources in the area; and
- The presence of manmade contaminants in the aquifer. 1,1,1-trichloroethylene, cis 1,2-dichloroethylene, tetrachloroethylene, and trichloroethylene were detected in the raw and treated water.

The City of Miamisburg has worked very hard to develop and implement a comprehensive source water protection plan to help prevent additional contamination from entering the aquifer and prevent the existing contamination from impacting the drinking water source. The protection plan, which has been endorsed by the Ohio EPA, contains an educational component, a citizen-based committee, source control strategies, a contingency and emergency response plan, ground water monitoring strategies, well field commercial and industrial facility inspections, and a well field protection zoning ordinance. Additionally, this program utilizes a series of monitoring wells throughout the City to track potential pollutants that may enter the groundwater. The program serves to identify and avert potential sources of groundwater



contamination. For further information regarding our source water protection program or to find out what consumers can do to assist in aquifer protection, please contact the Public Works Department at (937) 847-6635 or at *waterservice@cityofmiamisburg.org.*

What are sources of contamination to drinking water?

The sources of drinking water, both tap water and bottled, 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 can pick up substances resulting from the presence of animals or from human activity.
Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

B. 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;

C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;

D. 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 storm water runoff, and septic systems;

E. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (U.S. EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants below the regulated levels does not pose a health risk. More information about contaminants and potential health effects can be obtained by calling the ***U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791) or at*** *www.epa.gov/safewater.*

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 Miamisburg 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*** *http://www.epa.gov/safewater/lead.*

Who needs to take special precautions?

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 infection. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (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 (1-800-426-4791) or at*** *www.epa.gov/safewater.*

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged by contacting the ***Public Works Department at (937) 847-6635 or at*** *waterservice@cityofmiamisburg.org*. Water customers may also address questions at regular meetings of the Miamisburg City Council, which meets the 1st and 3rd Tuesdays of the month at the Miamisburg Civic Center, 10 N. First Street.

For more information on your drinking water, please contact the ***Public Works Department at (937) 847-6635 or at*** *waterservice@cityofmiamisburg.org*. A copy of this report is also available on the City of Miamisburg's web page at *www.ci.miamisburg.oh.us*.

About your drinking water

The City of Miamisburg samples drinking water on a regular basis to ensure drinking water safety. The sampling is consistent with U.S. EPA and Ohio EPA requirements. The City of Miamisburg routinely conducts sampling for various classes of contaminants: bacteriological, inorganic, pesticides/herbicides, radiological, organic and unregulated contaminants. Most of these contaminants were not detected in the City of Miamisburg's water supply and the City of Miamisburg met all EPA standards during 2010. The presence of contaminants does not necessarily indicate that water poses a health risk. The Ohio EPA requires the City to monitor for some contaminants less than once per year because the concentrations of these

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Regulated Inorganic Contaminants							
Fluoride (ppm)	4	4	1.00	0.37-1.1 1	No	2010	Erosion of natural deposits; water additive which, promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	1.79	na	No	2010	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Copper (ppm)	AL=1.3	AL=1.3	0.27	na	No	2008	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Zero out of thirty one samples was found to have copper levels in excess of the Action Level of 1.3 ppm.							
* Lead (ppb)	0	AL=15	5.0	na	No	2008	Corrosion of household plumbing systems; erosion of natural deposits.
Zero out of thirty one samples was found to have lead levels in excess of the Action Level of 15 ppb							
Disinfection Byproducts							
Total Trihalomethanes (ppb)	na	80	15.2	na	No	2010	By-product of drinking water chlorination
Chloroform (ppb)	nr	nr	2.26	na	nr	2010	By-product of drinking water chlorination
Bromoform (ppb)	nr	nr	3.26	na	nr	2010	By-product of drinking water chlorination
Bromodichloromethane (ppb)	nr	nr	3.83	na	nr	2010	By-product of drinking water chlorination
Dibromochloromethane (ppb)	nr	nr	5.85	na	nr	2010	By-product of drinking water chlorination
Haloacetic Acids (ppb)	na	60	5.305	na	No	2010	By-product of drinking water chlorination
Dibromoacetic Acid (ppb)	nr	nr	3.636	na	nr	2010	By-product of drinking water chlorination
Dichloroacetic Acid (ppb)	0	nr	1.669	na	nr	2010	By-product of drinking water chlorination
Monobromoacetic Acid (ppb)	nr	nr	BDL	na	nr	2010	By-product of drinking water chlorination
Monochloroacetic Acid (ppb)	nr	nr	BDL	na	nr	2010	By-product of drinking water chlorination
Trichloroacetic Acid (ppb)	300	nr	BDL	na	nr	2010	By-product of drinking water chlorination
Bromochloroactic Acid (ppb)	nr	nr	2.291	na	nr	2010	By-product of drinking water chlorination
Disinfectants							
Chlorine as Cl2 (ppm)	MRDLG = 4.0	MRDL = 4.0	0.66	0.52-0.68	No	2010	Water additive to control microbes.

contaminants do not change frequently. Some of the data, though accurate, are more than one year old.

Listed below is information on those contaminants that were found in the City of Miamisburg's drinking water.

Definitions of some terms contained within this report

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.

Maximum Contaminant Level (MCL): The highest level of 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.

Maximum Residual Disinfectant Level Goal (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 contaminants.

BDL: Below Detection Limit.

Parts per Million (ppm) or Milligrams per Liter (mg/L): are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (µg/L): are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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

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

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

na: not applicable.

nr: not regulated.

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