

2018 Water Quality Report

Milford Water Works Water Quality Report

Milford City Council, the Milford Water Works, and its operators are proud to present this consumer-confidence report, which includes information related to our water quality for last year, January 2017 through December 2017. Safe drinking water is our primary commitment. The Milford Water Works is controlled by the City Manager and City Council. Questions concerning the water system may be directed to Joe Casteel, Water Plant Supervisor, at 513-831-6819 at the Water Treatment Plant, or 513-248-5080 at City Hall. Milford City Council meets the first and third Tuesday of the month, and all meetings are open to the public.

Where does our Water come from?

Sources of drinking water generally include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves in naturally-occurring minerals and radioactive materials and can pick up substances resulting from human or animal activity.

Milford's raw water is drawn from 4 wells located on the east bank of the Little Miami River in Milford. These wells are approximately 50–60 feet deep and draw their water supply from the aquifer. This raw water is then passed through our treatment process, which includes air stripping, lime softening, stabilization, filtration, chlorination, and fluoridation.

What Contaminants might be in the Water?

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: (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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

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. 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 (1-800-426-4791).

About your drinking water.

We are pleased to report that Milford met and exceeded all Federal Drinking Water Standards last year. However, drinking water (including bottled water), may reasonably be expected to contain at least small amounts of some contaminants. The Safe Drinking Water Act directs the state along with the EPA (Environmental Protection Agency) to establish and enforce limits on the amount of contaminants that can be in drinking water. Milford tests your water on a daily basis. In addition to these daily tests, we also test weekly for coliform bacteria, which can cause illness. VOCs (Volatile Organic Compounds) are present in the raw water wells #1 and #3 but are below established maximum limits after being passed through the air stripper before final treatment of the water. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than a year old.

Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer, however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS RADON.



Water Trivia



- The earth's surface is nearly 80% water. Of that, 97% is saltwater, 2% is glacier ice, and the remaining 1% is freshwater. The freshwater should be enough to support us if we conserve and protect it.
- Typically, households consume approximately 30% of their water for outdoor use, such as watering the lawn. Inside, toilets use the most water, with an average of 27 gallons per person per day.
- Each day public water systems supply every person in the U.S. with approximately 160 gallons of clean water.
- The average five-minute shower takes between 15 to 25 gallons of water.
- You can refill an 8oz. Glass of water approximately 15,000 times for the same cost as a six-pack of soda.
- An automatic dishwasher uses approximately 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.
- A gallon of paint or a quart of motor oil can seep into the Earth and pollute 250,000 gallons of drinking water, and a spilled gallon of gasoline can pollute 750,000 gallons of water.
- Of all the water on earth, only 2.5% is fresh water. Fresh water is either groundwater (0.5%), or readily accessible water in lakes, streams, rivers, etc (0.01%).

*Information compiled from the OEPA pamphlet "Ohio's Drinking Water...Meeting the Need", and 50 Simple Things Kids Can Do to Save the Earth (Earthworks Group).

Read more: <http://www.lenntech.com/water-trivia-facts.htm#ixzz0l4rx6kUz>

Inorganics	MCLG ¹	MCL ²	Level Found	Range	Violation	Sample Year	Typical Source Of Contaminants
Fluoride	4 mg/l	4 mg/l	1.120	.0 – 1.20	No	2018	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrogen, Nitrates, and Nitrite (as N)	10 mg/l	10 mg/l	2.99	2.99	No	2018	Run off from fertilizers, leaching from septic tanks, sewage, and erosion of natural deposits
Chlorine ⁵	MRDLG = 4 mg/l	MRDL = 4 mg/l	0.85	.72 – .95	No	2018	Water additive used to control microbes

Inorganics	MCLG	MCL	Level Found (90 th % Tile)	Range	Violation	Sample year	Typical Source Of Contaminants
Copper	1.3 mg/l	AL=1.3 mg/l	0.0116	0 – 0.679	No	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Zero of 23 samples were found to have copper levels in excess of the action level of 1.3 mg/l							
Lead	0	AL = 15 ug/l	2.45	0 – 7.27	No	2016	Corrosion of household plumbing systems; erosion of natural deposits
Zero of 23 samples were found to have lead levels in excess of the action level of 15 ug/l							

Volatile Organic Contaminants	MCLG	MCL	Highest Level Found	Range	Violation	Sample Year	Typical Source of Contamination
Bromodichloromethane	Unregulated	n/a	4.86	2.80-4.86	N/A	2018	By-product of drinking-water chlorination
Bromoform	Unregulated	n/a	2.55	0.57 -2.55	N/A	2018	By-product of drinking-water chlorination
Chloroform	Unregulated	n/a	4.20	2.33-4.20	N/A	2018	By-product of drinking-water chlorination
Dibromochloromethane	Unregulated	n/a	5.79	1.90-5.62	N/A	2018	By-product of drinking-water chlorination
Total Trihalomethanes	0	80 ug/l	41.49	28.9-41.49	No	2018	By-product of drinking-water chlorination
Haloacetic Acids	0	60 ug/l	5.30	3.15-5.30	No	2018	By-product of drinking-water chlorination
1,1,1-Trichloroethane	0	200 ug/l	6.16	0.90-6.16	No	2018	Discharge from Factories

1. MCLG= “Maximum Contaminant Level Goal”— A level of a contaminant, not necessarily achievable, safely below the level of human health concerns
2. MCL= “Maximum Contaminant Level”— An enforceable level of a contaminant as close to the goal as is practical to achieve in light of available treatment technology and cost/benefit considerations.

3. AL= “Action Level”— 90% of test results must be less than specified limit.
4. MRDLG (Maximum Residual Disinfectant Level Goal): Level of drinking water disinfectant below which there is no known or expected risk to health.
5. MRDL (Maximum Residual Disinfectant Level): 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.

Lead

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 Milford 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to drinking water contaminants than the general population. Immuno-compromised persons, such as people with cancer undergoing chemotherapy, people 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/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 at (800) 426-4791.

Development

In March of 2011, the City was placed on the Superfund Program National Priority List. This makes the City eligible to receive federal funding to help better locate and remediate the contamination in the aquifer. Presently only two of the City's four wells are contaminated. Since the discovery in 1985, the City has successfully removed all contamination in the drinking water by using a method called Air Stripping. This process aerates the water to remove VOC's. The OEPA has approved this method and it is still one of the few methods used for removal.

EPA Findings

Ohio EPA completed a study of the City of Milford's source of drinking water to identify potential contaminant sources and provide guidance and protect the drinking water source. According to this study, the aquifer that supplies water to the City of Milford has a high susceptibility to contamination. This determination is based on the following:

- the presence of a relatively thin protective layer of clay/shale/other overlaying the aquifer,
- shallow depth (less than 20 feet below ground surface) of the aquifer,
- the presence of significant potential contaminant sources in the protection area,
- And the presence of manmade contaminants in treated water. Several volatile organic compounds and nitrate were detected in the treated and raw water at levels of concern since 1991. This indicates a manmade influence.

The risk of future contamination will be minimized through our endorsed wellhead protection plan. For more information about the source water assessment or what consumers can do to help protect the aquifer contact Joe Casteel, Water Plant Supervisor, at 513-831-6819. The City of Milford has a current unconditional license to operate our water system.

Drinking Water Notice

Monitoring requirements not met for Milford City PWS

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the third quarter of 2018 we did not monitor for the following contaminants and therefore cannot be sure of the quality of our drinking water during that time: DISINFECTION BY-PRODUCTS.

What Should I Do?

This notice is to inform you that Milford City PWS did not monitor and report results for the presence of the contaminants listed above in the public drinking water system during the third quarter of 2016 time period, as required by the Ohio Environmental Protection Agency. You do not need to take any actions in response to this notice.

What is being done?

Upon being notified of this violation, the water supply was required to have the drinking water analyzed for the above mentioned parameters. The water supplier will take steps to ensure that adequate monitoring will be performed in the future.

A sample was(will be) collected on **12-18-2018**

Sample results and additional information may be obtained by contacting Milford PWS at:

Contact Person: **Joe Casteel**

Phone Number: **513-831-6819**

Mailing Address: **745 Center St. Suite 200 Milford Ohio 45150**

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

PWSID: OH1301012 FACILITY ID: 1353372

Date Distributed: **7-1-2018**