Municipality of Carlisle
2016 Drinking Water Consumer Confidence Report (CCR)

The Municipality of Carlisle Ohio has prepared the following 2016 water quality report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. The Municipality of Carlisle Purchases our Water from the City of Franklin Therefore this report contains their information as well. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water.

We are pleased to report that our drinking water is safe and meets all federal and state requirements. In 2016 we had an unconditional license to operate our water system. If you have any questions about this report or concerning your water utility, please contact Chuck Howard, Water Plant Supt. at 743-2594 or Dan Casson Service Director at 937-746-2675**.** We want our valued customers to be informed about their water utility.

Our water source is well water from the Great Miami Valley Buried Aquifer. The City of Franklin also has back-up connections with the City of Springboro and Warren County. 1.999 MG of water was transferred through the Springboro connection on 12/28/2016. Additionally, it was flushed twice in 2016 with approximately 8,000 gallons flowing in each direction per flush. This report does not contain information on the water quality received from Springboro, but a copy of their CCR report can be obtained by contacting Terry Morris at 937-603-1035.

The sources of drinking water (both tap water and bottled water) includes 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.

The State of Ohio conducted an assessment of our source water in 2003. The aquifer that supplies drinking water to the City of Franklin's wellfield has a high susceptibility to contamination. This determination was made due to the following reasons. 1: The sand and gravel aquifer material is continuous to the surface and the soil is very sandy. 2: The tops of the well screens are at depths of between 45 and 80 feet, and the depth to the water is less than 20 feet. 3: The topography is relatively flat allowing rain to soak in rather than run off. 4: Water quality results indicate a pathway exists from the ground surface to the aquifer and there are significant contaminant sources exist within the protection area. Implementing appropriate protective measures can reduce the risk of future contamination. Signs are posted around drinking water sources for reporting spills and warnings for dumping of any kind. Additional actions due to contamination may be found in the City's Emergency Response Plan. This can be found on Franklin's website. See www.franklinohio.org.

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 originate 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 limits 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 be reasonably expected to contain at least trace amounts of some constituents. 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).

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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 Franklin and The Municipality of Carlisle 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.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than the levels at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (1-800-426-4791).

The City of Franklin and the Municipality of Carlisle routinely monitors for constituents in your drinking water in accordance to Federal and State laws**.** Franklin sampled for bacteria, inorganic, volatile organic, nitrate, haloacetic acid and, trihalomethane contaminants. The tables below show the results of that monitoring, including the period of January 1st to December 31st, 2016. The Ohio requires us to monitor some contaminants less than once per year because concentrations of the contaminants do not change frequently. So you may notice readings that are accurate even if they are more than a year old.

In the tables, you will find terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:
Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Action Level (AL)- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Maximum Contaminant Level – The highest level of a contaminant that is allowed in a drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal - The level of contaminant in drinking water below any known or expected risk to health. MCLG's allow for a margin of safety.
VOCs –Volatile Organic Chemicals. These are organic substances naturally occurring in the environment.
SOCs – Synthetic Organic Chemicals. These are substances including pesticides and other man made organic chemicals.
IDSE- Initial Distribution System Evaluation
The symbol "<"- a symbol meaning 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

The following table represents water from the Franklin Water Treatment Plant.

TEST RESULTS								
Contaminant	**Violation Y/N**	**Year sampled**	**Level Detected**	**Unit of Measure-ment**	**Range of Detections**	**MCLG**	**MCL**	**Likely Source of Contamination**
Inorganic Contaminants								
Barium	No	2016	.182	ppm	NA	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	No	2016	1.00	ppm	.81 – 1.14	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	No	2016	1.54	ppm	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Coliform Bacteria (TC)	No	2016	0	%	0	0	5	Naturally present in the environment.
Residual disinfectants								
Total Chlorine	No	2016	.96	ppm	0.8 to 1.20	4	4	Water additive used to control microbes
Organic Contaminants								
TTHMs [Total Trihalomethanes]	No	2016	57.53	ppb	18.10 – 57.53	0	80	Byproducts of drinking water chlorination
HAA5's (Total Haloacetic Acids)	No	2016	9.58	ppb	7.79 -9.58	0	60	Byproducts of drinking water chlorination
VOC's Trichloroethene (see note below)	No	2016	1.59	ppb	<.50 – 1.59	0	5	Discharge from metal degreasing sites and other factories
SOC's Alachlor Atrazine Simazine	No	2015	 <.2 <.3 <.4	ppb	 NA NA NA	 0 3 4	 2 3 4	Runoff from herbicides used for row crops and other purposes.
IDSE TTHM HAA5	No	2013	n/a	ppb	 11.0 – 38.0 1.0 – 6.0	NA	NA	Byproducts of drinking water chlorination

In June of 2016 an elevated level of Trichloroethene was detected in our #5 well. After a short investigation, we took the well out of service and the pump was removed. In the interest of providing the highest quality water possible, we have no plans to run this well in the future. The Ohio EPA was notified and is currently investigating to find the source of the contamination. Since then the amount of Trichloroethene in our water supply has dropped below the detectable level of .5ug/l. We will continue sampling to assure we maintain the quality of water our customers have come to expect.

TEST RESULTS								
Contaminant	**Violation Y/N**	**Year sampled**	**90th Percentile**	**Unit Measurement**	**# Samples Over AL**	**MCLG**	**Action Level (AL)**	**Likely Source of Contamination**
Lead and Copper								
Lead	No	2015	0.0	ppb	0	0	15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	2015	.268	mg/l	0	1.35	1.3	Erosion of natural deposits. Leaching from wood preservatives. Corrosion of household plumbing systems.

Zero out of 30 samples were found to have lead levels in excess of the action level of 15 ppb.

Zero out of 30 samples were found to have copper levels in excess of the action level of 1.3 ppm.

Additional information may be obtained by contacting Dan Casson Director of Services Municipality of Carlisle (937-746-2675) or City Of Franklin Water Plant Contact person: Charles Howard Phone # (937-743-2594) e-mail: choward@franklinohio.org
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