
City of Logan
Drinking Water Consumer Confidence Report
For 2017

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The City of Logan has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. 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.

Source Water Information

The City of Logan's source water is considered a ground water supply by EPA guidelines. The City of Logan receives its drinking water from a sand and gravel aquifer (water rich zone) that runs along the Hocking River. The City has two well fields that pull from this aquifer. Three wells are east, and four wells are west of State Route 93. The City of Logan water treatment plant has a backup power generator for use when the normal power supply is interrupted.

SUSCEPTIBILITY ANALYSIS.

This assessment indicates that Logan's source of drinking water has a HIGH susceptibility to contamination because:

- There is no significant confining layer between the ground surface and the water table;
- The depth to water is less than 15 feet below the ground surface, and;
- There are numerous significant potential contamination sources within the city's drinking water source protection area.

You can access the entire source water protection plan report at:

<http://wwwapp.epa.ohio.gov/gis/swpa/OH3700612.pdf>

The City of Logan also has an emergency connection with the Old Straitsville Water Association PWS. During 2017, we used 0 gallons from this connection. On average, this connection is used for approximately 0 days each year. This report does not contain information on the water quality received from the Old Straitsville Water Association PWS, but a copy of their consumer confidence report can be obtained by contacting Kim Erwin at (740) 385-0120.

What are sources of contamination to drinking 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

The EPA requires regular sampling to ensure drinking water safety. The City of Logan conducted sampling for nitrate, chlorine and total halomethanes (THM) during 2017. No bacterial-positive contaminants were detected during sampling. 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, are more than one year old.

Monitoring & Reporting Violations & Enforcement Actions

In accordance with OAC Rule 3745-83-01(H)(1), the owner and operator shall ensure that all facilities and equipment necessary for the treatment and distribution of water shall be maintained, at a minimum to function as intended. The City of Logan is in violation of the rule due to failing to maintain the distribution system by failing to institute a regular valve exercise program and ensure that 95% of all main line valves are functional.

The City of Logan was issued unilateral Director's Final Findings and Orders (DFF&Os) on July 28, 2017, and is ordered to comply as follows:

The City shall establish a written valve exercise program and submit a detailed distribution map monthly to the Ohio EPA showing updates as valves go from nonfunctional to functional. The City shall also submit a priority list which shall include a written quarterly schedule for repair or replacement of nonfunctional valves to achieve a goal of attaining 95% functional valves for the entire distribution system by June 1, 2020. To achieve this goal, Ohio EPA is requiring the following schedule to be achieved:

1. The City of Logan shall achieve a goal of isolating half of the City of Logan's distribution system by November 30, 2017. This has been accomplished by inserting valves on Market Street to split the City into East and West halves.
2. Submit monthly progress reports to evaluate progress. This has been accomplished through calendar year 2017.
3. Maintain an inventory of replacement equipment necessary for common repairs.

To ensure compliance with OAC 3745-85-01(D)(15)(g), the City of Logan must also enter into a written contract with a person or business entity equipped to provide 24-hour leak detection and emergency repair services with the ability to respond within six (6) hours of requesting assistance which must be included in the contingency plan. This has been accomplished.

Future orders that must be met are:

1. The City of Logan must be able to quarter the City by September 1, 2018. The City has chosen Hunter Street and Chieftain Drive as the North and South quartering line. The City expects to meet the established deadline.
2. The City of Logan must have 80% of all valves in the distribution system operational by June 1, 2019.
3. The City of Logan must have 95% of all valves in the distribution system operational by June 1, 2020.

The City of Logan was in violation of the contingency plan rules as addressed in violations observed during past sanitary surveys. Due to these violations and issuance of the Unilateral DFF&Os, the Ohio EPA issued the City a conditioned 2017 License to Operate a public water system that require the following:

1. Comply with all of Ohio's Safe Drinking Water Laws, found in ORC 6109 and the rules and regulations promulgated thereunder.
2. Ensure that all facilities and equipment necessary for the treatment and distribution of water are maintained so they function as intended, in accordance with OAC Rule 3745-83-01(H).

The City of Logan is pursuing a loan/grant through USDA to build a new water treatment plant and make improvements within the distribution system.

The City of Logan was issued a Notice of Violation on September 27, 2017, for not meeting the deadlines established in the Unilateral DFF&Os related to the following:

1. Not having a written valve exercise program as required by Order No. 2(A).
2. Not having a written list of priority valves as required by Order No. 2©.
3. Not having a leak detection training as required by Order No. 3(B).

All of the above violations were corrected by the revised due date of October 2, 2017.

As of May 1, 2018, the City of Logan is in compliance with the Ohio EPA Unilateral DFF&Os.

Table of Detected Contaminants

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

TABLE OF DETECTED CONTAMINANTS

| Contaminants (Units) | MCLG | MCL | Level Found | Range of Detections | Violation | Sample Year | Typical Source of Contaminants |
|-------------------------------------|---|--------------------------------|-----------------------------|---------------------|--------------|---|---|
| Inorganic Contaminants | | | | | | | |
| Nitrate (mg/L) | 10 | 10 | 0.37 | 0.37-0.37 | No | 2017 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Fluoride (mg/L) | 4 | 4 | .97 | 0-1.1 | No | 2017 | Erosion of natural deposits; Water additive, promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Barium (mg/L) | 2 | 2 | 0.0418 | N.A. | No | 2015 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Residual Disinfectants | | | | | | | |
| Chlorine (mg/L) | 4 | MRDL= 4 | 1.24 | 1.06-1.40 | No | 2017 | Water additive to control Microbes |
| Trihalomethanes (THMs)(ppb) | N.A. | 80 | 38.4 | 7.4-38.4 | No | 2017 | By-product of drinking water chlorination |
| Total Haloacetic Acids (HAA5) (ppb) | N.A. | 40 | 6.6 | 0-6.6 | No | 2017 | By-Product of drinking water chlorination |
| Lead and Copper | | | | | | | |
| Contaminants (Units) | Action Level (AL) | Individual Results over the AL | 90 th Percentile | Violation | Year Sampled | Typical source of Contaminants | |
| Lead (mg/L) | 15 | 0 | 0 | No | 2015 | Corrosion of household plumbing systems; Erosion of natural deposits. | |
| | 0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb. | | | | | | |
| Copper (mg/L) | 1300 | 0 | .115 | No | 2015 | Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives. | |
| | 0 out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm. | | | | | | |

Lead Educational Information

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 Logan 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>.

License to Operate (LTO) Status Information

In 2017 we had a conditioned license to operate our public water system. The conditions require us to address ongoing violations. For more information on these violations, contact Chester Smith at (740) 385-5194.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of city council which meets the second & fourth Tuesday of every month at 8 p.m. in council chambers at 10 S. Mulberry St. For more information on your drinking water contact Chester Smith at (740) 385-5194.

Definitions of terms

- 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 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.
- 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.
- Not Applicable (N.A.): No information could be applied to that section.
- OAC – Ohio Administrative Code.
- Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- 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.
- 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.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.