

VILLAGE OF BATAVIA, OHIO

CONSUMER CONFIDENCE REPORT 2016



A REPORT ON BATAVIA'S DRINKING WATER

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day, to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Source Water Description

The Clermont County Water System operates three water treatment plants that pump into a common distribution system of pipes serving our customers.

The MGS plant, located near Miami, draws from wells in the Little Miami River Aquifer. In 2004, the Ohio EPA performed a source water assessment for the MGS wellfield and designated it as highly susceptible to contamination. This designation is based in part on the geology of the aquifer, which is shallow and has little or no impermeable materials atop it. Another factor is the presence of potential sources of pollution in the area. The EPA also notes the presence of nitrates in the water, which suggests man-made influence in the aquifer. However, the water continues to meet drinking water standards. These wellfields are monitored for contamination and cared for under an Ohio-EPA endorsed Wellhead Protection Plan. To learn more, call Rick Fueston at (513) 553-4113.

The PUB plant is near New Palestine, where its wells draw from the Ohio River Valley Aquifer. A susceptibility analysis from the Ohio EPA has determined that this aquifer has a high susceptibility for contamination, based on a relatively thin layer of low permeability material overlying the aquifer, and the relatively shallow depth of the aquifer. Potential pollution sources in the area and a possible hydraulic connection to the Ohio River also contribute to this assessment. However, the EPA agrees that there is no evidence of existing chemical contaminants in the water. These wellfields are monitored for contamination and cared for under an Ohio-EPA-endorsed Wellhead Protection Plan. To learn more, call Rick Fueston at (513) 553-4113.

The Bob McEwen Water Treatment Plant (BMW), located near Batavia, draws surface water from Harsha Lake, which was created by constructing a dam across the East Fork Little Miami River. Surface water is more susceptible to contamination than groundwater, so extensive testing of the raw water is conducted frequently. Chemical and bacteriological testing, as well as evaluation of the biological organisms living upstream of the lake, is used to determine raw water quality and identify areas of concern. The Ohio EPA completed a source water assessment for BMW in 2004. The protection area around Harsha Lake and the upstream portions of the East Fork Little Miami River includes a number of commercial and industrial facilities, but the greater concern is runoff from agricultural fields, the potential for spills at road and rail crossings, and residential septic systems in the watershed. To learn more, call Tim Neyer at (513) 732-5386.

Additional information on the watershed collected by Clermont County is available from the Office of Environmental Quality (OEQ) at (513) 732-7894 or on the Web site: <http://www.oeq.net>. After treatment, which includes Granular Activated Carbon filtration, water from the lake meets all required drinking water standards.

Effective Jan. 9, 2012, the Village of Batavia and the Clermont County Water Resources Department entered into a three-year Operations and Maintenance contract for the water distribution system serving the village. The village and county supplanted the original three-year contract with a 10-year agreement on Sept. 24, 2014. During the 10-year agreement the Batavia is making capital improvements to village underground infrastructure. Clermont County will take ownership of the water and wastewater infrastructure and responsibility for operation and maintenance for the Village of Batavia at the agreement's end. Clermont County Water Resources is to continue to meet or exceed all Ohio Environmental Protection Agency and American Water Works Association standards for potable water. All water system questions or concerns should now be directed to CCWRD, 4400 Haskell Lane, Batavia, telephone (513) 732-7970.

Water supplied from Clermont County Water Resources met all U.S. EPA and Ohio water standards in 2016. The village water supply system relies on the Clermont County water system for contaminant removal and testing. Clermont County performs required tests to ensure that the system meets the water standards. For example, the county system must collect and analyze the water daily for the presence of chlorine, which protects the water from microbial contaminants. Semiannual flushing of water lines is one of the ways the operators maintain high quality water standards.

In the event of a water main break, the chlorine in the water destroys microbes that may enter the broken main. The county staff also tests for total coliform and E. coli bacteria each month. Coliform bacteria is not necessarily harmful, but its presence indicates the possibility of contamination by other microbes. The presence of E. coli discloses a definite contamination problem that can have serious health consequences. Batavia is also required to monitor for lead and copper, which occur primarily because of the corrosion of materials in the distribution system and in residents' home plumbing systems. This testing is conducted every three years.

In 2013 and 2014 the Village of Batavia replaced an 8" water main on East Main Street and replaced 2" water lines on South Second Street and North Fourth Street as part of a larger project renewing downtown infrastructure. In 2015 and 2016 the village replaced unlined 4" cast iron water mains on Broadway and Spring streets with 8" ductile iron pipe. These investments will ensure reliability and prevent incursion of contaminants that might have occurred with the old mains.

* *Why are there contaminants in my water?*

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which shall 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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

* *Is our water meeting other rules that govern our operation?*

The Ohio EPA requires us to test our water for various parameters on a regular basis to ensure its safety. The Village of Batavia water supply system was in full compliance during the year 2016 with no violations reported.

* *Do I need to take special precautions?*

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial contaminants are available from the Safe Drinking Water Hotline.

* *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.

* *A Word about 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 Clermont County Water Resources Department 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>.



* *Failure in Flint:*

The national news coverage of water conditions in Flint, Michigan, has created a great deal of confusion and consternation. The water there has been described as being corrosive; images of corroded batteries and warning labels on bottles of acids come to mind. But is corrosive water bad?

Corrosive water can be defined as a condition of water quality that will dissolve metals (iron, lead, copper, etc.) from metallic plumbing at an excessive rate. There are a few contributing factors but, generally speaking, corrosive water has a pH of less than 7; the lower the pH, the more acidic, or corrosive, the water becomes. (By this definition, many natural waterways throughout the country can be described as corrosive.) While all plumbing will be somewhat affected over time by the water it carries, corrosive water will damage plumbing much more rapidly than water with low corrosivity.

By itself, corrosive water is not a health concern; your morning glass of orange juice is considerably more corrosive than the typical lake or river. What is of concern is that exposure in drinking water to elevated levels of the dissolved metals increases adverse health risks. And there lies the problem. Public water systems are required to maintain their water at optimal conditions to prevent it from reaching corrosive levels. Rest assured that we routinely monitor our water to make sure that what happened in Flint never happens here. For more information on how corrosivity impacts water quality, download this informative pamphlet: <http://goo.gl/KpTmXv>.

For More Information
Contact Us at
513-732-2020

Meetings:
1st Monday of each
Month, 7:00PM at the
Village Office

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Table of Detected Contaminants - 2016

Regulated Substances

Clermont County Water Resources/Batavia Village

| Substance (Unit of Measure) | Year Sampled | MCL [MRDL] | MCLG [MRDLG] | Amount Detected | Range Low-High | Violation | Typical Source |
|---|--------------|----------------------------------|--------------|-----------------|----------------|-----------|---|
| Arsenic (ppb) | 2016 | 10 | 0 | 3.6 | 3.6-3.6 | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste |
| Barium (ppm) | 2016 | 2 | 2 | 0.0299 | 0.0299-0.0299 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Chlorine (ppm) | 2016 | [4] | [4] | 1.0 | 0.4-2.0 | No | Water additive used to control microbes |
| Fluoride (ppm) | 2016 | 4 | 4 | 0.99 | 0.69-1.30 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Haloacetic Acids [HAA] (ppb) | 2016 | 60 | NA | 14.05 | ND-38.4 | No | By-product of drinking water disinfection |
| Nitrate (ppm) | 2016 | 10 | 10 | 0.91 | 0.10-1.60 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| TTHMs [Total Trihalomethanes] (ppb) | 2016 | 80 | NA | 43.375 | 24.6-83 | No | By-product of drinking water disinfection |
| Total Organic Carbon [TOC] ² Removal Ratio | 2016 | TT | NA | 1.25 | 0.96-1.53 | No | Naturally present in the environment |
| Turbidity (NTU) | 2016 | TT | NA | 0.269 | 0.029-0.269 | No | Soil runoff |
| Turbidity (Lowest monthly percent of samples meeting limit) | 2016 | TT=95% of samples meet the limit | NA | 100 | NA | No | Soil runoff |

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

Clermont County Water

| Substance (Unit of Measure) | Year Sampled | AL | MCLG | Amount Detected (90th% tile) | Sites Above AL/Total Sites | Violation | Typical Source |
|-----------------------------|--------------|-----|------|------------------------------|----------------------------|-----------|--|
| Copper (ppm) | 2014 | 1.3 | 1.3 | 0.365 | 0/50 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead (ppb) | 2014 | 15 | 0 | <5.0 | 0/50 | No | Corrosion of household plumbing systems; Erosion of Natural deposit |

1. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

2. The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

3. Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Table Definitions:

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

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