

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacterial, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

For a copy of our Source Water Assessment, please visit <https://www.co.ottawa.oh.us/index.php/sanitary-engineer>.

What is a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.



2019

Ottawa County Regional Water Quality Report

Water Testing Performed in 2018



Ottawa County
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Our Vision... is to Enhance Quality of Life through Environmental Services

Our Mission... is to Provide Safe and Reliable Water and Wastewater Services at a Reasonable Cost

Quality First

We are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Community Participation

You are welcome to participate in the Ottawa County Sanitary Engineering Department regular bi-weekly meetings with the Board of Ottawa County Commissioners to discuss any drinking water concerns that you may have. The meetings are typically conducted on Tuesday or Thursday mornings and are held in the Assembly Room of the Ottawa County Courthouse in Port Clinton. Please feel free to call our office at (419) 734-6725 to confirm meeting dates and times.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

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.

The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.



Count on Us

Delivering high-quality drinking water to our customers involves far more than just pumping water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Some of the tasks our licensed water professionals complete on a regular basis include:

- Operate and maintain equipment to purify and clarify water.
- Monitor and inspect machinery, meters, gauges, and operating conditions.
- Conduct tests and inspections on water and evaluate the results.
- Apply data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Document and report test results and system operations to regulatory agencies.
- Serve our community through customer support, education, and outreach.

The next time you turn on your faucet, recognize that skilled professionals are accountable for each drop.

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get more for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

Lead in Home Plumbing



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 private service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in private 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 Lead Information Hotline at (800) 424-LEAD (5323) or at www.epa.gov/lead.

Protecting the Source of Our Water

The source of our water is Lake Erie through a submerged intake. The Ottawa County Regional Water Treatment Plant treats the water to meet drinking water quality standards. The lake water requires extensive treatment before it can be used for drinking. For purposes of source water assessment, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or time to prepare. Lake Erie's water contains potential contaminant sources such as agriculture, home sewage disposal system discharges, leaking underground storage tanks, landfills, municipal sewer systems, combined sewer overflows, commercial shipping operations, accidental releases and spills, open-lake dumping of dredge materials from the Maumee River, recreational boating, roadways and railways.

Protecting Lake Erie, the source of our water, from contamination is vital to the safety of the drinking water. Everyone plays an important role by identifying and reporting potential contaminants that may be polluting Lake Erie or its tributary rivers and streams. The Ohio Environmental Protection Agency is the governing body that is responsible for guarding the lake. If you see pollution in the lake or a suspected source of pollution, please call the Ohio Environmental Protection Agency 24 HR Hot Line at 1-800-282-9378.

Ottawa County Regional Water Treatment Plant 2018 Consumer Confidence Report Data

The table below lists all of the drinking water contaminants that were detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The Ohio EPA requires Ottawa County to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

| Contaminant (units) | MCLG | MCL | Level Found | Range of Detection / Findings | Violation | Year Sampled | Typical Source of Contaminants |
|--|----------|---------|-------------|-------------------------------|-----------|--------------|--|
| Microbiological Contaminants | | | | | | | |
| Turbidity (NTU) | NA | TT | 0.20 | 0.03 - 0.20 | No | 2018 | Soil runoff |
| Turbidity (% samples meeting standard) | NA | TT | 100% | 100% | No | 2018 | Soil runoff |
| Inorganic Contaminants | | | | | | | |
| Fluoride at Plant Tap (ppm) | 4 | 4 | 1.20 | 0.82-1.20 | No | 2018 | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate (ppm) | 10 | 10 | 3.23 | 0.20 - 3.23 | No | 2018 | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits |
| Nitrite (ppm) | 1 | 1 | 0.10 | 0.10 | No | 2018 | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits |
| Copper mg/L (ppm) | 1.3 | AL=1.3 | 0.185 | <.005 - .235 | No | 2016 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Zero out of thirty samples was found to have copper levels in excess of the Action level of 1300 ppb | | | | | | | |
| Lead (ppb) | 0 | AL=15 | <4.0 | <4.0 - <4.0 | No | 2016 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Zero out of thirty samples was found to have lead levels in excess of the Action level of 15 ppb | | | | | | | |
| Barium (ppm) | 2 | 2 | 0.03 | N/A | No | 2018 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Residual Disinfectants | | | | | | | |
| Total Chlorine (ppm) | MRDLG =4 | MRDL =4 | 1.6 | 1.5-1.6 | No | 2018 | Water additive used to control microbes |
| Volatile Organic Contaminants | | | | | | | |
| TTHMs [Total Trihalomethane] (ppb) | NA | 80* | 56.7 | 18.9-64.0 | No | 2018 | By-product of drinking water chlorination |
| Bromodichloromethane (ppb) | NA | NA | 12.3 | 6.6-15.4 | No | 2018 | By-product of drinking water chlorination |
| Chloroform (ppb) | NA | NA | 36.4 | 7.1-45.4 | No | 2018 | By-product of drinking water chlorination |
| Dibromochloromethane (ppb) | NA | NA | 5.8 | 1.8-6.2 | No | 2018 | By-product of drinking water chlorination |
| HAA5 [Haloacetic acids] (ppb) | NA | 60* | 24.1 | 12.6-30.5 | No | 2018 | By-product of drinking water chlorination |

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in unregulated contaminant monitoring in drinking water and whether future regulation is warranted.

| Unregulated contaminant table | | | Average | Range | | | |
|---|----|----|---------|-----------|----|------|---|
| Total Organic Carbon (mg/L TOC's) (Raw water) | NA | NA | 2.8 | 2.1-3.1 | No | 2018 | Naturally present in the environment |
| HAA5 [Haloacetic acids] (ppb) | NA | NA | 25.2 | 16.0-34.0 | No | 2018 | By-product of drinking water chlorination |
| HAA9 [Haloacetic acids] (ppb) | NA | NA | 13.5 | 9.6-16.5 | No | 2018 | By-product of drinking water chlorination |
| HAA6 Br [Haloacetic acids] (ppb) | NA | NA | 37.2 | 27.1-49.1 | No | 2018 | By-product of drinking water chlorination |

Ottawa County Regional Water monitored for Cryptosporidium in the source water (Lake Erie) during 2017/2018. Cryptosporidium was detected in **two raw water samples** of the 19 raw water samples collected. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of source water indicate the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing a life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Turbidity has no health effects. However, turbidity can interfere with the disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Turbidity is the measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the E.P.A. is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the highest recorded turbidity result for 2018 was 0.20 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

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 private service lines and home plumbing. Ottawa County Regional Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in private 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 drinking 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 <http://www.epa.gov/safewater/lead>.

* an annual running average

License to Operate (LTO) Status - In 2018, Ottawa County had a current, unconditioned license to operate its water system.

Emergency Preparedness Message

In an emergency, having a supply of clean water for drinking, cooking, and hygiene is a top priority. If a natural or man-made disaster strikes our community, you might temporarily lose access to clean water. Take steps now to store emergency water supplies, and learn other useful tips for accessing water in an emergency to reduce the impact of a disaster on you and your family.

- Store at least 1 gallon of water per person per day for a minimum 3-day supply. This means a family of 4 needs 12 gallons. Be sure to account for pets; dogs and cats typically need 1 gallon each per day.
- Store water in a cool, dark place in your home or office. Replace water every six months and be sure to check expiration dates on store-bought water.
- If you use your own containers for storing water, make sure to sanitize them first.
 - To sanitize: Wash containers with dishwashing soap and rinse with water. Sanitize by swishing a solution of 1 teaspoon of liquid household chlorine bleach to a quart of water on all interior surfaces of the container. Rinse thoroughly with clean water before use.

Avoid re-using containers that have ever held a toxic substance; containers that can break, like glass; containers without a tight seal; or plastic milk bottles or cartons that can be difficult to clean and can break down over time. Use of food-grade storage containers, such as those found at surplus or camping supply stores, is recommended if you prepare stored water yourself.

For more information on emergency preparedness please visit READY.GOV or contact the Ottawa County Emergency Management Agency at (419) 734-6900.



Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 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

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.

pCi/L (picocuries per liter): A measure of radioactivity.

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).

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

TC: Total Coliform Bacteria

The "<" Symbol: A symbol that 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.

How much water do we use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. It takes 2 gallons to brush your teeth, 1.3 to 7 gallons to flush a toilet, and 10 to 50 gallons to take a shower.

Seventy-one percent of Earth is covered in water: How much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the Earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

Is tap water cheaper than soda or bottled water?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And water has no sugar or caffeine. Tap water is less than one cent per gallon. A retail price for a 16 ounce bottled water is about \$1, which amounts to \$8 per gallon, or 1000 times the tap water equivalent.

Water Main Flushing Program

Water main flushing moves water systematically through sections of a drinking water distribution system, creating a scouring action to clean the line. The increased flow rate scours the water pipe's inner walls and helps to remove build-up of naturally occurring debris and sediment. The water is discharged through select fire hydrants onto local roads or other surface areas.

The process is critical to the overall maintenance of a distribution system and is one of the most important practices carried out by public drinking water systems to maintain high water quality, improve the carrying capacity of pipes, and ensure proper operation of distribution system components, such as hydrants and valves.

Questions?

For more information please call the Ottawa County Regional Water Treatment Plant at (419) 734-7312, the Ottawa County Sanitary Engineering Department at (419) 734-6725, or the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.