



**City of Belpre Public Water System
Consumer Confidence Report
For the Year 2016**



**Ohio Environmental Protection Agency
Division of Drinking and Ground Waters**

www.epa.ohio.gov/ddagw

Drinking Water Consumer Confidence Report

The **City of Belpre Public Water System** has prepared the following report to provide information to you, the consumer, on the quality and safety of your drinking water. Most test results in this report are based on data collected for the year 2016, but may include earlier test results. This report includes 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 Belpre Public Water System receives its drinking water from groundwater supplied by wells. The Belpre well system is fed by the Ohio River Valley aquifer which supplies water to the Ohio River. The City of Belpre Public Water System produces an average 1 million gallons per day of quality drinking water.

Tampering with your Water Service - According to Ohio Revised Code Section 4933.19, the City of Belpre is required yearly to notify its customers that tampering with or bypassing a meter constitutes a theft offense that could result in criminal sanctions. Under O.R.C. Section 4933.18, a person (in most cases, the owner or resident of the property) benefiting from tampering or unauthorized service connection is presumed to have committed the violation. Belpre City Ordinance 17 (2006-2007) further defines tampering and provides for fines and jail time for this offense. In plain language, use of City water service without the authorization of the City is a crime.

About your drinking water - The EPA requires regular sampling to ensure drinking water safety. This report is a requirement of the EPA to ensure that the results of all testing required by the EPA which return a positive result are available to all our customers. The City of Belpre Public Water System conducted sampling for chlorine residual, fluoride residual, bacterial, inorganic, radiological, disinfection byproducts, and volatile and synthetic organic contaminants during 2016. Samples were collected for fifty-four (54) different contaminants. 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. Because of monitoring requirements, some of our data, though accurate, may be more than one year old. The Ohio EPA completed a Source Water Assessment for the City of Belpre in August 2002.

What are sources of contamination to drinking water? 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 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 byproducts 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, EPA regulations 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

High susceptibility Potable Water System based on high sensitivity – The aquifer that supplies drinking water to the City of Belpre has a high sensitivity to contamination, as indicated by the regular presence of nitrate and the past presence of 1,1,1 trichloroethane in the treated water. The presence of nitrate and past presence of trichloroethane in the City of Belpre's water supply indicates a man-made source of pollution has been introduced to the local ground water. Since 1993, water samples have been collected at Belpre's water supply and concentrations of 1,1,1 trichloroethane have not been detected. Nitrate concentrations have been decreasing gradually over time. This high susceptibility is also due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing potential contaminant sources identified. Future contamination can be avoided by implementing protective measures. More information is available by calling Belpre's Public Works Department at 1-740-423-6485.

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).

If you, or someone you provide for, have health concerns which make an interruption of water service dangerous, write to the Public Works Department at the address on page 5. Please include name, address, phone number, and a general description of the concerns.

Monitoring and Reporting Violations - The EPA requires that the City of Belpre Public Water System report any violations, including technical violations, such as failure to perform required testing. The City of Belpre Public Water System had no reporting violations during the 2016 year.

Appendix A contains information on those contaminants that were found in the City of Belpre Public Water System drinking 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. Because of monitoring requirements, some of our data, though accurate, may be more than one year old.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MRDLG	MRDL	Units	Violation	Likely Source of Contamination
Chlorine	2016	3.30	0.43 - 3.30	4	4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	9/15/2016	12.2	3.27-12.2	N/A	80	ppb	N	By-product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	9/8/16	74.5	74.5	2000	2000	ppb	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2016	1.09	0.18 – 1.09	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	9/8/16	4.05	4.05-4.05	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead and Copper	Collection Date	90th Percentile	# of Samples Over AL	MCLG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	9/10/2016	0.130	0	1.3	1.35	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/10/2016	4.15	0	0	15.5	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Definitions of some terms contained within this report.

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 goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

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 ounce in 7,350 gallons of water.

Parts per Billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one ounce in 7,350,000 gallons of water.

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

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.

Health Effects Information

Barium: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Chlorine: Some people who drink water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more could cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Haloacetic Acids (HAA5): Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

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 Belpre Public Water System 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>.

Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Total Trihalomethanes (TTHMs): 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.

C8 Information - On March 1, 2006, the Granular Activated Carbon (GAC) remediation system for the removal of C8 (ammonium perfluorooctanoate) went on-line in the City of Belpre's public water system.

Discovery of C8 in the Lubeck (WV) Public Water System prompted testing which revealed measurable concentrations of C8 in five other public water systems, including that of the City of Belpre. A class action lawsuit and settlement arose from the presence of C8 in these water systems. As part of the class action settlement, the GAC system was provided by the DuPont corporation to the City of Belpre at no cost for construction or maintenance. The Belpre Public Works Department provides operational oversight of the facility.

License to Operate (LTO) Status Information - The City of Belpre Public Water System has a current, unconditioned license to operate our water system.

How do I participate in decisions concerning my drinking water? Public participation and comment are encouraged at regular meetings of the Belpre City Council which meets in the Council Chambers at the Belpre Municipal Building. Regular Council meetings are held at 7:30 P.M. on the second (2nd) and fourth (4th) Mondays of each month. Special meetings are advertised in local newspapers (Parkersburg News and Sentinel and the Marietta Times) and are announced on local radio stations.

If you know someone who would like a copy of this report, please have them contact the Public Works Department. This report may also be found on the City of Belpre website by following links at:

<http://www.cityofbelpre.com>

2016 Belpre Water Quality Report

City of Belpre

Public Works Department

Michael Betz, Superintendent

715 Park Drive, PO Box 160

Belpre, OH 45714

Phone (740) 423-6485

Fax (740) 423-4967

Help Protect Our Well Field - The City of Belpre relies on ground water resources to provide drinking water to your home and local businesses. As a resident or business, please be aware that the actions you take within or near the well head protection area can affect the quality and cost of clean drinking water.

Ground water contamination can occur through the improper disposal of chemicals, such as cleaning , automotive, and lawn/garden products, as well as motor oil, furniture strippers, and oil and latex based paints. Storm water runoff can carry these pollutants to areas of infiltration, potentially contaminating ground water. Improper disposal methods include: pouring chemicals on the ground, down a sink or toilet that is connected to a septic system, or down a storm drain that drains to ground water through a dry well or drains directly into a nearby stream or river.

“Green” Lawn Care Tips for a Healthy Lawn & a Healthy Environment *by Kathy Davis Washington SWCD*

Whether you own or lease property for private or public use, or as a business, one item of maintenance is sure to be the lawn. Everyone likes a green healthy looking lawn, free of weeds and pests and with as little maintenance as possible. Healthy lawns have less potential to pollute storm water runoff or pollute ground water. Here are a few “green” tips to achieve a healthy lawn and help the environment.

Dethatching: Rake dead & dying matted grass if greater than ½ inch thick. Less thatch allows air, water & fertilizer to reach the soil providing the potential for greater biological activity. This allows soil organisms to do their work, like breaking down grass clippings that feed your lawn’s root system.

Mowing: Try not to remove more than 1/3 of the blade in one cutting. More can cause stress and increase the potential for pests and diseases. Keeping the mower blades sharp to produce a nice clean cut with no frays can also reduce the potential for pests and diseases. Set the mower blade to mow a height of 3 – 4”. Taller grass provides shade reducing weeds from germinating and cools the soil reducing moisture loss.

Clippings & Leaves: Leaves & clippings should be mulched or discharged back to green areas. Soil organisms will break down this resource as it feeds your lawn. Keep clippings and leaves away from impervious areas such as the street and sidewalks. Not only will they clog the storm drains and culverts, but it’s also wasting a resource.

Composting: If you choose to collect your clippings and leaves you still have some green options. Leaves and grass clippings make excellent composting material. Set aside a place to compost in your yard. The composted material can be used in your garden and the needy areas of your lawn. Don’t care to have your own compost? Offer to share this resource with a neighbor or friend or spread directly on your garden area.

Pesticides: Use pesticides sparingly. Know your weeds and if desired, treat accordingly. Follow manufacturer’s guidelines. Beware....some broad leaf pesticides can destroy soil organisms.

Fertilizing: Grass clippings and leaves should be mulched back into the lawn utilizing a mulching mower or side discharge. Clippings provide nutrients. Know your soil. Unless your soil is sandy you may not need additional fertilizer. If in doubt, test. If chemical fertilizers are used follow manufacturer’s guidelines. Mishandled use can kill soil life and structure. Utilize a slow release fertilizer to provide food over a period of time. Fall is the best time to fertilize your root system and rigorous roots provide a healthy lawn.

Irrigation: If you must water, water slowly so that pesticides & fertilizers do not wash into storm drains. These products can be costly, you don’t want to lose the investment. Morning hours are best for watering, reducing evaporation in the heat of the day and diseases that can occur from evening watering. Know your soil. Clay soils hold more moisture and dry out slower needing less watering verses sandy soils that hold less and dry more quickly. During times of drought watering may be restricted. Don’t worry, brown grass is not dead, it’s just dormant.

Protect your well field: Don’t use pesticides and fertilizers within 300 feet of a well head. This is known as the isolation area around a well used for drinking water. The water your protect may be your own!

Paint Disposal - So you’re finally finished with that paint job. Now, what should you do with leftover paint and the cleanup? A lot of literature tells us what we “CAN’T” do. “Don’t dump it on the ground”. “Don’t dump it into a storm drain or stream”. “Don’t burn it”. Good advice, but, what we really need to know is what we CAN do. Here are a few suggestions for non-commercial disposal.

Paint Disposal:

- Plan ahead. Buy only what you need.
- Use it up. Add another coat - give to a friend or neighbor.
- Dry it up. Use kitty litter or an oil dry absorbent. Dispose with household solid waste. (Works for latex or oil base paint.)
- Save for the annual Paint Swap Day – held each spring in Washington County.
- **Brush & Roller Clean Up:**
 - Dry utensils completely. (**Oil or Latex**) Dispose with household solid waste.
 - Flush with soap and water (**Latex only**). Drain to waste water treatment – not on the ground. Flush, flush, flush those drains with plenty of water!
 - If solvent is used - Dry up solvent using kitty litter or an oil dry absorbent. Dispose with household solid waste.
 - Reuse painting utensils from day to day by sealing in a zip lock bag and placing in a cool dry place.

Following this advice you will be reducing the chance for storm water runoff to become contaminated. This will further protect ground water and surface water from potential contamination, keeping it safe for us and for future generations to enjoy.

For more information on the Washington County annual Paint Swap Day or for commercial disposal of paint, contact the SouthEast Solid Waste Management District at 1-800-860-8103.

For questions or comments about this article on protecting our groundwater, please contact Kathy Davis, Storm Water Coordinator with the Washington Soil and Water Conservation District at 1-740-373-7113 ext. 229.

Healthy Habits for Cleaner Water

by Kathy Davis, Washington Soil and Water Conservation

As storm water flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Storm water can flow into a storm sewer system or directly to a lake, stream, river, or wetland. Anything that enters a storm sewer system is discharged untreated into the water bodies we use for swimming and fishing. As water moves downstream, even the ocean can be affected by the quality of storm water runoff from this area. Some runoff infiltrates soil and can become part of the ground water aquifer supplying drinking water to the City of Marietta. Because of this, polluted runoff is the nation's greatest threat to clean water.

One way homeowners can help to reduce storm water pollution is to adopt.....

Home Repair and Improvement Habits

- Before beginning an outdoor project, locate the nearest storm drains and protect them from debris and other materials.
- Sweep up and properly dispose of construction debris such as concrete and mortar.
- Use hazardous substances like paints, solvents, and cleaners in the smallest amounts possible, and follow the directions on the label. Clean up spills immediately, and dispose of the waste safely. Store substances properly to avoid leaks and spills.
- Purchase and use nontoxic, biodegradable, recycled and recyclable products whenever possible.
- For latex paint - Clean paint brushes using lots of hot water and dispose of to a waste system.
- For oil paint – Filter and reuse paint thinner. Store brushes for next day's use in a cool dry place after placing in a sealed bag. With your project complete, dry brushes completely prior to disposing with household trash.
- Dispose of excess paints through a household hazardous waste collection program, or donate to organizations or neighbors.
- Reduce the amount of paved area and increase the amount of vegetated area in your yard. Use native plants in your landscaping to reduce the need for watering during dry periods. Consider directing downspouts away from paved surfaces onto lawns and other measures to increase infiltration and reduce polluted runoff.

Information was provided by the United State Environmental Protection Agency.

*“Make your home the solution to storm water pollution
– a homeowner's guide to healthy habits for clean water” Brochure.*

Maintaining Water Quality in the Home

By the Public Utilities Commission of Ohio supporting Drinking Water Week, May 3-9, 2015

Homeowners can follow these tips to maintain water quality at home:

1. Clean faucets and aerators regularly
2. Clean and disinfect sinks and drains regularly
3. Keep drains clear and unclogged
4. Use cold water for drinking and preparing food
5. Replace old plumbing and install certified “lead-free” fixtures
6. Flush cold water taps after household plumbing work or when the water hasn’t been used for several days
7. Drain and flush your water heater annually
8. Follow the manufacturer’s instructions for the water heater, filters, treatment devices, softeners, and any other products attached to the water system
9. Do not connect hoses or other devices intended for non-drinking water purposes to household drinking water faucets
10. Keep hazardous chemicals and unsanitary materials away from drinking water faucets
11. Keep grass clippings, oil, and other pollutants out of storm sewers and out of the water supply