

2017 CONSUMER CONFIDENCE REPORT

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Where does my water come from?

The Village of Bellaire receives its source water from the Upper Ohio Wheeling Watershed. This includes an area of about 1509 sq. miles. This area is largely agricultural with forested region amounting to about 80% of the total. Within this watershed are numerous small creeks, rivers, streams, springs and small lakes. The water you drink comes from the Ohio River. Surface waters are one of the principle sources of drinking water in the United States. Water is always available from the river , thus making it a very reliable source. In general, surface waters require more extensive treatment than ground waters because they are subject to runoff from the surrounding land and also to direct discharges into the river. For that reason, the Ohio Environmental Protection Agency (OEPA) requires specific treatment techniques (TT). Your water is treated in a "Treatment Train" that includes coagulation, flocculation, sedimentation, filtration and disinfection. Coagulation removes dirt and other particles suspended in the source water by the addition of chemicals (coagulants) to form sticky particles called "floc" which attract other particles to form larger particles. Flocculation (the formation of these larger particles) is achieved by constant slow mixing. The heavy particles will settle out naturally in the sedimentation basins. The clearer water will then flow to the filtration process where it will pass through sand, gravel, charcoal or other filters to remove even smaller particles. A small amount of chlorine or other disinfectant is added to the water to kill bacteria, viruses, cysts, etc. that may still be present in the water before it is stored and then pumped to distribution to homes and businesses within the community.

Protecting drinking water is the responsibility of ALL area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the proper authorities. Only by working together can we assure an adequate and safe supply for future generations.

The Ohio EPA recently completed a study of the source water for the Village of Bellaire to identify potential sources of contamination and provide guidance to protect the source. According to this study, the aquifer (the water rich zone) that supplies water to the village has a very high susceptibility to contamination. This determination is based on the following facts:

- * The presence of a relatively thin layer of sediment overlying the aquifer
- * The presence of a significant contaminant source within the protection area
- * The presence of man-made contaminants in the aquifer

More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling the Water Treatment Plant at 740-676-2664.

WHAT ARE THE SOURCES OF CONTAMINATION IN DRINKING WATER?

The sources of drinking water, both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves many naturally occurring minerals and in some cases, radioactive material and can pick up substances resulting from the presence of animals or 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, livestock operations, and wildlife; (B) Inorganic contaminants such as salts and metals many of which are naturally occurring or can be the result of urban storm water runoff, industrial activity, mining, domestic waste water discharge, oil and gas production and 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 synthetics (SOC) and volatile organic chemicals (VOC) which are the 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 either naturally occurring or be the result of mining or oil and gas production.

In order to insure that tap water is safe to drink, the EPA 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, as well as Bottled Water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants DOES NOT necessarily indicate the water poses a health risk. FOR MORE INFORMATION ABOUT CONTAMINANTS AND POSSIBLE HEALTH RISKS YOU CAN CALL THE ENVIRONMENTAL PROTECTION AGENCY'S SAFE DRINKING WATER HOTLINE AT 1-800-426-4791.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as individuals with cancer who are 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (80-426-4791).

License to Operate

We had an unconditional license to operate in 2017.

How can I get involved and participate in decisions about my drinking water

Village council meetings are held the 1st and 3rd Thursdays of every month at 6:00 pm on the second floor of the Municipal Building.

Public participation and comments are encouraged. We appreciate all of your concerns about your water system and will answer any questions you may have.

Additional copies of this report may be obtained at the Municipal Building, the Water Treatment Plant or online at:

www.bellaireoh.com/ccreport.html

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.

- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public sewer system.

- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Results of voluntary monitoring

The Village is required to test for VOC's Quarterly (4x per year) to remain in compliance. However, out of an abundance of caution, the village collects samples for VOC's monthly, due to the presence of a common dry cleaning chemical, Tetrachloroethylene (PCE), that is found in test wells near the downtown section of town. The tested area is a 4 block area between 32nd and 36th streets south to north and ST. RT. 7 to Noble St. East to West....This testing is an ongoing project and involves the GROUND WATER in that area. The EPA collects those samples. To date the SOURCE WATER used and DRINKING WATER produced by the Bellaire Water Treatment Plant has always been found to be in compliance.

Additional Information for 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. VILLAGE OF BELLAIRE 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>.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	1.75 UG/L	ND	2.6	2017	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	ND	ND	1.5	2017	No	By-product of drinking water disinfection
Total Organic Carbon (% Removal)	NA	TT	29	ND	NA	2017	No	Naturally present in the environment
Turbidity (NTU)	NA	1.0	0.23	ND	0.3	2017	No	Soil Run-off
100% of the samples were below the TT value of 1. A value less than 95% constitutes a TT violation. The highest single measurement was .3. Any measurement in excess of 5 is a violation unless otherwise approved by the state.								
Chlorine	NA	4.0	3.5	.2	4.0	2017	No	Drinking water chlorination
Inorganic Contaminants								
Fluoride (ppm)	4	4	1.39	0.78	1.51	2017	No.	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury (ppb)	2	2	1.1	NA	NA	2017	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
								from landfills; Runoff from cropland.
Nitrate [measured as Nitrogen] (ppm)	10	10	2.75	.22	2.65	2017	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	3.69	ND	NA	2017	No	Erosion of natural deposits
Volatile Organic Contaminants								
Tetrachloroethylene (ppb)	0	5	1.70 UG/L	0.5	1.7	2017	No	Discharge from factories and dry cleaners
Inorganic Contaminants								
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	0	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)	0	15	0	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Contaminants	State MCL	Your Water	Violation	Explanation and Comment				
Manganese ppm (Secondary Contaminant)	NA	NA	.031	ND	.05	2017	No	Erosion of natural deposits

Unit Descriptions	
Term	Definition
Ppm or mg/l	ppm: parts per million, or milligrams per liter (mg/L)

Unit Descriptions	
Ppb or ug/l	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
NTU	Nephelometric Turbidity Units; Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Important Drinking Water Definitions	
Term	Definition
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

For more information please contact:

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