City of Bedford
2017 WATER QUALITY REPORT

The City of Bedford is proud to present this 2017 Water Quality Report to you, our customer, on the quality of our drinking water. Included with this report is general health information, water quality test results, how to participate in decisions concerning your drinking water, and water system contacts.

WATER SOURCE ASSESSMENT

The City of Bedford purchases its water from the City of Cleveland. Cleveland Water draws source water from four intakes located far offshore in Lake Erie's Central Basin. These intakes are spread out over 15 miles and are 3 to 5 miles offshore where the water is cleaner and has been minimally impacted from tributary runoff and coastal activities. Lake Erie is considered to be a surface water source. For more information about potential pollution sources, contact Risk Management at 216-664-2444 x75838 and ask for the Drinking Water Source Assessment Report.

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be easily contaminated by chemicals and pathogens from an upstream spill. Contaminants may rapidly arrive at our intakes with little warning or time to prepare. However, based on the information compiled for our Source Water Assessment, the Cleveland Critical Assessment Zones (CAZ) are classified as low susceptibility due to the distance and depth of the intakes from potential contaminant sources. As a result, Cleveland Water's source water (Lake Erie) is considered to have a low susceptibility to contamination due to the location of our intakes. Cleveland Water effectively treats our source to meet drinking water quality standards by using a multiple barrier approach

BEDFORD DIVISION OF WATER

The City of Bedford purchases all of its water from Cleveland on a wholesale basis and resells it to all customers in its service area. The water purchased from Cleveland is measured by 16 master meters located at various boundary points in Bedford. There are approximately 5,000 water service accounts in the Bedford service area. Water is distributed to those accounts through about 50 miles of water mains that are maintained by the City of Bedford. Because Bedford has its own Water Department, it must adhere to all E.P.A. regulations, submit monthly reports to the E.P.A., and have the E.P.A inspect all operations on a regular basis.

The City of Bedford currently has an unconditioned license to operate our water system.

WHAT ARE THE SOURCES OF CONTAMINATIONS 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.

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 (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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Cleveland Water treats source water to remove contaminants. 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.

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 Bedford conducted sampling for bacteria, inorganic, radiological, synthetic organic, and volatile organic contaminants during 2017. Numerous samples were collected and analyzed for different and specific contaminants, most of which were not detected in the City of Bedford water supply. 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.

DEFINITIONS OF SOME TERMS CONTAINED WITH 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 (MRDL): The highest residual disinfectant level allowed. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG): 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported in the Table of Detected Contaminants, Cleveland Water's highest recorded turbidity result for 2017 was 0.16 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100% (i.e., all samples met the limits).
- 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.
- Parts per Billion (ppb) or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- 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.

AL = Action Level
MCL = Maximum Contamination Level
MCLG = Maximum Contamination Level Goal
NTU = Nephelometric Turbidity Units
mg/L = milligrams per liter; or parts per million
µg/L = micrograms per liter; or parts per billion
TT = Treatment Technique
MRLD = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
n/a = not applicable
ND = Not Detected
< = a symbol which means less than. A result of <5 means the lowest level that can be detected is 5 and the contaminant in that sample was not detected.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Turbidity – City of Cleveland							
Turbidity (NTU)	NA	TT*	0.16	0.02 – 0.16	No	2017	Soil Runoff
Turbidity (% meeting standard)	NA	TT*	100%	100%	No	2017	Soil Runoff
Total Organic Carbon (mg/L)	NA	TT**	1.11	1.03 – 1.22	No	2017	Naturally Present in the environment
Inorganic Contaminants – City of Cleveland							
Fluoride (mg/L)	4	4	1	0.8 – 1.3	No	2017	Erosions of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (measured as nitrogen) (mg/L)	10	10	0.95	<0.01 – 0.95	No	2017	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Disinfectants and Disinfectant By-products – City of Bedford							
Haloacetic Acids (HAA5) (ug/L)	NA	60	10.9	6.3 – 18.0	No	2017	By-products of drinking water disinfection
Total Trihalomethanes (TTHM) (ug/L)	NA	80	27.4	13.9 – 39.8	No	2017	By-products of drinking water disinfection
Chlorine (mg/L)	MRDLG=4	MRDL=4	1.17	1.03 – 1.22	No	2017	Water additive used to control microbes

* TT – The treatment technique for turbidity removal is 95% of the monthly samples must be less than or equal to 0.3 NTU from each of our water treatment plants.
** The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest running annual average ratio between the percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates compliance with TOC removal requirements. A value less than 1 indicates a violation of the TOC removal requirements. The value reported under the “Range of Detections” for TOC is the lowest monthly ratio to the highest monthly ratio.

LEAD AND COPPER MONITORING

The results shown below are the most recent compliance results and are from 2015. There were no Violations or Action Level exceeded in 2015.

Lead and Copper – City of Bedford						
Contaminants (units)	**Action Level (AL)**	**Individual Results over the AL**	**90% of test levels were less than**	**Violation**	**Year Sampled**	**Typical source of Contaminants**
Lead (ppb)	15 ppb	NA	5.8	No	2015	Corrosion of household plumbing systems; erosion of natural deposits
	_0_ out of _30_ samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3 ppm	NA	0.08	No	2015	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
	_0_ out of 30_ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

* Samples collected June-September 2015. Next round of compliance samples will be summer of 2018.

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 Bedford 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 800-426-4791or at http://www.epa.gov/safewater/lead.

UNREGULATED CONTAMINANTS

Unregulated contaminants are substances for which USEPA has no established drinking water standard. USEPA requires us to monitor in order to determine where certain substances occur and whether USEPA needs to regulate those substances in the future. The results in the table below are disinfection byproducts that make up TTHMs reported in the preceding table. These results were obtained as water left the treatment plants and represent disinfection byproduct formation within the plants as a result of disinfection with chlorine.

Contaminant	Level Found	Range of Detections
Bromodichloromethane (µg/L)	2.5	1.4-3.2
Dibromochloromethane (µg/L)	1.6	1.3-2.1
Chloroform (µg/L)	1.5	0.7-2.1

HOW DO I PARTICIPATE IN DECISIONS CONCERING MY DRINKING WATER?

This City of Bedford holds regular council meetings at City Hall, where public participation and comments are encouraged. Dates and times are posted inside City Hall located at 165 Center Road. If you are interested in learning more about the quality of your water, contact John Sokolowski, Water Department Superintendent, at (440) 735-6588.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

IS OUR DRINKING WATER SYSTEM SAFE?
ABSOLUTELY