VILLAGE OF BREMEN
DRINKING WATER CONSUMER CONFIDENCE REPORT
FOR 2017

ORC, Ronald E. Stephens, Class III Water

Section 1: Introduction

The Village of Bremen has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Section 2: Source Water Information.

The Village of Bremen receives its drinking water from a two (2) well fields consisting of three wells, located in the park and at the Water Treatment Plant. The Bremen Water Treatment Plant has Aeration, Filtration, Softening, Chlorination and Phosphate for corrosion control. Ohio EPA completed a study of the Village of Bremen water system's source of drinking water to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water-rich zone) that supplies water to the Village of Bremen has a high susceptibility to contamination. This determination is based on the following:

There is no significant confining layer between the ground surface and the water table.
The depth to water is less than 25 feet below the ground surface.

Section 3: What are sources of contamination to drinking water?

The sources of drinking water both tap water and bottled water includes 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 use
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

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. 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).

Section 4: 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).

Section 5: About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Village of Bremen conducted sampling for a significant number of parameters during the prior year. Samples were collected and analyzed for over 100 different contaminants over the past five years. Most of which were not detected in the Village of Bremen 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.

Section 6: Table of detected contaminants

Listed below is information on those contaminants that were found in the Village of Bremen drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation ?	Sample Year	Typical Source of Contaminants
Bacteriological							
TOTAL COLIFORM BACTERIA	0	0	0	0	NO	2017	Naturally present in the environment
Inorganic Contaminants							
LEAD (ppb)	0	AL=15	<4.0	NA	NO	2016	Corrosion of household plumbing systems; erosion of natural deposits.
	0 out of 10 samples were found to have lead levels in excess of the lead action level of 15 ppb						
COPPER (ppb)	1,300	AL=1,300	440	NA	NO	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
	0 out of 10 samples were found to have copper levels in excess of the copper action level of 1,300 ppb						
NITRATE (ppm)	10	10	0.15	N/A	NO	2017	Runoff from fertilizer use; erosion of natural deposits.
BARIUM (ppb)	2,000	2,000	45	N/A	NO	2017	Discharge of drilling wastes; Erosion of natural deposits
Volatile Organic Contaminants							
TOTAL TRIHALOMETHANES TTHMs (ppb)	NA	80	34.1	30.1 - 34.1	NO	2017	By-product of drinking water chlorination
HALOACETIC ACIDS (HAA5) (ppb)	NA	60	<6.0	N/A	NO	2017	By-product of drinking water chlorination
Residual Disinfectants							
TOTAL CHLORINE (ppm)	MRDL=4	MRDL=4	0.80	0.52 - 1.36	NO	2017	Water additive used to control microbes.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask for advice from your health care provider. ''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.''

Barium: Some people who drink water-containing barium in excess of the MCL (2000ppb) over many years could experience an increase in their blood pressure.

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 Village of Bremen 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 http://www.epa.gov/safewater/lead."

"We have a current, unconditioned license to operate our water system."

Section 7: How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of **Bremen Village Council**, which meets the second Monday of every month.
For more information on your drinking water contact; **Ronald E. Stephens, Class III Water, at (740) 569-4100**

Section 8: 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.
- **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.
- **Action Level (AL)**: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **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.
- **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.
- **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.