JEFFERSON COUNTY WATER AND SEWER DISTRICT

2017 Drinking Water Consumer Confidence Report
For Service Area A

Introduction

The Jefferson County Water and Sewer District (JCWSD) 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.

License to Operate (LTO) Status

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

Source Water Information

The JCWSD does not own a water treatment plant. Therefore, it must purchase all the water it delivers to its customers from various suppliers. The vast network of pipelines, storage tanks, and booster pump stations used to distribute water by the JCWSD are divided into different service areas. **Historically, as reflected in previous editions of your Consumer Confidence Report, the areas of Smithfield, Piney Fork and State Route 152 (Dillonvale Ridge) have been supplied by both Brilliant and Tiltonsville but in 2017, these areas were fed by Brilliant, exclusively.** The Table below lists the different service areas and corresponding supplier.

SERVICE AREA	SUPPLIER
B-1, M, PHKE	City of Toronto Water Department
O, Overlook Hills Subdivision	City of Toronto Water Department
J, Sunshine Park, Jefferson Heights Area	City of Steubenville Water Department
A, New Alexandria, CR. 19, SR 151 Piney Fork, State Route 152, Smithfield	***Brilliant Water and Sewer District***
G1 & G2, Rayland Area, SR 150	Village of Tiltonsville Water and Sewer Department

The Brilliant Water & Sewer District's water source comes from two (2) ground wells. These wells are located at the water treatement plant, which is located at North Market Street in Brilliant, Ohio. The wells are designated as ground water supply, meaning that no surface water enters the well supply. The water is treated with a polyphosphate solution and then is chlorinated with Sodium Hypochlorite before it goes into the system.

Brilliant's source water assessment has been completed by the Ohio EPA. For information on how to obtain a copy of this report, please visit Ohio EPA's Source Water Assessment and Protection Program Web page at http://www.epa.state.oh.us/ddagw/pdu/swap.html or contact the Jefferson County Water and Sewer District. A full Source Water Protection Report is also available for viewing at the Brilliant District's office located at 706 2nd Street, Brilliant, Ohio.

An additional well and water treatment plant are currently under construction and are expected to be operational in February of 2019.

Susceptibility Analysis

The susceptibility of the aquifer (source of drinking water) to contamination was determined by evaluating: (1) available site-specific and regional information (i.e., aquifer material, topography, soils, rate of ground water recharge, etc.), (2) pollution potential rating of the drinking water source protection area, (3) available ground water quality data, and (4) potential contaminant sources that were identified within the drinking water source

protection area. **The results of this evaluation indicate that the aquifer within the protection area has a high susceptibility** because of the following reasons:

1. Well log information suggests no significant low-permeability protective layer between the aquifer and the ground surface, which if present, could provide protection from contamination; and
2. Potential significant contaminant sources exist within the protection area, both in Ohio and West Virginia.

A high susceptibility rating of the aquifer does not imply that the wellfield will become contaminated. It only means that the existing/known aquifer conditions are such that **ground water within the aquifer** could become impacted if the potential contaminant sources are not appropriately managed.

What are the sources of contamination to drinking water?

The sources of 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.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by the public water systems. The Federal Food and Drug Adminstration (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 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)

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 for 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 JCWSD and the Brilliant Water and Sewer Department conducted sampling for, bacteria, nitrate and other contaminants during 2017. 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, may be more than one year old.

Listed below is information on the contaminants that were found in the JCWSD Water system as the result of monitoring by the Brilliant Water and Sewer District and the JCWSD. (Contaminants sampled by the JCWSD are marked with an *.)

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection's	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Copper (ppm)*	1.3	AL = 1.3	0.363	NA	No	2015	Corrosion of household plumbing systems; erosion of natural deposits
Zero (0) out of twenty-three (23) samples were found to have lead levels in excess of the Action Level of 15 ppb							
Lead (ppb)*	0	AL = 15	0.0	NA	No	2015	Corrosion of household plumbing systems; erosion of natural deposits
One (1) out of twenty-three (23) samples were found to have lead levels in excess of the Action Level of 15 ppb							
Nitrate (ppm)	10	10	1.02	NA-1.02	No	2017	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits
Barium (ppm)	2	2	0.0999	NA	No	2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Contaminants (Units)	**MCLG**	**MCL**	**Level Found**	**Range of Detection's**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
Volatile Organic Contaminants							
Total Trihalomethanes (ppb)*	N/A	80	32.5	28.3 – 32.5	No	2017	By-product of drinking water disinfection
Haloacetic acids (ppm)*	N/A	60	10.5	9.3 -10.5	No	2017	By-product of drinking water disinfection
Residual Disinfectants							
Chlorine (ppm)*	MRDLG=4	MRDL=4	1.04	.51 – 1.30	No	2017	Water additive used to control microbes
Radioactive Contaminants							
Alpha emitters (pCi/l)	0	15	1.86	NA	No	2015	Erosion of natural deposits
Radium (combined 226/228) (pCi/l)	0	5	0.66	NA	No	2015	Erosion of natural deposits

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. JCWSD 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.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of the Jefferson County Board of Commissioners which meets every Thursday morning at 9:00 A.M. at 301 Market Street, Steubenville, Ohio 43952.

For help obtaining more information on your drinking water contact Wayne R. Ruckman of the JCWSD at (740)283-8577 or via email at wruckman@jcwatersewer.com.

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 levels (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.

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

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.

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

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