



JEFFERSON COUNTY WATER AND SEWER DISTRICT

Service Area A

Drinking Water Consumer Confidence Report

For 2021

Section 2: 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.

Section 3: 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. 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	Village of Mingo Junction Water Departments City of Steubenville Water Department
<i>A, New Alexandria, CR. 19, SR 151 Piney Fork, State Route 152, Smithfield</i>	<i>Brilliant Water and Sewer District</i>
G1 & G2, Rayland Area, SR 150	Village of Tiltonsville Water and Sewer Department

For 2021, The Brilliant Water & Sewer District’s water source comes from three (3) ground wells. They are located at two different locations on Market Street in Brilliant, Ohio. The new water treatment plant, which went into service in late November 2019, is located on LaBelle Street. The wells are designated as ground water supply, meaning that no surface water enters our well supply. The water was treated with polyphosphate solution, and then chlorinated with Sodium Hypochloride before it enters the system.

A full Source Water Protection Plan Report for the Brilliant Water and Sewer District is available for viewing at the office located at 706 2nd Street, Brilliant, Ohio.

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.



Section 4: 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 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 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 5: 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).

Section 6: 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 2021. 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.



Section 8: Table of Detected Contaminants

Listed below is information on those 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 Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Nitrate (ppm)	10	10	2.13	NA-2.13	No	2021	Runoff from fertilizer use; Erosion of natural deposits
Barium (ppm)	2	2	0.0527	NA-0.0468	No	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Thallium	0.5	2	1.7	<1.0 – 1.7	No	2021	Discharge from electronics, glass, and leaching from ore-processing
Disinfection By-Products							
TTHMs (Total Trihalomethanes) (ppb) *	NA	80	30.4	4.7-30.4	No	2021	By-product of drinking water disinfection
HAA5s (Haloacetic Acids) (ppb) *	NA	60	45	1.7-45	No	2021	By-product of drinking water disinfection
Residual Disinfectants							
Chlorine (as CL2) (ppm) *	MRDLG=4	MRDL=4	1.11	0.92 – 1.37	No	2021	Water additive used to control microbes
Lead and Copper *							
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	0	NA	No	2021	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm) *	1.3	3	2.27	Yes	2021	Corrosion of household plumbing systems; Erosion of natural deposits	
	3 out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Radioactive Contaminants – No Contaminants were detected							



Section 10: Violations and Exceedence Levels

Jefferson County Water and Sewer District A is in violation of Ohio Administrative Code (OAC) Rule 3745-81-89 (A) for failure to ensure water quality parameter samples were analyzed using proper methods by October 22, 2021. Not all required parameters were collected or analyzed from the distribution system

Jefferson County Water and Sewer District A is also in violation of OAC Rule 3745-81-90 (A) for failure to report required water quality parameter sampling to Ohio EPA within 10 days following the month in which the results were received.

In 2021, the JCWSD failed to properly control corrosion in the water system and the action level for copper was exceeded during the summer testing for copper. The JCWSD followed up with the OEPA and initiated the proper steps to correct the issue. Source water treatment and chemical additions are currently being analyzed, and the JCWSD is following all steps as laid out by the OEPA to correct this level exceedence.

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.

Section 13: 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. {Name of 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>.

Section 18: License to Operate (LTO) Status Information

The Jefferson County Water and Sewer District's A, New Alexandria, CR. 19, SR 151 Piney Fork, State Route 152, Smithfield Water System has a current, unconditional license to operate our water system.

Section 20: Public Participation and Contact Information

- **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.

- **Obtaining more information:**

If you would like more information on your drinking water, you can contact Michael S. Eroshevich of the JCWSD at (740) 283-8577 or via email at meroshevich@jcwatersewer.com.



Section 21: 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 ($\mu\text{g/L}$) 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).
- The “>” symbol: A symbol which means “greater than”.