



JEFFERSON COUNTY WATER AND SEWER DISTRICT

2016 Drinking Water Consumer Confidence Report

For Service Area SMITHFIELD, PINEY FORK/ STATE ROUTE 152

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. 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	City of Toronto Water Department
J, Sunshine Park, Jefferson Heights Area	City of Steubenville Water Department
A, New Alexandria, CR 19, SR 151	Brilliant Water and Sewer District
<i>PINEY FORK, STATE ROUTE 152, SMITHFIELD</i>	<i>Brilliant Water and Sewer District / Village of Tiltonsville Water and Sewer Department</i>
G1 & G2, Rayland Area, SR 150	Village of Tiltonsville Water and Sewer Department

Although the primary source for this area is the Brilliant Water & Sewer District, another occasional source is the Tiltonsville Water and Sewer Department.

The Brilliant Water & Sewer District's water source comes from two (2) wells. These wells are located at the water treatment 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.

The source of water for the Village of Tiltonsville Water and Sewer Department are two wells. The North well is located approximately 100 ft. north of the water treatment building at the eastern end of Hodgens Avenue in Tiltonsville, Ohio. The south well is located just east of the water treatment plant at the eastern end of Hodges Avenue. After the water comes out of the well it is treated to remove several contaminants, and a disinfectant is added to destroy microbiological contaminants. The North well liner was replaced with a new stainless steel liner and pump in December, 2013. In 2005, the south well was replaced with a new well and submersible pumping system. There is a back-up connection with the Village of Yorkville for emergency use. A copy of Yorkville's Consumer Confidence report can be obtained by calling 740-859-5171.

Brilliant's and Tiltonsville's source water assessments have 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.

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. 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, the Brilliant Water & Sewer District and the Village of Tiltonsville Water and Sewer Department conducted sampling for bacteria, nitrate and other contaminants during 2016, most of which were not detected in the 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. Therefore, some of our data, though accurate, is more than one year old.

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 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	1.1	NA – 1.1	No	2016	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
Note: Contaminant Table is continued from previous page							
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	40.1	17.3 – 40.1	No	2016	By-product of drinking water disinfection
Haloacetic acids (ppm)*	N/A	60	10.2	<6.0 – 10.2	No	2016	By-product of drinking water disinfection
Residual Disinfectants							
Chlorine (ppm)*	MRDLG=4	MRDL=4	1.11	.51 – 1.63	No	2016	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

Listed below is information on those contaminants that were found in the JCWSD Water system as the result of monitoring by the Village of Tiltonville Water and 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							
Lead (ppb)*	0	AL = 15	0.00	NA	No	2015	Corrosion of household plumbing systems; erosion of natural deposits.
	1 of 23 samples exceeded the action level of 15 ppb						
Copper (ppm)*	1.3	AL= 1.3	0.363	NA	No	2015	Corrosion of household plumbing systems; erosion of natural deposits
	0 of 23 samples exceeded the Action Level of 1.3 ppm						
Nitrate (ppm) [measured as nitrogen]	10	10	1.56	NA	No	2016	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	4	4	.25	NA	No	2015	erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Barium (ppm)	2	2	0.0405	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	40.1	17.3 – 40.1	No	2016	By-product of drinking water disinfection
Haloacetic acids (ppm)*	N/A	60	10.2	<6.0 – 10.2	No	2016	By-product of drinking water disinfection
Residual Disinfectants							
Chlorine (ppm)*	MRDLG= 4	MRDL=4	1.32	1.06 – 1.63	No	2016	Water additive used to control microbes

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.

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

Parts per Million (ppms) 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 (ppbs) 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.

**P.O. Box 2579
596 State Route 43
Wintersville, OH 43953-0579
PHONE: 740-283-8577
FAX: 740-283-8634
e-mail: ktermana@jcwatersewer.com**

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