



JEFFERSON COUNTY WATER AND SEWER DISTRICT

2016 Drinking Water Consumer Confidence Report *For Service Areas M, PHKE, and B-1*

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
<i>B-1, M, PHKE</i>	<i>City of Toronto Water Department</i>
O, Overlook Hills Subdivision	City of Toronto Water Department
J, Sunshine Park, Jefferson Blvd. Area	City of Steubenville Water Department
A, New Alexandria, CR 19, SR 152	Brilliant Water and Sewer District
PINEY FORK, STATE ROUTE 152, SMITHFIELD	Brilliant Water and Sewer District / Village of Tiltonsville Water and Sewer Department
G1 & G2, Rayland Area, SR 150	Village of Tiltonsville Water and Sewer Department

The source of water for the City of Toronto Water Department is the Ohio River at mile mark 59.2, which is a surface water source. The Ohio EPA has conducted a Source Water Assessment of this source. 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.

Source Water assessment and its availability

"All surface waters are considered to be susceptible to contamination. By their nature surface waters accessible and can be readily contaminated by pathogens and chemicals, with relatively short travel times from the source to the intake. Based on the information compiled for this assessment, the Toronto source water is considered highly susceptible to contamination [from municipal waste water treatment discharges, industrial waste water discharges, home sewage disposal system discharges, air contamination deposition, combined sewer overflows, runoff from urban, residential, mining, and agricultural areas, oil and gas production and transportation, and accidental releases and spills from rail and vehicular traffic as well as from commercial shipping operations and recreational boating]. It is important to note that this assessment is based on available data, and therefore may not reflect current conditions

in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While the source water for Toronto is considered susceptible to contamination, historically, the Toronto Public Water System has effectively treated this source water to meet drinking water quality standards"

Why are there contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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:

microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; 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 stormwater runoff, and septic systems; and 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 that 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.

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 and the City of Toronto Water Department conducted sampling for bacteria, inorganic, and volatile organic contaminants during 2016. 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 the results may predate 2016. **Listed below is information on those contaminants that were found in the JCWSD Water System as the result of monitoring by the City of Toronto Water Department and the JCWSD. (Contaminants sampled by the JCWSD are marked with an *.)**

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)*	4	4	1.2	.61	1.86	2016	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)*	NA	60	25.6	13.3	31.2	2016	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)*	NA	80	67.03	20.3	115	2016	No	By-product of drinking water disinfection
Total Organic Carbon (% Removal)	NA	TT	1.078	.91	2.08	2016	No	Naturally present in the environment
Inorganic Contaminants								
Barium (ppm)	2	2	.025	NA		2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.00	.96	1.05	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
								fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	1.2	.10	1.2	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Microbiological Contaminants								
Total Coliform (positive samples/month)	0	0	1	0	1	2016	No	Naturally present in the environment
Turbidity (NTU)	NA	0.3	100	NA		2016	No	Soil runoff
100% of the samples were below the TT value of .3. A value less than 95% constitutes a TT violation. The highest single measurement was .17. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Contaminants	MCLG	AA	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)*	1.3	1.3	<.05	2014	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)*	0	15	<.005	2014	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Violations and Exceedances

TTHMs [Total Trihalomethanes]

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Contaminants	State MCL	Your Water	<u>Range low/high</u>	Violation	Explanation and Comment
IDSE HAA5	60 ppb	19.25 ppb	11.9 ppb / 21.6 ppb	No	By-product of drinking water chlorination.
IDSE TTHM	80 ppb	82.3 ppb	8.4 ppb / 90.3 ppb	No	By-product of drinking water chlorination.

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. The 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>.

Turbidity

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 daily samples and shall not exceed 5 NTU at any time. As reported above, the City of Toronto highest recorded turbidity result for 2016 was 0.17 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100% samples meeting turbidity limit.

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 (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 (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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

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.

The “>” symbol: A symbol which means greater than.

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