

# Jamestown Municipal Water Works

## Water Quality Report for 2015

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Meetings: Jamestown City Hall, Main St., Jamestown, KY  
Meeting Dates and Time: 3<sup>rd</sup> Thursday of each month 6:00 PM

### THIS REPORT CONTAINS INFORMATION ABOUT YOUR DRINKING WATER

This report discusses the quality of the water delivered to your tap by the Jamestown Municipal Water Works. Our commitment is to provide our customers with a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

We get our water from the Greasy Creek cove of nearby Lake Cumberland, a surface water source. Lake Cumberland spans Pulaski, Russell, Wayne and Clinton counties and receives drainage from several more in both Kentucky and Tennessee. The lake receives surface water runoff (originally rainwater) from these areas. The drainage areas have some light industrial development but primary land use is agricultural. An analysis of the susceptibility of Jamestown Municipal Water Works raw water source to contamination indicates that this susceptibility is low. Within the critical protection area there are four potential sources of contamination that are ranked high, two ranked medium and none ranked as low level. Potential contaminant sources such as underground storage tanks, hazardous waste sites, and the secondary non-point pollution sources are relatively few in numbers, and pose few potential problems. The greatest concern to source water quality for this water system is the roadways and bridges/culverts that lead directly into the Greasy Creek watershed. The release of contaminants through accidental spills due to transportation accidents could have an immediate effect on source water quality. A full copy of the susceptibility assessment may be viewed at the Lake Cumberland Area Development District office in Russell Springs.

After pumping the water from Lake Cumberland, it is treated with processes that remove any objectionable tastes or odors and then disinfect the water with chlorine before pumping it to our customers. These processes primarily achieve filtration and disinfection of the water. This helps to remove any harmful chemicals, bacteria and other microorganisms that might be in the 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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Questions about this report or operation of the water plant can be directed to Mr. Tyler McGowan at 270-343-4594.

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. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, which 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, 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 come from gas stations, urban stormwater runoff, and septic systems; Radioactive contaminants which can be naturally occurring or the result of oil and gas production or mining.

In order to ensure that your water is safe to drink, EPA prescribes regulations that 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 protections for public health.

*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 infections. 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 at (800)-426-4791.*

Some or all of the definitions may be found in this report:

**Maximum Contaminant Level Goal (MCLG):** It is 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):** This is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level (MRDL):** Is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** Is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Action Level (AL)** An action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**NTU** means Nephelometric Turbidity Units and is a measure of turbidity (cloudiness).

**ppm** means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

**ppb** means parts per billion or micrograms per liter and is a measure of the concentration of a contaminant.

**Treatment Technique (TT)** is a required process intended to reduce the level of a contaminant in drinking water

**ppm** means parts per million or milligrams per liter and is a measure of the concentration of a contaminant.

**ppt** means parts per trillion or micrograms per liter and is a measure of the concentration of a contaminant.

**pCi/L** means picocuries per liter and is a measure of radioactivity

**N/A** means not applicable for this item

### Special Information on 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 Jamestown Municipal Water Works 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 or at <http://www.epa.gov/safewater/lead>.

**Spanish (Español)** Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% monthly samples	0.02	100	No	Soil runoff

#### Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
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#### Radioactive Contaminants

Combined radium (pCi/L)	5	0	0.82	0.82 to 0.82	Apr-13	No	Erosion of natural deposits
Uranium (µg/L)	30	0	0.012	0.012 to 0.012	Apr-13	No	Erosion of natural deposits

#### Inorganic Contaminants

Barium [1010] (ppm)	2	2	0.023	0.023 to 0.023	Jan-15	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level = 0	AL = 1.3	1.3	0.074 (90 <sup>th</sup> percentile)	0.025 to 0.13	Sep-15	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	1.02	0.81 to 1.2	May 2015	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action level = 0	AL = 15	0	5.6 (90 <sup>th</sup> percentile)	2.5 to 15	Sep-15	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	0.380	0.38 to 0.38	Jan-15	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits

#### Disinfectants/Disinfection Byproducts and Precursors

Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.01 (lowest average)	1.00 to 1.09 (monthly ratios)	N/A	No	Naturally present in environment.
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\*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.39 (highest average)	0.61 to 2.13	N/A	No	Water additive used to control microbes.
HAA (ppb) [Haloacetic acids] (Individual Sites)	60	N/A	63 (high site average)	27 to 110 (range of individual sites)	N/A	Yes	Byproduct of drinking water disinfection
TTHM (ppb) [total trihalomethanes] (Individual Sites)	80	N/A	63.475 (high site average)	22 to 116 (range of individual sites)	N/A	No	Byproduct of drinking water disinfection.

#### Violations Received in 2015:

The Jamestown Municipal Water Works received three violations in 2015. One violation is for failure to include mandatory language and submit a public notice certification for a chlorine public notice in the 2014 consumer confidence report (CCR). We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During September 29-30, 2014 we failed to collect and report the minimum daily chlorine residual samples throughout the distribution system, and therefore cannot be sure of the quality of your drinking water during that time. We have since taken the required samples, and the samples meet drinking water standards. The second violation is Maximum Contaminant Level (MCL) of Total Haloacetic Acids (HAA5). Test Results from October 1, 2015- December 31, 2015 show that our system exceeds the standard, or maximum contaminant level (MCL), for HAA5. The standard for HAA5 is 0.060mg/L. It is determined by averaging all the samples collected at each sampling location for the past 12 months. The level of HAA5 averaged at one of our system's locations for 10/01/2015- 12/31/2015 was 0.063mg/L. This is not an emergency. If it had been an emergency, you would have been notified within 24 hours. HAA5 are five haloacetic acid compounds which form when disinfectants react with natural organic matter in the water. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. We are working to minimize the formation of HAA5 while ensuring we maintain an adequate level of disinfectant. We have taken additional steps to change disinfectant type/levels, remove natural organic matter, and increased flushing of water lines to determine if our efforts have been effective. The third violation is for failure to submit Operational Evaluation Levels (OEL's) report to our regulator for 10/1/2015-12/31/2015. The report is needed to determine best treatment practices necessary to minimize possible future exceedances of HAA5. This violation does not affect the quality of our water and we intend to make certain in the future to submit any reports in a timely manner.