

# Kingston Water Quality Report

## 2016

### Sources of Water

Your water comes from two separate sources. Surface and Ground Water. The **Tennessee River** and **Swan Pond Spring** (Cambrian-Ordovician-carbonate aquifer). The Tennessee Dept. of Environment has prepared a Source Water Assessment Program Report for the untreated water sources. The Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible, or slightly susceptible based on geological factors and human activities in the vicinity of the water source. *Our rating is slightly susceptible.* An explanation of the Tennessee Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed at <https://www.tn.gov/environment/article/wr-wq-source-water-assessment> or you may contact the water system to obtain copies of specific assessments.

A Wellhead Protection Plan for Swan Pond Spring has been prepared and submitted to the State of Tennessee Division of Water Supply, a copy of the approved plan and a vicinity map showing our Wellhead Protection Area is on file at the utility office.

### Required Additional Information

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's 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.

Contaminates that may be present in source water:

**\*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, 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.

**\*Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

**\*Pharmaceuticals** info link

<https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals>

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for certain contaminants in bottled water which must provide the same protection for public health.

### Additional Health Information

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 under-gone 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 microbiological contaminants are available from the **Safe Drinking Water Hotline (800-426-4791)**.

### \*Lead in drinking water

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 Kingston Water Dept. is responsible for providing high quality water, but cannot control the variety of material 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 and 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>

### Is our water system meeting other rules that govern our operations?

The State and EPA requires our Water Treatment Plant and System Personnel to conduct daily in-house sampling / testing and to report the results monthly. Also

required are independent laboratory analyses at intervals required by the EPA and the State of Tennessee. All requirements have been met and are found to be at exceptional levels.

### \*Community Involvement welcomed

\*Our Water Board meets at the Kingston City Hall on the 2<sup>nd</sup> Tuesday of each month immediately following the Council Meeting which begins at 7:00 pm. Please feel free to participate in these meetings.

**\*For more information** regarding your drinking water, or copies of the CCR, please contact the Kingston Water Department at 376-6584.

\*You may also contact the Chief Operator at the Kingston Water Treatment Plant at 376-7187.

**\*During Business Hours** you may contact the Water Department at **376-2323**.

**\*After Hours or Weekend Emergencies call the After Hours Emergency Call-Out Number 1-888-256-3091.** (This is a toll free call and is monitored 24/7 for your convenience).

### \*Additional Info

Kingston Water Treatment Plant feeds Sodium Polyphosphate - Orthophosphate which is used to coat the lines and protect the customer from corrosion and harmful substances which may have been used in your residential plumbing.

Kingston Water Department employs an Aggressive and On-going Flushing Program.

Public Water Supply Approved Fluoridation Tennessee Dept. of Environment and Conservation.

### \*Did you know?

Due to all water containing dissolved contaminants, occasionally your water may exhibit slight discoloration. Drinking water often looks cloudy / milky when first taken from a faucet, this cloudy water is caused by tiny air bubbles in the water after a while the bubbles rise to the top and are gone. This type of cloudiness occurs more often in winter, when the water is cold or after a line break air will enter the system at the point of repair, this condition will soon dissipate.

**\*Our Mission** To strive to meet the constant and ever changing demands of the community we serve by providing safe, high quality drinking water in the desired and adequate quantities to each of our customers and at every tap.

We ask that all of our customers help us protect our precious water sources, which are the heart of our community, our way of life, and our children's future.

**\*Our Goal** is to Supply Safe Water to each and every customer under all foreseeable circumstances. We have established and utilize an active and on-going Cross Connection Control Program. Only Approved Backflow Prevention Assemblies are Permitted. Regular maintenance, Annual Inspection and Approval are required.

# 2016 Water Quality Data

**MCLG:** Maximum Contaminant Level Goal, or 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.

**MCL:** Maximum Contaminant Level, or 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.

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

**MRDLG:** Maximum Residual Disinfectant Level Goal: 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.

**RTCR:** Revised Total Coliform Rule. This rule went into effect April 1, 2016 and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.

Contaminants	MCLG In CCR Units	MCL in CCR Units	Level found in CCR Units	Range of Detections	Violations	Date of Sample	Typical Source of Contaminant
<i>Total Coliform Bacteria</i>	0	1 positive sample	0		NO	2016	Naturally present in the environment.
<i>Total Coliform Bacteria (RTCR)</i>	0	TT Trigger	0		No	2016	Naturally present in the environment
<i>Turbidity*</i>	n/a	TT	0.05 NTU avg.	0.03 - 0.20 NTU	NO	2016	Soil run-off
<i>Copper**</i>	1.3	AL=1.3 ppm	90 <sup>th</sup> %= 0.13 ppm		NO	2014	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
<i>Lead**</i>	0	AL=15 ppb	90 <sup>th</sup> %= 2.8 ppb		NO	2014	Corrosion of household plumbing systems; Erosion of natural deposits
<i>Fluoride</i>	4ppm	4ppm	0.641 ppm avg.	0.5 – 0.8	NO	2016	Erosion of natural deposits; water additives which promotes strong teeth; discharge from fertilizer and aluminum factories.
<i>Total Organic Carbons*** (TOCs)</i>	TT	TT	Achieved 47.125% removal	Required 25% – 35% removal	NO	2016	Naturally present in the environment
<i>Chlorine</i>	MRDLG 4ppm	MRDL 4ppm	2.23 ppm monthly avg.	1.5 – 3.1	NO	2016	Disinfectant / Water additive to control microbes.
<i>Sodium</i>	n/a	n/a	6.4 ppm avg.	4.09 – 8.70	NO	2016	N/A
<i>Total Trihalomethanes (THMs)</i>	n/a	80ppb	46 ppb avg.	39 – 53	NO	2016	By-product of drinking water disinfection
<i>Total HaloAcetic Acids (HAA5)</i>	n/a	60ppb	24 ppb avg.	19 – 29	NO	2016	By-product of drinking water disinfection

## THE DATA IN THIS REPORT REFLECTS THE WATER QUALITY FOR CALENDAR YEAR 2016

**\*Turbidity:** Turbidity does not present any risk to your health. We monitor turbidity, which is a measure of the cloudiness of water, because it is a good indicator that our filtration system is functioning properly. **We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.**

**\*\* Lead and Copper:** During the most recent round of lead and copper testing **0 out of 20 sites exceed the lead action level and 0 sites exceed the copper action level.**

**\*\*\*Total Organic Carbon: We have met the TT (Treatment Technique) requirements for Total Organic Carbon.**

### Abbreviations:

**PPB / ppb or micrograms/L:** parts per billion or micrograms per liter, explained in terms of money one penny in \$10,000,000.00

**PPM / ppm or mg/L:** parts per million or milligrams per liter, explained in terms of money one penny in \$10,000.00

**N/A / n/a:** not applicable.

**NTU:** Nephelometric Turbidity Units - Turbidity is a measure of the clarity of the water. Turbidity in excess of 5 NTUs is just noticeable to the average person.

**MFL:** million fibers per liter, used to measure asbestos concentration.

**AL:** action level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**TT:** Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

**BDL:** Below Detection Limits.