Annual Water Quality Report

Knox-Chapman Utility District June 2017

It's Time for our Annual Water quality Check-Up at Knox-Chapman Utility District!

We at Knox-Chapman are doing our part in supplying you with affordable water that meets or exceeds all drinking water standards. This brochure is a summary of the quality of water provided to customers in the calendar year 2016. It is a record reflecting the hard work by our employees to bring you the best water possible.

Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Knox-Chapman is committed to providing you with information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

What is the source of my water?

Your water, which is surface water, comes from the French Broad River. Our goal is to protect our water from contaminants and we are working with the state to determine the vulnerability of our water source to ***potential*** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP 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 geologic factors and human activities in the vicinity of the water source. Knox-Chapman's water source is rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's SWAP, the Source Water Assessment Summary, Susceptibility scorings, and the overall TDEC report to EPA can be viewed online at WWW.state.tn.us/environment/dws/ dwassess.shtml or you may contact us to obtain copies of Our assessment.

Why is there so much media coverage that questions the quality of drinking water?

The sources of drinking water (*both tap and bottled water*) include: rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can be polluted by the presence of animals or from human activity. Therefore 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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

What is that White Stuff In My Water?

For some time we have received calls from customers whom were experiencing small white (sometimes blue or green) particles showing up in their water and clogging up their faucet aerators and showerheads. To make a long story short, after investigating, it seems that a few years ago, manufactures of certain hot water heaters began installing fill tubes made of a type of plastic which would deteriorate inside the water heater over time.

Evidence points to the fact that temperature in excess of 130 degrees F seems to accelerate the deterioration process. One of the characteristics is that the particles float rather than settle out. Another characteristic is that, although plastic, they break up into a chalky powder when rubbed between the fingers.

If you have this problem you should contact the dealer who sold you the water heater and explain your problem. Most plumbers in this area know of the problem and how to fix it.

Is Lead a Problem in my 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 for materials and components associated with service lives and home plumbing. Knox-Chapman is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. We sampled 30 homes at high risk and 3 exceeded Lead, 0 exceeded Copper Action Levels.

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

Treated Water Quality Roundup

Substance (Units)	*Violation Yes/No*	*Date of Sample*	*Range Detected*	*Level Detected*	*MCL*	*MCLG*	*Source of Contaminant*
Turbidity (NTU)*	No	2016	0.01 – 0.01	0.01	TT	N/A	Soil runoff
Gross Alpha (pCi/L)	No	2015	3.0	3.0			Naturally present in the environment
Combined Radium (pCi/L)	No	2015	2.82	2.82			
Sodium (ppm)	No	2016	8	8	N/A	N/A	
Fluoride (ppm)	No	2016	0.10 - 1.00	1.00	4	4	Water additive for strong teeth
Chlorine (ppm)	No	2016	0.93 - 2.10	2.10	(MRDL) 4	(MRDLG) 4	Disinfection Process
Lead (ppb)	No	2015	1 - 25	4	***AL=15	0	Corrosion of household Plumbing systems
Copper (ppm)	No	2015	0.02 - 0.14	0.10	***AL=1.3	0	
TTHM (ppb) (Total Trihalomethanes)	No	2015	45 -64	64	80	0	By-product of drinking water Chlorination
THAA (ppb) (Total Haloacetic Acids)	No	2015	35 -39	39	60	0	

Definitions:

Maximum Contaminant Level (MCL) - 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 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 Residual Disinfectant Level (MRDL)** – The highest level of disinfectant allowed in drinking water. There is convincing evidence indicating a disinfectant is necessary for the control of microbial contaminants. **Maximum Residual Disinfection Level Goal (MRDLG)** – The level of 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. **Parts per million (ppm), Parts per billion (ppb) Picocuries per liter (pCi/L)** - Used to measure radioactivity in water. A Picocurie is 10^{-12} curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute. ***Action Level (AL)** - The concentration of a contaminant that triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk. **(We sampled 30 homes and 4 exceeded Lead, 0 exceeded Copper Action Levels.)** ****Total Organic Carbon –**Treatment Technique requirements for this substance were met in 2016. **Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water. ***Nephelometric Turbidity Units (NTU)** - Used to measure clarity of drinking water. We measure Turbidity, which does not present any risk to your health, because it is a good indicator that our filtration system is working properly. (**100% of our samples were below maximum Turbidity limits.)**

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunio-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 persons and infants can be particularly at risk from infections. These people should seek advice not only about drinking water, but also food preparation, personal hygiene, and precautions in handling infants and pets from their healthcare providers. Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Environmental Protection Agency and Centers for Disease Control 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).

Do I need a home water Filter?

Independent agencies such as the Federal Trade Commission and Consumers Union (publisher of Consumer Reports) have determined home treatment devices are not necessary for health reasons if a public drinking water supply meets state and federal requirements.

In an attempt to sell more water filters, some companies have used fear-based telemarketing tactics that question the safety of the local water supply. KCUD water meets all State and Federal requirements.

For Questions about the quality of your drinking water or inquiries about this report, please contact Earl Setzer at 577-4497 Ext 120.

Customer view welcome

If you are interested in learning more about the water department and water quality or participating in the decision-making process, there are a number of opportunities available. The Knox-Chapman Board of Commissioners meets at 5:00 p.m. on the first Monday of every month at Knox-Chapman's office, 1905 E. Gov. John Sevier Highway. Board sessions are open to the public. Knox-Chapman is an equal opportunity provider.