

# 2015 Shelbyville Water Quality Report

The Shelbyville Water Board of Directors Meet the 4<sup>th</sup> Tuesday Each Month  
Location 308 South Main Street: Time 5:00 PM. Please feel free to participate in these meetings.

## IS OUR DRINKING WATER SAFE? YES

Our water meets all of EPA Health standards. Test results for 2014 are included in this report

## WHAT IS THE SOURCE OF OUR WATER?

Your water, which is surface water, comes from the Duck River. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving this system. The SWAP Report assesses the susceptibility of public water supplies to **potential** contamination. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The Shelbyville Water System sources rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at [www.state.tn.us/environment/dws/dwassess.shtml](http://www.state.tn.us/environment/dws/dwassess.shtml) or you may contact the Water System or TDEC at 1-888-891-TDEC to obtain copies of specific assessments.

The State and EPA requires testing and reporting on the quality of our water 24 hours a day while the plant is in operation to ensure its safety. Shelbyville Water System flushes main lines and dead end water mains on a routine schedule to keep water fresh and clean as possible.

## WHY ARE THERE CONTAMINANTS IN OUR WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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 Safe Drinking Water Hotline (800-426-4791). For more information about our drinking water call Dennis Rankin at 684-5998 or 684-5817.

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:

- 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 storm-water 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 storm-water 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 storm-water runoff, and septic systems.
- 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 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 contaminants in bottled water which must provide the same protection for public health.

## Do I Need 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 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).

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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 treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) 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 Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level - (MRDL) - A level of a disinfectant added for water treatment that may not be exceeded at the customer's tap without an unacceptable possibility of adverse health effects.

Maximum Residual Disinfectant Level Goal - (MRLDG) - A maximum level of a disinfectant added for water treatment and for which no known or anticipated adverse effect on human health would occur, allowing for an adequate margin of safety.

**Most of the data presented in this table is from testing done between January and December 2014.**

Contaminant	Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contamination
Total Coliform ( Positive) *	No	1%	0	>5%	Naturally present in the environment
Turbidity (NTU, 99%< 0.30)	No	.16	N/A	TT	Soil runoff
Unregulated Contaminants(strontium)	No	65	N/A	N/A	Naturally occurring element and is used as strontium carbonate pyrotechnics, in steel production as a catalyst and a lead scavenger.
Barium (ppm)	No	0.020	2	2	Erosion of natural deposits
Fluoride (ppm)	No	1.0	2	4	Added to prevent tooth decay
Copper (2014) (ppm) Range .0014 to .15	No	90 <sup>th</sup> %=.084	1.3	AL=1.3	Corrosion of household plumbing erosion
Lead (2014) (ppb) Range .5 to 1.4	No	90 <sup>th</sup> %=1.0	0	AL=15	Corrosion of household plumbing, erosion
Nitrate (as Nitrogen) (ppm)	No	.53	10	10	Agricultural runoff, natural erosion
Sodium (ppm)	No	4.8	n/a	n/a	Naturally present in the environment
Total Organic Carbon **	No	1.3	N/A	TT	Naturally present in the environment
Chlorine*** (ppm)	No	max 3.5	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Total Trihalomethanes (ppb) Range = 15 to 43	No	30	0	80	By-product of drinking water chlorination
Haloacetic Acids Total (ppb) Range = 17 to 51	No	35	0	60	By product of drinking water chlorination

\*\* The Treatment Technique requirements ( 25% reduction ) for Total Organic Carbon were met in 2014.

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.

\*\*\*Public Water Systems using surface water shall continuously chlorinate and maintain a free chlorine residual of 0.2 mg/l in all parts of the distribution system. The residual disinfectant level in the distribution system must be measured at the same time as total coliforms are sampled. Of all 2014 distribution disinfectant samples: Average = 3.25 ppm Range = 2.5 to 3.5 ppm

We constantly monitor the water supply for various constituents. During testing performed from 2003 thru 2005 we have detected cryptosporidium in the source water prior to treatment. We detected this constituent in 14 out of 24 samples tested. We believe it is important for you to know that cryptosporidium may cause illness in 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. These people should seek advice from their health care providers.

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 systems, and may have an increased risk of getting cancer.

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. Shelbyville Power Water and Sewer 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 [1-800-426-4791] or at <http://www.epa.gov/safewater/lead>

During the most recent Lead and Copper testing (tests performed in 2014) no sites exceeded the state regulations. Special notice of the availability of Unregulated Contaminant Monitoring results: UCMR sampling has been completed as required. All results were below limits. For further information concerning these monitoring results contact Dennis Rankin @ 931-684-5998.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Volatile Organic Chemical sampling and Analytical requirements have been completed in conjunction with the "Vulnerability Assessment" process. All listed contaminants were found to be below detection limits.

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

Please call our office if you have any questions:

**SHELBYVILLE WATER SYSTEM  
P.O. BOX 530  
SHELBYVILLE, TN. 37162**

**PHONE: 931-684-7171 or 931-684-5817 or 931-684-5998**