

City of Crossville Water Quality Report for 2016

Is my drinking water safe?

Yes. In 2016 we conducted over 10,000 tests for more than 85 contaminants which may be found in drinking water. As you will see in the chart on the reverse side, we did not detect any of these contaminants at any levels which surpassed the strict regulations of the State of Tennessee and the U.S. Environmental Protection Agency.

Where does my water come from?

Crossville relies on surface water from Holiday Hills Lake, located on Holiday Drive, and Meadow Park Lake, located on City Lake Road. Holiday Hills WTP pumped out 507,886,000 gallons of treated water and Meadow Park WTP pumped out 873,243,000 gallons of treated water in 2016. Crossville Water Resources serves approximately 12,645 customers taps and has an average production of 3.78 million gallons per day. Additionally, Crossville sells water to the South Cumberland and Grandview Utility Districts. The Tennessee Division of Water Supply considers Crossville's water intakes to be of low susceptibility to contamination based on the factors outlined in their Source Water Assessment of the area. For further information about Tennessee's EPA approved Source Water Assessment Program contact the Tennessee Division of Water Supply at 1-888-891-8332 or go to www.tn.gov/environment/dws/dwassess.shtml

Why are there contaminants in my 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 EPA's Safe Drinking Water Hotline, 1-800-426-4791 or visit them on the web at www.epa.gov.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

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 which 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 byproducts 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.

In order to ensure that tap water is safe to drink, the EPA and TDEC prescribes regulations which 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.

Crossville Water Resources treats your water using sedimentation, coagulation, disinfection, and filtration to remove or dramatically reduce harmful contaminants which may come from source water.

How can I learn more?

For more information about your drinking water please contact Jerry Kerley, Director of Water Resources, by calling 931-788-5515 or writing to 963 City Lake Road, Crossville, TN. 38572.

For opportunities to become more involved you are welcome and encouraged to attend public meetings on the second Tuesday of each month in the City Council Chambers at City Hall, 392 N. Main St, at 6:00 pm.

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. Crossville Water Resources 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>.

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Water system security? Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc. To 931-484-5113.



2016 Contaminant Testing Results for Crossville

| Contaminant | Unit | MCLG Health Goal | MCL EPA's Limits | Level & Range Detected | | Violation (Yes/No) | Year Sampled | Potential Source of Contamination |
|---|------|------------------|------------------|--|----------------|--------------------|--------------|--|
| | | | | Holiday Hills | Meadow Park | | | |
| Turbidity* | NTU | NA | TT=5NTU | 0.26 (highest) | 0.17 (highest) | NO | 2016 | The suspended matter in water. |
| We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU. | | | | | | | | |
| Total Organic Carbon* | | NA | TT | ave- 1.79 | ave-1.65 | NO | 2016 | Naturally present in the environment. |
| Copper | PPB | 1.3 | 1.3 = AL | 0.128 (90th percentile) | | NO | 2015 | Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives |
| | | | | All 30 samples below AL | | | | |
| Fluoride | PPM | 4 | 4 | .38 (average) | .47 (average) | NO | 2016 | Erosion of natural deposits; Water additive to promote strong teeth |
| | | | | 0.25 - 0.55 | | | | |
| Lead | PPB | 0 | 0.015 = AL | 0.011 (90th percentile) | | NO | 2015 | Corrosion of household plumbing systems; Erosion of natural deposits |
| | | | | All 30 samples below AL | | | | |
| Nitrate | PPM | 10 | 10 | 0.187 | BDL | NO | 2016 | Runoff from fertilizer use, leakage from septic tanks, sewage; Erosion of natural deposits |
| Chlorine Residual | PPM | MRDLG = 4 | MRDL = 4 | Distribution system Annual Average: 1.57 | | NO | 2016 | Water additive used to kill disease-causing organisms such as viruses. |
| Total Trihalomethanes (TTHMs) | PPB | NA | 80 | 42.9 highest LRAA | | NO | 2016 | Byproduct of drinking water disinfection. |
| | | | | 23.6 - 61.8 | | | | |
| Haloacetic Acids (HAA5s) | PPB | NA | 60 | 30.2 highest LRAA | | NO | 2016 | Byproduct of drinking water disinfection. |
| | | | | 18.0 - 36.7 | | | | |
| Sodium | PPM | NA | NA | 10.1 | 12.2 | NA | 2016 | Erosion of natural deposits |
| Hardness | PPM | NA | NA | 35 | 25 | NA | 2016 | Erosion of natural deposits. |
| Cryptosporidium | | | | no detection | | NO | 2016 | Microbial parasite found in surface water. |

* We met the treatment technique requirement for total organic carbon and turbidity.

Cross Connections

Over the next few months, the warm weather will bring people outdoors to work in their yards and gardens and begin getting swimming pools ready. The City of Crossville would like to ensure that our customers are aware of the dangers associated with these activities. An ordinary garden hose is a common way to contaminate a water supply when the hose is submersed in any liquid or attached to certain devices used to spray pesticides or herbicides. This forms a cross connection. A cross connection is a situation where a possible source of contamination is directly linked to our public water system. If the end of your hose is connected to a chemical container, swimming pool or other contaminant during a water main break or fire, the substance can be siphoned back into the water system. This condition, known as back siphonage, could cause public health hazard. Devices are available to prevent this problem; however the best solution is to always be careful how you use your water hose. Please help us provide a safe supply of water to all of our customers. Remember, never place your water hose in anything you would not want to drink.

Think before you flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's waterways by disposing in one of our permanent pharmaceutical take back bins. There are nearly 100 take back bins located across the state, to find a convenient location please visit: www.tn.gov/environment/sustainable-practices_unwanted-prescriptions.shtml

*Note:

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though accurate may be more than one year old. **Turbidity** is a measure of the cloudiness of the water.

We monitor it because it is a good indicator of the effectiveness of our filtration system. The EPA has two requirements: (1) That the maximum level found must be less than 1 NTU; and (2) That the level must be under 0.3 NTU 95% of the time.

TTHMs: 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.

HAA5s: Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may have an increased risk of getting cancer.

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

90th Percentile: 90% of samples are equal to or less than the number in the chart.

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

NA: Not applicable.

ND: Not detectable at testing limits.

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

Action Level or AL: The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a 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 the control of microbial contaminants.

BDL: Below Detectable Limit

PPM: parts per million, explained in terms of money as one penny in \$10,000

PPB: parts per billion, explained in terms of money as one penny in \$10,000,000