2014 Annual Water Quality Report

Tennessee
PWS ID: TN0000107

TENNESSEE AMERICAN WATER

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

This report contains important information about your drinking water. Have someone translate it for you if needed.

A Message from the Tennessee American Water President

To Our Valued Customer:

Tennessee American Water is proud to be your local water service provider, and I am pleased to share with you good news about the quality of your drinking water. Each year, we provide you with our Annual Water Quality Report – and like so many years prior -- we continue to supply water that meets or surpasses all state and federal water quality regulations for **less than a penny per gallon—an exceptional value.**

This is no small task. Quite a lot goes into bringing that water to your home. The miles of pipeline hidden below the ground. The facilities that draw water from the source. The plant where it's treated and tested. Our treatment plant operators, water quality experts, engineers, and maintenance crews working around the clock to make sure that water is always there when you need it. Delivering high-quality, reliable water service to your tap around the clock also requires significant investment in our water infrastructure to upgrade aging facilities. In 2014 alone, we invested close to $19 million in water system improvements statewide.

We do this because we believe we're delivering more than just water service. We deliver a key resource for public health, fire protection, the economy and overall quality of life. Our job is to ensure that quality water keeps flowing not only today, but well into the future. It's part of our commitment to you and the communities we serve.

We hope you agree that it's worth every penny and worth learning more about. Please, take the time to review this report. It provides details about the source and quality of your drinking water using the data from water quality testing conducted for your local water system from January through December 2014.

Thanks for allowing us to serve you.

Sincerely,

Deron Allen
President, Tennessee American Water

AT LESS THAN A PENNY PER GALLON WATER IS A GREAT VALUE™

About American Water

Founded in 1886, American Water is the largest publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs approximately 6,600 dedicated professionals who provide drinking water, wastewater and other related services to an estimated 14 million people in more than 40 states and parts of Canada. More information can be found by visiting www.amwater.com.

About Tennessee American Water

Tennessee American Water, a wholly owned subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water services to more than 370,000 people in Tennessee and northern Georgia.

Source Water Information

Tennessee American Water draws surface water from the Tennessee River. Our goal is to protect our water from contamination 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 (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. Tennessee American Water source is 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: http://www.tn.gov/environment/water/water-supply_source-asssesment.shtml or contact TDEC EAC at 1-888-891-8332 (1-888-891-TDEC) to obtain copies of specific assessments. Tennessee American Water can also be contacted at 1-866-736-6420 to obtain a copy of the source water assessment specifically for our company.

Community Participation

If you are interested in becoming involved in water quality concerns at Tennessee American Water, please call us at (423) 771-4740. Our normal office hours are 8 a.m. to 5 p.m., Monday – Friday. We also encourage you to stay involved by:

- Reading the information provided in bill inserts and special mailings.
- Contacting the company directly with questions or to discuss issues and reviewing information on our website tennesseeamwater.com
- Attending events conducted by the company.
- Responding to survey requests.
- Like us on Facebook www.facebook.com/tnamwater
- Follow us on Twitter @tnamwater

How to Contact Us

For more information about this report, or for any questions relating to your drinking water, please call Dorothy Rader, Water Quality & Environmental Compliance Supervisor, at (423) 771-4746, or the Water Quality Lab at (423) 771-4749. For questions about your water bill, please call our Customer Service Center at (866) 736-6420.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers of Tennessee American Water. Additional copies of this report are available by contacting us at (423) 771-4740.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the US. Although *Cryptosporidium* can be removed through commonly-used filtration methods, US EPA issued a rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. Tennessee American Water monitored for *Cryptosporidium* and based upon our results, no additional treatment will be required by this US EPA regulation.

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 may 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 EPA's Safe Drinking Water Hotline (800) 426-4791.

Water Information Sources

- **Tennessee American Water:** www.tennesseeamwater.com
- **Tennessee Department of Environment and Conservation:** www.state.tn.us/environment/dws
- **United States Environmental Protection Agency:** www.epa.gov/safewater
- **Safe Drinking Water Hotline:** (800) 426-4791
- **American Water Works Association:** www.awwa.org

Remember to "Be Water Smart"

Wise Water Use Tips For Inside Your Home:

- Fix leaking faucets, pipes, toilets, etc
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances
- Wash only full loads of laundry
- Do not use the toilet for trash disposal
- Take shorter showers
- Do not leave water running while shaving or brushing teeth
- Soak dishes before washing
- Run the dishwasher only when full

Wise Water Use Tips for Outside Your Home:

- Use mulch around plants and shrubs
- Repair leaks in faucets and hoses
- Use water-saving nozzles

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, tanks, fire hydrants, etc. to 1-866-736-6420.

Substances Expected to be in Drinking 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 call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

In order to ensure that tap water is safe to drink, U.S. Environmental Protection Agency (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. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Tennessee American Water's water treatment processes are designed to reduce any such substances to levels well below any health concern.

The source of drinking water (both tap water and bottled water) includes 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, 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 may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

During 2009 Tennessee American Water monitored for contaminants listed in the Unregulated Contaminant Monitoring Rule 2 (UCMR 2). The UCMR 2 monitoring revealed no detections for the contaminants as tested by the rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791. The results of all unregulated monitoring are available by contacting Tennessee American Water, Water Quality Lab at 423-771-4749.

How to Read This Table

Tennessee American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2014, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting this table, see the "Table Definitions" section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2014 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Amount Detected** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means that the government requirement was met. **Typical Source** tells where the substance usually originates.

Table Definitions and Abbreviations

- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **BDL:** Below Detection Limit
- **MCL (Maximum Contaminant Level):** 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.
- **MCLG (Maximum Contaminant Level Goal):** 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.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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 contamination.
- **mrem/year:** Millirems per year (a measure of radiation absorbed by the body.
- **NA:** 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.
- **pCi/L (picocuries per liter):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).
- **ppm (parts per million) or mg/L (milligrams per liter):** One part substance per million parts water, or milligrams per liter, explained in terms of money as one penny in $10,000.
- **ppb (parts per billion) or µg/L (micrograms per liter):** One part substance per billion parts water, or micrograms per liter, explained in terms of money as one penny in $10,000,000.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

Water Quality Statement

We are pleased to report that during the past year, the water delivered to your home or business complied with, or was better than, all state and federal drinking water requirements. For your information, we have compiled a list in the table, showing what substances were detected in your drinking water during 2014. Although all of the substances listed below surpasses or meets all federal and state water quality regulations, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

Regulated Substances

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Compliance Achieved	Typical Source
Total Coliform (% of positive samples)	2014	0	No more than 5% of the monthly samples can be positive	1.57%	0% – 1.57%	Yes	Naturally present in the environment
Total Organic Carbon [1] (TOC) (ppm)	2014	NA	TT	2.14	0.91 – 2.14	Yes	Naturally present in the environment
Turbidity [2] (NTU)	2014	NA	TT	0.38	0.03 – 0.38	Yes	Soil runoff
Alpha emitters (pCi/L)	2014	0	15	0.297	0.297	Yes	Erosion of natural deposits
Beta/photon emitters [3] (pCi/L)	2014	0	50	0.737	0.737	Yes	Decay of natural and man-made deposits
Chlorine [4] (ppm)	2014	MRDLG = 4	MRDL=4	1.46 (avg) 2.20 (max)	0.05 – 2.20	Yes	Water additive used to control microbes
Fluoride (ppm)	2014	4	4	0.75 (average)	0.61 – 1.00	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2014	10	10	0.44	0.12 – 0.44	Yes	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Sodium (ppm)	2014	NA	NA	9.7	4.9 – 9.7	Yes	Erosion of natural deposits; used in water treatment

Disinfection By-Products [5]

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Compliance Achieved	Typical Source	Health Effects Language
Haloacetic Acids (HAA5) (ppb)	2014	NA	60	33.7	10.6 – 39.9	Yes	By-product of drinking water disinfection	NA
Total Trihalomethanes (TTHMs) (ppb)	2014	NA	80	66.2	20.6 – 89.3	Yes	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years could have problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

[1] The treatment technique requirement for Total Organic Carbon was met 100% for 2014.
[2] 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. We met the turbidity requirement in 2014 with 99.95% of samples less than 0.3 NTU.
[3] The MCL for Beta/photon emitters is written as 4 mrem/year. EPA considers 50 pCi/L as the level of concern for beta emitters.
[4] Chlorine levels as measured in the distribution system.
[5] Disinfection by-products value reported for "amount detected" is the maximum locational running annual average. The range includes all samples analyzed during 2014.

Tap water samples were collected for lead & copper analyses from 53 homes in the service area. None of the 53 homes exceeded the action level.

Substance (units)	Year Sampled	Action Level	MCLG	Amount Detected (90th %tile)	Number of Homes Above Action Level	Compliance Achieved	Typical Source
Copper (ppm)	2013	1.3	1.3	0.107	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2013	15	0	2	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

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. Tennessee American Water 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.

Additional Water Quality Parameters of Interest

Substance (units)	Year Sampled	Amount Detected (average)	Range
Alkalinity (ppm)	2014	60	41 - 74
Hardness (ppm)	2014	71	56 - 88
Hardness (grains/gallon)	2014	4.2	3.3 – 5.1
pH (units)	2014	7.1	7.0 – 7.3
Temperature (° Celsius)	2014	19.5	6.9 – 28.9
Total Dissolved Solids (TDS) (ppm)	2014	96	80 - 120
Zinc (ppm)	2014	0.14	0.11 – 0.16

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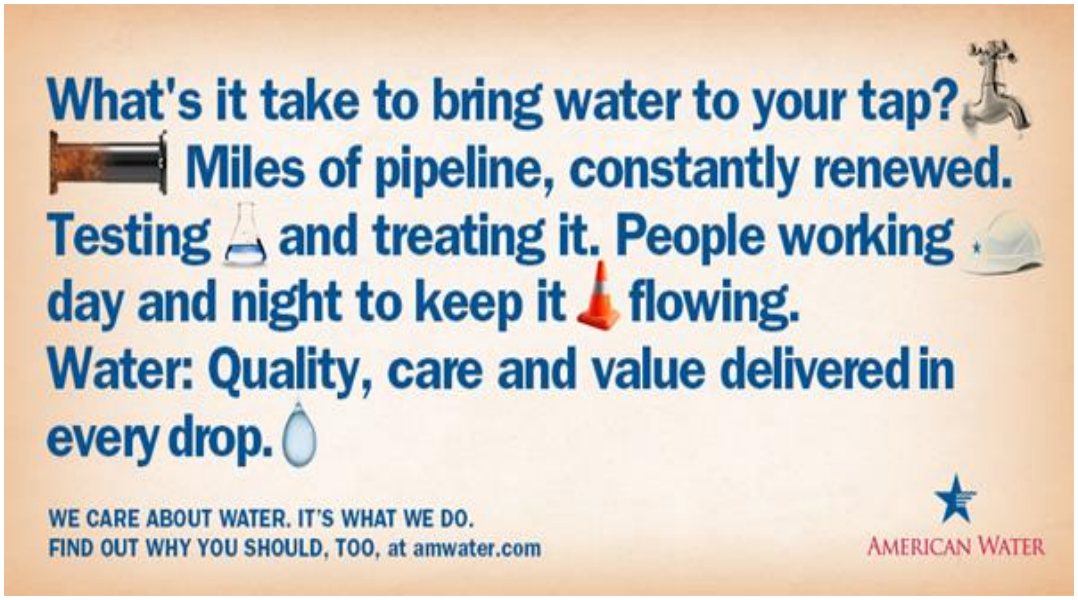

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