Town of Smyrna Water System's
2019 Consumer Confidence Report

Reflects testing done between January 2019 and December 2019

Excellence - Commitment - Responsibility

The Town of Smyrna **is** pleased to deliver our 2019 Consumer Confidence Report which shows that the water provided to you by the Smyrna Water System meets or exceeds all federal and state drinking water standards. The water is tested and checked continuously each day to make sure it is safe. Through diligence, thousands of tests are performed each month on the water that leaves the treatment plant, and also as it moves through the distribution system to your homes, businesses, and industries. Providing safe, quality drinking water to you 24 hours a day, seven days a week, 365 days a year is our standard because we know that safe, quality drinking water is vital to the health and well being of our community.

What is a Consumer Confidence Report and why should you read it?

The Consumer Confidence Report, sometimes called a Water Quality Report, includes important information on your water source, the levels of any detected contaminants, compliance with drinking water rules (including monitoring requirements), and some helpful educational information. It should serve as a reference to consumers that your water treatment facility is working with the State of Tennessee for your protection. The drinking water analysis tables on the following pages provide the results of our testing program and identify the goals set by the federal government to protect public health. We have provided a key to help you understand the tables.

Is my water safe to drink?

Yes! The Town of Smyrna Water System is committed to delivering water that meets or exceeds federal and state requirements. This report shows that we are succeeding in doing just that. The Town of Smyrna Water System received a grade of 99 from the State of Tennessee in the most recent Assessment Survey.

Want to get involved?

A member of the public may participate with decisions concerning water quality by attending the Town of Smyrna Council meetings held in the Town Hall Council Chambers every 2nd Tuesday of the month at 5:00PM. For more information regarding Council meetings, please contact **Tiffany Lawson at (615)459-2553.**

Who provides my water and where does it come from?

You are a customer of the Smyrna Water System, a department within the Town of Smyrna municipal government. Your water, which is surface water, comes from the Stones River/J. Percy Priest Lake. Our top priority is to provide our customers and our citizens with a safe and clean water supply. The Smyrna Water Treatment Plant treats drinking water using state-of-the-art equipment and ensures water quality through continuous monitoring and testing. Tap water is delivered to approximately 19,500 customers in the Smyrna Water System.

Membrane Filtration System

Why is someone flushing the fire hydrant in my neighborhood?

The Smyrna Water System regularly flushes hydrants to prevent the build-up of mineral deposits and to better regulate any chlorine residuals in the system.

What if I need more information or a paper copy of this report mailed to me? If you would like more information about your drinking water or to request a printed copy of this report be mailed to you, please call the Smyrna Water Treatment Plant @ 615-459-3574, or you may send your request by email:

Kevin Relford, Manager- kevin.relford@townofsmyrna.org,
Robbie Land, Assistant Manager-robbie.land@townofsmyrna.org
Julia Eidson, Office coordinator-julia.eidson@townofsmyrna.org.

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

The role of TDEC and Source Water Assessments

Percy Priest Lake—
Source Water for The Town of Smyrna Water

Our goal is to protect our water from contaminants. We work in conjunction with the state to determine the vulnerabilities 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 to evaluate the *potential* risk for 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. The Smyrna Water System sources 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:

https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html

Copies of this source water assessment can also be viewed at Smyrna Town Hall in the Utilities Department, Smyrna Library, and the Smyrna Water Treatment Plant.

The sources of drinking water (both tap 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. Water can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water typically fall in the following categories:

Contaminant Name	Examples	Causes of Contaminant
Microbial contaminants	Viruses or Bacteria	May come from sewage treatment plants, septic systems; agricultural livestock operations, and wildlife
Inorganic contaminants	Salts and Metals	Can be naturally occurring, urban storm water runoff, industrial, or domestic wastewater discharges, oil & gas production, mining, or farming
Pesticides & Herbicides	Chemicals to control pests/weeds	Agriculture, urban storm water runoff, and residential uses
Organic chemical contaminants	Synthetic & Volatile Organic Chemicals	By-products of industrial processes & petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems
Radioactive contaminants		Can be naturally occurring or the result of oil and gas production, as well as 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. 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 (800-426-4791).

Regarding Lead in Our Water

If present, elevated levels of lead (atomic symbol Pb) 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 Smyrna Water System 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 (800-426-4791)*** or at ***http://www.epa.gov/safewater/lead.***

The table on page (3) shows the results of the Smyrna Water System's laboratory analysis of your water during the period of January through December 2019. We monitor for some contaminants less than once per year, and for those contaminants, the date of the last sample is shown in the table. The table lists the name of each substance tested, the maximum level allowed in the drinking water (MCL), the ideal goals for public health (MCLG), the amounts detected and the range of levels detected. Also noted is the usual source of such contamination and an explanation of our findings.

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

MCL: **Maximum Contaminant Level**. The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

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

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

MRL: Minimum Reporting Level. The estimate of the lowest concentration of a compound that can be quantitatively measured by members of a group of experienced drinking water laboratories.

ND: The concentration of a contaminant is below the minimum level that the instrument is capable of detecting.

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

ppm: parts per million or milligrams per liter.

ppb: parts per billion, or micrograms per liter **(µg/L)**. One part per billion or one microgram per liter corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

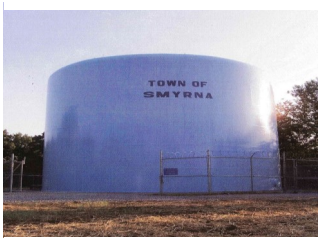
ppt: One part per trillion or one nanogram per liter corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

N/A: Not applicable.

NTU: Nephelometric Turbidity Unit, a measure of particles in the water.

RAA: Running Annual Average is the average of four consecutive quarters. Used in determining compliance for the TTHMs and HAAs.

pCi/L: picocuries per liter



ONE OF SEVEN WATER STORAGE TANKS FOR A COMBINED WATER STORAGE CAPACITY OF 12.5 MILLION GALLONS FOR THE SMYRNA WATER SYSTEM

INORGANIC CONTAMINANTS								
Contaminant	Test Date	Unit	MCL	MCLG	Detection	Range	Sources	Violation
[1]Copper	06/12/2017	ppm	1.3	1.3	0.059 (90th percentile)	0.002- 0.194	Household plumbing corrosion, erosion of natural deposits, leaching of wood preservatives	No
Chlorine	2019	ppm	MRDL = 4	MRDLG = 4	2.15 Highest	0.91 - 2.15	Disinfectant added to control pathogens	No
Fluoride	2019	ppm	4	4	0.585 Average	0.547- 0.617	Erosion of natural resources, additive to promote strong teeth, discharge from fertilizer and aluminum factories	No
Nitrate	10/09/19	ppm	10	10	0.157	0.157	Fertilizer runoff, leaching from septic tanks, sewage, erosion of natural deposits	No
[1]Lead	06/12/2017	ppb	15	0	2.1 (90th percentile)	ND - 18.8[1]	Erosion of natural resources, household plumbing corrosion	No
Sodium	04/10/2019	ppm	N/A	N/A	8.16	8.16	Ubiquitous in the environment	No
ORGANIC CONTAMINANTS								
Contaminant		Unit	MCL	MCLG	Detection	Range	Sources	Violation
[2]Total Trihalomethanes (TTHMs) Stage 2		ppb	80	N/A	40.93 Locational Running Annual Avg. Site ID SMP-4	7.1 - 87.3	By-product of water chlorination	No
[3]Haloacetic Acids (HAAs) Stage 2		ppb	60	N/A	24.10 Locational Running Annual Avg. Site ID SMP - 4	4.98 - 53.1	By-product of water chlorination	No
[4]Total Organic Carbon (TOC)		ppm	TT	N/A	46.7%-76.0% removal (15%-35% required)	0.504 - 1.96	Naturally present in the environment	No
TURBIDITY								
[5]Turbidity		NTU	TT	N/A	0.21	0.025 - 0.21 Ave. 0.043	Soil Runoff	No
MICROBIOLOGICAL CONTAMINANTS								
Coliform		Total: (MCL=Less than 5 % of samples/month)	0%	1.6%	0-1.6%	Naturally present in the environment	No	
		Fecal: (MCL = 0% samples)	0%	0%	0%	Animal or human waste		
		100% of samples tested negative for fecal coliform and E.coli						

1. ***Copper and Lead:*** *Data presented is from the most recent testing done in accordance with the state of Tennessee and EPA guidelines. One out of the thirty households tested exceeded the action level. The original 18.8ppb reading was believed to be the result of a sampling error. The location was resampled on 7/5/17 with a result of 1.55 ppb.*

2. ***Trihalomethanes*** *Some people who drink water containing **Trihalomethanes** in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.*

3. ***Haloacetic Acids*** Some people who drink water containing **Haloacetic Acids** in excess of the MCL over many years may have an increased risk of getting cancer. The actual risk has been identified as 1 out of 10,000 people may get cancer if they drink 2 liters of water each day for 70 years.

4. ***Total Organic Carbon*** *Smyrna Water Treatment Plant met the treatment technique for **Total Organic Carbon** in 2019.*

5. ***What is turbidity?*** *Turbidity has no health effects; however turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms including bacteria, viruses, and parasites. 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. Smyrna Water Treatment Plant met the treatment technique for **turbidity** in 2019 with 100% of monthly samples being less than 0.3 NTU.*

How can citizens help protect drinking water?

Consider Pharmaceuticals in the water! You can make an important difference in safeguarding lives and the environment by taking a few small steps to properly dispose of unused, outdated prescription and over-the-counter medications. DO NOT FLUSH unused medications or POUR them down a sink or drain. Medications such as these travel through pipes to the Wastewater Treatment Plant. The Wastewater Treatment Plants are not designed to remove these medications and they can pass through the treatment process eventually entering our waterways.

The Smyrna Police Department has installed a Drug Collection Box in an effort to provide medication disposal options for our citizens. Items that can be collected are non-narcotics, narcotics, over the counter medications, herbals, veterinary medicines and illegal drugs. Items that will not be accepted include bio-hazard materials, items in liquid form or needles/sharps, unless they are in appropriate containers. This Drug Collection Box is located at the Smyrna Justice Center, 400 Enon Springs Road, East.

To learn more about pharmaceuticals in drinking water visit: http://tdeconline.tn.gov/rxtakeback/

What is the hardness of our water?

This is the question asked most frequently from our customers. Our target hardness for finished water is 80 to 100mg/L (4.6 to 5.8 grains/Gal). If you have an in-house appliance that requires a grains per gallon value, the set-point should be set to a range of 4.6 to 5.8 for the hardness range (80 to 100 mg/L).

Our lime softening system has improved the capability for removal of iron, manganese, hardness and microbial pathogens. The aesthetic nature of manganese (yellow or brown water) and hardness (white flakes, deposits in water heaters) contribute to most of the problems from the treatment plant to the customer. These types of problems are practically eliminated through the latest treatment process.

What about people with Health Concerns?

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 people, 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 by calling (800-426-4791).***

Cross-Connection Safety and what Smyrna Utilities wants you to know about it!

The Tennessee Division of Water Supply requires all public water systems in the state to operate an on-going program to protect the public water supply from possible cross-connections. The most effective method for Smyrna Water Utilities to meet this requirement is to have backflow preventers installed by customers on the main supply line to their property or facility. The backflow preventer protects the community from any cross-connections that may be present inside a customer's plumbing system. All water users benefit from an active, on-going cross-connection control program that includes the installation of backflow preventers where required by state regulations and local codes.

How does the backflow preventer protect our citizens?

Once the water goes beyond the meter, in many cases, the water quality is altered. Smyrna Utilities does not want the water back, nor do other water customers want to purchase used water. Backflow preventers are installed to protect the public water supply against possible hazards in a customer's plumbing system. The actual or potential cross-connection belongs to the property owner and not the regulatory agency or Smyrna Utilities. If a backflow preventer is required to keep the water safe, then the person who purchased, installed, and maintained the cross-connection (actual or potential) should purchase, install and maintain the backflow preventer. Examples of installations requiring the use of a reduced-pressure backflow preventer are irrigation systems and pools. Residential properties are protected as the Town of Smyrna has installed check valves in the setters at the meter on each property.

For questions concerning Cross-Connection Control, please contact ***Randy Roberts at Smyrna Utilities (615)459-9752.***

WATER QUALITY DATA TABLE—2019

(Unregulated Contaminant Monitoring)

Contaminant	Sample Location	Average of Values	Range of Detection
HAA-9 (ppb)	Distribution System	22.33	8.353-59.854
Manganese (ppm)	Entry Point	0.001995	0.000447-0.00349
Bromide (ppm)	Raw Water	0.02385	0.0229-0.0248
Total Organic Carbon (TOC) (ppm)	Raw Water	2.665	1.3-4.32

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.**

Wondering how to pay your bill? We are here to help! Please call Smyrna Utilities Customer Service at 615-355-5740, Monday through Friday from 8:00AM to 4:30PM. You can pay online, by mail, through automatic bank draft, or in person.

Payments made with credit/debit cards will be assessed a minimal convenience fee.

Payment fee schedule:
2.5% or $1.50
whichever is greater

Town of Smyrna Water Treatment Plant—156 Sharp Springs Rd Smyrna, TN 37167