



Town of Smithfield

# Annual Water Quality Report for 2024

PWS ID: 3093640



# A Message From Water Treatment Plant Staff

**Dear Community Member,**

We are pleased to present your **Annual Consumer Confidence Report (CCR)**, which provides important information regarding the quality of your drinking water. Ensuring access to clean, safe, and reliable water is one of our highest priorities, and this report is designed to keep you informed and assured about the water you use every day.

Within this report, you will find details about the source of your drinking water, the results of water quality monitoring conducted throughout 2024, and the measures we take to safeguard your water supply. We are proud to report that the water provided to you met or exceeded **all federal and state regulatory standards** during the past year.

Our commitment to excellence is reflected in the work of our dedicated team of Licensed Waterworks Operators—Kathleen Wall, Jeff Johnson, Thomas Mathews, and Jay Hogan, who monitor and maintain water quality every day to ensure compliance and safety.

Should you have any questions after reviewing this report, or if you have any concerns about your water service, please do not hesitate to contact me directly. I can be reached at the **Department of Public Works and Utilities at (757) 365-4200**.

**Sincerely,**  
Water Treatment Plant Staff

# About Your Water



## Where Your Drinking Water Comes From

Most drinking water in the United States comes from a river, a lake, or from an underground well. The water we provide is groundwater from two deep wells set in the Middle Potomac Aquifer.

## We Protect the Source

Making the water safe to drink starts by protecting the place it comes from. We work

with state scientists to take samples of water at its source to look for possible pollutants. This is called a Source Water Assessment. The most recent one, completed in 2002, said that our water source could have VDH conducted a Source Water Assessment of the Town of Smithfield Waterworks in 2002. The wells were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment report consists of maps showing the Source Water Assessment area, an inventory of known Land Use Activities and Potential Conduits to Groundwater, utilized at Land Use Activity sites in Zone 1 and documentation of any known contamination within the last five years, Susceptibility Explanation Chart, and Definitions of Key Terms. The report is available by contacting your waterworks system owner/operator at the phone number or address included in this report.

## Treatment of Your Drinking Water

The Smithfield Reverse osmosis plant was put online in September 2011. The Water Plant uses reverse Osmosis Technology to remove the naturally occurring fluoride we have in our groundwater. The RO plant produces finished water that has an average fluoride concentration of 1.11 ppm (Parts Per Million) The treated water is also dosed with Sodium Hypochlorite and Hydrated Lime for disinfection, PH balance and corrosion throughout the distribution system.

## What Is in Your Drinking Water

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 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 be the result of oil and gas production and mining activities.



In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

All 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 **Environmental Protection Agency's Safe Drinking Water Hotline** at 800-426-4791.

## Sampling and Testing

We take samples across our water system. We're looking for bacteria, metals, and chemicals to make sure the water continues to be safe to drink.

## **Bacteria**

We look for bacteria regularly, as required by law, and there are 108 locations in the water system where we take samples for analysis. More thorough testing, evaluation, and action is required if bacteria is found in even a small percentage of tests.

## **Lead and Copper**

We take water samples from different homes in our system every 3 years to test them for lead and copper.

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. The Town of Smithfield is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Town of Smithfield Public Utilities and Works (757)357-2151. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

We completed our Lead Service Line Inventory as required by the EPA's Lead and Copper Rule Revisions. The inventory can be viewed by contacting *Town of Smithfield Public Utilities and works (757)-357-2151*

# **Stay Informed About Your Water**

## **Monthly Town Council Meetings**

We need your understanding and support to be successful, so we hope you will get involved with us all the ways you can on projects, programs, and policies. You are welcome to attend our Smithfield Town Council meetings. We meet at 7:30 on 1<sup>st</sup> Tuesday of each month at The Smithfield Center located at 220 North Church Street. We always make time to hear from guests and answer questions so please join us to learn more about what we're working on. Your input is important to us!



# Your Role in Water Quality

## Check Your Home or Business' Plumbing for Lead and Copper

We work hard to provide high quality water when it arrives on your property. Once the water we provide passes through the meter on your property however, it is exposed to a whole new environment in your home that we have no control over. But you do.



Some of the things that can change the water quality on your property include your plumbing and pipe material, how long you go without running the water, and whether or how you connect outdoor hoses to your home's water supply. 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. Town of Smithfield is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Town of Smithfield (757)365-4200 . Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead> .

We completed our Lead Service Line Inventory as required by the EPA's Lead and Copper Rule Revisions. The inventory can be viewed by contacting Town of Smithfield (757)365-4200.

## Run Water After Vacation

Another factor that affects water quality in your home is how "stale" the water is. When you leave your home or business for a long time, as you may when you take a vacation, the water in the pipes and plumbing doesn't move. When water has been sitting in the pipes for days, bacteria can grow, and if you have lead or copper plumbing, those metals can start to seep into the water. The best thing to do when you get back from being away after a long time is to run the water on full blast for 30 seconds to two minutes before using it for drinking or cooking. And always use cold water for cooking, to draw in fresh water from the outside.



## Safely Connect Outdoor Hoses

A third factor that can influence water quality in your home are connections to your water outside your home. The outdoor spigot connection to a hose provides a potential way for pollutants to enter your plumbing. If you use the hose to spray chemicals on your yard by connecting the nozzle to a spray bottle, or if you have a sprinkler system connected, there is the potential for chemicals from the bottle or the lawn to be accidentally sucked back into your internal plumbing.

To prevent this from happening, we recommend (and in some states it is the law) that you have a device installed to prevent that from happening.

## Look Out for Special Populations

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 at 800-426-4791.

## Additional Resources

- Information on lead in drinking water: [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead) (opens in a new window)
- Requirements of the Water Quality Report (also known as the Consumer Confidence Report): [http://www.epa.gov/sites/default/files/201405/documents/guide\\_qrg\\_ccr\\_2011.pdf](http://www.epa.gov/sites/default/files/201405/documents/guide_qrg_ccr_2011.pdf) (opens in a new window)
- The Safe Drinking Water Act: [www.epa.gov/sdwa](http://www.epa.gov/sdwa) (opens in a new window)
- CDC Guide to Understanding your CCR: [http://www.cdc.gov/healthywater/drinking/public/understanding\\_ccr.html](http://www.cdc.gov/healthywater/drinking/public/understanding_ccr.html) (opens in a new window)
- American Water Works Association: <http://www.awwa.org> (opens in a new window)
- Water Environment Federation: <http://www.wef.org> (opens in a new window)
- Groundwater Information: <https://waterdata.usgs.gov/nwis> and <http://www.epa.gov/ground-water-and-drinking-water/> (opens in a new window)
- Virginia Health Department: [vdh.virginia.gov/drinking-water](http://vdh.virginia.gov/drinking-water)

# Regulated Contaminates for 2024

Contaminant (Unit of Measurement)	Highest Level Allowed (MCLG)	Ideal Goal (MCL)	Level Found	Range of Test Results for the Year	Violation	Date	Source
Copper(ppm)	1.3	1.3(AL)	.138*	ND-.3	NO	2023	Erosion of household plumbing
Chlorine(ppm)	MRDL=4**	MRDL=4**	1.4**	.098-1.85	NO	2024	Water additive used to control microbes
TTHM(ppb)	N/A	80	9	7-9	NO	2024	Byproduct of disinfection
Lead (ppb)	0	15(AL)*	ND*	ND- 6	NO	2023	Corrosion of household plumbing
Fluoride (ppm)	4	4	1.3	.98-1.3	NO	2024	Erosion of natural deposits
Combined Radium-226&-228,pCi/L	5	5	.1	N/A	NO	2024	Erosion of natural and man-made deposits
Gross Beta Particle activity pCi/L	50	50	1.6	N/A	NO	2024	Erosion of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.

\* 90<sup>th</sup> percentile value of the sample results. Compliance with the AL is based on the 90<sup>th</sup> percentile value of the sample results under the Lead and Copper Rule.

\*\*Compliance is based on the quarterly running annual average of the sample results.

RANGE= Range of the individual sample results

N/A= Not Applicable or not required for our water system.

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

MCLG - Maximum Contaminant Level Goal: The goal level of a pollutant in drinking water. Below this amount, there is no known or expected health effect.

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

PPM - Part Per Million = 1 drop of water in a hot tub

TTHMs - Total Trihalomethanes

THAAs - Total Haloacetic Acids

Although sodium is an unregulated substance in drinking water, the level of sodium found in your drinking water is 75.9(2024)ppm. There is presently no established standard for sodium in the drinking water. Water containing more than 270 mg/L of Sodium should not be used as drinking water by those persons whose physician has placed them on severely restricted sodium diets.



## Definitions

ACRONYMS	DEFINITIONS
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.
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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	Maximum Residual Disinfectant Level Goal: This is the lowest amount of cleaning chemical drinking water should have, because it is the lowest amount needed to make sure bacteria and viruses can't live.
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.
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
mg/L	Number of milligrams in one liter of water
pCi/L	Picocuries per liter (a measure of radioactivity)
NA	Not applicable
ND	Not detected
NR	Monitoring not required, but recommended
NTU	Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.
PPM	Part Per Million= 1 drop of water in a hot tub
PPB	Part Per Billion = 1 drop of water in an Olympic size swimming pool
PPT	Part Per Trillion (ppt) = 1 drop of water in a lake that's 6 square acres

