

2023 2023 ANNUAL DRINKING WATER QUALITY REPORT FOR NORTH SPRING BEHAVIORAL HEALTHCARE

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:

- **Have questions about this report,**
- **Want additional information about any aspect of your drinking water or,**
- **Want to know how to participate in decisions that may affect the quality of your drinking water.**

Please use the QR code on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.



Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

<https://forms.office.com/r/Af2cZdizNr>

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- **Microbial contaminants:** include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** include 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:** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants:** include 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:** may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) 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 in order to provide 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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 / Centers for Disease Control (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 (800-426-4791).

SOURCES, TREATMENT, AND ASSESSMENT OF YOUR DRINKING WATER

Your drinking water is from a groundwater well that has been determined to be Groundwater under the Direct Influence of Surface Water (GUDI). The well is located on the North Spring Behavioral Healthcare property. Your drinking water is treated with a membrane filtration unit and disinfected with sodium hypochlorite (chlorine).

VDH conducted a source water assessment of our system during 2002. The source was 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 of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting **Inboden Environmental Services, Inc.** at the phone number listed elsewhere in this drinking water quality report.

DEFINITIONS

In the tables for the report, and elsewhere in this report, you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. 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.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected

Unit Descriptions	
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	Definition
MCLG	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	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Microbiological

At least one bacteriological sample is collected from the distribution system each month.

We are pleased to announce that **North Spring Behavioral Healthcare** did not have any detection of total coliform or E. Coli in the treated water for the 2023 calendar year. All monthly samples complied with EPA standards.

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Disinfection By-Products						
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)						
TTHMs [Total Trihalomethanes] (ppb)	-	80	<u>4.4</u>	2023	No	By-product of drinking water disinfection.
Inorganic Contaminants						
Barium (ppm)	2	2	<u>0.052</u>	2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	<u>2.59</u>	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper						
Copper (ppm)	1.3	1.3	<u>0.295</u> [†] 90 th Percentile (Range: 0.099- 0.299)	2023	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15	<u>ND</u> [†] 90 th Percentile	2023	No	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.						
Turbidity						
Turbidity (NTU)*	-	TT, 1.0 NTU Max	<u>0.045</u> (Range: 0.041 -0.563)	2023	No	Soil runoff.
		TT, ≤ 0.3 NTU 95% of the time	<u>100%</u> ¹	2023	No	
*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of our water quality and the effectiveness of the filtration process.						
¹ Lowest monthly % for the 2023 year.						

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Radioactive Contaminants						
Gross Beta (pCi/L)	0	50	<u>1.6</u>	2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	<u>0.2</u>	2023	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants						
Sodium (ppm)*	-	-	<u>47.9</u>	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.						

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4	4	RAA: 1.82 Range: 1.54 – 1.99	Monthly	No	Water additive used to control microbes.

PFAS SAMPLING RESULTS

Per- and polyfluoroalkyl substances, also called “PFAS,” are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s. PFAS have characteristics that make them useful in a variety of products, including nonstick cookware, waterproof clothing, stain-resistant carpets and fabrics, and firefighting foam, as well as in certain manufacturing processes. There are thousands of different PFAS. The domestic production or use of some PFAS (like PFOA and PFOS) has been largely phased out but others continue to be used. PFAS tend to break down extremely slowly in the environment and can build up in people, animals, and the environment over time. PFAS have been found in water, air, and soil across the nation and around the globe. Because of this, PFAS can end up in the water sources that communities rely on for drinking water.

Currently, PFAS are not regulated in drinking water, but the VDH Office of Drinking Water is working closely with water utility providers to monitor the water that is provided to Virginia residents. The EPA has recently adopted testing standards for PFAS that could be present in drinking water. North Spring Behavioral Healthcare is awaiting the final release of these standards and will comply with all testing requirements and procedures to test for PFAS in the drinking water.

During the past calendar year, **North Spring Behavioral Healthcare** had the following detectable PFAS as part of the ODW PFAS monitoring program. Any questions or further information can be directed to Inboden Environmental Services, Inc., at the number or contact form listed above.

PFAS Detected	Unit of Measurement	Level Detected	Sample Date	Typical Source
PFBA (Perfluorobutanoic acid)	ng/L	3.0	May 2023	Breakdown product of other PFAS used in stain-resistant fabrics, paper food packaging, carpets manufacturing photographic films.
PFPeA (Perfluoropentanoic acid)	ng/L	4.7	May 2023	Breakdown product of stain- and grease-proof coatings on food packaging, couches, and carpets.
PFBS (Perfluorobutane sulfonate)	ng/L	3.7	May 2023	Used as a surfactant in industrial processes and in water-resistant or stain-resistant coatings on consumer products such as fabrics, carpets, and paper.
PFHxS (Perfluorohexane sulfonate)	ng/L	1.4	May 2023	Used in stain-resistant fabrics, fire-fighting foams, food packaging, and as a surfactant in industrial processes.
PFHpA (Perfluoroheptanoic acid)	ng/L	1.9	May 2023	Various consumer products.
PFHxA (Perfluorohexanoic acid)	ng/L	3.6	May 2023	Breakdown product of other PFAS used in stain-resistant fabrics, paper food packaging, carpets manufacturing photographic films.
PFOA (Perfluorooctanoic acid)	ng/L	2.9	May 2023	Industrial surfactant in chemical processes and as a material feedstock.
PFOS (Perfluorooctane sulfonic acid)	ng/L	3.1	May 2023	Non-stick and stain-resistant consumer products, food packaging, fire-fighting foam, and industrial processes
PFNA (Perfluorononanoic acid)	ng/L	0.4	May 2023	Breakdown product of stain- and grease-proof coatings on food packaging, couches, and carpets.

VIOLATION INFORMATION

We are pleased to report that the **North Spring Behavioral Healthcare** did not have any violations during **2023**.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

Lead

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. **North Spring Behavioral Healthcare** 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>.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010



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