



2021 Annual Water Quality Report

Whitmire Filtration Plant

System #: 3610004

We're pleased to present to you Whitmire Filtration Plant's Annual Water Quality Report for **2021**. **The Whitmire Filtration Plant was in full compliance with the EPA and SCDHEC standards for the 2021 calendar year!** We are required by the Environmental Protection Agency (EPA) and the Department of Health and Environmental Control (DHEC) to publish to our consumers this report, which is designed to inform you about the water quality and services we deliver to you every day and what it means. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is the Enoree River, which is surface water. We have a Source Water Assessment Plan (SWAP) available from our office that provides more information, such as potential sources of contamination to drinking water supplies. SWAP has been devised by South Carolina DHEC for all public water systems in South Carolina.

The Whitmire Filtration Plant routinely monitors for contaminants in your drinking water according to federal and state laws. As water travels over land or underground, it is subject to potential contamination by substances that are naturally-occurring or man made. The following is a list of contaminants that may be present in source water before the treatment process:

- ❖ **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 storm water 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 agricultural and residential uses.
- ❖ **Radioactive contaminants**, which are naturally occurring substances.
- ❖ **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 storm water runoff, and septic systems.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. 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 for infections. These people should seek advice about drinking water from their health care providers. EPA / CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Turbidity is a measure of the cloudiness of water. It can be used as a reliable indicator of a system's water quality as well as its effectiveness of disinfectants. Because it is such a good monitoring technique, DHEC requires us to randomly take filter turbidity measurements at least every four hours of filter operation.

The following tables show our monitoring results for the period of **January 1st to December 31st, 2021**. You may also find in this table many terms and abbreviations with which you may not be familiar. To help you better understand these terms, we have provided the following definitions:

- ❖ **ND (not detectable)** - not detectable at testing limit
- ❖ **AL (Action Level)** - concentration of contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.
- ❖ **ppm (parts per million) or milligrams per liter (mg/l)** - one part per million corresponds to one minute in 2 years or a single penny in \$10,000.
- ❖ **ppb (parts per billion) or micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- ❖ **pCi/L (Pico curie per liter) - Pico curies per liter is** a measure of the radioactivity in water.
- ❖ **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.
- ❖ **RAA (running annual average)** - number corresponding to the average of all results obtained for that parameter during a calendar year.
- ❖ **N/A** - "not applicable" or "not available"
- ❖ **NTU** - Nephelometric Turbidity Units
- ❖ **TOC - (Total Organic Carbon)** - the removal ratio must be at least a 1.0 or the system is in violation
- ❖ **TT** - Treatment Technique

Table 1: Results for various contaminants in source water for 2021 monitoring period:

Contaminant	Type of Contaminant	MCL	AL	MCLG	Whitmire Filtration Plant Results	Range of Detection	Sample Date	Violation (Yes / No)	Typical Sources of Contaminant	Health Effects Language
Copper (ppm)	Inorganic	N/A	1.3	1.3	0.748	N/A	2021	no	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	Inorganic	N/A	15	0	4	N/A	2021	no	Corrosion of household plumbing systems; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Nitrate (ppm)	Inorganic	10	N/A	10	0.2	0.2 – 0.2	2021	no	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Chlorine Residual (ppm)	Disinfection By-product	MRDLG = 4	N/A	MRDL = 4	1.31	1.06 – 1.35	2021	no	Water additive used to control microbes	Some people who use water well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of MRDL could experience stomach discomfort.
Sodium (ppm)	Inorganic	N/A	N/A	N/A	11.0	11.0 – 11.0	2021	no	Naturally-occurring	The human body needs sodium in order to maintain blood pressure, control fluid levels and for normal nerve and muscle function. Sodium in drinking water is not a health concern for most people but may be for someone with specific health issues that require them to be on a sodium-restricted diet."
Fluoride (ppm)	Inorganic	4	N/A	4	0.12	0.12 – 0.12	2021	no	Erosion of natural deposits; water additive which promotes strong teeth; discharge from aluminum and fertilizer factories	Some people who drink water containing fluoride in excess of the MCL over many years could develop bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Table 2: Turbidity results for the 2021 monitoring period:

Parameter Monitored	MCL	MCLG	Highest single monthly measurement	Lowest monthly average	Lowest monthly % of samples meeting required specifications	Sample Date	Typical Source of Contaminant	Health Effects Language
Turbidity (NTU)	TT	N/A	0.15	0.03	100% **	2021	Soil Runoff	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. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches
**100% was used because there were no monthly measurements violating the specifications for our system.								

Table 3: Results for organic contaminants in source water for 2021 monitoring period:

Contaminant	Type of Contaminant	MCL	Lowest % Removal	Highest % Removal	Required % Removal	Range of Detection	Whitmire Filtration Plant Results	Sample Date	Violation (Yes / No)	Typical Sources of Contaminant	Health Effects Language
TTHMs (ppb)	Total Trihalomethanes	80	N/A	N/A	N/A	32.73 ppb – 61.70 ppb	46 ppb (RAA)	2021	no	By-product of drinking water chlorination	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 system, AND may have an increased risk of getting cancer.
HAAs (ppb)	Haloacetic Acids	60	N/A	N/A	N/A	0 ppb - 35.11 ppb	20 ppb (RAA)	2021	no	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer
TOC (ppm)	Total Organic Carbon	TT	N/A	N/A	Met Requirements	N/A	N/A	2021	no	Naturally-present in environment	Has no health effects. However, TOC can provide a medium for formation of disinfection byproducts, including TTHM's and HAA's. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to increased risk of getting cancer.

The frequency of **lead and copper testing** has been reduced to three year intervals. The most recent samples were collected between **June 1 and September 30 of 2021**. We are pleased to report that none of the sites tested exceeded the action level for lead and copper. 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. **The Whitmire Filtration Plant** 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>.

In order to ensure that tap water is safe to drink, the state and the Environmental Protection Agency (EPA) require us, as your water provider, to test our water on a regular basis. We constantly monitor for various constituents in the water supply to meet all regulatory requirements. 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 the 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 at 1-800-426-4791**.

For your convenience, we have posted copies of this report in the following 6 locations:

Subertown Apartments-----15 Young Lane
First Citizens Bank-----123 Main St.
Jerine Apartments-----311 Subertown Rd.
U.S. Post Office-----108 Main St.
Whitmire Memorial Library-----303 Church St.
Whitmire Town Hall-----95 Main St.

All water bills printed for the **June 1, 2022** billing cycle include a notice stating how to obtain more information regarding this **Annual Water Quality Report** for the **2021** calendar year. Also, this report can be found on the town's website at <https://townofwhitmire.godaddysites.com/water-plant>. These are good faith efforts on our part to reach as many of our water customers as possible.

Thank you for allowing us to continue providing your family with clean, quality water. If you have any questions about this report or concerning your water utility, please contact Karen Inman (Chief Operator) at (803) 694-3568. We want our valued customers to be informed about their water utility. **If you want to learn more, please attend any of our regularly scheduled meetings held on the second Monday of each month at 6:00 pm at the Whitmire Town Hall Annex, located at 16 Main Street.** We, at The Whitmire Filtration Plant, work diligently to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future.