BUCHANAN COUNTY PUBLIC SERVICE AUTHORITY

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Annual "Drinking Water Quality" Report 2016

Shortt Gap

PWSID NO. 1027069

We are pleased to provide you with this year's Annual Drinking Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. All of our water is purchased from The Town of Richlands Water Treatment Plant.

If you have any questions about this report or concerning your water utility, please contact **Gregory McClanahan, Executive Director, or Robert Sauer, Assistant Director/System Operator at the Buchanan County Public Service Authority during our regular business hours, at (276) 935-5827.** Mail inquiries should be sent to the address listed above. 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. They are held on the first Tuesday of every month at 6:00 P.M. (except when scheduling conflicts necessitate a change). The meetings are held at Food City (Meeting Room) Vansant, Virginia. Every attempt will be made to answer any questions and concerns as quickly as possible.

The Buchanan County Public Service Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. The table inside shows the results of our monitoring for the period of **January 1st to December 31st, 2016.** Drinking water, including bottled drinking 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 1-800-426-4791.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following *definitions*:

Non-Detected (ND) – lab analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part per million corresponds to one minute in two years, or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter – one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Nephelometric Turbidity Unit (NTU) – nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) – a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level – the "Maximum Allowed" *(MCL)* is 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.

Maximum Contaminant Level Goal – the "Goal" (MCLG) is 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.

Maximum Residual Disinfectant Level Goal or MRDLG –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 contaminants.

Maximum Residual Disinfectant Level or MRDL – 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.

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

Level 1 assessment-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 very detailed study of the waterworks to identify potential problems and determine (if possible) why an E. coli PMCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

We are proud that your drinking water meets or exceed all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water **IS SAFE** at these levels.

Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Violation (Y/N)	Range	Date of Sample	Typical Source of Contamination
Trihalomethanes (ppb)	N/A	80	63	N	23-91	2016	By-product of drinking water disinfection
Haloacetic Acids (ppb)	N/A	60	42	N	23-38	2016	By-product of drinking water disinfection
Nitrate (ppm)	10	10	0.69	N	N/A	2016	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium (ppm)	2	2	0.058	N/A	N/A	2016	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	4.0	4.0	0.94	N	0.2 – 2.0	2016	Water additives to control microbes
Turbidity (NTU)	N/A	TT, 1 NTU max	0.28	N	N/A	2016	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.
		TT,<0.3 NTU 95% of time	100 %	N	N/A		
Total Organic Carbon	N/A	TT, MET when > or = 1	1.0	N	1.0 – 1.0	2016	Naturally present in the environment

Lead and Copper Contaminants

Contaminant (units)	MCLG	Action Level	90th Percentile	Date of Sample	# of Sample Sites Exceeding Action Level	Typical source of Contamination
Copper (ppm)	1.3	AL = 1.3	0.020	2016	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

VIOLATION INFORMATION

No violations in 2016.

ADDITIONAL HEALTH INFORMATION

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. Buchanan County Public Service Authority 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.

A Source Water Assessment of the Town of Richlands WTP yielded the following results:

Source Name	Susceptibility to Contamination	Explanation
Town of Richlands WTP	High	Surface water exposed to an inconsistent array of contaminants at varying concentrations due to changing hydraulic and atmospheric conditions with land use activities of concern in the Zone 1 assessment area.

There are other qualities that affect the water that we drink that are not included in these tables. The water in this area is "hard water" which is caused by a certain amount of calcium which occurs in the water naturally, Fluoride is also added to the water to aid in dental health.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in- million chance of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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; (i) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (ii) 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; (iii) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (iv) organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems; (v) 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations established limits for contaminants in bottled water which must provide the same protection for public health.

Please call our office if you have questions.

We, at The Buchanan County Public Service Authority, work around the clock 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.