WE ARE PLEASED TO REPORT THAT THE CHARLES TOWN UTILITY BOARD MET ALL FEDERAL AND STATE WATER STANDARDS FOR THE REPORTING YEAR 2019.

Additional Information

All other water test results for the reporting year 2019 were non-detectable.

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 **Charles Town Utility Board** 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 drinking 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 at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

A copy of this report may be provided to you upon request at our office during regular business hours or may be downloaded from our website located online at: http://www.ctubwv.com/index.cfm/reports-information/ccr/

Charles Town Utility Board
661 South George Street, Suite 101
Charles Town, WV 25414

CHARLES TOWN Utility Board

2019 Annual Drinking Water Quality Report

PWS# WV3301905

Why am I receiving this report?

In compliance with the Safe Drinking Water Act Amendments, the **Charles Town Utility Board** is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1st to December 31st, 2019 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact **Chris Hutzler, Chief Operator, 304-725-3761**. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled board meetings held on the **2nd and 4th Wednesday** of every month at **4:00 p.m.** in the **Charles Town Utility Board office, Charles Town, WV**.

Where does my water come from?

Your drinking water source is **surface** water from the Shenandoah River.

Source Water Assessment

A Source Water Assessment was conducted in 2003 by the West Virginia Bureau for Public Health (WVBPH). The intake that supplies drinking water to the **Charles Town Utility Board** has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report that contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

Why must water be treated?

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

Contaminants in Water

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 establish limits of 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 these 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 (800-426-4791).

The source of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally-occurring, or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.

Radioactive contaminants, that can be naturally-occurring or the result of oil and gas production and mining activities.

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 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 (800-426-4791).

2019 Test Results - Charles Town Utility Board

PWS ID #WV3301905

The **Charles Town Utility Board** routinely monitors for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.

Regulated Contaminants

Microbiological Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Coliform (TCR)	N	No detected results were found in the calendar year of 2019	ppm	0	Systems that Collect Less Than 40 Samples per Month - No more than 1 positive monthly sample	Naturally present in the environment

Inorganic Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Barium [1]	N	0.0268	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride [1]	N	0.56	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer plants
Nitrate [1]	N	1.77 (Range 0.97 - 1.77)	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate-Nitrite [2]	N	1.31	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite [2]	N	0.34	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Disinfection Byproducts

Contaminant	Violation Y/N	Monitoring Period	Highest RAA	Range	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5)	Y	2019	84	21.2 - 106	ppb	NA	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHMs)	Y	2019	218	11.2 - 218	ppb	NA	80	By-product of drinking water chlorination
Chlorine / Chloramines	N	01/01/2019 - 12/31/2019	1.9	NA	ppm	4	4	Water additive used to control microbes

Total Organic Carbon

Collection Date	Required Removal Ratio	Highest Value / Range	MCLG	MCL	Likely Source of Contamination
11/1/2019	1 RATIO	2.7 / 0.79 - 2.7	NA	TT	Naturally present in the environment

Copper and Lead

Contaminant	Monitoring Period	90th Percentile	Range	Unit of Measure	AL	Sites Over AL	Likely Source of Contamination
Copper, Free	2019	0.082	0.00001 - 0.44	ppm	1.3	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	2019	1.6	0 - 19	ppb	15	1	Corrosion of household plumbing systems; erosion of natural deposits

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. Your 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 or at http://www.epa.gov/safewater/lead.

Turbidity

Contaminant	Violation Y/N	Monitoring Period	Highest Value	Unit of Measure	TT Requirement	Likely Source
Turbidity	N	06/2019	0.29	NTU	In any month, at least 95% of the samples must be less than 0.3 NTU	Soil Runoff

Radiological Contaminants No Detected Results were Found in the Calendar Year of 2019
All other water test results for the reporting year 2019 were non-detectable.

Water Quality Data Table

Definitions of terms and abbreviations used in the table or report:

- **MCLG -** Maximum Contaminant Level Goal, or 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.

Secondary Contaminants Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established

Contaminant	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
Alkalinity, Total	12/4/2019	220	56 - 220	MG/L	10000
Calcium	2/15/2017	42.7	23.6 - 42.7	MG/L	
Calcium	10/10/2017	36.2	36.2	MG/L	
Calcium	6/28/2019	6038	43.2 - 6038	MG/L	
Calcium Hardness	9/11/2019	393	124 - 393	MG/L	
Carbon, Total	11/1/2019	2.7	0.79 - 2.7	ppm	10000
Conductivity @ 25 C UMHOS/CM	9/25/2019	416	226 - 416	UMHO/CM	
Hardness, Calcium Magnesium	12/4/2019	420	192 - 420	MG/L	
Hardness, Total (As CACO3)	10/9/2019	393	108 - 393	MG/L	
Orthophosphate	10/23/2019	1.87	1.33 - 1.87	MG/L	
ph	12/18/2019	8.3	7.4 - 8.3	SU	8.5
Phosphate, Total	1/18/2018	1.78	1.45 - 1.78	MG/L	
Sodium	2/18/2019	9.6	9.6	MG/L	1000
Sulfate	2/18/2019	12.7	12.7	MG/L	250
Temperature (Centigrade)	7/31/2019	27.2	5 - 27.2	C	

[1] Collection Date: 2/18/2019 [2] Collection Date: 12/16/2019

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and 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.

We have provided the out of compliance locations with information on the health effects of lead and lead remediation.

- **MCL -** Maximum Contaminant Level, or 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 technique.
- **MRDLG -** Maximum Residual Disinfectant Level Goal, or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.
- **MRDL -** Maximum Residual Disinfectant Level, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.
- **AL -** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.
- **TT -** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Abbreviations that may be found in the table:

- **ppm** - parts per million or milligrams per liter
- **ppb** - parts per billion or micrograms per liter
- **NTU** - Nephelometric Turbidity Unit, used to measure cloudiness in water
- **NE** - not established
- **N/A** - not applicable

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER - MONITORING REQUIREMENTS NOT MET

We are required to monitor your drinking water on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

COMPLIANCE PERIOD	REQUIRED MONITORING	WHAT SHOULD I DO?	COMMENTS	WHAT HAPPENED? WHAT IS BEING DONE?
01/1/2014 - 12/31/2019	03, MONITORING, ROUTINE MAJOR Radiological Sample Results Not Submitted	There is nothig you need to do at this time.	Between 01/1/2014 and 12/31/2019, we failed to submit the required samples as indicated and therefore cannot be sure of the quality of our drinking water during that time.	Our contracted laboratory failed to provide us with results for radionuclides in 2019. We have since performed the sampling for these contaminants and have shown that levels are well below the maximum contaminant levels set by the United States Environmental Protection Agency.
10/1/2019 - 10/31/2019	36, MONITORING, RTN/ RPT MINOR (SWTR-FILTER) CHLORAMINE Missing Required Chlorine Residual Associated With a Bacteriological Samples	There is nothig you need to do at this time.	Between 10/1/2019 and 10/31/2019, we failed to submit the required samples as indicated and therefore cannot be sure of the quality of our drinking water during that time.	During monthly bacteriological testing, an operator failed to record the chlorine reading on a form. This was an administrative error, not affecting public health or water quality. The bacteriological sample in question passed all testing by the state health laboratory.
10/1/2019 - 10/31/2019	CHLORINE WB	There is nothig you need to do at this time.	We are required to comply with State drinking requirements on a regular basis. During 10/1/2019 to 10/31/2019, we did not submit a monthly operational report or we did not submit sufficient chlorine residual readings.	During monthly bacteriological testing, an operator failed to record the chlorine reading on a form. This was an administrative error, not affecting public health or water quality. The bacteriological sample in question passed all testing by the state health laboratory.

For more information, please contact Chris Hutzler at 304-725-3761 or 661 South George St., Suite 101, Charles Town, WV 25414.

VIOLATIONS - During the 2019 Calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
7/1/2019 - 9/30/2019 **	TTHM	MCL, AVERAGE
10/1/2019 - 12/31/2019**	TOTAL HALOACETIC ACIDS (HAA5)	MCL, AVERAGE
10/1/2019 - 12/31/2019**	TTHM	MCL, LRAA
10/1/2019 - 12/31/2019**	TOTAL HALOACETIC ACIDS (HAA5)	MCL, LRAA
10/1/2019 - 12/31/2019*	CHLORAMINE	MONITORING, ROUTINE (DBP), MINOR
01/1/2014 - 12/31/2019	RADIONUCLIDES	MONITORING, ROUTINE MAJOR
10/1/2019 - 10/31/2019*	CHLORAMINE	MONITORING, RTN/RPT MINOR (SWTR-FILTER)

* These violations were linked to the same event, which is described on the included notices.

** Notices of these violations have been provided to customers and are available on our website at http://www.ctubwv.com

PWS# WV3301905