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June 25, 2020

2019 Annual Drinking Water Quality Report

What is this report?

In compliance with the Safe Drinking Water Act Amendments, the Central Boaz PSD 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 Cory Willis, Chief Water Operator at 304-422-1675. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled water board meetings held on the 3rd Tuesday of every month at 4:00 PM in the Vacuum Station, 908 Old River Road, Boaz WV.

Where does my water come from?

Your water source is ground water from a well, purchased from the City of Vienna.

Source Water Assessment

The well field that supplies drinking water to the City of Vienna has a higher susceptibility to contamination, due to the sensitive nature of the aquifer in which the drinking water well is located and the existing potential contaminant sources identified within the area. This does not mean that the well field will become contaminated; only that conditions are such that the ground water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which 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 at 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 which 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.

Our water system has an estimated population of 1418 and is required to test a minimum of 2 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

Contaminants that may be present in source water before it is treated 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic 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, which 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 those 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 (800-426-4791).

Terms and Abbreviations

Maximum Contaminant Level Goal (MCLG): the “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): 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.

Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Maximum Residual Disinfectant Level (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.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

Parts per Million (ppm) or milligrams per liter (mg/l)

Parts per Billion (ppb) or micrograms per liter (µg/l)

Picocuries per Liter (pCi/L): a measure of the radioactivity in water.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Testing Results

The **City of Vienna** and **Central Boaz PSD** routinely monitors for contaminants in your drinking water according to federal and state laws. The tables below show the results of monitoring for contaminants.

Regulated Contaminants - City of Vienna

Contaminant	Collection Date	Level Detected	Unit	MCLG	MCL	Typical Source
Barium	3/5/2019	0.0693 Range 0.0661-0.0693	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	3/5/2019	0.86 Range 0.81-0.86	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer plants
Gross Alpha Particle Activity	2/16/2016	1.04	pCi/L			Erosion of natural deposits
Gross Alpha, excl. Radon & U	3/5/2019	4.04 Range 0.441-4.04	pCi/L	0	15	Erosion of natural deposits
Gross Beta Particle Activity	2/16/2016	1.19	pCi/L	0	4	Decay of natural and man-made deposits
Nitrate	8/7/2019	4.93 Range 3.42-4.93	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate-Nitrite	8/7/2019	5.63	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite	8/7/2019	0.7	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radium-228	3/5/2019	0.404	pCi/L			

Secondary Contaminants - City of Vienna

Contaminant	Collection Date	Level Detected	Unit	SMCL
Nickel	3/5/2019	0.001 Range 0-0.001	mg/L	0.1
Sodium	3/5/2019	35.4 Range 25.7-35.4	mg/L	1000
Sulfate	3/5/2019	51.6 Range 43.2-51.6	mg/L	250

During the 2019 calendar year, the water system we purchase from, the **City of Vienna**, had the below noted violations of drinking water regulations.

Type	Category	Analyte	Compliance Period
Lead Consumer Notice (LCR)	RPT	Lead & Copper Rule	1/1/2019
Monitoring, Routine Major	MON	Synthetic Organics 2	1/1/2017 – 12/31/2019
Monitoring, Routine Major	MON	Volatile Organics	1/1/2017 – 12/31/2019
Public Notice Rule Linked to Violation	PN	Public Notice	11/14/2019

Regulated Contaminants - Central Boaz PSD

Contaminant	Monitoring Period	90 th Percentile	Unit of Measure	MCLG	MCL	# of Samples Exceeding the AL	Typical Source
Copper	2017-2019	0.198 Range 0.0209 – 0.295	ppm	1.3	AL=1.3	0 of 10	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	2017-2019	10.3 Range 0 – 19.8	ppb	0	AL=15	1 of 10	Corrosion of household plumbing systems; erosion of natural deposits

Contaminant	Monitoring Period	Running Annual Average	Unit of Measure	MRDL	Typical Source
Chlorine	2019	0.9	ppm	4	Water additive used to control microbes

Contaminant	Monitoring Period	Highest LRAA	Range (low/high)	Unit of Measure	MCLG	MCL	Typical Source
Haloacetic Acids (HAA5) Boaz Vacuum Station	2019	3.16	3.16 – 3.16	ppb	0	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) Boaz Vacuum Station	2019	4.8	4.8 – 4.8	ppb	0	80	By-product of drinking water disinfection

Copper and lead samples were collected from 10 area residences on 8/15/18 – 8/16/18.

Additional Information

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

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

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. Central Boaz PSD 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 or at <http://www.epa.gov/safewater/lead>.

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4761).

This report will not automatically be mailed to each customer. A copy will be provided to you upon request during regular business hours or on our web site at www.woodpsd.org/central-boaz-psd.