

Annual Drinking Water Quality Report 2016
HARDY COUNTY PUBLIC SERVICE DISTRICT
Post Office Box 900
Moorefield, West Virginia 26836
PWS# WV3301613
January 6, 2017

Why am I receiving this report?

In compliance with the Safe Drinking Water Act Amendments, the **Hardy County Public Service District** 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, 2016 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact **Logan Moyers, General Manager, (304) 530-3048**. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled water board meetings held on the **1st Wednesday** of every month at **10:00 a.m.** in the **conference room of our office located at 2094 US 220 South, Moorefield, WV**.

Where does my water come from?

Your drinking water is **surface** water from *Lost River Site 10* (Parker Hollow dam).

Source Water Assessment

A Source Water Assessment was conducted by the West Virginia Bureau for Public Health (WVBPH). The intake that supplies drinking water to the **Baker Water Treatment Plant** 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 which contains more information is available from the WVBPH at (304) 558-2981.

Source Water Protection Plan

A Source Water Protection Plan for the Baker Water System was developed in 2016 by the **Hardy County Public Service District**. The purpose of this plan is to prevent the degradation of the Baker water system's source water so that it may continue to provide a safe drinking water supply in sufficient quantity to its users. The plan describes what **Hardy County PSD** has done, is currently doing, and plans to do to protect the Baker system's source of drinking water as well as how it would minimize and mitigate potential contamination of the water supply. **Hardy County PSD** believes the most efficient way to develop and implement this plan is by engaging local stakeholders, consequently public input is encouraged. As part of the plan, a source water protection team was assembled whose responsibility lies in the development and implementation of the plan. Any persons interested in becoming a member of the Source Water Protection Team or in reviewing a copy of the Baker Source Water Protection Plan should contact Logan Moyers at the office of the District at (304) 530-3048.

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.

Contaminants that may be present in source water 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 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, 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 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).

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.
- **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 which 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:

- **pCi/l** – picocuries per liter
- **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

The **Hardy County Public Service District** routinely monitor for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.

Table of Test Results - Regulated Contaminants – Baker Water System

Contaminant	Violation Y/N	Level	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity	N	0.03 100% of monthly samples <0.3	NTU	0	TT	Soil runoff

Total organic carbon*	N	2.8 Annual Average	ppm	NA	TT	Naturally present in the environment
Inorganic Contaminants						
Barium	N	0.0188	ppm	2	2	Discharge from drilling waste; erosion of natural deposits
Lead**	N	2	ppb	0	AL=15	Corrosion of household plumbing
Copper**	N	0.444	ppm	1.3	AL=1.3	Corrosion of household plumbing
Nitrate	N	0.32	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
Volatile Organic Contaminants						
Chlorine	N	1.1 Yearly Avg. Range 0.3 – 2.1	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes
Haloacetic Acids*** (HAAC5)	Y	90.35 Yearly Avg. Range 75.5 – 102.3	ppb	NA	60	By-product of drinking water disinfection
Total Trihalomethanes*** (TTHMs)	Y	94.08 Yearly Avg. Range 82 – 106.1	ppb	NA	80	By-product of drinking water disinfection

**The District's lead level in the 2015 sampling of this system exceeded the AL for lead so the District was required to collect samples from 10 area residences on 02/17/16 and 07/26/2016. The highest of the 90th percentile of both samples is reported. The District was required to conduct additional water quality parameters and the results showed that the water is non-corrosive and all additional sample results were well below the action levels for both lead and copper. The District will continue to monitor the lead and copper levels.

*During the reporting year 2016 we received a "Notice of Violation" letter from WVBPH for inadequate disinfection byproduct precursor (DPB) removal which resulted in a total organic compound removal ratio of less than 1.0. The District is exploring the installation of an ion exchange system in an effort to further reduce total organic compound levels in the raw water.

**During the reporting year for 2015 we received a "Notice of Violation" letter from WVBPH for failure to provide public education to consumers within 60 days following an action level exceedance of lead. During the month of February 2016 the District provided a public notice to all bill paying customers, distributed public education materials to students at the schools and the medical facility and published a legal advertisement of a press release in the local newspaper to comply with the requirements of the violation.

***During the reporting year for 2016 we received a "Notice of Violation" letter from WVBPH for MCL violations for Haloacetic Acids and Trihalomethanes. We continue to perform routine flushing of the main water lines to prevent stagnant water. We have made changes in our chemical feed process at the water plant and continue to work with consultants in an effort to bring the levels of these disinfectant by-products into compliance with WVBPH maximum contaminant levels.

Some persons who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or nervous system and may have an increased risk of getting cancer.

Table of Test Results - Unregulated Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Sodium*	N	31.3	ppm	NE	20	Erosion of natural deposits
Sulfate	N	6.01	ppm	250	250	Erosion of natural deposits

*Sodium is an unregulated contaminant. Our sodium level **exceeds** the guidance MCL. Anyone having a concern over sodium should contact their primary health care provider.

Additional Information

All other water test results for the reporting year 2016 were all non-detects.

Turbidity is a measure of the cloudiness in drinking water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

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 Hardy County 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>.