

HARDY COUNTY PSD BAKER

WV3301613

Consumer Confidence Report – 2025

Covering Calendar Year – 2024

This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to observe the decision-making process that affects drinking water quality or if you have any questions, comments or suggestions, please attend any regularly scheduled water board meeting held on the first Wednesday of each month at 4:30 pm at the District's office located at 45 District Drive, Moorefield, WV 26836 or call LOGAN R. MOYERS at 304-530-3048.

Your water comes from Surface water:

Source Name	Source Water Type
PARKER HOLLOW IMPOUNDMENT	Surface water

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).

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 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 (800-426-4791).

The sources of drinking water (both tap water and bottled water) included 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 sources water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, 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 storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system has an estimated population of 150 and is required to test a minimum of 1 sample(s) 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.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2024 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2024. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Terms & 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" 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.

Treatment Technique (TT): a required process intended to reduce levels of a contaminant in drinking water.

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.

Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

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

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Testing Results for: HARDY COUNTY PSD BAKER

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	8/19/2024	0.0156	0.0156	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM	8/19/2024	1.6	1.6	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
NITRATE	8/28/2024	0.37	0.37	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Collection Date	Highest LRAA Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	254 SHAWNEE ROAD/SHAWNEE ROAD HYDRANT	2024	8	2 - 24	ppb	60	0	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES (TTHM)	254 SHAWNEE ROAD/SHAWNEE ROAD HYDRANT	2024	66	35 - 88	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90TH Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2024	0.0761	0.0117 - 0.128	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2024	0.40	0.28 – 1.0	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Some of the health effects to infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, kidney or nervous system problems. Contact your health care provider for more information about your risks.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. HARDY COUNTY PSD BAKER is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact HARDY COUNTY PSD BAKER and LOGAN R. MOYERS at 304-530-3048. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

HARDY COUNTY PSD BAKER completed lead tap sampling in 2024, the results were provided to all homeowners who were tested and are available for review at the District's office during regular business hours.

HARDY COUNTY PSD BAKER has prepared a service line inventory identifying service line materials throughout the water distribution supply. The most up to date inventory can be accessed at the District's office. By November 1, 2027, our water system must develop an updated initial inventory, known as the "baseline inventory" and it must include each service line and identified connector that is connected to the public water distribution system. This baseline inventory, once it is completed, will be available on the District's website.

HARDY COUNTY PSD BAKER identified no lead, galvanized requiring replacement, or lead status unknown service lines in our inventory. If you have any questions about our inventory, please contact LOGAN R. MOYERS at 304-530-3048.

Chlorine/Chloramines Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/1/2024 - 12/31/2024	1.70000	MG/L	1.00000	MG/L

AVAILABILITY OF MONITORING DATA FOR UNREGULATED CONTAMINANTS

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that do not yet have a drinking water standard set by the US Environmental Protection Agency (EPA). The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available.

If you are interested in examining the results, please contact: Logan Moyers at (304) 530-3048.

Total Organic Carbon Lowest Month for Removal	Collection Date	Highest Value	Range	Unit	TT	Typical Source
CARBON, TOTAL	9/1/2024	8.61	4.2 - 8.61	MG/L	0	Naturally present in the environment

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
Turbidity	TREATMENT PLANT	0.032	NTU	October

Radiological Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	8/8/2023	0.229	0.229	pCi/L	15	0	Erosion of natural deposits
GROSS BETA PARTICLE ACTIVITY	8/8/2023	3.06	3.06	pCi/L	0	0	Decay of natural and man-made deposits.
RADIUM-228	8/8/2023	0.524	0.524	pCi/L	0	0	Erosion of natural deposits

Secondary Contaminants-Non Health Based Contaminants- No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
NICKEL	8/19/2024	0.0017	0.0017	MG/L	0.1
SODIUM	8/19/2024	29.3	29.3	MG/L	1000

During the 2024 calendar year, we had no noted violation(s) of drinking water regulations.

There are no additional required health effects violation notices.

Additional Required Health Effects Language:

Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particles and photon radioactivity 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 central nervous systems, and may have an increased risk of getting cancer.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify and correct any problems that were found during these assessments.

Information on Per and Poly Fluoroalkyl Substances (PFAS)

Baker Water System PFAS Test Results (through December 31, 2024)

PFAS Compound	Hardy County PSD Sample Date		
	October 24, 2022	August 19, 2024	November 18, 2024
PFOS	Non-Detect	3.1 ppt	Non-Detect
PFOA	2.4 ppt	2.6 ppt	Non-Detect
HFPO-DA (GenX)	Non-Detect	Non-Detect	Non-Detect
PFHxS	Non-Detect	Non-Detect	Non-Detect
PFNA	Non-Detect	Non-Detect	Non-Detect
PFBS	Non-Detect	6.5 ppt	Non-Detect
Hazard Index	N/A	N/A	N/A

What is PFAS?

Per and Poly Fluoroalkyl Substances (PFAS) are a class of thousands of man-made chemicals that have been manufactured and used in a variety of commercial products since the 1940s. According to the US Environmental Protection Agency (EPA), these chemicals are very persistent in the environment and in the human body – meaning they do not break down and they can accumulate over time.

What types of products have PFAS?

PFAS has been used in the production of non-stick cookware, carpets, clothing, fabrics for furniture, cosmetics, paper packaging for food, and other materials that are resistant to water, grease, or stains. They are also used in aqueous firefighting foam and in several other industrial processes. Because these chemicals have been used in such a wide array of consumer products, nearly all people have been exposed to them.

PFAS in Drinking Water

PFAS may be found in drinking water sources as a result of intentional or unintentional spills, discharges from septic systems or wastewater treatment plants, use of firefighting foam, or by other methods. PFAS in drinking water is always the result of human activity and contamination.

How much is too much PFAS in drinking water?

The US EPA has created a National Primary Drinking Water Regulation for PFAS compounds that establishes legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS known to occur in drinking water. The six PFAS are **PFOA, PFOS, PFNA, PFHxS, PFBS, and HFPO-DA (GenX Chemicals.)** An MCL protects public health by setting a maximum level of a contaminant allowed in drinking water which can be delivered to users of a public water system.

Additionally, EPA established health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these six PFAS. An MCLG is the maximum level of a contaminant in drinking water where there is no known or anticipated negative effect on an individual's health, allowing for a margin of safety.

The US EPA has established trigger levels for the six regulated PFAS compounds. A PFAS trigger level is a threshold set by the EPA that, when exceeded, requires corrective actions. These trigger levels are used to determine monitoring frequency and are set at half the maximum contaminant levels (MCLs) for regulated PFAS.

The US EPA has also established a Hazard Index that is used to assess the health risks associated with mixtures of certain PFAS compounds (HFPO-DA, PFHxS, PFNA and PFBS) found in drinking water. The Hazard Index compares the levels of each PFAS compound to the highest level below which there is no risk of health effects, allowing for a comprehensive evaluation of potential health risks from exposure to these chemicals. The Hazard Index MCL is calculated when two or more of the Hazard Index analytes have an observed sample result at or above the PQL. The Hazard Index is determined using the following calculation:

$$\text{Hazard Index (unitless)} = \left(\frac{\text{HFPO-DA}_{\text{obs}} (\text{ppt})}{10 \text{ ppt}} \right) + \left(\frac{\text{PFBS}_{\text{obs}} (\text{ppt})}{3000 \text{ ppt}} \right) + \left(\frac{\text{PFNA}_{\text{obs}} (\text{ppt})}{10 \text{ ppt}} \right) + \left(\frac{\text{PFHxS}_{\text{obs}} (\text{ppt})}{10 \text{ ppt}} \right)$$

The MCL's, Trigger Level's and PQL's that EPA has established for the six regulated PFAS compounds known to occur in drinking water as well as the Hazard Index for certain mixtures of analytes are shown in the table below:

PFAS Compound	MCL's (ppt)	MCLG's (ppt)	Trigger Level's (ppt)	PQL (ppt)
PFOS	4.0	0	2.0	4.0
PFOA	4.0	0	2.0	4.0
HFPO-DA (GenX)	10.0	10.0	5.0	5.0
PFHxS	10.0	10.0	5.0	3.0
PFNA	10.0	10.0	5.0	4.0
PFBS	N/A	N/A	N/A	3.0
Hazard Index	1.0 (unitless)	1.0 (unitless)	0.5 (unitless)	N/A

Is there PFAS in Hardy County Public Service District's Baker water system?

PFAS compounds have been detected in the Baker Public Water System. Initial test results of the Baker Public Water System from October 2022 detected one PFAS compound, PFOA, at a level of 2.4 parts per trillion (ppt.) Follow-up testing conducted in August 2024 detected PFOA at 2.6 ppt, PFOS at 3.1 ppt and PFBS at 6.5 ppt. Testing completed in November 2024 did not detect any regulated PFAS compounds at any level in the Baker water system. None of the PFAS compounds detected during these tests exceed the EPA's level allowed in drinking water (MCL) however, PFOA and PFOS were detected at levels that exceeded trigger levels as well as the maximum contaminant level goal (MCLG) where there are no known negative health effects.

Why is there PFAS in our drinking water?

The Parker Hollow Impoundment is the sole water source for the Baker Public Water System and PFAS compounds have been detected in the water in the Impoundment. Water containing PFAS from the Impoundment is being used to produce drinking water for the Baker Public Water System. The cause of PFAS contamination in the Parker Hollow Impoundment is currently unknown. However, this contamination illustrates the continuing need to protect sources of drinking water from human activity that might cause contamination.

What is Hardy County PSD doing to reduce PFAS levels in drinking water?

While there are no immediate actions that can be taken to reduce the levels of PFAS in drinking water, Hardy County PSD is in the process of working with consulting engineers to evaluate treatment options for reducing PFAS levels. PSD staff is also working with the developers of treatment operations utilized at the Baker Water Treatment Plant to determine if variations in treatments methods can assist in the removal of PFAS compounds.

What do I need to do?

If you would like to reduce your exposure to PFAS in drinking water, you may consider installing a point of use treatment system in your home. Make sure to select a system that is certified to remove PFAS and follow the manufacturer's instructions for maintenance and/or replacement.

For More Information

More information about PFAS in drinking water can be found on the US Environmental Protection Agency's website at: www.epa.gov/pfas.

Your CCR is also available on our website www.hardycountypsdc.com/consumer-confidence-report